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A comparative analysis of paid leave for the health needs of workers and their families around the world

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A Comparative Analysis of Paid Leave for the Health Needs of Workers and their Families around the World

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ABSTRACT The ability of workers to take time off work when they are ill, and when their children or adult family members are ill, is critical to the health of workers and their families. In this study, we examine labor codes and labor-related legislation for 178 countries available from the International Labor Organization, and 160 individual country reports in Social Security Programs Throughout the World to determine the availability of paid sick leave globally and explore whether there is a correlation with four measures of macro-economic status (unemployment, productivity, GDP, competitiveness). We find that 145 nations from around the globe provide paid sick leave for working adults, 33 for care of children and 16 for care of adult family members' needs, and find no evidence of a negative relationship between paid leave for personal or family health needs and macro-economic status.

Introduction

The ability of workers to take time off work when they are ill, or when their children or adult family members are ill, is critical to the health of workers and their families. Taking leave from work can help provide working adults with the time required to care for their own health needs, to rest and recuperate (Gilleski 1998) and to avoid taking longer periods of time off in the future because their health worsens and minor conditions are exacerbated (Aronsson *et al.* 2000, Grinyer and Singleton 2000, Johannsson 2002). Having paid time off work may also reduce the cost of obtaining proper medical treatment when it is necessary (Cauley 1987, Gilleski 1998).

Having paid leave from work for family illness needs can also enable workers to be available to provide support to their family members, which has been shown to have important positive impacts on family members' health. Numerous studies have demonstrated that parental availability for curative care is critical to ensuring

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children's physical health (van der Schyff 1979, Taylor and O'Connor 1989, Palmer 1993, Kristensson-Hallstrom *et al.* 1997, Heymann 2000), particularly for children with chronic health and developmental conditions (Johnson 1994, Wolman *et al.* 1994, La Greca *et al.* 1995, Holden *et al.* 1997, Heymann 2000) as well as for children's mental health (Sainsbury *et al.* 1986, Waugh and Kjos 1992, McGraw 1994, Cleary *et al.* 1986). Studies have also shown that family support improves the health of adults. When they receive support from family members adults have better health outcomes from such conditions as coronary disease (Woloshin *et al.* 1997, Karner *et al.* 2004, Rantanen *et al.* 2004), myocardial infarction (Bennett 1993, Gorkin *et al.* 1993), and strokes (Tsouna-Hadjis *et al.* 2000). Studies also indicate that family support can improve longevity (Berkman 1995, Seeman 2000) and support from friends can improve mental health outcomes among the elderly (Salokangas 1997, Jubb and Shanley 2002, Stanhope 2002).

In working families, the ability to take time off work to care for a family member or to care for one's own health needs depends in part on the national and workplace policies and benefits available to the working adults in the family, specifically whether adults have paid leave to be at home during critical times.¹ For example, Heymann's study of urban working families in the US found that parents who have paid leave are significantly more likely to care for their sick children themselves. Parents with either paid sick or vacation leave were 5.2 times more likely to stay at home to care for their sick children than parents without these benefits (Heymann *et al.* 1999).

Despite the demonstrated importance of paid leave to meet the health needs of workers, their children and adult family members, a review of the comparative work/ family policy literature cannot answer the question of how available this leave is or whether it is economically feasible to provide it due to two limitations. First, while the comparative work/family literature has gathered important information on the availability and characteristics of paid maternity and paternity leave and child care policies (Gornick *et al.* 1997, Kamerman and Kahn 1997, Waldfogel 2001, Gornick and Meyers 2003), other equally important forms of leave like short-term leave and sick leave have not yet been examined.² Second, this literature has focused almost entirely on wealthy countries (for example, Organization for Economic Cooperation and Development 1995). Not only is a global picture valuable in and of itself since it currently does not exist, but recent research shows that families in poor countries are struggling with parallel types of work/family issues to those in the developed countries (Heymann 2002, 2003a,b, 2004, 2006, Heymann *et al.* 2003).

The marked rise in globalization during the twentieth century, however, makes more broad global comparisons both compelling and necessary. Characterized by an increasing flow of jobs across borders with companies readily moving their jobs to the nation with the lowest labor costs, the globalized economy is increasingly interdependent and the interaction between developed and developing nations is on the rise. The dramatic increase in the speed of international communication and transportation and declining costs, along with the emergence of free trade zones and agreements and the consequent dropping of tax and tariff barriers, have meant that companies now readily move jobs in search of cheaper labor and establish factories on foreign soil. Rich nations therefore now need to be aware of the work conditions in countries in which they do business and with which they compete. Wealthy countries can also learn from a global comparison particularly about what is truly economically feasible. If poor nations or the vast majority of nations from around the globe can provide short-term leave then it would be hard to argue that resource-rich nations like the United States are unable to. The United States' exceptional position relative to other rich nations is now well established with the US opposing many basic work/family policies on the grounds they are not economically feasible. However, the global position – with the exception of maternity leave – is not well documented and would provide further evidence on the question of the economic feasibility of paid leave for health needs.

Regardless of how widely available paid sick leave is and the implications of that for economic feasibility, there remains an argument suggesting the provision of paid leave is not economically sound. The theory posits that negative macroeconomic consequences, such as increases in unemployment, lower productivity and lower Gross Domestic Product (GDP), will arise from instituting policies that raise labor costs thus lowering demand for labor. The theory suggests that in a global market where the widespread movement of labor and competition for jobs provides an incentive for companies and nations to keep labor costs low, nations that provide paid short-term leave for health needs would be at a competitive disadvantage. These arguments have been put forth and countered both in academic circles (for example, Blank and Freeman 1994, Nickell 1997, Siebert 1997, Blanchard and Wolfers 1999, Lindert 2005, Mishel *et al.* 2005) as well as in the mainly US popular press (for example, Ackerman 1999) and the policy arena (for example, Employment Policy Foundation 2000).

Evidence regarding the macro-economic impact of social welfare policies and programs including work/family policies was first based on the observation that during the 1980s and the early part of the 1990s European countries had much higher unemployment rates relative to the United States which experienced an almost unparalleled period of economic growth in the 1990s. Recent economic experience – that many European nations recovered economically in the 1990s while fundamentally maintaining their public policies and spending on family-friendly labor policies – as well as a series of reviews of the evidence suggests that the social policies in place in Europe are not primarily responsible for the divergent experiences (see Gornick and Meyers 2003, 2004, Gornick 2005). In a comprehensive review of the empirical evidence regarding the relationship between social protection and macro-economic performance, Blank and Freeman (1994) concluded that there was little support for the claim of a substantial trade-off. A study by Nickell (1997) examining the relationship between the provision of social protection and the unemployment rate found that in general the typical package of welfare state protection and labor market policies were not provided disproportionately in either high or low unemployment nations. Yet further evidence questioning the case against work/family policies are longitudinal empirical studies of national-level data from the 1990s and earlier. In an examination of long-term historical economic and policy data, Peter Lindert (2004) concludes that social spending has not hindered growth but instead has enhanced it. Mishel, Bernstein and Allegretto (2005) examine a range of recent economic indicators, provision of paid parental leave and social expenditure from 19 rich, industrialized countries and similarly conclude that social welfare protection often has positive macro-economic consequences. Analysis of the relationship between global policy data and global economic indicators available to us would make a unique and necessary contribution to this debate.

This paper contributes to the existing comparative work/family literature by addressing a form of paid leave – paid sick leave – that to date has been left out of the comparative literature; by broadening the scope of nations compared to be global; and adding further exploratory analyses of the relationship between economic competitiveness and the provision of paid sick leave. We examine national labor policies using global data, described in the next section, to assess how many countries guarantee their workers paid sick leave, how many countries have a specific paid leave policy for children or adult family members' health needs, and assess the economic feasibility of providing these forms of leave.

Methods

Data Sources

As part of the Work, Family and Democracy Initiative and with the support of the Ford Foundation, we developed a Work, Family, and Equity Index (WFEI), the first venture to systematically define and measure public policies for working families globally. A wide range of publicly available data were gathered and analyzed to assess progress in provision of work/family policies, including paid sick leave. The scope of this data collection was truly global and included data from nations with a wide range of political, social, economic and cultural characteristics. We collected data on a set of core features of sick leave policies including the duration of benefits, wage rate and existence of a waiting period. We searched for and reviewed both primary and secondary sources of data for information on sick leave policies.³

Sick leave rights are provided through a variety of mechanisms including national paid leave law, national labor codes, social security systems, employer regulations and collective bargaining, and are funded through a variety of arrangements ranging from payment through a national social security system (for example, Mexico) to a fundamentally employer-based payment and administration model (for example, Sweden), as well as a mix of these approaches such that social security benefits either supplement employer benefits or begin when employer-sponsored benefits run out (for example, Canada and Iceland). Because of the range of ways sick leave guarantees are made, we examined both labor codes and other labor-related legislation, as well as the foremost social security law database. In total, data sources covering paid leave laws and policies were reviewed for 178 countries. See Table 1 for description of sources.

In the data collection process, data sources were continuously checked and updates obtained as they became available. When multiple sources were available, they were cross-checked. When discrepancies were identified, primary sources and the most current sources were given priority.

The availability of paid sick leave or characteristics of it were coded as "yes" when we located sufficient evidence to verify that a policy or aspect of a policy exists, as "no" when in our comprehensive search we found no relevant legislation in existence, and "indeterminate" when we located some potentially relevant legislation which was limited in a fundamental way, preventing accurate coding. For example,

Table 1. Description of sources reviewed		
Labor-related legislation and labor codes	Social security legislation	Regional sources or sources covering a range of countries
 NATLEX, an online global database of labor, social security and human rights- related legislation maintained by the International Labor Organization (ILO). The ILO's on-site library at their head- quarters in Geneva, Switzerland. The Harvard University Law Library. Official websites of various governments made available by ministries of labor and analogous bodies. 	 Social Security Programs Throughout the World (SSPTW): a series of reports produced jointly by the US Social Security Administration and the International Social Security Association (SSA and ISSA 2002, 2003a, 2003b, 2004). The most comprehensive source of global data on social security policies. The most comprehensive source of global data on social security system of 174 country reports describing the major features of the social security system of 174 countries and territories, 160 of which are classified as nations by the two major international statistical data repositories, the UN and the World Bank.* Data are from the Annual Survey on Developments and Trends conducted by ISSA, as well as other supplemental sources including, among others, official publications, foreign and US social security experts. Country data are grouped according to regions (The Americas, Africa, Asia and the Pacific, Europe) and updates are published periodically. 	 Bratislava International Centre for Family Studies, "Reflections of Recent Demographic Conditions on Family and Social Policies in Central and Eastern European Countries: Final Report, Part II" (2001) The Clearinghouse on International Developments in Child, Youth and Family Policies at Columbia University (2003). Six documents available on government websites (New Zealand Department of Labour, United States Department of Labour, United Kingdom Department of Trade and Industry 2000, International Labor, Organization (ILO) 2002, Finland Ministry of Labor 2003, Canadian Department of Social Development 2004).
*Territories of other nations and states which are not independent were excluded	are not independent were excluded.	

Ghana was coded as indeterminate for paid leave for personal health needs because we found no sick leave legislation although annual leave legislation included text specifying that sick leave taken during regular annual leave would not be counted as annual leave. Five countries were coded as indeterminate for paid sick leave for personal health needs, eight for paid sick leave for children's health, and nine for paid leave for adult health needs.

Analyses

To assess the availability of paid sick leave, frequencies and percentages were calculated using national-level, categorical data in the WFEI database. First, we examined global availability of paid sick leave for workers. We next examined the availability of sick leave that can be used to care for children, defined as biological or adopted children aged 0–17, or adult family members, typically defined as family members over the age of 18. We further examined the characteristics of these policies including the wage replacement rate, the duration of the leave, and length of the waiting period.

To explore whether there is a strong relationship between the provision of paid sick leave and macro-economic criteria, we calculated the percentage of countries that had a national policy for each separate form of paid sick leave (for care of children, adults and for self) within each of four quartiles of four publicly available macro-economic measures that were collected globally in a comparable ways (see Table 2).

Results

Paid Leave for Children's Health

Thirty-three countries have policies guaranteeing employees some type of paid leave specifically to care for their children when they are ill. Of the countries for which duration data were available, 52 per cent mandate that employers guarantee one to ten days of paid leave, while 48 per cent guaranteed 11 days or more of paid leave for children's health needs. Three countries mandate paid leave of 31 days or more and the highest number of days allowed for children's health needs is 60.

Twenty-five nations offered paid sick leave at a fixed wage replacement rate. Wage replacement rates varied within other countries according to years of employment, the length of the leave, the severity of the illness, or age of child. Amongst those countries with fixed wage replacement rates, the modal rate of replacement was 100 per cent of wages.

Paid Leave for Adult Family Members' Health

Sixteen countries provide workers with paid leave to care for adult family members. The duration of paid leave ranges from two days to four months per year. Some provide leave of a set duration per case and others have a maximum number of days per month that can be taken. Amongst countries that provide paid leave, the wage replacement rate varies from 50 per cent to 100 per cent.

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Table 2. Macroeconomic indicators and sources

Indicator	Description	Source
GDP	Per capita gross domestic product (GDP) in 172 countries	United Nations Development Program (UNDP), 2004
Competitiveness	Growth Competitiveness Index (GCI) is produced by the World Economic Forum and is intended to measure the capacity of an economy to achieve sustained economic growth. The GCI is constructed from three indexes: a technology index, a public	World Economic Forum. http://www.weforum.org/pdf/ Gcr/Growth_Competitiveness_Index_2003_ Comparisons, viewed on January 18, 2005.
	institutions index, and a macroeconomic environment index. Data is available for 102 countries.	
Unemployment rate	Total unemployment as a percentage of the total labor force where unemployment refers to the share of the labor force that is without work but available for and seeking employment. Data are five year average of any points between 1998 and 2002. Data are available for 105 of 180 countries.*	World Development Indicators Online, Unemployment, total (% total labor force). http://devdata.worldbank. org.czpz.harvard.edu/dataonline, viewed on December 14, 2004. The original source of data for some countries is ILO's Key Indicators of the Labor Market.
Productivity	Real GDP per hour worked in 1990 SUS using "Geary-Khamis" purchasing power parity conversion constructed from the Groningen Growth and Development Center's GDP, Employment, and Annual Working Hours data series. Data on 43 countries for 2002.	Groningen Growth and Development Center (GGDC) – http://www.ggdc.net/dseries/gdph.shtml, 2002.
*A five year average wa	*A five year average was used in order to minimize annual fluctuation due to changing economic conditions.	g economic conditions.

Paid Leave and Health 247

Many of the laws have limitations. Countries sometimes specify that employees are only eligible to take leave to care for family members in certain family relationships, or limit leave to cases where family members are seriously ill or require a waiting period before payment of benefits begins.

Paid Leave for Employees' Health

One hundred and forty-five countries around the world provide paid sick leave to employees. Of these, 128 countries provide paid sickness benefits for at least one week. Ninety-five countries have paid sick leave for one month or more. Seventy-six countries provide paid sickness benefits for at least 26 weeks or until recovery.⁴

Wage replacement rate for paid sick leave varies between and even within countries. Of the 145 countries with paid sick leave, data about the rate at which that leave is paid were available for 135 countries. Of these countries, 53 paid their workers a fixed rate of 100 per cent of their wages. The majority of the remaining countries, 76, paid their workers a minimum rate that was between 50 and 90 per cent of their normal wages. Six countries paid a flat rate benefit to employees on sick leave.

Relationship to Macro-economic Criteria

To explore the hypothesis that guaranteeing paid sick leave has negative macroeconomic effects, we compared the availability of all three forms of paid sick leave using a key, commonly used measure of economic status, per capita GDP. Across the three types of paid sick leave, there is a slight trend between provision of leave and GDP per capita quartile with higher GDP nations being more likely to guarantee paid sick leave (see Figure 1). With respect to paid sick leave for employees' health needs, nations in the top two income quartiles are slightly more likely to provide paid sick leave for employees' health than nations in the bottom two, but there is no strong, linear relationship between economic status and provision of this form of paid sick leave. There is, however, a stepwise income gradient in the provision of paid leave for children's health. Nations with the highest GDP per capita are most likely to provide paid leave for children's health, with those with GDP in the middle of the spectrum less likely but still more likely than those with the lowest GDP per capita. For paid leave for adult family members' health, the first quartile or nations with the highest GDP per capita were substantially more likely to provide paid leave than nations in the remaining three quartiles.

The slight trend with GDP could have multiple interpretations: wealthy countries are able to afford to provide paid sick leave or any form of paid leave has positive effects on national income. We thus next examined the association between sick leave provisions and international competitiveness. We find a clear, strong stepwise relationship between global measures of competitiveness and all three forms of paid sick leave (see Figure 2). With all three forms of paid leave, the nations with highest growth competitive index rankings were most likely to provide paid leave, those nations in the middle quartiles just less likely, and the nations in the bottom quartile the least likely.

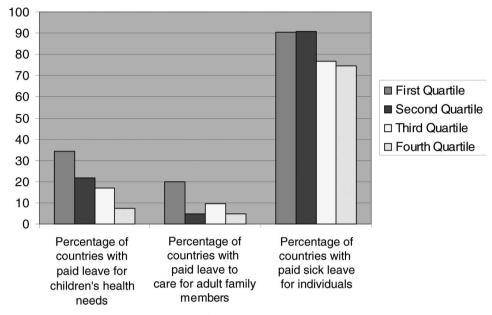


Figure 1. Relationship between national paid sick leave and a country's GDP per capita

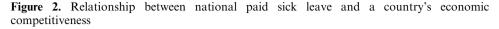
Note: The first quartile contains data for countries with the highest GDP per capita. *Source*: UNDP Human Development Report 2004, http://hdr.undp.org/reports/global/2004/pdf/hdr04_HDI.pdf, viewed on September 13, 2004. Data on GDP per capita were available for 172 countries.

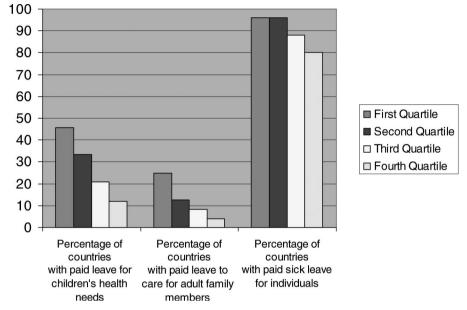
We next compared the availability of all three forms of paid sick leave using a five year average of unemployment rates, a frequently cited outcome impacted by provision of social welfare policies. We find no strong, linear relationship between unemployment rate and provision of any of these forms of paid sick leave (see Figure 3).

Productivity measures were not available on as widespread a scale as other economic indicators (N = 43 nations). However, we found similar trends even when using a measure for a smaller number of nations. Nations in the top two quartiles in terms of productivity were more likely than the nations in the third quartile to guarantee paid sick leave, and those in the third quartile more likely than nations in the bottom quartile to provide paid leave to care for children's and adult's health needs. There is no strong trend for paid leave for personal sickness.

Discussion

This study provides the first global comparison of an underexplored aspect of work/ family policy: short-term leave for health needs. Findings from our examination of the availability and economic feasibility of guaranteed paid sick leave were striking in a number of dimensions, not least of which is the exceptional position that the United States finds itself in – an outlier among both wealthy and poor nations alike





Note: The first quartile contains countries with the highest GCI scores. *Source*: World Economic Forum, Growth Competitiveness Index, http://www.weforum.org/pdf/Gcr/Growth_Competitiveness_Index_2003_Comparisons, viewed on September 13, 2004. Data on 102 nations were available.

in not guaranteeing paid sick leave for employees or their families. Our findings clearly demonstrate the virtually global consensus that exists on the need for and economic feasibility of guaranteeing paid leave for personal health needs. At least 145 nations from around the globe provide paid sick leave for working adults, and most of these nations provide paid sickness benefits for at least one week. Equally striking was our finding that there was a significant minority of countries that mandate further guarantees of leave to care for family members' health needs: 33 providing paid leave for children's health needs and 16 for adult family members' health. These findings demonstrate that while movement is being made from coverage of only employees' health needs to those of their families, there is a substantially greater distance for the global community to cover in this area. However, the provision of paid sick leave was not associated with negative macroeconomic measures as has been claimed by some. Instead we found a trend with nations that provide sick leave being more likely to demonstrate high productivity and be highly competitive. Moreover, there was no relationship between any form of paid sick leave and national unemployment rate. Together these provide suggestive evidence of the economic feasibility of expanding the global nature of paid leave for children's and adult family members' health needs. In addition, our findings are consistent with and illustrative of what economists have found with historical and longitudinal data regarding the affordability of guaranteeing these basic protections to workers.

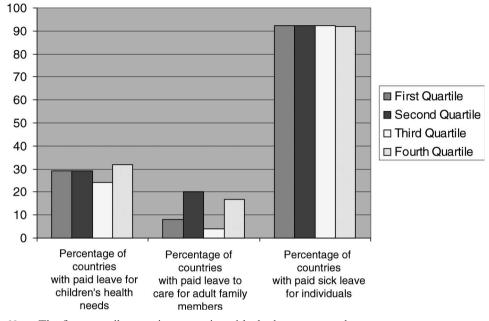


Figure 3. Relationship between national paid sick leave and a country's unemployment rate

Note: The first quartile contains countries with the lowest unemployment rates. *Source*: World Development Indicators Online, viewed on September 13, 2004. Data were available for 105 countries.

The importance of paid leave to working caregivers' ability to be involved in the care of their families' health needs and to their families' health status is clear. Commitment to paid sick leave *in jure*, while a critical first step, is not sufficient to guarantee that working adults can provide this essential support. Studies in the United States have illustrated the important role that flexibility and informal policies play in enabling workers to take advantage of what sick leave currently exists (Heymann 2000, Bond 2002). That workers sometimes face unsupportive supervisors, fear or experience penalties for using their leave in terms of promotion, wages, and job retention, highlights the need for addressing implementation of policies to achieve full and equal access to paid sick leave. Data on the extent of enforcement, on workplace culture, and perceived access to paid sick leave are not available on a global scale. However, these data are unlikely to change the several trends reported here as higher GDP countries have more resources available for enforcement.

The truly global availability of paid sick leave for employees and the lack of an association with negative macro-economic conditions demonstrate its feasibility in a wide range of countries. Theoretical concerns have been raised that providing social protection will ultimately hurt low-wage workers and low-income nations as a result of the trade-off between wages and benefits that employers face. The theory assumes that employers face a maximum total amount to spend on compensation that can be split between wages and benefits. Moreover, the theory does not take into account the economic benefits of providing paid sick leave, ranging from a decrease in illness

spread in the workplace to increased productivity and retention. Even were there no benefits, the approximate cost of providing a week of paid sick leave with 100 per cent wage replacement is only 2 per cent of average wages whether in a low- or high-income country. Finally, the cost of providing paid sick leave is automatically adjusted to local wages. Because wages in low-income countries are lower than in high-income countries, this same 2 per cent will be less in absolute international dollars than the value of 2 per cent of average wages in a high-income country. The relatively low and self-scaling cost of providing these benefits further contribute to their feasibility.

Enhancing working adults' ability to care for their children is an important and increasingly critical need at this point in time. Recent increases in urbanization and paid labor force participation in most of the world's regions have meant that parents are increasingly working away from their homes and any children they are caring for. When children are separated from their caregivers, and parents' work hours and schedules are dictated by the employers, paid sick leave to care for family members becomes critical. Without paid sick leave, caregivers may have little choice but to send sick children to day care or school, have young children stay home alone or miss needed meetings with doctors with potentially serious health consequences (Loda et al. 1972, Doyle 1976, Strangert 1976, Sullivan et al. 1984, Haskins and Kotch 1986, Hillis et al. 1992, Mottonen and Uhari 1992, Heymann 2000). Without paid leave policies, working families are placed at risk economically as well, experiencing wage or job loss if they take time off work to provide care (Murphy et al. 1997), or losing earnings if they reduce working hours, guit their jobs, or engage in part-time or informal work with more flexible hours in order to accommodate caregiving demands (Fadayomi 1991, Psacharopoulos and Tzannatos 1992, Joshi et al. 1999, Davies et al. 2000, NAC and AARP 2004, Heymann 2006).

While the need to move forward on ensuring parents' ability to care for children's health is critical, enabling family care of the elderly is a growing issue. The population of individuals aged 60 and older is estimated to grow three-fold by 2050, and the population of the oldest-old, those 80 and older is projected to rise even more rapidly to 379 million by 2050 or more than five times its present number (United Nations Population Division 2001). At the same time, the number and availability of full-time caregivers is likely to fall as a result of urbanization and movement away from extended family in developing nations (Jamuna 1997, Chattopadhyay and Marsh 1999, Chow 1999), and the global increase in labor force participation among women, who still are most likely to be care providers for elderly and disabled family members (Doress-Worters 1994, Restrepo and Rozental 1994, Davis et al. 1995, Ineichen 1998, Medjuck et al. 1998, Rawlins 1999, Hashizume 2000, Long and Harris 2000). The proportion of adults having to meet the needs of elderly and disabled adult family members while working is growing and will continue to do so as the world's population ages. Increasing the number of nations with policies to address this issue is critical.

The ultimate effect of global demographic, labor and residence transformations on child and adult health will be critically influenced by whether workers are able to take time off work when they are ill and when their children or adult members of their family are sick and in need of care. A key issue in the debate around whether policies to guarantee this time off are feasible is the degree to which shortterm paid leave hampers or helps national economic progress. Our global exploratory analyses of the relationship between macro-economic status and the provision of paid sick leave make a critical contribution to this debate. The absence of an association with negative economic consequences suggests that economic infeasibility should not hold nations back from trying to achieve the goal of ensuring the health of all their working families. No worker should be left to choose between the income they need and meeting the health needs of their family.

Notes

- 1. While some family care and support is needed and can take place outside work hours, some certainly cannot. Illnesses are as likely to occur during the day as at night, and serious health conditions often require either round-the-clock care and assistance with activities of daily living that occur at all times of the day and night, or require interaction with agencies, services or care providers that can be accessed only during regular work hours. The ability of workers to take time off work with pay is thus a necessary condition for family members to be involved in their children's and adult family members' care.
- 2. This may be due in part to the initial focus among researchers of the European experience on cash transfers which has since evolved over the last 10 years to what has been termed "work/family reconciliation policies" which consist of a new package of policies that go beyond the cash policies and include child care, paid leave, flexibility and part-time work protection.
- 3. We do not consider the voluntarily offered paid sick leave due to the focus of the Index on government progress in guaranteeing that the needs of working families are met.
- 4. The unpaid waiting period to qualify for state sickness benefits was not counted in the calculation of the duration of paid leave; however, the main source for data on waiting periods, the SSPTW is unclear as to whether the employee receives wage payment during this time, i.e. the source does not specify if the employee is paid during this period by the employer or whether the employee is paid retroactively for the unpaid waiting period upon qualifying for state sickness benefits, so the paid duration estimates may be underestimates.

References

Ackerman, S., 1999, Supply-side journalism: an all-American prescription for German unemployment. *Harpers Magazine* (October), 66–67.

- Aronsson, G., Gustafsson, K. and Dallner, M., 2000, Sick but yet at work. An empirical study of sickness presenteeism. *Journal of Epidemiology and Community Health*, 54, 502–509.
- Bennett, S. J., 1993, Relationships among selected antecedent variables and coping effectiveness in postmyocardial infarction patients. *Research in Nursing and Health*, 16, 131–139.
- Berkman, L. F., 1995, The role of social relations in health promotion. *Psychosomatic Medicine*, **57**, 245–254.
- Blanchard, O. and Wolfers, J., 1999, The role of shocks and institutions in the rise of European unemployment: the aggregate evidence, available at: http://econ-www.mit.edu/faculty/index.htm? prof_id=blanchar&type=paper (accessed September 13, 2005).
- Blank, R. and Freeman, R. B., 1994, Evaluating the connection between social protection and economic flexibility, in: Rebecca Blank (Ed) *Social Protection and Economic Flexibility: Is There a Trade-Off?* (Chicago, IL: The University of Chicago Press).
- Bond, J. T., 2002, *Highlights of the National Study of the Changing Workforce* (New York: Families and Work Institute).
- Bratislava International Centre for Family Studies, 2001, *Reflections of Recent Demographic Conditions on Family and Social Policies In CEE (Central and Eastern European Countries) Final Report: Part II* (Bratislava: Bratislava International Centre for Family Studies).
- Canadian Department of Social Development, 2004, *Employment Insurance (EI) Compassionate Care Benefits*, available at: http://www.sdc.gc.ca/asp/gateway.asp?hr=en/ei/types/compassionate_care.shtml& hs=tyt (accessed May 3, 2004).

Cauley, S. D., 1987, The time price of medical care. *The Review of Economics and Statistics*, **69**, 59–66. Chattopadhyay, A. and Marsh, R., 1999, Changes in living arrangement and familial support for the elderly in Taiwan: 1963–1991. *Journal of Comparative Family Studies*, **30**, 523–537.

Chow, N. W. S., 1999, Aging in China. Journal of Sociology and Social Welfare, 26, 25-49.

- Clearinghouse on International Developments in Child, Youth and Family Policies at Columbia University, 2003, *Country Profiles*, available at: http://www.childpolicyintl.org/ (accessed March 18, 2004).
- Cleary, J., Gray, O. P., Hall, D. J., Rowlandson, P. H., Sainsbury, C. P. and Davies, M. M., 1986, Parental involvement in the lives of children in hospital. *Archives of Disease in Childhood*, **61**, 779–787.
- Davies, H., Joshi, H. and Peronaci, R., 2000, Forgone income and motherhood: what do recent British data tell us? *Population Studies*, 54, 293–305.
- Davis, A. J., Martinson, I., Gan, L. C., Jin, Q., Liang, Y. H., Davis, D. B. and Lin, J. Y., 1995, Home care for the urban chronically ill elderly in the People's Republic of China. *International Journal of Aging and Human Development*, 41, 345–358.
- Doress-Worters, P. B., 1994, Adding elder care to women's multiple roles: a critical review of the caregiver stress and multiple roles literatures. Sex Roles, 31, 597–616.
- Doyle, A. B., 1976, Incidence of illness in early group and family day-care. Pediatrics, 58, 607-613.
- Employment Policy Foundation, 2000, News Release: Should the U.S. follow Europe's work-family policies? Paid family leave mandates will be costly in U.S., book finds, available at: http://www.epf.org/ media/newsreleases/2000/nr20000424.pdf (accessed September 13, 2005).
- Fadayomi, T., 1991, The Nigerian working mother and her pre-school age children: the incipience of role incompatibility and its resolutions. *International Journal of Sociology*, **21**, 229–242.
- Finland Ministry of Labor, 2003, Family leaves a matter for both parents, available at: http:// www.mol.fi/english/working/familyleaves2003.html (accessed September 15, 2005).
- Gilleski, D. B., 1998, A dynamic stochastic model of medical care use and work absence. *Econometrica*, **66**, 1–45.
- Gorkin, L., Schron, E. B., Brooks, M. M., Wiklund, I., Kellen, J., Verter, J., Schoenberger, J. A., Pawitan, Y., Morris, M. and Shumaker, S., 1993, Psychosocial predictors of mortality in the Cardiac Arrhythmia Suppression Trial-1 (CAST-1). *American Journal of Cardiology*, **71**, 263–267.

Gornick, J. C., 2005, Overworked, time poor, and abandoned by Uncle Sam. Dissent (Summer), 65-69.

- Gornick J. C. and Meyers, M. K., 2003, Families That Work: Policies for Reconciling Parenthood and Employment (New York: Russell Sage Foundation).
- Gornick, J. C. and Meyers, M. K., 2004, More alike than different: revisiting the long-term prospects for developing "European-style" work/family policies in the United States. *Journal of Comparative Policy Analysis*, 6(3), 251–273.
- Gornick, J. C., Meyers, M. K. and Ross, K. E., 1997, Supporting the employment of mothers: policy variation across fourteen welfare states. *Journal of European Social Policy*, 7, 45–70.
- Grinyer, A. and Singleton, V., 2000, Sickness absence as risk-taking behaviour: a study of organizational and cultural factors in the public sector. *Health, Risk, and Society*, 2, 7–21.
- Hashizume, Y., 2000, Gender issues and Japanese family-centered caregiving for frail elderly parents or parents-in-law in modern Japan: from the sociocultural and historical perspectives. *Public Health Nursing*, 17, 25–31.
- Haskins, R. and Kotch, J., 1986, Day care and illness: evidence, cost, and public policy. *Pediatrics*, 77, 951–982.
- Heymann, S. J., 2000, *The Widening Gap: Why Working Families Are in Jeopardy and What Can Be Done About It* (New York: Basic Books).
- Heymann, S. J., 2002, Social transformations and their implications for the global demand for ECCE. UNESCO Policy Brief (November–December).
- Heymann, S. J., 2003a, School children in families with young children: educational opportunities at risk. UNESCO Policy Brief (February).
- Heymann, S. J., 2003b, The impact of AIDS on early childhood care and education. UNESCO Policy Brief (June).
- Heymann, S. J., 2004, The role of early childhood care and education in ensuring equal opportunity. UNESCO Policy Brief (January).
- Heymann, J., 2006, Forgotten Families: Ending the Growing Crisis Confronting Children and Working Parents in a Global Economy (New York: Oxford University Press).

- Heymann, J., Fischer, A. and Engelman, M., 2003, Labor conditions and the health of children, elderly and disabled family members, in: J. Heymann (Ed) *Global Inequalities at Work: Work's Impact on the Health of Individuals, Families, and Societies* (New York: Oxford University Press), pp. 75–104.
- Heymann, S. J., Toomey, S. and Furstenberg, F., 1999, Working parents: what factors are involved in their ability to take time off from work when their children are sick? *Archives of Pediatrics and Adolescent Medicine*, **153**, 870–874.
- Hillis, S. D., Miranda, C. M., McCann, M., Bender, D. and Weigle, K., 1992, Day care center attendance and diarrheal morbidity in Colombia. *Pediatrics*, 90, 582–588.
- Holden, E. W., Chmielewski, D., Nelson, C. C., Kager, V. A. and Foltz, L., 1997, Controlling for general and disease-specific effects in child and family adjustment to chronic childhood illness. *Journal of Pediatric Psychology*, 22, 15–27.
- Ineichen, B., 1998, Influences on the care of demented elderly people in the People's Republic of China. International Journal of Geriatric Psychiatry, 13, 122–126.
- International Labor Organization (ILO), 2002, Child-care and family-care leave law Japan, available at: http://www.ilo.org/public/english/employment/gems/eeo/law/japan/care.htm (accessed September 15, 2005).
- Jamuna, D., 1997, Stress dimensions among caregivers of the elderly. *Indian Journal of Medical Research*, 106, 381–388.
- Johannsson, G., 2002, Work-life balance: the case of Sweden in the 1990s. *Social Science Information*, **41**, 303–317.
- Johnson, K., 1994, Children with special health needs: ensuring appropriate coverage and care under health care reform. *Health Policy and Child Health*, 1, 1–5.
- Joshi, H., Paci, P. and Waldfogel, J., 1999, The wages of motherhood: better or worse? Cambridge Journal of Economics, 23, 543–564.
- Jubb, M. and Shanley, E., 2002, Family involvement: the key to opening locked wards and closed minds. International Journal of Mental Health Nursing, 11, 47–53.
- Kamerman, S. B. and Kahn, A. J., 1997, Family Change and Family Policies in Great Britain, Canada, New Zealand, and the United States (Oxford and New York: Clarendon Press).
- Karner, A. M., Dahlgren, M. A. and Bergdahl, B., 2004, Rehabilitation after coronary heart disease: spouses' views of support. *Journal of Advanced Nursing*, 46, 204–211.
- Kristensson-Hallstrom, I., Elander, G. and Malmfors, G., 1997, Increased parental participation in a paediatric surgical day-care unit. *Journal of Clinical Nursing*, 6, 297–302.
- La Greca, A. M., Auslander, W. F., Greco, P., Spetter, D., Fisher, E. B., Jr. and Santiago, J. V., 1995, I get by with a little help from my family and friends: adolescents' support for diabetes care. *Journal of Pediatric Psychology*, 20, 449–476.
- Lindert, P., 2004, Growing Public: Social Spending and Economic Growth since the Eighteenth Century (New York: Cambridge University Press).
- Loda, F. A., Glezen, W. P. and Clyde, W. A., Jr., 1972, Respiratory disease in group day care. *Pediatrics*, 49, 428–437.
- Long, S. O. and Harris, P. B., 2000, Gender and elder care: social change and the role of the caregiver in Japan. Social Science Japan Journal, 3, 21–36.
- McGraw, T., 1994, Preparing children for the operating room: psychological issues. Canadian Journal of Anaesthesia, 41, 1094–1103.
- Medjuck, S., Keefe, J. M. and Fancey, P. J., 1998, Available but not accessible: an examination of the use of workplace policies for caregivers of elderly kin. *Journal of Family Issues*, 19, 274–299.
- Mishel, L., Bernstein, J. and Allegretto, S., 2005, *The State of Working America: 2004–2005* (Ithaca, NY: Cornell University Press).
- Mottonen, M. and Uhari, M., 1992, Absences for sickness among children in day care. *Acta Paediatrica*, **81**, 929–932.
- Murphy, B., Schofield, H., Nankervis, J., Bloch, S., Herrman, H. and Singh, B., 1997, Women with multiple roles: the emotional impact of caring for ageing parents. *Ageing and Society*, 17, 277–291.
- National Alliance for Caregiving (NAC) and American Association of Retired People (AARP), 2004, Caregiving in the U.S., available at: http://www.caregiving.org/data/04finalreport.pdf (accessed September 15, 2005).
- New Zealand Department of Labour, no date, Your rights to holidays and other leave, available at: http:// www.ers.dol.govt.nz/publications/pdfs/holidays.pdf (accessed September 15, 2005).

- Nickell, Stephen, 1997, Unemployment and labor market rigidities: Europe versus North America. Journal of Economic Perspectives, 11(3), 55–74.
- Organization for Economic Cooperation and Development (OECD), 1995, Long-term leave for parents in OECD countries, in: *Employment Outlook* (Paris: OECD), pp. 171–230.
- Palmer, S. J., 1993, Care of sick children by parents: a meaningful role. *Journal of Advanced Nursing*, 18, 185–191.
- Psacharopoulos, G. and Tzannatos, Z. (Eds), 1992, Case Studies on Women's Employment and Pay in Latin America (Washington, DC: World Bank).
- Rantanen, A., Kaunonen, M., Astedt-Kurki, P. and Tarkka, M. T., 2004, Coronary artery bypass grafting: social support for patients and their significant others. *Journal of Clinical Nursing*, 13, 158– 166.
- Rawlins, J. M., 1999, Confronting ageing as a Caribbean reality. *Journal of Sociology and Social Welfare*, 26, 143–153.
- Restrepo, H. E. and Rozental, M., 1994, The social impact of aging populations: some major issues. Social Science and Medicine, 39, 1323–1338.
- Sainsbury, C. P., Gray, O. P., Cleary, J., Davies, M. M. and Rowlandson, P. H., 1986, Care by parents of their children in hospital. Archives of Disease in Childhood, 61, 612–615.
- Salokangas, R. K., 1997, Living situation, social network and outcome in schizophrenia: a five-year prospective follow-up study. Acta Psychiatrica Scandinavica, 96, 459–468.
- Seeman, T. E., 2000, Health promoting effects of friends and family on health outcomes in older adults. *American Journal of Health Promotion*, 14, 362–370.
- Siebert, H., 1997, Labor market rigidities: at the root of unemployment in Europe. *Journal of Economic Perspectives*, **11**(3), 37–55.
- Social Security Administration (SSA) and International Social Security Administration (ISSA), 2002, Social security programs throughout the world: Europe, 2002, available at: http://www.ssa.gov/policy/ docs/progdesc/ssptw/2002-2003/europe/index.html (accessed September 15, 2005).
- Social Security Administration (SSA) and International Social Security Administration (ISSA), 2003a, Social security programs throughout the world: Africa, 2003, available at: http://www.ssa.gov/policy/ docs/progdesc/ssptw/2002-2003/africa/index.html (accessed September 15, 2005).
- Social Security Administration (SSA) and International Social Security Administration (ISSA), 2003b, Social security programs throughout the world: Asia and the Pacific, 2002, available at: http:// www.ssa.gov/policy/docs/progdesc/ssptw/2002-2003/asia/index.html (accessed September 15, 2005).
- Social Security Administration (SSA) and International Social Security Administration (ISSA), 2004, Social security programs throughout the world: The Americas, 2003, available at: http://www.ssa.gov/ policy/docs/progdesc/ssptw/2002-2003/americas/index.html (accessed September 15, 2005).
- Stanhope, V., 2002, Culture, control, and family involvement: a comparison of psychosocial rehabilitation in India and the United States. *Psychiatric Rehabilitation Journal*, 25, 273–280.
- Strangert, K., 1976, Respiratory illness in preschool children with different forms of day care. *Pediatrics*, **57**, 191–196.
- Sullivan, P., Woodward, W. E., Pickering, L. K. and DuPont, H. L., 1984, Longitudinal study of occurrence of diarrheal disease in day care centers. *American Journal of Public Health*, 74, 987–991.
- Taylor, M. R. and O'Connor, P., 1989, Resident parents and shorter hospital stay. Archives of Disease in Childhood, 64, 274–276.
- Tsouna-Hadjis, E., Vemmos, K. N., Zakopoulos, N. and Stamatelopoulos, S., 2000, First-stroke recovery process: the role of family social support. Archives of Physical Medicine and Rehabilitation, 81, 881–887.
- United Kingdom Department of Trade and Industry, 2000, Frequently asked questions about time off for dependants, available at: http://www.dti.gov.uk/er/faqs.htm (accessed September 15, 2005).
- United Nations Development Program (UNDP), 2004, Human Development Report 2004: Cultural Liberty in Today's Diverse World (Oxford: Oxford University Press), available at: http://hdr.undp.org/reports/ global/2004/ (accessed September 15, 2005).
- United Nations Population Division (UNPD), 2001, World Population Prospects: The 2000 Revision Highlights (New York: Department of Economic and Social Affairs, UN).
- United States Department of Labor, no date, Compliance assistance Family and Medical Leave Act (FMLA), available at: http://www.dol.gov/esa/whd/fmla (accessed September 15, 2005).
- Van der Schyff, G., 1979, The role of parents during their child's hospitalisation. Australian Nurses' Journal, 8, 57–58, 61.

- Waldfogel, J., 2001, What Other nations do: international policies toward parental leave and child care. *The Future of Children*, **11**(4), 99–111.
- Waugh, T. A. and Kjos, D. L., 1992, Parental involvement and the effectiveness of an adolescent day treatment program. *Journal of Youth and Adolescence*, **21**, 487–497.
- Wolman, C., Resnick, M. D., Harris, L. J. and Blum, R. W., 1994, Emotional well-being among adolescents with and without chronic conditions. *Journal of Adolescent Health*, 15, 199–204.
- Woloshin, S., Schwartz, L. M., Tosteson, A. N., Chang, C. H., Wright, B., Plohman, J. and Fisher, E. S., 1997, Perceived adequacy of tangible social support and health outcomes in patients with coronary artery disease. *Journal of General Internal Medicine*, **12**, 613–618.