WORK INTERRUPTED: A GLOBAL PERSPECTIVE ON INCOME PROTECTIONS

Corresponding and Presenting Author: Amy Raub, araub@ph.ucla.edu, WORLD Policy Analysis Center, University of California Los Angeles, Los Angeles, USA

Jessica Looze, jlooze@ph.ucla.edu, WORLD Policy Analysis Center, University of California Los Angeles, Los Angeles, USA

Jody Heymann, jody.heymann@ph.ucla.edu, WORLD Policy Analysis Center, University of California Los Angeles, Los Angeles, USA

Amy Raub is the Principal Research Analyst at the WORLD Policy Analysis Center. She is responsible for the translation of WORLD's data on legislation and policies in all 193 UN member states to findings for researchers, citizens, civil society, and policymakers. Amy's publications include statistical analyses of the relationship between policies and outcomes, overviews of the status of constitutional rights globally, and assessments of whether countries are meeting their international commitments in human rights conventions. Amy holds a master's degree in economics from the University of Texas at Austin and has a background in statistical analysis for economic consulting.

Jessica Looze is a Policy Analyst at the WORLD Policy Analysis Center, where she collects and analyzes data on laws and policies in all 193 UN member states. Before joining WORLD, Jessica worked as a Project Coordinator at the Center for Gerontology and Health Care Research at Brown University. She also worked as a Statistical Consultant at the Institute for Social Science Research at the University of Massachusetts-Amherst. Jessica received her B.A. in Sociology from Kansas State

University, and her M.A. and Ph.D. in Sociology from the University of Massachusetts-Amherst.

Jody Heymann, MD, PhD is the Dean of the UCLA Fielding School of Public Health and Founding Director of the WORLD Policy Analysis Center. An unprecedented effort to improve the level and quality of comparative policy data, WORLD examines social policies and outcomes in all 193 UN countries. Dr. Heymann has authored and edited more than 250 publications, including 17 books. She has worked with government leaders in North America, Europe, Africa and Latin America as well as a wide range of intergovernmental organizations including the World Health Organization, the International Labor Organization, the World Economic Forum, UNICEF and UNESCO.

Introduction

Employment is a key component of individuals' economic security. But when employment is not possible, whether due to a lack of jobs, personal illness, or family caregiving needs, income protections are an important means of economic security. Unemployment benefits, paid sick leave, and parental leave help to ensure income protection during critical times so that individuals who cannot work can continue to meet their basic needs and those of their family.

In 2012, the International Labor Organization (ILO) set out recommendations to member states on what a social protection floor should include. These recommendations included the provision of basic income security for children, persons of active labor market age, and the elderly. For persons who are of the age to be active in the labor market but are unable to earn a sufficient income, the ILO recommendations specifically outline member states' duty to provide income protection during sickness, unemployment, maternity, and disability.[1] In this article, we explore whether countries in all regions and at all income levels have policies in place to ensure income protection when participation in the work force is interrupted either by unemployment, sickness, or following the birth of a child. Using a new data set on laws and policies in 193 countries, we highlight where the gaps are in establishing a social protection floor framework in countries around the world.

Background

Unemployment benefits can help protect the unemployed and their families against poverty, particularly when they are coupled with policies to support re-employment.[2] Across Nordic countries, a high level of income protection correlated with lower poverty rates nationally.[3] This is in part due to the fact that income

protections during unemployment help individuals and their families maintain their level of consumption, thus mitigating the risk of falling into poverty.[4] [5] [6] [7] For unemployment to alleviate poverty, the most important characteristic is the level of protection for workers in the lowest earning quintile.[8]

Paid sick leave is essential to both health and economic well-being. When workers fall ill, they need paid time off to recuperate. Paid sick leave policies have significant health benefits for the employee, as they provide workers with the time necessary to take care of themselves and their family members,[9] [10] decrease the likelihood infectious employees will spread diseases,[11] [12] and therefore help prevent outbreaks. Paid sick leave policies also help secure the economic wellbeing of workers and their families. When paid sick leave is unavailable, workers risk wage and job loss when they take time off to heal or provide care to a family member.[13] [14] [15] [16] Workers in low-wage and non-unionized jobs are left particularly vulnerable, as they are significantly less likely to have sufficient leave compared with high-wage workers. Indeed, major illness continues to be a major cause of bankruptcy and home loss in the United State,[17] in part due to the absence of a sufficient paid sick leave policy.

In addition to helping ensure worker's well-being, paid sick leave policies are economically beneficial to employers. Because illness contributes to lost productivity,[18] [19] [20] [21] [22] the costs companies incur when sick employees come to work often surpass the costs of employees staying home when they are ill.[23] [24] [25] When workers don't take the necessary time off to recuperate they often end up taking longer absences from work later on.[26] Because paid sick leave contributes to lower job turnover rates, workplaces providing paid sick leave also experience lower recruitment and training costs, decreased absenteeism, and higher productivity.[27] [28]

For example, nurses with paid sick days were over two and a half times more likely to return to work after a heart attack or angina.[29] Providing paid sick leave can decrease the probability of job separation,[30] improve employee morale and loyalty,[31] and lead to savings for employers.[32]

Paid leave for both parents of infants is vital to ensuring income security after the birth of a child. Providing mothers with paid maternal leave after giving birth is vital to mother's mental and physical health and their child's wellbeing. Maternal leave provides mothers with time to physically recover from childbirth, to manage fatigue, and to bond with their infant.[33] Extending this time for mothers is associated with a decrease in postpartum depression and improved mental health outcomes.[34] [35] Likewise, longer paid maternity leave is associated with increased initiation and duration of breastfeeding,[36] which has important implications for reducing neonatal and infant mortality.[37] [38] [39] Maternal leave also facilitates childhood vaccination.[40] [41] [42]

In addition to improving health outcomes, maternal leave contributes to improved economic outcomes such as poverty reduction and economic development when paired with other family-friendly policies. Despite the assumption that maternal and family needs are costly to businesses, evidence shows a link between accessible maternity protection and positive enterprise-level outcomes in small and medium-sized enterprises.[43] Maternal leave advances female job retention and gender equity by increasing job protection and female labor market attachment.[44] Policies designed to improve work/family reconciliation are positively associated with female employment rates across OECD countries.[45] In OECD countries with maternal leaves that provide women the entirety of their previous wages, women participate in the labor force at higher rates on average than those countries that do

not provide such high wage replacements, as long as leave is less than two years.[46] Women who have paid maternity leave are more likely to return the same employer than women without paid leave.[47] [48] [49] [50]

Paternal leave is important for children and for gender equality. Research from Bangladesh, Sweden, the United Kingdom, and the United States indicates paid leave encourages men to participate in caregiving: men who take leave after their child's birth are more involved with their care even after leave has ended.[51] [52] [53] [54] [55] Paternal leave can also help ensure women have equal opportunities at work by dispelling the belief that men are meant to be breadwinners and that women are better equipped for caregiving.[56] [57] However, job demands, income reduction, and the unavailability of leave continue to prevent men from taking parental leave.[58] [59] [60] Providing leave that is specifically designed for fathers, rather than gender-neutral parental leave, is important, as research shows that men are more likely to take leave when it is specifically allocated to them (Brandth & Kvande, 2001; Eriksson, 2005; Publishing, 2007).[61] [62] [63] High wage replacements are especially important for encouraging paternal leave. Men are less likely to take paternal leave, particularly among dual-earner heterosexual couples, if they will not be reimbursed sufficiently during leave.

The evidence above makes it clear that income protection is needed during unemployment, sickness, and after the birth of a child to ensure an adequate social protection floor. The sections below discuss where the gaps are in ensuring this income support in all countries around the world.

Methods

The policy data presented in this study are drawn from the WORLD Policy Analysis Center's Adult Labor and Poverty Databases. The WORLD Policy Analysis Center is a multi-year policy data construction initiative covering all 193 UN member states designed to facilitate global comparison of national laws and policies in areas including poverty, labor, education, marriage, and discrimination.

In order to obtain the data on income protection during unemployment, sickness, and after the birth of a child necessary for this study, we reviewed national labor codes and social security legislation for all 193 UN member states. A multilingual team of researchers translated the information available in lengthy qualitative reports and original legislation into a quantitatively comparable format. Sources were analyzed independently by two researchers and their results compared, to ensure accuracy; upon the completion of each database, data quality checks were carried out. Detailed information on specific policy parameters was also drawn from the wealth of qualitative reports available from Social Security Programs Throughout the World (SSPTW). When necessary, information was clarified, corroborated, or supplemented by reliable secondary sources, such as the International Review of Leave Policies and Related Research, the International Labour Organization's TRAVAIL database, or the European Union's Mutual Information System on Social Protection.

Our data on income protection programs capture statutory benefits programs promulgated at the national level. Depending on the variable, data are available for 169 to 193 countries. Data on unemployment benefits, severance pay, and sick leave are current as of 2012. Data on maternal and paternal leave are current as of 2014.

The global regional classifications used in this paper follow the categories used by the World Bank. Countries were divided into low-, middle-, and high-income groups using the World Bank's November 2011 for and February 2014 classifications of national income.

Variable Definitions

Unemployment income protection: National, statutory, government-sponsored unemployment benefit programs legislated and implemented at the time of data collection are reported. Whether unemployment benefits are available to the self-employed on a compulsory or voluntary basis is examined; while not a perfect substitute, the self-employed are often used as a proxy for the informal economy.[64] [65] We examine duration and level of unemployment benefits. To calculate the level of unemployment benefits, benefits are calculated for a minimum wage earner. If the national minimum for unemployment benefits was higher than the calculated value for a minimum wage earner, this minimum was used instead. We also capture the legal right to severance pay; severance pay refers to any cash transfer provided by an employer to their employee upon termination.

Sick leave: We examine nationally legislated guarantees of paid leave for a worker's illness. Leave paid through either employers or social security systems was included. We also examine whether paid leave is available from the first day of incapacity, or whether it is available only after a certain waiting period.

Maternal and paternal leave: We calculate the duration of paid maternal leave by combining the duration of maternity leave (specifically designated for women) with the total duration of parental leave (available to either parent), assuming that all of the parental leave is taken by the mother; the same is done for paternal leave, which combines paternity and parental leave. Wage replacement rates are also examined for both maternal and paternal leave.

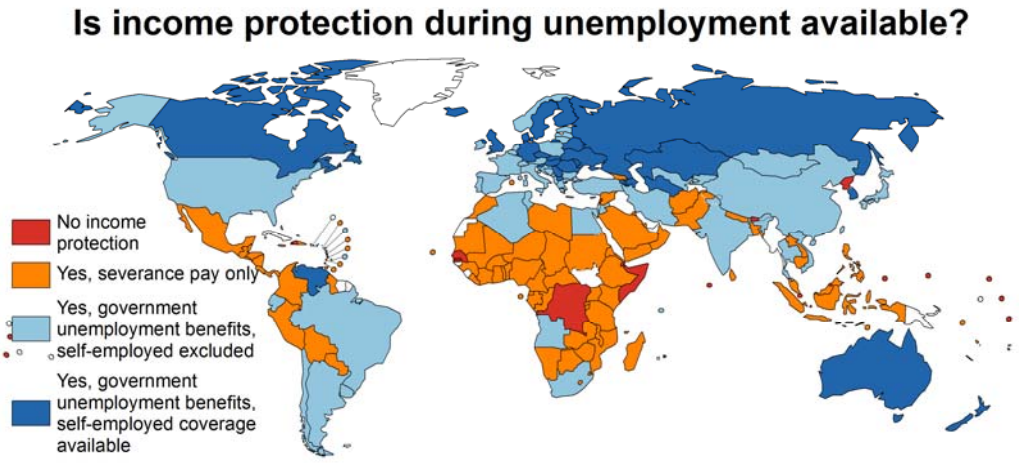
Results

Income Protection during Unemployment

Globally, only 19 countries do not provide at least some form of income protection during unemployment. Countries at every region and income level provide some form of income protection during unemployment, but these guarantees are least common in East Asia (37% of countries) and South Asia (25% of countries). Unemployment benefits are typically provided in one of two ways: through unemployment insurance or through severance pay. Unemployment insurance provides workers with income support for a period of time following the determination of unemployment. Severance pay consists of a one-time transfer of income upon termination of unemployment. Because severance pay does not vary with the length of the worker's unemployment, severance pay often provides workers with less income support during unemployment, particularly during long periods of unemployment.

Eighty-two countries that do provide income protection during unemployment only provide severance pay. Severance pay only is most common in Sub-Saharan Africa (82% of countries), the Americas (64% of countries), and South Asia (63% of

countries). These regions also have high levels of employment in the informal economy, greatly limiting the value of severance pay income protection. Eighty-one countries guarantee government-sponsored unemployment benefits and 28 of these countries make these benefits available to the self-employed. Europe and Central Asia is the only region where a majority of countries (96%) guarantee government-sponsored unemployment benefits. Kyrgyzstan is the only low-income country to guarantee government-sponsored unemployment benefits.



In addition to coverage, for income protection during unemployment to be effective at alleviating poverty, it must provide a sufficient level of income for a duration long enough for unemployed persons to obtain other employment. The ILO Employment Promotion and Protection against Unemployment Convention calls on countries to ensure unemployed workers have at least 50% income replacement during unemployment for at least 26 weeks and that those benefits are enough to meet essential living expenses.[66] Only 52 countries globally ensure government-sponsored unemployment benefits that are high enough for a worker and his or her dependent child to live above the $2 per day global poverty line, adjusted for

purchasing power parity. Twelve countries set unemployment benefits for a minimum wage worker that would place the worker and his or her dependent child below this line. Fifty-eight countries guarantee more than 26 weeks of government-sponsored unemployment benefits. However, 15 countries limit benefits to 26 weeks or less.

Table: Average Monthly Government-Provided Financial Assistance for an Unemployed Minimum Wage Worker, PPP-Adjusted by Country Income Level

	Low-Income	***Middle-Income***	***High-Income***
No government-provided financial assistance	32 (100%)	64 (67%)	9 (22%)
$2 per day or less of financial assistance	0 (0%)	7 (7%)	0 (0%)
$2.01 - $4 per day of financial assistance	0 (0%)	5 (5%)	0 (0%)
$4.01 - $10 per day of financial assistance	0 (0%)	13 (14%)	6 (15%)
$10.01 - $20 per day of financial assistance	0 (0%)	5 (5%)	13 (32%)
$20.01 - $30 per day of financial assistance	0 (0%)	2 (2%)	8 (20%)
More than $30 per day of financial assistance	0 (0%)	0 (0%)	5 (12%)

Table: Maximum Length of Government-Provided Financial Assistance During Unemployment by Country Income Level

	Low-Income	***Middle-Income***	***High-Income***
No government-provided financial assistance	32 (97%)	64 (67%)	9 (18%)
20 weeks or less of financial assistance available	0 (0%)	2 (2%)	1 (2%)
20.1 weeks - 26 weeks of financial assistance available	1 (3%)	6 (6%)	5 (10%)
26.1 weeks - 52 weeks of financial assistance available	0 (0%)	18 (19%)	16 (33%)
52.1 weeks - 78 weeks of financial assistance available	0 (0%)	1 (1%)	4 (8%)

Income Protection During Illness

Globally, 170 countries guarantee paid sick leave either through employers or social security systems. Paid sick leave coverage is lowest in South Asia (63% of countries) and East Asia & Pacific (71% of countries). Sixty-nine countries only offer paid sick leave through employers. The majority of countries in Sub-Saharan Africa (77%) and the Middle East and North Africa (63%) have only employer-based guarantees. In contrast, 94% of countries in Europe and Central Asia and 88% of countries in the Americas provide paid sick leave through social security systems alone or a combination or social security systems and employer paid benefits.

It is important that paid sick leave be structured to cover both routine illnesses as well as more severe and lengthy illnesses or hospitalizations. One hundred twenty nine countries guarantee paid sick leave without imposing a waiting period to receive benefits. Social-security based sick leave programs are more likely to have a waiting period for benefits. In the absence of employer-based guarantees to provide benefits without a waiting period, workers are more likely to go to work when ill rather than risk job or income loss. This behavior increases the changes of work accidents and can result in the spread of infection.

Table: Availability of paid sick leave from the first day of illness

	Low-Income	***Middle-Income***	***High-Income***
No paid sick leave	6 (18%)	10 (10%)	2 (4%)
Paid sick leave, but not from 1st day of illness	0 (0%)	18 (17%)	20 (41%)
Paid sick leave from 1st day of illness	27 (82%)	75 (73%)	27 (55%)

Only 100 countries guarantee paid sick leave for at least 26 weeks or until recovery. A majority of countries in Europe & Central Asia (88%) and the Americas (85%) guarantee income support for at least 26 weeks. However, no countries in South Asia and less than a third in Sub-Saharan Africa and East Asia & Pacific guarantee income support for this long. Countries at every income-level have shown it is feasible though. Five low-income countries guarantee income support during illness for at least 26 weeks.

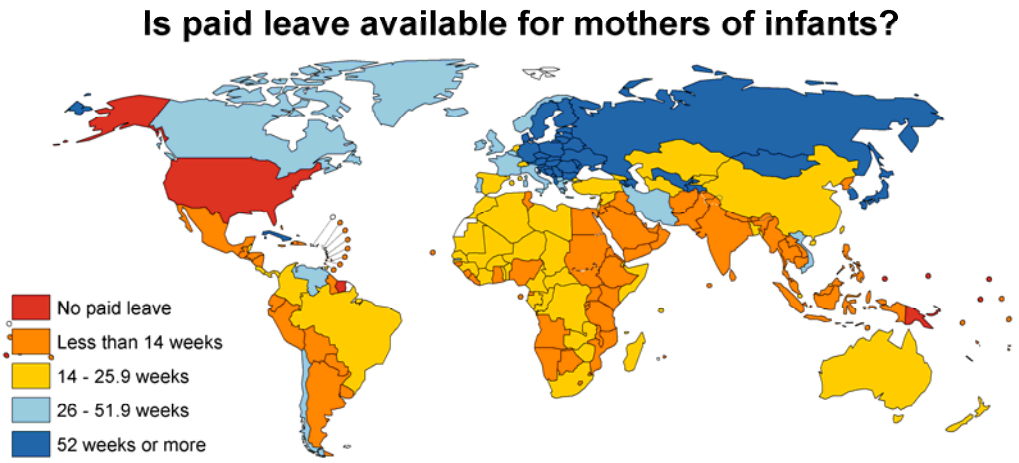
Table: Duration of Paid Sick Leave by Country Income Level

	Low-Income	***Middle-Income***	***High-Income***
No paid sick leave	6 (19%)	10 (10%)	2 (4%)
1 – 3.9 weeks of paid sick leave	8 (26%)	11 (11%)	3 (6%)
4 – 25.9 weeks of paid sick leave	12 (39%)	17 (17%)	8 (16%)
26 weeks or more of paid sick leave	5 (16%)	58 (60%)	37 (74%)

Income Protection After the Birth of a Child

Paid leave for mothers after the birth of an infant is nearly universal. Papua New Guinea, Suriname, the United States of America, and five small Pacific Island states are the only countries that do not guarantee mothers of infants paid leave. The ILO Maternity Protection Convention specifies that maternity leave should be at least 14 weeks long.[67] Globally, 103 countries provide for at least 14 weeks of paid

leave for mothers of infants. Every country in Europe and Central Asia provides for at least 14 weeks of leave. In other regions, less than half of countries have at least 14 weeks of paid leave. The lowest level of paid leave for mothers of infants is in South Asia where only one country (Bangladesh) meets the ILO guidelines.



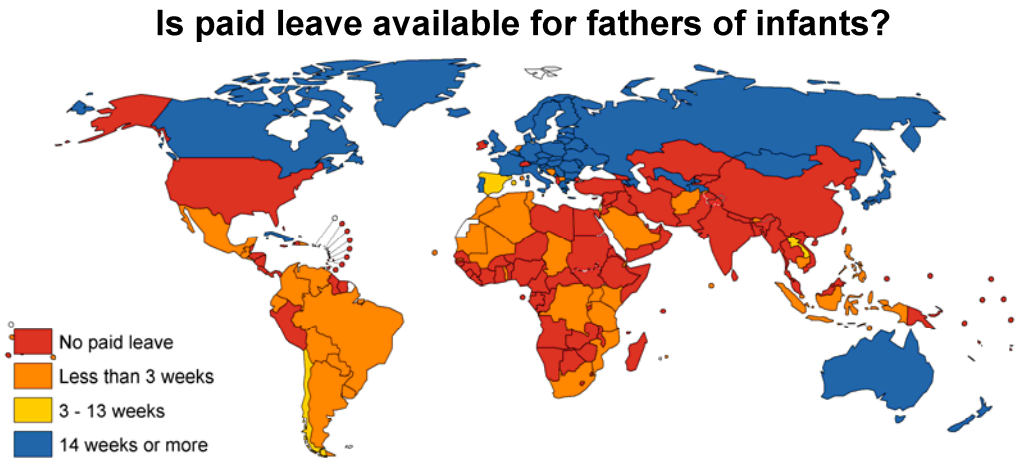
The ILO also recommends at least a two-thirds wage replacement rate for wages during maternity leave.[68] Adequate wage replacement rates are critical to ensuring that women can afford to take leave. Only 17 countries with paid leave set a wage replacement rate below this level. An additional three countries (Australia, China, and Kyrgyzstan) provide for all women to receive a flat rate payment or the average wages at their company while on maternal leave. A majority of countries in all regions guarantee mothers of infants at least two-thirds wage replacement during leave.

Table: Maximum Wage Replacement Rate of Paid Leave for Mothers of Infants

	Low-Income	***Middle-Income***	***High-Income***
No paid leave	0 (0%)	7 (7%)	1 (2%)
Flat rate or adjusted flat rate	1 (3%)	1 (1%)	1 (2%)
25% - 65%	4 (11%)	10 (10%)	3 (5%)

66% - 84%	2 (6%)	9 (9%)	12 (21%)
85% - 100%	29 (81%)	74 (73%)	39 (70%)

The ILO Maternity Protection Convention recommendations include an entitlement for mothers and fathers to parental leave.[69] However, while 185 countries guarantee paid leave for mothers of infants, only 94 countries guarantee paid leave for fathers of infants. This leave is generally significantly shorter in duration than leave entitlements for mothers. Only 43 countries guarantee fathers 14 weeks or more of paid leave.



Despite research evidence that fathers are more likely to take leave when it is explicitly guaranteed to them, only 15 countries reserve more than two weeks of paid leave explicitly for fathers or provide incentives, such as extensions to leave or bonuses to payment, to encourage fathers to use leave. Bulgaria and Laos are the only middle-income countries to reserve more than two weeks of leave for fathers. No low-income countries have these provisions.

The majority of countries that guarantee paid leave to fathers also guarantee that leave is paid at two-thirds wage replacement or more. All of the countries that guarantee paid leave to fathers in the Middle East and North Africa, South Asia, and Sub-Saharan Africa guarantee at least 85% wage replacement for fathers, although generally this leave is very short. Wage replacement rates are lower for fathers in Europe and Central Asia due to fathers in some countries only being guaranteed shared parental leave which often has a far lower wage replacement rate.

Table: Maximum Wage Replacement Rate of Paid Leave for Fathers of Infants

	Low-Income	***Middle-Income***	***High-Income***
No paid leave	23 (64%)	60 (60%)	16 (29%)
Flat rate or adjusted flat rate	0 (0%)	5 (5%)	3 (5%)
25% - 65%	0 (0%)	2 (2%)	5 (9%)
66% - 84%	0 (0%)	1 (1%)	6 (11%)
85% - 100%	13 (36%)	32 (32%)	26 (46%)

Discussion

This study shows that while provisions for income protection during unemployment, illness, and after the birth of a child are nearly universal, large gaps remain. While 163 countries guarantee income protection during unemployment, only 58 countries guarantee government-sponsored unemployment benefits for at least 26 weeks. In low-income countries, income protection is provided almost exclusively through severance pay. Paid sick leave is guaranteed in 170 countries, but once again longer provision of benefits is far less frequent, putting workers with serious health concerns in economic jeopardy. Similarly, although 185 countries guarantee paid maternal leave, only 103 meet the ILO guidelines of at least 14 weeks of paid leave and far fewer also guarantee leave for fathers of infants, which

may have significant repercussions for women's equal economic opportunities and children's well-being.

Although income protection policies are generally more generous in high-income countries, income support is found during each of these critical times in countries in every region and at every income level. For example, Burkina Faso guarantees workers 25% to 40% of one month's wage per year of service depending on tenure and two to eight months of paid sick leave depending on tenure. Mothers in Burkina Faso are entitled to 14 weeks of maternity leave at full wage replacement. In Bangladesh, casual workers are entitled to an unemployment payment for 60 days plus a lump-sum payment of 14 days of wages for every year worked. Bangladesh workers are also entitled to 14 days of paid sick leave and mothers are entitled to 16 weeks of paid leave at full wages. In Venezuela, workers are guaranteed five months of government-provided unemployment benefits at 60% wages and up to 52 weeks of paid sick leave at two-thirds of wages. Both parents of infants are entitled to paid leave in Venezuela. Mothers are guaranteed 26 weeks of paid leave and fathers are guaranteed 14 days of paid leave at full wages.

In contrast, there are also significant gaps in high-income countries. The United States stands out as one of only five countries in the world to guarantee neither paid sick leave nor paid leave for mothers of infants. It is the only high-income country that does not guarantee these paid leave. Despite claims that providing income protections limits economic competitiveness, research shows providing paid sick leave, unemployment protection, and maternal leave is economically feasible. There is no strong, linear relationship between unemployment rates and provision of paid sick leave;[70] [71] nor is there a relationship between the duration and generosity of sick leave and economic indicators, such as GDP per

capita, unemployment rates, or national competitiveness.[72] In contrast, countries with the highest growth competitive index rankings are the most likely to provide paid leave.[73] Research from the United States and Canada shows that during periods of recession, providing unemployment insurance can reduce GDP losses by 10 to 15 percent. These programs can normally avoid the issue of employment disincentives when the programs are well-designed and well-monitored.[74]

Of course, legal guarantees do not always translate into meaningful protections from poverty for workers who face job interruptions. More data is needed to assess whether these guarantees of income protection are being implemented and enforced. In-depth studies of enforcement mechanisms and take-up rates in individual countries will be a vital tool for policymakers seeking to learn from what has been effective at ensuring income protections during unemployment, sickness, and after the birth of a child in other countries.

Even if social security benefits were fully implemented and enforced in every country, the benefits of these policies would be far more universal. Often social security systems and labor codes explicitly exclude certain groups of workers, creating substantial gaps in income protection. These workers tend to be among a country's poorest and the least able to adjust to the financial shock of interrupted work. Estimates of the size of the informal economy in low- and middle-income countries range from 51% of non-agricultural employment in Latin America to 65% in East and Southeast Asia, 66% in Sub-Saharan Africa, and 82% in South Asia.[75] Certain policies can be extended to more directly cover workers in the informal economy. Social insurance systems could provide coverage for workers in the informal sector through contributory systems that allow all workers to contribute or through taxation based finance. Some countries, such as India, have labor policies

that explicitly cover self-employed workers, small businesses, and other types of informal employment. By learning from these examples around the world, policymakers can create new strategies for providing income protections for workers during periods of unemployment, sickness, and after the birth of a child. Expanding the reach of these policies is not only feasible, but critical to ensuring a minimum living standard for workers globally.

[1] R202 - Social Protection Floors Recommendation, 2012 (No. 202). http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:3065524:NO Accessed March 5, 2015.

[2] Carter, J., M. Bédard, and C.P. Bista, *Comparative review of unemployment and employment insurance experiences in Asia and worldwide*. 2013: ILO.

[3] Hussain, M.A., O. Kangas, and J. Kvist, *Welfare state institutions, unemployment and poverty: comparative analysis of unemployment benefits and labour market participation in 15 European Union countries*, in *Changing social equality: the Nordic welfare model in the 21st century*. 2012, Policy Press.

[4] Hamermesh, D.S. and D.T. Slesnick, *Unemployment insurance and household welfare: microeconomic evidence 1980-93*. 1995, National bureau of economic research.

[5] Velásquez, M., *Unemployment Insurance: What To Do During Growth*, in *ILO Notes on the Crisis*. 2010, ILO: Geneva.

[6] Gruber, J., *Consumption Smoothing Effects of Unemployment Insurance.* American Economic Review 1997. **87**: p. 192-205.

[7] Vodopivec, M., A. Wörgötter, and D. Raju, *Unemployment Benefit Systems in Central and Eastern Europe: A Review of the 1990s1*. Comparative Economic Studies, 2005. **47**(4): p. 615-651.

[8] Hussain, M.A., O. Kangas, and J. Kvist, *Welfare state institutions, unemployment and poverty: comparative analysis of unemployment benefits and labour market participation in 15 European Union countries*, in *Changing social equality: the Nordic welfare model in the 21st century*. 2012, Policy Press.

[9] Gilleskie, D.B., *A dynamic stochastic model of medical care use and work absence.* Econometrica, 1998: p. 1-45.

[10] Himmelstein, D.U., et al., *Market watch - Illness and injury as contributors to bankruptcy.* Health Affairs, 2005. **24**(2): p. W563-W573.

[11] Kumar, S., et al., *Policies to reduce influenza in the workplace: impact assessments using an agent-based model.* Am J Public Health, 2013. **103**(8): p. 1406-11.

[12] Skåtun, J.D., *Take some days off, why don't you?: Endogenous sick leave and pay.* Journal of health economics, 2003. **22**(3): p. 379-402.

[13] Earle, A. and J. Heymann, *A comparative analysis of paid leave for the health needs of workers and their families around the world.* Journal of Comparative Policy Analysis, 2006. **8**(3): p. 241-257.

[14] Murphy, B., et al., *Women with multiple roles: The emotional impact of caring for ageing parents.* Ageing and Society, 1997. **17**(03): p. 277-291.

[15] Heymann, J., *The widening gap : why America's working families are in jeopardy and what can be done about it*. 2000, New York: Basic Books. p.254.

[16] Joshi, H., P. Paci, and J. Waldfogel, *The wages of motherhood: better or worse?* Cambridge Journal of Economics, 1999. **23**(5): p. 543-564.

[17] Himmelstein, D.U., et al., *Market watch - Illness and injury as contributors to bankruptcy.* Health Affairs, 2005. **24**(2): p. W563-W573.

[18] Hu, X.H., et al., *Burden of migraine in the United States - Disability and economic costs.* Archives of Internal Medicine, 1999. **159**(8): p. 813-818.

[19] Szucs, T.D., *Influenza - The role of burden-of-illness research.* Pharmacoeconomics, 1999. **16**: p. 27-32.

[20] Crystal-Peters, J., et al., *The cost of productivity losses associated with allergic rhinitis.* American Journal of Managed Care, 2000. **6**(3): p. 373-378.

[21] Leigh, J.P., W. Seavey, and B. Leistikow, *Estimating the costs of job related arthritis.* Journal of Rheumatology, 2001. **28**(7): p. 1647-1654.

[22] Stewart, W.F., et al., *Cost of lost productive work time among US workers with depression.* Jama-Journal of the American Medical Association, 2003. **289**(23): p. 3135-3144.

[23] Burton, W.N., et al., *The role of health risk factors and disease on worker productivity.* Journal of Occupational and Environmental Medicine, 1999. **41**(10): p. 863-877.

[24] Goetzel, R.Z., et al., *Health, absence, disability, and presenteeism cost estimates of certain physical and mental health conditions affecting US employers.* Journal of Occupational and Environmental Medicine, 2004. **46**(4): p. 398-412.

[25] Kessler, R.C., et al., The effects of chronic medical conditions on work loss and work cutback. Journal of Occupational and Environmental Medicine, 2001. 43(3): p. 218-225.

[26] Grinyer, A. and V. Singleton, *Sickness absence as risk-taking behaviour: a study of organisational and cultural factors in the public sector*. Health, Risk & Society, 2000. **2**(1): p. 7-21.

[27] Lovell, V., *Valuing good health: an estimate of costs and savings for the Healthy Families Act.* Institute for Women's Policy Research, 2005: p. 1-21.

[28] Watkins, M.P., *The Case for Minimum Paid Leave for American Workers*. 2004, Economic Opportunity Institute: Seattle.

[29] Earle, A., J.Z. Ayanian, and J. Heymann, *Work resumption after newly diagnosed coronary heart disease: findings on the importance of paid leave*. Journal of Women's Health, 2006. **15**(4): p. 430-441.

[30] Hill, H.D., *Paid Sick Leave and Job Stability*. Work and Occupations, 2013. **40**(2): p. 143-173.

[31] Marshall, K., *On sick leave*. 2006: Statistics Canada.

[32] Chatterji, M. and C.J. Tilley, *Sickness, absenteeism, presenteeism, and sick pay.* Oxford Economic Papers-New Series, 2002. **54**(4): p. 669-687.

[33] (TRAVAIL), C. o. W. a. E. P. (2012). Maternity Protection Resource Package: From Aspiration to Reaity for All: International Labour Organization (ILO).

[34] Borrell, C., Palencia, L., Muntaner, C., Urquia, M., Malmusi, D., & O'Campo, P. (2014). Influence of macrosocial policies on women's health and gender inequalities in health. Epidemiol Rev, 36(1), 31-48. doi: 10.1093/epirev/mxt002

[35] Dagher, R. K., McGovern, P. M., & Dowd, B. E. (2014). Maternity leave duration and postpartum mental and physical health: implications for leave policies. *J Health Polit Policy Law, 39*(2), 369-416. doi: 10.1215/03616878-2416247

[36] Baker, M., & Milligan, K. (2008). Maternal employment, breastfeeding, and health: evidence from maternity leave mandates. J Health Econ, 27(4), 871-887. doi: 10.1016/j.jhealeco.2008.02.006

[37] Heymann, J., Raub, A., & Earle, A. (2011). Creating and Using New Data Sources to Analyze the Relationship Between Social Policy and Global Health: The Case of Maternal Leave. Public Health Reports, 126, 127-134.

[38] Ruhm, C. J. (2000). Parental leave and child health. J Health Econ, 19(6), 931-960. doi: Doi 10.1016/S0167-6296(00)00047-3

[39] Tanaka, S. (2005). Parental leave and child health across OECD countries. Economic Journal, 115(501), F7-F28. doi: DOI 10.1111/j.0013-0133.2005.00970.x

[40] Coreil, J., Augustin, A., Halsey, N. A., & Holt, E. (1994). Social and Psychological Costs of Preventive Child Health-Services in Haiti. Social science & medicine, 38(2), 231-238. doi: Doi 10.1016/0277-9536(94)90393-X

[41] Lannon, C., Brack, V., Stuart, J., Caplow, M., Mcneill, A., Bordley, W. C., & Margolis, P. (1995). What Mothers Say About Why Poor Children Fall Behind on Immunizations - a Summary of Focus Groups in North-Carolina. Archives of pediatrics & adolescent medicine, 149(10), 1070-1075.

[42] McCormick, L. K., Bartholomew, L. K., Lewis, M. J., Brown, M. W., & Hanson, I. C. (1997). Parental perceptions of barriers to childhood immunization: results of focus groups conducted in an urban population. Health Education Research, 12(3), 355-362. doi: Doi 10.1093/Her/12.3.355

[43] Lewis, S., Stumbitz, B., Miles, L., & Rouse, R. (2014). Maternity Protection in SMEs: An International Review: International Labour Organization.

[44] Brugiavini, A., Pasini, G., & Trevisan, E. (2013). The direct impact of maternity benefits on leave taking: Evidence from complete fertility histories. Adv Life Course Res, 18(1), 46-67. doi: 10.1016/j.alcr.2012.10.003

[45] OECD. (2001). Balancing Work and Family Life: Helping Parents into Paid Employment OECD Employment Outlook (pp. 129-155): OECD Publishing.

[46] Bank, T. W. (2013). Women, Business, and the Law 2014: Removing Restrictions to Enhance Gender Equality (pp. 20). Great Britain: The World Bank.

[47] Higuchi, Y. (1994). Effects of job training and productivity growth on retention of male and female workers in Japan. Labour market and economic performance: Europe, Japan and the USA, St. Martin's Press New York, 155-182

[48] Macran, S., Joshi, H., & Dex, S. (1996). Employment after childbearing: a survival analysis. Work, Employment & Society, 10(2), 273-296.

[49] McRae, S. (1993). Returning to work after childbirth: opportunities and inequalities. European Sociological Review, 9(2), 125-138.

[50] Waldfogel, J., Higuchi, Y., & Abe, M. (1999). Family leave policies and women's retention after childbirth: Evidence from the United States, Britain, and Japan. Journal of Population Economics, 12(4), 523-545.

[51] Eriksson, R. (2005). Parental leave in Sweden: The effects of the second daddy month: Swedish Institute for Social Research.

[52] Feldman, R., Sussman, A. L., & Zigler, E. (2004). Parental leave and work adaptation at the transition to parenthood: Individual, marital, and social correlates. Journal of Applied Developmental Psychology, 25(4), 459-479.

[53] Jesmin, S. S., & Seward, R. R. (2011). Parental Leave and Fathers' Involvement with Children in Bangladesh: A Comparison with United States. Journal of Comparative Family Studies, 42(1), 95-+

[54] Nepomnyaschy, L., & Waldfogel, J. (2007). Paternity Leave and Fathers' Involvement with their Young Children. *Community, Work and Family, 10*(4), 427-453.

[55] Tanaka, S., & Waldfogel, J. (2007). Effects of Parental Leave and Work Hours on Fathers' Involvement with their Babies: Evidence from the millennium cohort study. *Community, Work and Family, 10*(4), 409-426.

[56] Brandth, B., & Kvande, E. (2001). Flexible Work and Flexible Fathers. Work, Employment & Society, 15(2), 251-267. doi: 10.1177/09500170122118940

[57] Haas, L., & Rostgaard, T. (2011). Fathers' rights to paid parental leave in the Nordic countries: consequences for the gendered division of leave. Community, Work & Family, 14(2), 177-195. doi: 10.1080/13668803.2011.571398

[58] Brandth, B., & Kvande, E. (2001). Flexible Work and Flexible Fathers. *Work, Employment & Society, 15*(2), 251-267. doi: 10.1177/09500170122118940

[59] Jesmin, S. S., & Seward, R. R. (2011). Parental Leave and Fathers' Involvement with Children in Bangladesh: A Comparison with United States. *Journal of Comparative Family Studies, 42*(1), 95-+.

[60] O'Brien, M. (2009). Fathers, Parental Leave Policies, and Infant Quality of Life: International Perspectives and Policy Impact. The ANNALS of the American Academy of Political and Social Science, 624(1), 190-213. doi: 10.1177/0002716209334349

[61] Brandth, B., & Kvande, E. (2001). Flexible Work and Flexible Fathers. Work, Employment & Society, 15(2), 251-267. doi: 10.1177/09500170122118940

[62] Eriksson, R. (2005). Parental leave in Sweden: The effects of the second daddy month: Swedish Institute for Social Research.

[63] Publishing, O. (2007). *Babies and Bosses: Reconciling Work and Family Life-A Synthesis of Findings for OECD Countries*: Organisation for Economic Co-operation and Development.

[64] Andrews, D., A. Caldera Sánchez, and A. Johansson. 2011. "Towards a Better Understanding of the Informal Economy." *OECD Economics Department Working Papers,* no. 873.

[65] Hussmanns, R. 2005. "Measuring the Informal Economy: From Employment in the Informal Sector to Informal Employment." Working Paper no. 53. Geneva: International Labour Organization.

[66] C168 - Employment Promotion and Protection against Unemployment Convention, 1988 (No. 168) http://www.ilo.org/dyn/normlex/en/f?p=1000:12100:0::NO:12100:P12100_INSTRUMENT_ID:312313#A19 Accessed March 3, 2015.

[67] C183 - Maternity Protection Convention, 2000 (No. 183). http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312328:NO Accessed March 13, 2015.

[68] C183 - Maternity Protection Convention, 2000 (No. 183). http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312328:NO Accessed March 13, 2015.

[69] R191 - Maternity Protection Recommendation, 2000 (No. 191). http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO:12100:P12100_INSTRUMENT_ID:312529:NO Accessed March 13, 2015.

[70] Earle, A. and J. Heymann, *A comparative analysis of paid leave for the health needs of workers and their families around the world.* Journal of Comparative Policy Analysis, 2006. **8**(3): p. 241-257.

[71] Schmitt, J., et al., *Paid sick days don't cause unemployment*. 2009, Center for Economic and Policy Research (CEPR).

[72] Schliwen, A., et al., *The administration and financing of paid sick leave.* International Labour Review, 2011. **150**(1-2): p. 43-62.

[73] Earle, A. and J. Heymann, *A comparative analysis of paid leave for the health needs of workers and their families around the world.* Journal of Comparative Policy Analysis, 2006. **8**(3): p. 241-257.

[74] Vodopivec, M., *Choosing a system of unemployment income support: Guidelines for developing and transition countries.* The World Bank Research Observer, 2006.

[75] ILO/ Women in Informal Employment: Globalizing and Organizing (WIEGO), Women and Men in the Informal Economy: A Statistical Picture (2nd edition).