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Can Working Women and Men Afford to Take Paid Leave? A Comparative Study of the Level of Paid Leave Benefits and Poverty Thresholds in the OECD

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ABSTRACT *Using a new comparative database of paid family and medical leave policies in 34 OECD countries, the article analyzes whether payments enable households of average and minimum wage workers to avoid poverty at three points during leave. The majority of countries ensure that benefits for average wage earners are above the poverty threshold during week one of paid parental leave, as well as of paid leave for personal illness and for family member's health needs. However, in nearly all OECD countries benefits received during paid leave by minimum wage workers are below the poverty threshold for all types of paid leave in week one. This pattern is also seen at different time points.*

Keywords: parental leave; family leave; medical leave; sick leave; benefits; poverty; comparative analysis; descriptive analysis; OECD

Introduction

The health- and employment-related benefits of paid family and medical leave are well documented (for a review, see Heymann et al. 2017; Nandi et al. 2018). Studies from Organisation for Economic Co-operation and Development (OECD) countries have found that paid parental leave policies are associated with lower mortality (Ruhm 2000; Tanaka 2005) and higher vaccination rates for infants and children (Berger et al. 2005) as well as improved maternal mental health (Chatterji and Markowitz 2012). Paid

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parental leave facilitates breastfeeding, which is associated with reductions in maternal risk of diabetes and breast cancer (Victora et al. 2016) and infants' risk of contracting infectious diseases (Baker and Milligan 2008a; American Academy of Pediatrics 2012; Huang and Yang 2015; Victora et al. 2016). Additionally, studies have found that paid parental leave is associated with improved economic outcomes for women (Thévenon and Solaz 2013), including higher employment rates (Baker and Milligan 2008b; Kluge and Tamm 2013; Rossin-Slater et al. 2013; Baum and Ruhm 2016), earnings (Waldfogel 1998; Rasmussen 2010), and shares of household income (Stier and Mandel 2009). Furthermore, paid parental leave is associated with more gender-equal distributions of unpaid household labor (O'Brien 2009; Kotsadam and Finseraas 2011; Schober 2014), which can support women's increased employment.

Paid family medical leave can help workers provide care to their ill children and adult family members, which is associated with faster recovery, shorter hospital stays, lower risks of re-hospitalization, and better health outcomes (Berkman and Glass 2000; Tsouna-Hadjis et al. 2000; Gallant et al. 2007; Power and Franck 2008; Gallagher et al. 2011; Gitlin and Schulz 2012; Tao et al. 2012), as well as reductions in potential wage loss among women, who remain far likelier than men to provide family care (Lahaie et al. 2013; Dukhovnov and Zagheni 2014). Similarly, studies have found an association between paid personal medical leave, which provides time for treatment and recovery from illness or injury, and improved health outcomes (Grinyer and Singleton 2000; Stewart et al. 2003), an increased likelihood of returning to work (Earle et al. 2006), and reduced spread of infectious diseases (Kumar et al. 2013).

Low payment levels can undermine the benefits of paid leave, especially when a drop in household income leads families to fall into poverty. Studies from various countries have demonstrated that income is one of the most important social determinants of health (for a review, see Braveman and Gottlieb 2014). Household income influences the social, physical, and material circumstances of families' daily lives, affecting their exposure to health risks (Commission on Social Determinants of Health 2008). In the short run, a loss of income can increase families' vulnerability to illness by requiring them to make trade-offs between, or cut back on, basic necessities. Longer-term poverty can cause more significant increases in exposure to risk factors for poor health, posing especially high risks of long-term impacts to children (Brazelton and Als 1979; Shonkoff and Garner 2012).

Low benefit levels may require some workers to shorten their leave durations and render others unable to afford leave at all. Quasi-experimental studies have found that reductions in wage replacement rates of paid sick and medical leave lead to reductions in take-up; similarly, take-up is higher when wage replacement rates increase (Puhani and Sonderhof 2010; Ziebarth and Karlsson 2010, 2014). Direct reports from adults also demonstrate the importance of adequate income replacement. In a 2014 survey of couples with children in the Czech Republic, two-thirds of women expressed not wanting their male partners to take parental leave because of concerns that their families could not withstand the resulting financial loss (Eurofound 2015). Surveys from the US found that unaffordability was the primary reason individuals did not take needed leave (Appelbaum and Milkman 2011; Klerman et al. 2012).

Despite the importance to health and economic security of ensuring that families do not fall into poverty when workers take paid leave, no prior study has demonstrated the

extent to which national paid leave policies suffice in this regard. In this paper, we use a new database of paid leave policies in 34 OECD countries to investigate whether payments (or “benefits”) are high enough to enable families to maintain a minimum standard of living.

Several aspects of this paper represent new contributions to the existing literature on benefit generosity and poverty risk. While prior analyses of benefits and poverty risk have focused on parental leave, we extend the literature by examining leave for personal illness and for family members’ serious medical issues. Taking into account benefit ceilings, minimums, and flat-rate payment structures to enhance the accuracy of our assessment, we compare benefit amounts to a minimum basic income for each country. Additionally, we measure benefit adequacy at three time points during leave instead of using summary measures such as full-time equivalent (FTE) weeks, which can mask important differences in leave affordability. For example, while a 14-week leave paid at full wages and a 56-week leave paid at 25 per cent of previous wages both provide 14 FTE weeks, these two leaves can have drastically different effects on workers’ ability to avoid poverty. Summary measures also obscure variations (usually declines) in benefit levels over time, preventing assessments of economically feasible leave durations and limiting insights into the likelihood of workers cutting their leaves short.

In this analysis of the adequacy of benefits to support basic needs, we also endeavor to shine much-needed light on minimum wage earners, whose incomes may be close to or below the poverty level. Typically less able than higher-income workers to “fall back” on savings or other assets, minimum wage workers are likelier to struggle to accommodate even relatively minor income disruptions. In a 2015 survey of US adults, only 54 per cent stated that they could easily handle an emergency expense of \$400; low-income individuals were least likely to respond in this manner (Federal Reserve System 2016).

Finally, we assess the generosity of parental leave benefits separately for male and female workers. While the research finding that men are less likely than women to take paid leave (OECD 2016; Blum et al. 2017) may result in part from gender norms, it may also reflect families’ economic decisions in the absence of fully compensated leave, given that average wages for men are still higher than for women (OECD 2017). Ensuring that fathers can take leave has benefits for father–infant bonding (O’Brien 2009) and the gender equality of caregiving at home (Huerta et al. 2011; Boll et al. 2014), with implications for women’s economic opportunities and maternal mental health (Page and Wilhelm 2007). Similar issues exist for ensuring both workers are able to take paid leave to meet family health needs.

Methodology

Data Sources

To analyze benefits levels received by working men and women during paid leave, we collected data on policies and legislation in the 34 OECD member countries as of 1 January 2016. The resulting comparative database contains information on national-level paid leave policies, including leave durations, wage replacement rates, and benefit ceilings. In countries where labor policies are set at the state or provincial level, such as

the US, we captured the lowest level of guarantee. The database is constructed primarily from full-text legislation available online through the International Labour Organization's (ILO's) NATLEX database. Because benefit amounts are frequently updated in accordance with taxation or minimum wage legislation and regulations, we supplemented the database with current information from official country websites. We also consulted reliable secondary sources to check data accuracy. All sources were coded independently by two researchers and compared to ensure consistent coding; after the database completion, additional quality checks were carried out.

We then translated the policy and legislative data into the paid leave benefit amounts received by adult workers, adult female workers, and adult male workers earning average and minimum wages (Appendix 1 lists the data sources). We collected information on national-level average wages from national statistics websites, using pre-tax total monthly wage data for full-time employees as of December 2016. In the absence of these data, we searched OECD Statistics and Eurostat databases for the most recent wage data available (recent sex-disaggregated wage data were unavailable for Greece). We obtained national legal minimum wage rates for 2015 from OECD Statistics (data on legal minimum wage rates were unavailable for Finland, Italy, Sweden, and Switzerland, where minimum wage rates are established by collective bargaining). We adjusted national currencies for differences in purchasing power for 2014.¹

Measures of Benefits

For each type of leave under study, we coded for the maximum duration available in each country. Maternal or paternal leave included any leave specifically reserved for the mother or father (that is, maternity or paternity leave), plus any shared parental leave that could be taken by either parent. In each case, we calculated benefits for the maximum leave duration available to either parent. When calculating the duration of paternal leave, we included any paid maternity leave that could be transferred to the father with the mother's permission, as well as paternity and parental leave. For the minority of OECD countries with multiple paid parental leave schemes among which beneficiaries could choose, we selected for analysis the scheme with the most generous payment rate. For example, Austria allows parents to choose among five paid parental leave options, with 145 higher payment rates for shorter periods of leave. Accordingly, our estimate of relative benefit levels provides an upper bound on whether benefits are high enough to avoid placing households in poverty. To calculate the duration of paid leave for family and personal illness, we summed employer-provided sick days and longer leave covered by social security or benefits that might be available only in cases of serious illness, hospitalization, or imminent death.

The amount of benefits leave-takers receive depends on many aspects of the payment structure, including wage replacement rates, flat-rate payments, and benefit ceilings. To capture the nuances of paid leave policies, we calculated the weekly benefit amounts in local currencies received by full-time employees. We assessed benefit amounts that would be received by workers earning the country's average wage as well as those earning its minimum wage. To better assess whether parental leave payment levels adequately support both mothers and fathers taking leave, we used sex-disaggregated wages to compute maternal and paternal leave benefits.

When benefit levels varied according to household size and/or number of children, we assessed benefits for an employee in a two-adult, one-child household with a single earner. The percentage of children in households where at least one adult in the household is in paid employment, and at least one adult in the household is not in paid employment ranges from 22 to 51 per cent in OECD countries (OECD 2014). Selecting a sample family was necessary to assess the adequacy of paid leave benefits. Our framework can be modified for other household sizes and types including single-parent and dual-earner households. Depending on number of children, adults, and earners, a higher or lower percentage may be in poverty. Those with more dependent children or adults (such as elderly parents) are more likely to be in poverty. Those with a second wage-earning adult are less likely to be in poverty unless they have additional dependents.

In many OECD countries, payment rules change over the course of leave. To assess the affordability of taking any leave at all, we first examined benefit levels during the first week of leave. We then examined benefits at two other time points that represent important health and/or development milestones. We calculated maternal leave benefits at 14 weeks, the duration of maternity leave that is mandated by the ILO's Maternity Protection Convention (C183). We also calculated benefits at 26 weeks, the maternal leave duration that facilitates six months of exclusive breastfeeding as recommended by the World Health Organization (WHO). To assess the extent to which benefits support gender equality in leave-taking, we applied the same benchmarks to paternal leave. For paid leave for personal illness, 17 of the 34 OECD countries require waiting periods before providing benefits. We calculated benefits at three weeks, a point beyond the waiting period in all countries, and 26 weeks. A review of the medical literature suggests that along with short-term leave, longer paid leave of up to six months is adequate to support most serious health needs (Raub et al. 2018). Finally, we calculated benefits for family health needs for weeks 4 and 13. A literature review suggests that four weeks of paid leave support care during the acute and recovery phases of injuries and illnesses, while 13 weeks' support care for more serious illnesses with substantial follow-up treatments and end-of-life care (Raub et al. 2018).

Data on wages and benefit lengths were standardized to weekly amounts using the standard conversions of 52 weeks per year and 4.3 weeks per month. When only daily or hourly wages were available, we converted to weeks assuming a 40-hour, five-day work week. If the benefit length was given in days, with no additional clarifying text, we assumed calendar days for the conversion. If paid leave was available for only a few days, we assumed that the leave-taker worked on the remaining days and added full wages for those days to the total amount of benefits.²

Measures of Poverty

To examine whether paid leave benefits reduce the risk of poverty, we compared the benefits received by a single earner in a household to the relative poverty line in each country. Consistent with other comparative studies (Nolan 2007; OECD 2008), we used a relative poverty threshold of 50 per cent of the national median disposable household income to enable comparisons of paid leave benefits across OECD countries (Smeeding 2006). The most recent adjusted median income data for working age population was

obtained from OECD Statistics. The OECD reports equivalized income data or total household income adjusted for differences in the needs of households of different sizes. Larger households need more income to ensure that the family members can maintain the same standard of life as a smaller household. However, additional income required by the larger household is not proportional to the number of additional members because some resources such as housing, electricity are shared by all the members. The OECD adjusts income for household size using the square root equivalence scale, where the total household income is divided by the square root of household size to adjust the amount of income needed for sharing of resources.

Data Analysis

For each type of paid leave, we first analyzed whether benefits were available at the three critical time points. Since the benefit received by the single income earner is shared among the members of the household, we adjusted the earner's benefits to obtain the income needed by each person in a three-person household using the OECD's square root equivalence scale. For countries with paid leave, we then analyzed whether this individual household member portion of the benefits available to households with one adult earning average or minimum wages were above or below the relative individual poverty line (Appendix 2 provides country-specific benefit amounts for the different leave types). For countries that provided benefits below their poverty lines, we assessed the policy design decisions that had led to these low benefits.

There are two important issues to note about the analysis outlined above. First, we considered the amount of earned income replaced during paid leave as the only means of keeping households out of poverty. Taking into account not only leave benefit amounts but also national taxation rates, transfers, social benefit payments and other sources of income, would conflate the effects of multiple types of policies. By using only the wages replaced during leave, we are able to illuminate the extent to which paid leave benefits per se would keep a family out of poverty.

Second, we relied on the most commonly used measure of poverty, 50 per cent of the median income. This is the definition of poverty used by the OECD (2018). However, the European Union and the United Kingdom often use a poverty rate of 60 per cent of the median income (Eurostat 2002), while the United States uses an absolute measure of poverty. To test for the robustness of our results, we also ran the analysis using these two alternate poverty thresholds. The results are presented in Appendix 3.

Results

Do OECD Countries Provide Benefits above the Poverty Threshold during Paid Parental Leave?

Average Wage Workers. Of all OECD countries, 94 per cent provide benefits to mothers of infants during the first week of maternal leave (Table 1). The US does not provide paid maternal leave. Despite providing paid leave for women who are pregnant or have recently given birth, and for parents who are adopting a child or caring for a newborn, Canada requires a two-week waiting period before workers can receive benefits.³ Mexico is the only OECD country with paid leave benefits that does not meet the C183 standard

Table 1. Paid parental leave benefits for average wage earners: availability and level compared with poverty threshold

Number of countries with	Maternal			Paternal		
	Week 1	Week 14	Week 26	Week 1	Week 14	Week 26
No paid leave	2 (6%)	2 (6%)	9 (26%)	3 (9%)	10 (29%)	13 (38%)
Paid leave	32 (94%)	32 (94%)	25 (74%)	31 (91%)	24 (71%)	21 (62%)
Total	34 (100%)	34 (100%)	34 (100%)	34 (100%)	34 (100%)	34 (100%)
Number of countries with benefits						
Less than 50% of median income	8 (24%)	11 (33%)	21 (62%)	7 (21%)	19 (56%)	22 (65%)
50% or more of median income	25 (76%)	22 (67%)	13 (38%)	26 (79%)	15 (44%)	12 (35%)
Total	33 (100%)	33 (100%)	34 (100%)	33 (100%)	34 (101%)	34 (100%)

Note: Due to rounding, percentage totals may not always add to 100%. Due to missing data on average wages, Greece is omitted from the analysis of benefits relative to median income in weeks 1 and 14 for maternal leave and week 1 for paternal leave. Greece is included in the maternity leave analysis for week 26 because at this point benefits are set at the minimum wage for which data is available.

of at least 14 weeks of paid leave. Fewer countries provide paid maternal leave that is long enough to support exclusive breastfeeding for the first six months: only 74 per cent of OECD countries provide at least 26 weeks of benefits.

About three-quarters of OECD countries provide benefits placing the three-member household of an average female wage earner above the relative poverty threshold at the start of leave. However, most countries do not sustain these initial benefit levels over the duration of leave. The percentage of countries that provide maternal leave benefits above the poverty threshold for a household with a mother earning average female wages declines from 76 per cent in week one to 67 per cent by week 14 and 38 per cent by week 26. Countries like Australia, Ireland and New Zealand provide benefits at fixed rates lower than the individual poverty threshold throughout the duration of paid leave. Czech Republic, Japan and Slovakia have wage replacement rates of 67 to 70 per cent but these are not enough to keep the households out of poverty in week one of the paid maternal leave. Canada has a waiting period to receive benefits, alongside a low wage replacement rate of 55 per cent. In the Republic of Korea (Korea) and the UK, benefits are initially paid at a high wage replacement rate (100 per cent and 90 per cent, respectively), but are later capped at levels below the relative poverty threshold. In five additional countries (Belgium, France, Italy, Luxembourg, and Portugal) with benefit levels below the relative poverty threshold by week 26, benefit levels for leave reserved specifically for mothers (maternity leave) are higher than those for gender-neutral shared parental leave. By week 26, the level of parental leave benefits in Korea declines to only 40 per cent of wages.

The availability of paid leave is lower for fathers than for mothers. Switzerland and the US provide no paid paternal leave. Though eligible for parental leave from their infants' date of birth or adoption, fathers in Canada are subject to the same two-week waiting period as mothers. The length of paid leave available to fathers is shorter than for

mothers: only 71 per cent of countries provide at least 14 weeks of paid leave for fathers (compared to 94 per cent for mothers), and only 62 per cent provide at least 26 weeks of paid leave for fathers (compared to 74 per cent for mothers). Those countries with less than 14 weeks of paid paternal leave reserve short durations (generally two weeks or less) of leave specifically for fathers, and/or give fathers access to any paid maternity leave that the mother does not take.

Benefit payments in week 1 are slightly more likely to be below the relative poverty threshold for fathers than for mothers. The UK is the only country that ensures mothers initially receive benefits that place their families above the poverty threshold, but not so for fathers. By week 14, 56 per cent of countries provide paternal leave benefits below 50 per cent of median national income, in comparison to 33 per cent for mothers; 65 per cent of OECD countries provide benefits to fathers that are below the poverty threshold in week 26 paid leave. In the majority of these countries, at week 26 fathers are receiving only gender-neutral parental leave that provided low benefit levels (compared to paternity leave benefits).

Minimum Wage Workers. Benefits for families with minimum wage earners are more likely than those for average wage earners to fall below the poverty threshold. From the very first week of leave, benefits are below the poverty threshold for mothers earning minimum wage in 93 per cent of countries, and for fathers earning minimum wage in 91 per cent of countries (Table 2). Denmark and Greece are the only two countries that ensure households with mothers earning minimum wages receive benefits above the

Table 2. Parental benefits for minimum wage earners: availability and level compared with poverty threshold

Number of countries with	Maternal			Paternal		
	Week 1	Week 14	Week 26	Week 1	Week 14	Week 26
No paid leave	2 (6%)	2 (6%)	9 (26%)	3 (9%)	10 (29%)	13 (38%)
Paid leave	32 (94%)	32 (94%)	25 (74%)	31 (91%)	24 (71%)	21 (62%)
Total	34 (100%)	34 (100%)	34 (100%)	34 (100%)	34 (100%)	34 (100%)
Number of countries with benefits						
Minimum wage < 50% of median income	3 (10%)	2 (7%)	2 (6%)	3 (10%)	2 (6%)	2 (6%)
Less than 50% of median income	25 (83%)	26 (87%)	27 (87%)	25 (81%)	28 (90%)	28 (90%)
50% or more of median income	2 (7%)	2 (7%)	2 (6%)	3 (10%)	1 (3%)	1 (3%)
Total	30 (100%)	30 (101%)	31 (99%)	31 (101%)	31 (99%)	31 (99%)

Note: Due to rounding, percentage totals may not always add to 100%. Due to missing data on minimum wages, Finland, Italy, and Sweden are omitted from the analysis of benefits relative to median income in all weeks for both leave types, and Switzerland is omitted from the analysis in weeks 1 and 14 for maternal leave. Switzerland has no leave in week 26 of maternal leave, and no paternal leave.

relative poverty line for the entire duration of leave. Denmark ensures the same for fathers earning minimum wages.

To understand why benefits for minimum wage earners are so low in some countries, it is important to recognize that minimum wages are below the individual poverty threshold in three OECD countries with paid parental leave (Czech Republic, Mexico, and Korea).⁴ In some countries, the minimum wage is above the poverty threshold, but close enough that any wage replacement short of 100 per cent would push benefits below the poverty threshold. For example, although low-income families in Canada can claim the Employment Insurance Family Supplement, which increases the benefit rate from 55 per cent to 80 per cent of insurable earnings, this increase is not enough for a minimum wage earner to receive benefits above the poverty threshold. For the remaining countries, the same factors discussed for average wage earners account for the deficit in the number of countries with paid leave benefits above the poverty threshold for minimum wage earners over the leave duration.

Do OECD Countries Provide Benefits above the Poverty Threshold during Paid Leave for Personal Illness?

Average Wage Workers. In the first week of illness or injury, 88 per cent of all OECD countries provide benefits to workers who take leave (Table 3). The US and Korea do not provide any paid leave for personal illness. In Canada and Ireland, leave-takers receive benefits only after a waiting period of a week or more. By the third week of leave, waiting periods in all countries have ended, and 91 per cent of OECD countries provide paid leave benefits. In addition to the US and Korea, Australia does not provide paid leave for the average wage earner: following the conclusion of two-week, employer-provided paid leave, a worker whose spouse earns average wages would be ineligible for means-tested sickness allowance provided by social security.⁵ By week 26, 82 per cent of all OECD countries provide paid leave for personal illness.

Half of all OECD countries provide benefits during leave for personal illness below the poverty threshold in week 1. All but one of the countries with paid leave pay

Table 3. Paid leave benefits for personal illness for average wage earners: availability and level compared with poverty threshold

Number of countries with	Personal illness		
	Week 1	Week 3	Week 26
No paid leave	4 (12%)	3 (9%)	6 (18%)
Paid leave	30 (88%)	31 (91%)	28 (82%)
Total	34 (100%)	34 (100%)	34 (100%)
Number of countries with benefits			
Less than 50% of national median income	17 (50%)	11 (32%)	13 (38%)
50% or more of national median income	17 (50%)	23 (68%)	21 (62%)
Total	34 (100%)	34 (100%)	34 (100%)

benefits for only a few days of the week, due to a one- to three-day waiting period to receive benefits. While a purpose of this waiting period may be to discourage workers from taking unnecessary sick days, it can deter workers from taking needed leave. Although Slovakia does not impose a full waiting period, benefits are limited to 25 per cent of the daily assessment base on the first three days of temporary incapacity, rendering payments below the relative poverty threshold for the first week of paid leave.

After the waiting period ends in all countries by week 3, 32 per cent of countries provide benefits below the relative poverty line. Ireland, New Zealand, and the UK provide flat-rate payments that are less than the relative poverty threshold. Canada, Czech Republic, Italy, Portugal, and Slovakia have low wage replacement rates of 55 to 70 per cent that also push households with one adult earning average wages into poverty. By week 26, benefits are also below the poverty threshold in Iceland and France, where a lower payment is provided by social security after higher-paid benefits from employers end.

Minimum Wage Workers. In nearly all OECD countries benefits received during paid leave for personal illness by minimum wage workers are below the poverty threshold in weeks 1, 3, and 26 (Table 4). Denmark is the only country that provides households with a minimum wage earner a flat-rate benefit that keeps them above the relative poverty threshold throughout the paid leave. The minimum wage is below the relative poverty threshold in the Czech Republic and Mexico. In some countries, the minimum wage is above the relative poverty threshold, but close enough that wage replacement rates of even 100 per cent would push individual benefits received by each member of the household below the poverty threshold. Along with low minimum wages relative to the poverty threshold, wage

Table 4. Paid leave benefits for personal illness for minimum wage earners: availability and level compared with poverty threshold

Number of countries with	Personal illness		
	Week 1	Week 3	Week 26
No paid leave	4 (12%)	3 (9%)	6 (18%)
Paid leave	30 (88%)	31 (91%)	28 (82%)
Total	34 (100%)	34 (100%)	34 (100%)
Number of countries with benefits			
Minimum wages < poverty threshold	2 (7%)	2 (7%)	2 (6%)
Less than 50% of median income	27 (90%)	27 (90%)	28 (90%)
50% or more of median income	1 (3%)	1 (3%)	1 (3%)
Total	30 (100%)	30 (100%)	31 (99%)

Note: Due to rounding, percentage totals may not always add to 100%. Due to missing data on minimum wages, Finland, Italy, and Sweden are omitted from the analysis of benefits relative to median income in all weeks, and Switzerland is omitted from the analysis in weeks 1 and 3. Switzerland has no leave in week 26.

Table 6. Paid leave benefits for family members' health needs for minimum wage earners: availability and level compared with poverty threshold

Number of countries with	Children's health needs			Adult family members' health needs		
	Week 1	Week 4	Week 13	Week 1	Week 4	Week 13
No paid leave	7 (21%)	15 (44%)	20 (59%)	13 (38%)	24 (71%)	26 (76%)
Paid leave	27 (79%)	19 (56%)	14 (41%)	21 (62%)	10 (29%)	8 (24%)
Total	34 (100%)	34 (100%)	34 (100%)	34 (100%)	34 (100%)	34 (100%)
Number of countries with benefits						
Minimum wages < poverty threshold	1 (3%)	0 (0%)	0 (0%)	1 (3%)	0 (0%)	0 (0%)
Less than 50% of median income	28 (90%)	31 (100%)	31 (100%)	30 (93%)	31 (97%)	31 (97%)
50% or more of median income	2 (6%)	0 (0%)	0 (0%)	1 (3%)	1 (3%)	1 (3%)
Total	31 (99%)	31 (100%)	31 (100%)	32 (99%)	32 (100%)	32 (100%)

Note: Due to rounding, percentage totals may not always add to 100%. Due to missing data on minimum wages, Italy and Sweden are omitted from the analysis of benefits relative to median income in all weeks for both types of leave and Finland is omitted from the analysis in all weeks for children's health needs. Finland has no leave for adult family members' health needs.

Minimum Wage Workers. For leave for family members' health needs, benefits are more likely to be below the relative poverty threshold for minimum wage earners than for average wage earners, making it more difficult for the former to provide care while remaining out of poverty (Table 6). In addition to the Czech Republic, which has a minimum wage below the poverty threshold, relatively high wage replacement rates alongside relatively low minimum wages in Canada (80 per cent), Estonia (80 per cent), and the Netherlands (70 per cent) cannot keep workers out of poverty during paid leave. Japan and Slovakia have low minimum wages, as well as low wage replacement rates of 40 per cent and 55 per cent, respectively.

Discussion

The health and economic benefits of paid leave can only be fully enjoyed if families can take this leave without falling into poverty. This paper extends the literature by analyzing whether benefit amounts for paid leave in 34 OECD nations are sufficient for families to live above the poverty line at three critical points during leave. We find that benefit levels in most countries provide households of average wage leave-takers with sufficient income to remain above the poverty line during paid leave. However, the different types of leave under study vary in their sufficiency to support better health and economic outcomes for average wage workers.

The WHO recommends at least six months of exclusive breastfeeding to support infant health yet about 60 per cent of OECD countries fail to ensure that mothers of infants

have access to leave of this length that is also paid at a level sufficient to avoid poverty. In 43 per cent of these countries, maternal leave is available for less than six months (26 weeks). In the remaining countries, although mothers can access at least six months of leave, the benefit levels fall below the poverty threshold, making leave less affordable over time. The drop in benefit levels in these countries is particularly problematic for gender equality in leave-taking. In most countries, fathers of infants are entitled to less paid leave than mothers. In many cases, the majority of leave to which they are entitled is shared with the mother and paid at a lower rate, making it more difficult for fathers to equally take leave without risking living in poverty. Our analyses may in fact understate the financial barriers to fathers' leave-taking: when wage replacement rates are low, household finances may depend more on men's wages, which on average are still higher than women's across the OECD.

For paid leave for personal illness, of the 28 countries that provide paid leave benefits for at least 26 weeks, three-quarters have benefits above the poverty threshold for most of that leave for the average worker. This length of leave can enable workers to recover from a range of serious health conditions. However, due to waiting periods to receive benefits, 43 per cent of countries do not provide benefits above the poverty threshold during the first week of personal illness. In the absence of optional employer benefits, waiting periods may make it more difficult for households to meet their living expenses during a critical time after serious illness or injury. These costs to individual families must be weighed when designing policies.

Gaps are largest for paid leave to care for seriously ill family members. Only a quarter of all OECD countries provide access to at least 13 weeks of paid leave to average wage earners, with benefits above the poverty threshold, to care for ill children; even fewer countries do so for adult family members' health needs. Only four OECD countries provide 13 weeks of paid leave with benefits above the poverty threshold. Moreover, this duration may be insufficient to support recovery from serious illness or end-of-life care. Given that increasing numbers of workers will need to balance caregiving and work as populations age, these benefits are especially critical.

Across the leave types, households with one minimum wage worker are the most likely to receive benefits that are insufficient to remain above the poverty line. Benefits are particularly low for paid leave for personal illness: nearly all OECD countries with at least three weeks of this leave do not ensure that benefits are above the poverty line for minimum wage workers. In the absence of other income support, this circumstance greatly jeopardizes workers' ability to recover after serious injuries or illnesses. In some countries, minimum wages are set so low that the families of minimum wage workers are already below the poverty threshold. In other countries, it is less-than-full wage replacement that places minimum wage earners below the poverty threshold.

When using the two alternate measures of poverty threshold – 60 per cent of the national median income and the 2016 US poverty threshold – we find the main conclusions of the paper unchanged. In fact, the percentage of countries with benefits above the poverty threshold decreases for all leave types. In particular, no country provides any paid leave benefit above the US poverty threshold for families of minimum wage earners, while only a few countries support families above 60 per cent of the national median income.

Even against a backdrop of budgetary constraints, approaches to ensuring adequate benefits for workers and their families are available. For example, a flat-rate floor of benefits above the individual poverty threshold can help ensure that all workers can take leave without falling into poverty. In some countries, such as Australia, employers are allowed to supplement to provide higher benefits to higher wage earners while ensuring a minimum floor for all. Other countries set a high wage replacement rate for benefits, but cap these benefits by setting either maximum benefit amounts or maximum wage amounts for benefit calculations. For example, Estonia and Slovenia pay parental leave benefits at 100 per cent and 90 per cent, with ceilings of three and two times the average wage, respectively. Such schemes ensure that benefits are above the poverty threshold for minimum and average wage earners alike. Another approach is to use a progressive payment scheme, wherein lower wage workers receive higher wage replacement rates than higher wage workers. In Finland, for example, paternal leave benefits are paid at a flat rate for annual earnings below a certain threshold, and at decreasing percentages for earnings above that threshold. Notably, even when using progressive schemes, it is critical to ensure that benefit levels are sufficiently high for minimum wage earners. For example, Canada's provision of Employment Insurance benefits at an 80 per cent wage replacement rate for lower-income workers is too low to place minimum wage earners above the poverty threshold.

The interactions of policies often determine their full impact on families. When paid leave benefits depend on wages, an adequate minimum wage is necessary for leave-takers to remain above the poverty threshold. After childbirth or major health events, healthcare costs – while not reflected in these calculations – can push families into poverty in the absence of health insurance coverage, or in settings where insurance does not cover important medical expenses such as prescription drugs. Systematic comparative quantitative data was not available on other policies which could affect resources differentially across countries during leave including cash transfers or other benefits (including childcare subsidies). Incorporating policies that affect family income, such as child or family allowances, would enable a valuable extension of this study.

This study has several limitations. To illuminate the extent to which paid leave benefits per se would keep a family out of poverty, we did not take into account other potential sources of income, such as cash transfers or other benefits (including childcare subsidies). In some OECD countries, such supports may suffice to cause an overestimation of poverty risk. Incorporating policies that affect family income, such as child or family allowances, would enable a valuable extension of this study. Additionally, our findings reflect one definition of poverty for a single household type: two parents employed full-time and one child. Future studies estimating the affordability of leave for other household types, including single-parent and single-earner households, would broaden our understanding of the extent to which countries' policies can keep all families out of poverty. This analysis did not account for certain barriers workers may face when trying to access paid leave benefits. For example, many minimum wage and other low-income workers have relatively short job tenures or work part-time at multiple jobs. Consequently, many may be excluded from accessing benefits contingent on minimum contributions, tenure with a specific employer, or hours worked. Further studies should address how such policy decisions impact on low-wage workers.

Finally, this study did not account for taxation of paid leave benefits. As benefits provide a replacement for lost income during leave, they are often subject to taxation. However, there are important differences in the tax treatment of leave benefits across the countries studied, including which types of paid leave benefits are taxable. For example, parental leave benefits are not taxed in Korea, but are taxed in Germany and Denmark, and in France, maternity leave benefits are not taxable but parental leave benefits are (OECD 2014). In our data, 22 countries with maternal leave tax benefits while 9 do not.⁶ The rate of taxation also varies across OECD countries. Since average tax rates were as high as 24.32 to 32.10 per cent in some OECD countries in 2016, examining post-tax benefits will impact on the percentage of countries with benefits below or above the poverty threshold (OECD 2016b).⁷ In case of maternal leave for average female wage earners, after accounting for taxation, two additional countries with high average income taxes – Denmark (32.10 per cent) and Iceland (21.33 per cent) – have benefits below the poverty threshold in week 1 of leave. It is thus likely that our estimates provide a lower bound estimate of the percentage of countries with benefits below the poverty threshold. Due to the lack of consistent data on how each of the five types of paid leave considered in this paper is taxed in OECD countries, further research is needed to examine how taxation affects the poverty implications of paid leave benefits for OECD countries.

Despite these limitations, our lower bound estimates find that 21 to 50 per cent of OECD countries provide pre-tax paid leave benefits that are below the poverty threshold for average wage earners in week 1, depending on the leave type. In the later weeks of leave, these percentages increase to 38 to 88 per cent. The problem is more severe for minimum wage earners with greater than 90 per cent of OECD countries providing pre-tax paid leave benefits below the poverty threshold starting from week 1. These numbers are likely to be higher after taxation of benefits. Our findings, therefore, indicate the importance for countries to examine their paid leave benefit levels for average and minimum wage earners as well as taxation, minimum wage, and other social policies.

Notes

1. While preliminary OECD purchasing power parity estimates are available for later years, the most recent final estimates are for 2014.
2. In some cases, paid leave is available for a few days per week. For example, fathers receive full wages for two days of paternal leave in Greece and Netherland. Without this assumption, fathers can appear to be below the poverty line, even with full wages.
3. In 2017, the waiting period was reduced to one week.
4. Because Mexico provides only 12 weeks of paid maternity leave and five days of paid paternity leave, the number of countries with a minimum wage lower than the poverty threshold decreases from three to two in Table 2.
5. Note that employees in Australia can accrue paid sick leave from year to year. An employee who has worked for the same employer for more than a year, and has not taken their full allotment of paid sick leave, would be entitled to more than two weeks of paid leave.
6. No information is available on whether maternity benefits are taxable in Mexico.
7. Average tax data for a single-earner married couple with one child is not available for OECD countries.

Supplemental data

Supplemental data for this article can be accessed [here](#).

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