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Policies to Assist Parents With Young Children

Christopher J. Ruhm*
University of Virginia and National Bureau of Economic Research

Public Policies to Assist Parents With Young Children

Difficulties in balancing the competing needs of work and family life are probably greatest for households with young children, defined for purposes of this discussion as the period of infancy through school entry, or from around 0 through 5 years old. For many such families, the predominant concern is how to find sufficient time to both fulfill work responsibilities and provide the intensive (24-hour per day) care that the young children require.

These issues are exacerbated by two trends. First, mothers with infants and small children engage in market employment at much higher rates than previously: 60 percent of mothers with children under the age of six worked in 2008 compared to 33 percent in 1975.1 This reflects both a general increase in the labor market involvement of women and particularly fast growth among mothers. Second, more children are now raised by single-parents, mostly females: the proportion in sole-parent households rose from 23 to 30 percent from 1980 to 2008.2 This reduces the flexibility to have one parent work while another does not, to coordinate schedules when both parents hold jobs, and implies that there are fewer adults available to perform many family responsibilities. In combination, these trends imply that fewer young children reside in families with an adult who does not work or works only part-time: the share of 0-5 year old children with a nonworking parent declined from 47 to 37 percent between 1979 and 2008, the fraction with all parents employed full-time rose from 34 to 42 percent.3

A number of public policies have been implemented with the aim of easing these work-family conflicts. In the United States, the most significant was the 1993 enactment of the Family and Medical Leave Act (FMLA), which provides some parents with rights to 12 weeks of unpaid leave following the birth of a child or for other reasons. Entitlements to job-protected leave nevertheless remain extremely limited in the U.S. relative to other countries. In 2006, the U.S. was one of only four out of 173 nations that did not guarantee paid leave to women in connection with childbirth.4 More significantly, all other OECD countries provide new parents rights to paid time off work and these entitlements often last well into early childhood.5

* Professor of Public Policy and Economics, Department of Economics, University of Virginia, P.O. Box 400182, Charlottesville, VA 22904-4182; phone: 434-924-7581; ruhm@virgnia.edu..

[1]U.S. Bureau of Labor Statistics, *Women in the Labor Force: A Databook*, Report 1018, September 2009. The employment rate of mothers with children aged five and under has remained fairly stable – ranging between 58 and 60 percent – since 1996.
[2]U.S. Census Bureau, *Statistical Abstract of the United States: 1999*, 119th Edition (Washington: U.S. Government Printing Office, 1999); U.S. Census Bureau, *Statistical Abstract of the United States: 2010*, 129th Edition (Washington: U.S. Government Printing Office, 2009).
[3]Liana Fox, Wen-Jui Han, Christopher Ruhm and Jane Waldfogel, "Time for Children" The Declining Availability of Parents, 1979-2008," mimeo, Columbia University, September 2010.
[4]Jody Heymann, Alison Earle and Jeffrey Hayes, "The Work, Family Equity Index: How Does the United State Measure Up?" (Montreal: Project on Working Families and the Institute for Health and Social Policy). The other countries not providing paid leave are Liberia, Papua New Guinea and Swaziland. In many developing countries these rights are likely to be limited to formal sector employment and may not always be provided in practice

Because parental leave is such a fundamental component of public efforts to assist families with young children, I discuss it extensively below. However, other policies also matter, with the next most important being the provision of early care and education (ECEC). Indeed, in many countries the distinction between parental leave and child care is no longer clear-cut, as extensive leaves cover a substantial portion of the period of early childcare and these policies are often fairly tightly integrated. Conversely, many other government policies with relevance for work-family balance do not receive much attention here. For example, reforms to the U.S. welfare system have created additional pressures for many families, particularly where exemptions of work requirements for parents with infants or toddlers have been shortened or eliminated. Although potentially important, such effects are by-products of policies enacted for other reasons and a careful treatment of them is beyond the scope of this discussion. Nor will significant attention be paid to the Women, Infants and Children program (WIC) – which provides federal food subsidies and other support to pregnant women and some families with young children – or to private employer policies that certainly play significant role for many families.6 Since the focus here is on families with pre-school age children, policies with more general impacts – such as family allowances in Europe or the Earned Income Tax Credit in the United States – are not examined.7 Finally, policies supporting breast-feeding (e.g. breast-feeding breaks in the workplace) or time off work for own health problems, or to care for sick children, are detailed in other chapters of this volume and so receive little attention here.

When discussing previous research results, the focus is on studies using sound methodological approaches aimed at identifying *effects* of work-family policies, rather than those just showing statistical associations. This represents a substantial challenge because policies are not adopted in isolation and, when benefits voluntarily provided by firms (rather than being mandated), there is a potential for non-random selection regarding which individuals are provided these benefits, or choose jobs offering them. To reduce these problems, some recent research examines the consequences of changes in the policies rather focusing on individual use or nonuse of parental leave or ECEC. A variety of sophisticated estimation procedures (e.g. difference-in-difference, instrumental variables, and regression discontinuity methods) have been employed in an effort to obtain causal impacts. However, considerable uncertainty often remains, as reflected by the somewhat ambiguous results detailed in several places below.8

This discussion focuses on the policy environment in the United States but from a cross-national perspective, particularly drawing on the experience of Western European countries and Canada. This reflects a recognition that U.S. policies often differ dramatically from those in other industrialized countries and the assumption that useful lessons may be learned from other nations. Foreigners often express surprise at the limited nature of U.S. policies

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[5]Australia supplies a lump-sum payment to new parents but no additional payment during the period off work. However, a newly introduced paid leave scheme is scheduled to make 18 weeks of paid leave available starting in 2011 (Peter Moss (ed.), International Review of Leave Policies and Related Research, 2009 (London: Employment Relations Research Series no. 102, University of London, 2009)).

[6]Examples of research examining employer policies and efforts to facilitate work-family balance include: Ellen Ernst Kossek, "Workplace Policies and Practices to Support Work and Families," in *Work, Family, Health and Well-Being*, ed. Suzanne M. Bianchi, Lynne M. Casper and Rosalind Berkowitz King (Mahwah, NJ: Lawrence Erlbaum Assoc., 2005), p. 97-115, or Ann Marie Ryan and Ellen Ernst Kossek, "Work-life Policy Implementation: Breaking Down or Creating Barriers to Inclusiveness." *Human Resource Management* 47, no. 2, (2008): 295-310.

[7]General family and child allowances have become less important over time, compared to parental leave benefits or targeted child care assistance. Inflation-adjusted spending on family allowances in 21 industrialized countries fell by an average of 22 percent from 1980 to 2001; expenditures on parental leave and related benefits rose 76 percent and those for early childhood education and home-help services grew 113 percent (Shirley Gatenio Gable and Sheila B. Kamerman, "Investing in Children: Public Commitment in Twenty-One Countries," *Social Service Review*, 80, no. 2 (2006): 239-263).

[8]Policy effects may also vary with other aspects of the institutional environment. For example, the impact of parental leave may depend on the quality of the non-parental child care.

and changes that would be considered radical by many Americans are modest in an international context. However, this does not imply that policies in other countries could or necessarily should be transplanted to the United States, given substantial differences in attitudes, traditions and the institutional environment.

The cross-national approach is further motivated by a belief that the U.S. policy environment may make it especially difficult for households with young children to achieve work-family balance. It is noteworthy that cross-national differences in employment rates are not the dominant factor. The fraction of mothers with children under the age of three who work is higher in the United States than the OECD average (54 versus 45 percent in 2007) but substantially below rates in Sweden, Denmark, the Netherlands, Portugal and Belgium (ranging between 64 and 72 percent) and similar to those in France, Canada, Germany, Spain and the United Kingdom (ranging from 54 to 59 percent).9

However, employment probabilities do not tell the entire story. Part-time employment by at least one parent is common in many other countries – exceeding 25 percent for two-parent families with children under 15 in Sweden, Belgium, the United Kingdom, Austria, Germany, Switzerland and the Netherlands. Also, U.S. children are much more likely to be raised in single-parent families – 26 percent of children under the age of 15 in 2006 versus an OECD average of 16 percent. Third, employment and work are not equivalent in many countries, largely because of the substantial use of maternity and parental leave. Leave constituted 37, 28, 37, 49 and 40 percent of total 2006 employment by mothers with children under the age of three in Sweden, Denmark, Canada, France and Germany. By contrast, corresponding U.S. leaves are almost always brief and there is little distinction between work and employment when children are more than a few months old.10 Finally, Europeans generally receive four to five weeks of paid vacation (plus public holidays) annually; whereas, vacation is not guaranteed in the United States and rarely exceeds two or three weeks.11

1. Availability of Parental Leave

After years of debate, the United States enacted the Family and Medical Leave Act (FMLA) in 1993. This law entitles eligible workers to 12 weeks of job-protected leave during a 12-month period to care for newborns or adopted children and also for serious medical problems experienced by relatives or themselves.12 Although historic, the FMLA contains significant limitations. First, the leaves are unpaid, although employers must continue health insurance coverage, and workers can be required to first use accrued sick leave or vacation. Second, small companies (employing fewer than 50 persons within 75 miles of the worksite) are exempt and individuals must have worked for the employer at least 1250 hours during the previous 12-months to be eligible. Finally, job reinstatement (in the same or an equivalent position) is not guaranteed for certain “key” employees. Because of these limitations, only around half of private sector workers are eligible to take FMLA leaves.

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[9]Unless otherwise noted, the statistics in this paragraph and the next are from the OECD Family Database (www.oecd.org/els/social/family/database).

[10]Sixty-nine percent of employed U.S. mothers were on leave in the month after giving birth, in 2004, compared to just 4 to 9 percent in the 4th through 12th months after delivery (Wen-Jui Han, Christopher Ruhm and Jane Waldfogel, “Parental Leave Policies and Parents’ Employment and Leave-Taking,” *Journal of Policy Analysis and Management*, 28, no. 1 (2009): 29-54).

[11]Three-quarters of civilian workers received paid vacation in 2009 with the median amounts being 10, 15 and 15 days for those with 1, 5 and 10 years of service (U.S. Department of Labor, National Compensation Survey: Employee Benefits in the United States, March 2009, Bulletin 2731, (Washington D.C.: U.S. Department of Labor, September 2009)).

[12]This paragraph is based on Christopher J. Ruhm, “Policy Watch: The Family and Medical Leave Act,” *Journal of Economic Perspectives* 11, no. 3 (1997): 175-186.

Twenty-five states enacted some type of parental leave prior to the federal law.13 Many of the rights provided were less generous than those under the FMLA, and so were subsumed by it. However, 15 states and the District of Columbia currently supply benefits that exceed the federal law in at least some dimension, as detailed in Table 1·14 Most frequently, eligibility is extended by covering smaller firms or relaxing the work history requirements; four states and Washington D.C. also provide for longer unpaid leave periods (between 13 and 17 weeks).

Six states supply rights to paid leave.15 These entitlements take two forms. First, after passage of the Pregnancy Discrimination Act in 1978, states providing temporary disability insurance (TDI) were required to treat pregnancy as a short-term disability. As a result, new mothers in these states receive partial payment (usually one-half to two-thirds of earnings) for around six weeks; job reinstatement at the end of the leave is not guaranteed.16 Second, three states currently offer or are scheduled to provide explicit paid leave. California did so first. Its program, which took effect in 2004, offers six weeks of leave with 55 percent of earnings replaced (up to a ceiling).17 Coverage is broader than that under the FMLA (including part-time workers and those with smaller employers) but job-protection is not guaranteed (unless leave is also covered by the FMLA). New Jersey's paid leave, enacted in 2008, also provides for six weeks away from the job and with a higher earnings replacement rate than California (66 versus 55 percent) but a lower maximum weekly benefit ($546 versus $959 in 2009). Job-protection is not guaranteed nor are part-time workers covered. Finally, Washington will provide 5-weeks of leave at a flat rate of $250 per week, with pro-rated pay for part-time workers and job-protection for persons meeting a work history requirement and in companies with 25 or more employees. This program was scheduled to begin in 2009 but budget issues have delayed its implementation until 2012.

In contrast to the United States, Europe has a long tradition of maternity leave, with the first programs enacted in Germany and Sweden at the end of the 19th century. These rights were initially linked to sick leaves, ranged between 4 and 12 weeks, with limited lump sum or flat rate payment benefits and no job protection.18 By World War I, 13 countries supplied paid maternity leave (and 8 more offered unpaid leave) and all major western European countries did so by the start of World War II. These policies were typically paternalistic in their concern for health of the child and mother, with at least some of the leave being compulsory, and often had a pronatalist and nationalistic orientation.

13Eileen Trcinski and William T. Alpert, “Pregnancy and Parental Leave Benefits in the United States and Canada,” *Journal of Human Resources*, 29, no. 2 (1994): 535-554. A distinction is often made between maternity leave occurring at or near the time of birth and parental leave which takes place subsequently. The single term parental leave is used to cover both types of time off work in most of the discussion below.

14The table excludes parental leave laws covering state employees only.

15Some individuals obtain paid leave from employers, even when such rights are not mandated, but this is uncommon: in 2008, just eight percent of private industry employees worked for companies providing paid family leave to some of their workforce (*Statistical Abstract of the United States: 2010*). Paid leave is also sometimes received on an informal basis or through the use of accrued vacation, sick leave, or personal leave.

16Sarah Fass, Paid Leave in the States: A Critical Support for Low-Wage Workers and Their Families, (New York: National Center for Children in Poverty, Columbia University), March 2009.

17This paragraph is based on information in Sarah Fass, Paid Leave in the States: A Critical Support for Low-Wage Workers and Their Families and Alex Stone, Paid Family Leave: U.S. Families Falling (Way) Behind the Rest of the World, (Washington: Washington Family Leave Coalition, June 25, 2010).

18This discussion is based on: Christopher J. Ruhm and Jackqueline L. Teague. “Parental Leave Policies in Europe and North America” in *Gender and Family Issues in the Workplace*, ed. Francine D. Blau and Ronald G. Ehrenberg (New York: Russell Sage Foundation, 1997), p. 133-156; Shiela B. Kamerman, “A Global History of Early Childhood Education and Care,” Background Paper Prepared for the Education for All Global Monitoring Report 2007: Strong Foundations: Early Childhood Care and Education, (Paris: UNESCO, 2006); Meryl Frank, and Robyn Lipner. 1988. “History of Maternity Leave in Europe and the United States” in *The Parental Leave Crisis Toward a National Policy*, ed. Meryl Frank and Robyn Lipner (New Haven: Yale University Press, 1988), p. 3-22; and Anne-Marie Brocas, Anne-Marie Cailloux and Virginie Oget, Women and Social Security: Progress Towards Equality of Treatment, (Geneva: International Labor Office, 1990).

After the end of World War II, eligibility for maternity leave was frequently widened, durations expanded and cash payments provided or enhanced.19 Since the 1960s, these policies have evolved from prohibitions on employing women before and after birth to job-protected time away from work to care for young children. Many nations previously mandating compulsory leaves added job-protection and have recently extended durations through the implementation of parental leave provisions available to mothers or fathers.20 This reflects a desire in many European countries for more gender-neutrality in leave policies.21 Such concerns are particularly salient since the take-up of extended leave durations, enacted during or before the 1990s, was almost exclusively by mothers, raising the possibility that the policies might have reduced rather than increased gender-equity.22

Current European parental leave policies exhibit substantial cross-country variation, but also common elements.23 Table 2 summarizes key characteristics of these systems showing: total duration (in months) of parental leave entitlements in 2008; leave exclusively provided to fathers; and the number of months of paid and highly paid leave, where the latter refers to time off work with at least two-thirds of earnings replaced.24

All European nations offer paid maternity leave, typically 14 to 20 weeks (sometimes subsumed into the broader parental leave system), with 70 to 100 percent of previous wages replaced. There are much larger disparities following the end of maternity leave. Three years or more of job-protected time off work are provided in Finland, France, Germany and Spain, with entitlements ranging between 1.5 and two years in Austria, Norway and Sweden. However, these long durations can be misleading because some countries (e.g., Austria, France and Spain) offer payment at high replacement rates for only a portion of the period, whereas others (e.g. Denmark and Italy) provide shorter leaves but at higher rates of pay.

Paternity leave is less common and of shorter duration. All but two of the 17 European nations in Table 2 provide fathers at least some time off work but replacement of at least two-thirds of previous earnings for three weeks or more is supplied in just five countries (Finland, Germany, Iceland, Norway, and Portugal); others offer only a few days of highly paid paternity leave (Greece and the Netherlands) or none at all (Austria, Ireland, and Italy).25 Where fathers take significant time off work, it is usually because countries provide non-

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[19]These expansions followed the 1952 revision of the International Labor Organization which called for: widening coverage to include women in non-industrial and agricultural occupations, extending maternity leave to 12 weeks (with at least 6 weeks after birth remaining compulsory), and providing cash payments of not less than two-thirds of previous earnings from social insurance or other public funds (not from the employer).

[20]European Union Council Directive 96/34/EC of June 3, 1996, requires EU members (except Great Britain) to provide at least three months of parental leave as an *individual right*, to mothers and fathers, with guaranteed return to the same or an equivalent job.

[21]Some changes are motivated by other considerations. For instance, the 2007 German replacement of a mean-tested parental leave benefit with depending on previous wages was designed to increase female labor force participation and fertility rates, particularly for high-income families (Katharina C. Spiess and Katharina Wrohlich, "The Parental Leave Benefit Reform in Germany: Costs and Labour Market Outcomes of Moving Towards the Nordic Model," *Population Research and Review*, 27, no. 5 (2008): 575-591).

[22]For example, fewer than one percent of Austrian fathers and one to two percent of German fathers used parental leave during the mid-1990s, compared to 96 percent of corresponding mothers; even in Finland, Norway and Sweden, where most men take some parental leave, the vast majority of total time off work was by women (Gwennaële Bruning and Janneke Plantenga. 1999. "Parental Leave and Equal Opportunities: Experiences in Eight European Countries," *Journal of European Social Policy*, 9, no. 3 (1999): 195-209).

[23]Western European nations are focused upon because they have the longest traditions of providing parental leaves. However, some innovations developed elsewhere, such as paid child-rearing leaves in Central and Eastern Europe.

[24]The leave durations do not reflect the extra entitlements available to limited groups (e.g. government workers or those covered under collective agreements) or additional time off for multiple births, medical complications, or in other situations (e.g. for second or later children). Leave restricted to men is separately broken out since benefits available to either parent almost always taken by women. There is often a maximum benefit, implying that less than two-thirds of wages are replaced for persons earning above this threshold. Some countries offer a limited period of leave at a high replacement rate or longer durations at lower pay. A portion of the leave is also often paid at a (typically low) flat rate.

[25]Longer paid work absences are often available to fathers if mothers choose not to take leave or explicitly transfer the entitlement to their husbands; however, this rarely occurs.

transferable leaves or offer "bonus" arrangements, where the total leave period is extended if some is used by fathers.

Leave payments are generally financed through payroll taxes or general government revenues, rather than directly by employers, consistent with ILO and European Union standards. This is motivated by the desire to spread the costs widely, so as not to burden specific employers, and to reduce the likelihood that companies discriminate against persons most likely to take leave. Employment history requirements are short – usually six months or less with the firm – although some countries require slightly longer periods of prior work or social insurance contributions to qualify for full benefits.[26]

Using the total number of months of highly paid leave as a summary indicator of leave rights, the greatest generosity – 9 to 15 months at high pay – is supplied by Germany and the five Nordic countries (Sweden, Norway, Denmark, Finland and Iceland. Conversely, Great Britain offers less than two months and eight nations (Austria, Belgium, France, Greece, the Netherlands, Spain, Switzerland, and Italy) provide about four months.[27]

Flexibility in the use of parental (but typically not maternity) leave is offered over a variety of dimensions including: being able to use the leave at any point until the child reaches a specified age; longer job absences at lower wage replacement rates or shorter but more highly paid leave; part-time work combined with partial leave payments; reduced work hours, specified breastfeeding breaks; and rights to refuse overtime or scheduling changes that conflict with family responsibilities.[28]

Canadian leave policies are of interest given the many institutions and traditions it shares with the U.S. (e.g. it operates as a federalist system with many province-level differences). Although just three provinces offered job-protected maternity leave in 1970, by 1981 all mandated rights to at least 15 weeks of leave; in 2008, the durations ranged from 52 to 54 weeks, except for the 70-week entitlement in Quebec.[29] Leave is currently paid at 55 percent of average insured earnings, up to a ceiling (more in Quebec). The first 15 to 18 weeks are maternity leave, reserved for mothers, while either parent can use the remainder. Leave is administered at the provincial (rather than national) level with benefits provided through the Employment Insurance (EI) system and financed by employee premiums. To qualify for leave, individuals must have worked at least 600 hours and paid EI premiums during the prior 52 weeks.

Canada provides lower wage replacement rates (particularly during maternity leave) and has stricter eligibility criteria than in much of Europe; however, the leave durations exceed those in nations such as Switzerland, the United Kingdom, Austria, Belgium and Ireland. Thus, in the European context, Canada is in the middle-tier in terms of benefits, while being unusual in administering these through the employment/unemployment rather than social insurance system.

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[26]Self-employed persons may have stricter qualification conditions or higher social insurance contribution rates and there are sometimes additional eligibility criteria for fathers.

[27]Similar results are obtained using an alternative calculation of the amount of "full-time equivalent paid leave by Rebecca Ray, Janet C. Gornick and John Schmitt, Parental Leave Policies in 21 Countries: Assessing Generosity and Gender Equity, (Washington D.C.: Center for Economic Policy Research, 2008).

[28]For additional details, see Peter Moss and Fred Deven, "Country Notes: Introduction and Main Findings" in Introduction to Country Notes" in Peter Moss (ed.), International Review of Leave Policies and Related Research 2009, p. 77-99; Rebecca Ray, Janet C. Gornick and John Schmitt, Parental Leave Policies in 21 Countries: Assessing Generosity and Gender Equity; and Ariane Hegewisch and Janet C. Gornick, Statutory Routes to Workplace Flexibility in Cross-National Perspective, (Washington D.C.: Institute for Women's Policy Research, 2008).

[29]For details see Michael Baker and Kevin Milligan, "How Does Job-Protected Maternity Leave Affect Mothers' Employment," *Journal of Labor Economics*, 26, no. 4 (2008) 655-691; Rebecca A. Ray, A Detailed Look at Parental Leave Policies in 21 OECD Countries.

The costs of parental leave are fairly modest. Expenses in the Nordic countries averaged 0.5 to 0.7 percent of GDP in 1998; those in other European nations ranged from less than 0.1 to 0.4 percent. These figures changed only slightly by 2002, despite increased generosity of the programs in some countries, to between 0.5 and 0.8 percent of GDP in the Nordic countries and 0.1 to 0.2 percent of GDP in seven other Western European nations (Austria, Germany, Ireland, the Netherlands, Portugal, Switzerland and the UK).30 These estimates suggest that substantial expansion of leave rights (including paid entitlements) in the United States would not be particularly expensive. As further evidence, the California paid leave program, is financed completely by employee payroll tax contributions that were capped at $64 per worker in 2005.31 Such costs are also small relative to other related social expenditures. For example, the United States spent 7.1 percent of GDP on education and the OECD average was 5.8 percent in 2005.32

2. Consequences of Parental Leave Policies

Governments enact parental leave entitlements to help parents balance the competing demands of work and family, improve the labor market status of women (including reducing the "family gap" in earnings), and to enhance child and maternal health and development. Some European nations also use these policies in an effort to increase gender equity and raise fertility.

Parental leave permits employees to take time off work after the birth or adoption of a child, without having to change jobs. As a result, such policies may increase job continuity and help parents retain use of skills or knowledge specific to the pre-birth employer. This potentially enhances productivity and may result in better long-term earnings and career advancement. Other potential benefits include lower stress due to reduced uncertainty about future employment. However, such results are by no means certain. For example, long leaves may cause human capital to depreciate, reducing productivity and wages. With extended entitlements, employers might be less likely to employ groups with high propensities to use leave or reduce the costs of these absences by cutting training.

Proponents of leave entitlements believe that these policies will also enhance the health and long-term development of children by providing parents more time to invest during the critical first years of life. Although the theoretical rationale for such benefits seems clear (notwithstanding the possibility that the gains could be offset if leave rights lower earnings) these issues are even more challenging to study, because potential benefits are difficult to measure in most large-scale data sets and may not strongly manifest until many years after birth. The remainder of this section describes the current state-of-knowledge on the consequences of parental leave policies, with attention again paid to evidence from Western Europe and Canada, as well as from the U.S.

Leave-Taking, Job Continuity and Employment

An explicit aim of leave policies is to increase the ability of parents to spend time at home with young children. Such efforts appear successful. Extensions of rights to highly-paid leave delay the post-birth reemployment of mothers. Data from a wide variety of countries – including Canada, Britain, Germany and Scandinavia – shows that many women return to jobs precisely when paid leave ends.33 Results for the shorter unpaid leaves offered in the

[30]Janet C. Gornick and Marcia K. Meyers, Families that Work: Policies for Reconciling Parenthood and Employment, (New York: Russell Sage Foundation, 2003); Nabanita Datta Gupta, Nina Smith and Mette Verner, "The Impact of Nordic Countries' Family Policies on Employment, Wages and Children," *Review of the Economics of the Household*, 6, no. 1 (2008): 609-629.
[31]Sarah Fass, Paid Leave in the States: A Critical Support for Low-Wage Workers and Their Families.
[32]*OECD Family Database* (www.oecd.org/els/social/family/database).

United States are more equivocal. Studies examining periods ending shortly after enactment of the FMLA, or prior state mandates, often find no change in leave-taking or small but statistically insignificant positive effects.34 However, recent research that better controls for the potentially endogenous enactment of leave policies and includes more current periods, indicates that leave entitlements increase time off work by mothers during the birth month and next two months, and are associated with a growth in *paternal* leave-taking during the birth month that is small in absolute size but large in percentage terms.35 These effects are concentrated among college-educated and married parents, with no apparent impact for less educated persons or single mothers – who less often qualify for or can afford to take unpaid leave.

Leave entitlements that are highly paid and of short or intermediate duration also appear to increase long-run employment. In a study using data from 1969 to 1993 for nine European countries, paid leave rights were associated with a 3 to 4 percent rise in female employment. 36 The estimated impact was similar for brief and more extended leaves, indicating that one mechanism may be increased in job continuity permitted by even relatively short leaves. Direct evidence from Canada and Britain shows that the enactment of fairly brief (17 to 18 week) paid entitlements enhance job continuity, with some effect found in the United States for even shorter (12-16 week) unpaid leaves.37

The effects of rights to extended parental leaves are less obvious, since the benefits of improved job continuity may be offset by depreciation of human capital during lengthy periods away from jobs. Data from the European study described above ended in 1993, when leave rights were often much shorter than those currently mandated, so that the results may not generalize to the consequences of more recent leave extensions.38 An analysis of Austrian reforms in 1990 (increasing paid leave from 12 to 24 months) and 1996 (reducing it to 18 months) did not uncover evidence of any long-term changes in employment, nor did a study of multiple changes in German leave policies.39 Such findings may be less relevant in the U.S. context, since it is difficult to imagine policy reforms resulting in entitlements that are of long, or even moderate, durations by European standards. U.S. research examining shorter (largely unpaid) leaves arrives at mixed conclusions. Two studies suggest that they are associated with small (sometimes statistically insignificant) increases in female

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[33]Marit Rønsen, and Marianne Sundström, “Family Policy and After-Birth Employment Among New Mothers – A Comparison of Finland, Norway and Sweden,” *European Journal of Population*, 18, no. 2 (2002): 121-152; Christian Dustmann, and Uta Schönberg, “The Effects of Expansions in Maternity Leave Coverage on Children's Long-Term Outcomes,” *IZA Discussion Paper no. 3605*, 2008; Simon Burgess, Paul Gregg, Carol Propper and Elizabeth Washbrook, “Maternity Rights and Mothers’ Return to Work,” *Labour Economics*, 15, no. 2 (2008) 168-201; Maria Hanratty and Eileen Trzcinski, “Who Benefits from Paid Leave? Impact of Expansions in Canadian Paid Family Leave on Maternal Employment and Transfer Income,” *Journal of Population Economics*, 22, no. 3 (2009) 693-711.

[34]Charles L. Baum, “The Effects of Maternity Leave Legislation on Mothers’ Labor Supply After Childbirth”; Wen-Jui Han and Jane Waldfogel, “Parental Leave: The Impact of Recent Legislation on Parent's Leave Taking,” *Demography*, 40, no. 1 (2000): 191-200.

[35]Wen-Jui Han, Christopher Ruhm and Jane Waldfogel,“Parental Leave Policies and Parents’ Employment and Leave-Taking,” *Journal of Policy Analysis and Management*, 28 no. 1 (2009): Winter, 29-54. The control group includes persons having children approximately one year in the *future*. Leave rights increase predicted maternal leave-taking by 5 to 9 percentage points (13 to 20 percent) in the birth month and next two months and paternal leave-taking by 3.9 percentage points (54 percent) in the birth month.

[36]Christopher J. Ruhm, “The Economic Consequences of Parental Leave Mandates: Lessons from Europe,” *Quarterly Journal of Economics*, 113, no. 1 (1998): 285-317.

[37]Michael Baker and Kevin Milligan, “How Does Job-Protected Maternity Leave Affect Mothers’ Employment,” *Journal of Labor Economics*, 26, no. 4 (2008): 655-691; Jane Waldfogel, “The Family Gap for Young Women in the United States and Britain: Can Maternity Leave Make a Difference,” *Journal of Labor Economics*, 16, no. 3 (1998): 505-545; Charles L. Baum, “The Effects of Maternity Leave Legislation on Mothers’ Labor Supply After Childbirth,” *Southern Economic Journal*, 69, no. 4 (2003): 772-799.

[38]For instance, in 1993 mothers were entitled to 28, 16, 14, and 42 weeks of paid leave in Denmark, France, Ireland, and Norway versus 48, 42, 26, and 90 weeks in 2008.

[39]Rafael Lalive and Josef Zweimüller, “How Does Parental Leave Affect Fertility and Return to Work: Evidence from Two Natural Experiments,” *Quarterly Journal of Economics*, 124, no. 3 (2009): 1363-1402; Uta Schönberg and Johannes Ludstek, “ Maternity Leave Legislation, Female Labor Supply, and the Family Wage Gap,” *IZA Discussion Paper no. 2699*, 2007. The latter study investigated German changes in paid leave from 2 to 6, 6 to 10, and 18-36 months occurring in 1979, 1986 and 1992.

employment, while a third argues that enactment of the FMLA led to reductions in the labor force participation of mothers with young children.40

Earnings

An important motivation for parental leave policies is to reduce the "family gap" in wages (the low earnings of mothers relative to childless females or males). One early investigation suggests that the family gap was largely eliminated in the United States and Great Britain for mothers of infants who utilized parental leave and then returned to their pre-birth employer.41 However, this study focused on leaves *voluntarily* provided by firms and so suffers from potential selection bias.42

Few U.S. studies examine how changes in leave entitlements affect earnings; those that do obtain mixed and generally inconclusive results.43 This may occur because the short mostly unpaid leave rights in the United States are too modest to have much impact. European investigations usually find either no effect or wage gains from short or moderate durations of paid leave. In the nine-nation study mentioned above, earnings were unaffected by rights to brief leaves but with a small wage small penalty for lengthy (beyond five or six month) entitlements.44 Conversely, the 1984 Danish leave expansion from 14 to 20 weeks, appears to have slightly raised mothers' earnings for several years after birth.45

Ambiguous evidence is also obtained from single country studies of rights to *lengthy* leaves. Research examining policy changes in Sweden, Germany, and Austria finds that women's wages are largely unaffected.46 Conversely, evidence from Denmark and (another study from) Germany suggests that human capital losses during the period away from work have lasting (but not necessarily permanent) negative effects on earnings and that employers may reduce the training provided to women of childbearing age, with potential long-term deleterious consequences.47 A related concern is that parental leave policies might increase occupational segregation and limit the advancement of women. Research on Sweden suggests that such concerns may be justified in the case of lengthy leave entitlements.48

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[40]Positive employment effects were found by Charles L. Baum, "The Effect of Sate Maternity Leave Legislation and the 1993 Family and Medical Leave Act on Employment and Wages," *Labour Economics*, 10, no. 5, (2003): 573-596; Wen-Jui Han, Christopher Ruhm and Jane Waldfogel,"Parental Leave Policies and Parents' Employment and Leave-Taking"; negative impacts by Natalie K. Goodpaster, Natalie K. "Leaves and Leaving: The Family and Medical Leave Act and the Decline in Maternal Labor Force Participation," B.E. Journal of Economic Analysis and Policy (Contributions), 10 no. 1 (2010), Article 6. The employment reductions are hypothesized to occur because some women on leave discover that they prefer being home with their young children to returning to work.

[41]Jane Waldfogel, "The Family Gap for Young Women in the United States and Britain: Can Maternity Leave Make a Difference," *Journal of Labor Economics*, 16, no. 3 (1998): 505-545.

[42]For instance, the family gap in Denmark is overestimated by failing to account for the self-selection of mothers into relatively low paid public-sector jobs (Helena Skyt Nielsen, Marianne Simonsen and Mette Verner. 2004. "Does the Gap in Family-Friendly Policies Drive the Family Gap," *Scandinavian Journal of Economics*, 106, no.4, (2004): 721-724).

[43]See Jane Waldfogel, "The Impact of the Family and Medical Leave Act," *Journal of Policy Analysis and Management*, 18, no. 2 (1999): 281-302; Charles L. Baum, "The Effect of State Maternity Leave Legislation and the 1993 Family and Medical Leave Act on Employment and Wages," *Labour Economics*, 10, no. 5, (2003): 573-596.

[44]Christopher J. Ruhm, "The Economic Consequences of Parental Leave Mandates: Lessons from Europe."

[45]Astrid W. Rasmussen, "Increasing the Length of Parents' Birth-Related Leave: The Effect on Children's Long-Term Educational Outcomes," *Labour Economics*, 17, no. 1 (2010): 91-100.

[46]James W. Albrecht, Per-Anders Edin, Marianne Sundström and Susan B. Vroman, "Career Interruptions and Subsequent Earnings: A Reexamination Using Swedish Data," *Journal of Human Resources*, 34, no. 2 (1999): 294-311; Christian Dustmann and Uta Schönberg, "The Effects of Expansions in Maternity Leave Coverage on Children's Long-Term Outcomes"; Rafael Lalive and Josef Zweimüller, "How Does Parental Leave Affect Fertility and Return to Work: Evidence from Two Natural Experiments".

[47]Nabanita Datta Gupta and Nina Smith, "Children and Career Interruptions: The Family Gap in Denmark," *Economica*, 69, no. 276 (2002): 609-29; Helena Skyt Nielsen, "Causes and Consequences of a Father's Child Leave: Evidence from a Reform of Leave Schemes," *IZA Discussion Paper no. 4267*, 2009; Patrick A. Puhani and Katja Sonderhof, "The Effects of Maternity Leave Extension on Training for Young Women," *Journal of Population Economics*, forthcoming.

Health and Development

Until recently, there have been few high quality analyses of whether parental leave yields health benefits, for mothers or children, or positively affects the longer-term developmental outcomes of the latter.49 However, the situation has begun to improve. One of the first studies using more sophisticated methods, examined data for 16 European nations, from 1969 to 1994 period, and found that paid parental leave entitlements were associated with decreases in infant and young child mortality, with the largest drops in post-neonatal deaths (those during the second through twelfth month of life), where parental involvement might be anticipated to have the strongest effect.50 The estimates suggest that mortality would be minimized by rights to around 40 weeks of paid leave, with little benefit from unpaid leave and smaller gains from longer paid entitlements. A follow-up study, that expanded the sample to 18 nations and the time period through 2000, obtained similar results, plus evidence of reductions in low-weight births.51

Parental leave might benefit child health because it increases breastfeeding. Such an effect was found from the 2000 extension of Canadian leave rights from around six months to one year.52 A related investigation shows that this leave expansion increased the time parents spent home and reduced non-parental child care, but with little consistent evidence of changes developmental outcomes at seven through 24 months of age.53 One U.S. analysis finds that return to work by mothers within 12 weeks of giving birth is associated with decreases in well-baby visits, breastfeeding and child immunizations, and with lower cognitive scores and more behavior problems at age four.54 A second shows that pre-FMLA state leave mandates raised maternity leave use by about one week and that this was associated with a drop in the mother's depressive symptoms and post-partum physician visits to address health problems.55

The availability of comprehensive administrative data for individuals starting at birth and sometimes continuing through adulthood has permitted particularly innovative research on how leave entitlements in Norway, Germany, Denmark and Sweden are related to child educational and subsequent labor market outcomes.56 The lengthy time periods such studies require imply that they do not generally consider the extremely long leaves presently provided in those countries. However, extensions of the somewhat shorter (albeit generally paid) time off work they do examine may be particularly relevant in the U.S. context. This

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[48]James Albrecht, Anders Björklund and Susan Vroman,“Is There a Glass Ceiling in Sweden?” *Journal of Labor Economics*, 21 no. 1, (2003): 145-177. “Glass ceiling” effects are hypothesized to manifest through larger gender differentials higher in the earnings distribution. No such differential existed in 1968 but one emerged by the early 1980s and strengthened in the 1990s, when parental leave rights were expanded. Occupational segregation also increased over time.

[49]Such research is reviewed in Katharina Staehelin, Paola Coda Bertea, and Elisabeth Zemp Stutz, “Length of Maternity Leave and Health of Mother and Child – A Review,” *International Journal of Public Health*, 52, no. 4, 2007: 202-209.

[50]Christopher J. Ruhm, Christopher J., “Parental Leave and Child Health,” *Journal of Health Economics*, 19, no. 6 (2000): 931-960.

[51]Sakiko Tanaka, “Parental Leave and Child Health in OECD Across Countries,” *Economic Journal*, 15, no. 501 (2005): F7-F28.

[52]Michael Baker and Kevin Milligan, “Maternal Employment, Breastfeeding, and Health: Evidence from Maternity Leave Mandates,” *Journal of Health Economics*, 27, no. 4 (2008): 871-887. They also provide evidence of reductions in asthma, chronic conditions, allergies and ear infections at 7 to 12 months but raise concern about the robustness of these findings.

[53]Michael Baker and Kevin Milligan, “Evidence from Maternity Leave Expansions of the Impact of Maternal Care on Early Child Development” *Journal of Human Resources*, 45, no. 1 (2010): 1-32.

[54]Lawrence Berger, Jennifer Hill and Jane Waldfogel, “Maternity Leave, Early Maternal Employment and Child Health and Development in the US,” *Economic Journal* 115, no.501. (2005): F29-F47. These results suggest but do not explicitly test for effects of leave.

[55]Pinka Chatterji and Sara Markowitz, “Does the Length of Maternity Leave Affect Maternal Health,” *Southern Economic Journal* , 72, no. 1 (2005): 16-41.

[56]Pedro Carneiro, Kartine Løken and Kjell G. Salvanes, “A Flying Start? Maternity Leave and Long-term Consequences of Time Investments in Infants in Their First Year of Life,” mimeo, University College London, March 2010; Dustmann, Christian and Uta Schönberg, “The Effects of Expansions in Maternity Leave Coverage on Children's Long-Term Outcomes”; Qian Liu and Oskar Nordström Skans, “The Duration of Paid Parental Leave and Children's Scholastic Performance,” *B.E. Journal of Economic Analysis and Policy* (Contributions), 10, no. 1 (2010), Article 3; Rasmussen, Astrid W. 2010. “Increasing the Length of Parents’ Birth-Related Leave:The Effect on Children's Long-Term Educational Outcomes”.

research typically finds either no effect or modest benefits of parental leave on long-run school performance, educational attainment, or subsequent labor market outcomes.

Fertility

Parental leave entitlements have also sometimes been expanded in hopes of raising fertility or slowing its decline. Evidence from the Scandinavian countries and Austria suggests that these efforts meet with some success.[57] Increased fertility is probably less desirable in the United States, given its higher birth rates and relatively rapid population growth. However, the relatively modest leave entitlements that might be realistically considered for this country would be unlikely to have much effect.[58]

Overall Assessment

A reasonable reading of the existing research is that U.S. policies establishing rights to short unpaid leaves have probably modestly raised time at home with infants and slightly increased the job continuity of mothers, probably with small but positive long-run consequences. Parental leave expansions (that are not extremely long) are also generally associated with either no effect or slight increases in the relative earnings of mothers, as well as gains in maternal and child health and longer-term outcomes for children. However, the size of these benefits is difficult to ascertain because of formidable challenges in estimating causal effects, potential differences across specific policies, and the likelihood that leave rights are only one among many types of work-family policies. It seems likely that moderate extensions of existing U.S. leave entitlements (up to several months in duration), with or without pay, would yield further benefits for both mothers and children. Lengthy paid leaves are much less likely to be implemented in the United States and the consequences of doing so would be less certain. In particular, rights to take a year or more off work may well be associated with reductions in maternal earnings and possibly with increased occupational segregation, as employers try to limit that adjustment difficulties associated with supplying lengthy leaves.

3. Early Childhood Education and Care (ECEC)

The supply and financing of ECEC services in the United States is primarily a private responsibility and presents formidable challenges to many families. In 2005, 63 percent of U.S. children under the age of five received care from someone other than the “designated parent” (usually the mother), most commonly in day care centers or preschools (35 percent), from grandparents (23 percent), or in informal settings such as in the provider or child's home (13 percent); multiple arrangements were used for around 17 percent of children, which itself suggests the balancing act engaged in by many parents.[59] Non-parental care is closely linked to maternal employment. Almost 90 percent of children with employed mothers received care from someone else (although fathers were the primary caregivers about one-sixth of the time) with multiple arrangements used for 25 percent. Preschool-aged children averaged about 19 hours per week in care if their mother did not work versus 35 hours weekly if she did.

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[57] Anders Björklund, Anders, “Does Family Policy Affect Fertility,” *Journal of Population Economics*, 19, no. 1 (2006): 3-24; Nabanita Datta Gupta, Nina Smith and Mette Verner, “The Impact of Nordic Countries’ Family Policies on Employment, Wages, and Children,” *Review of the Economics of the Household*, 6, no. 1 (2008): 65-89; Rafael Lalive and Josef Zweimüller, “How Does Parental Leave Affect Fertility and Return to Work: Evidence from Two Natural Experiments”.

[58] Higher fertility in Sweden and Austria largely result from a “speed premium”, where having an additional child during the original period of leave extends its duration. Leaves in excess of one year are required to allow for such strategic behavior.

[59] Lynda Laughlin, “Who's Minding the Kids? Child Care Arrangements: Spring 2005/Summer 2006,” *Current Population Reports*, P70-121, (Washington: U.S. Census Bureau, August 2010).

In 1999, families spent an average of 4.9 percent of their after-tax (and transfer) income caring for children under the age of six.60 One reason this amount was not larger is that 63 percent incurred no child care expenses because they did not use non-parental care, used only free or low-cost modes (like relatives) or, less commonly, received subsidies for formal care. On the other hand, 10 (5) percent of such families devoted at least one-sixth (one-quarter) of their income to child care. The expenditure share was twice as large for sole-parent than two-parent households (7.9 versus 3.9 percent). It fell with income, but not by as much as might be expected (from 6.2 to 4.4 percent for the bottom to top income decile) for three reasons. First, families with nonemployed parents have lower incomes but also use less paid care. (However, high child care costs may provide one reason why the parent does not work). Second, poorer families more often use free or cheap modes of nonparental care and pay lower rates within modes. Finally, low-income parents are more likely to receive subsidized care.

The federal government has played a limited but gradually increasing role in supporting early childhood education and care. Probably best known is *Head Start*, which has operated since 1965 to provide compensatory education and other services to low-income (primarily below poverty line or receiving welfare assistance) and disabled pre-school children.61 In fiscal year 2009, $7.1 billion was appropriated to the program, which served 904,000 children – mostly 3 or 4 years old (87 percent) but 10 percent are younger than three and enrolled in Early Head Start, which began in 1994. Four-fifths of program costs are paid directly to local public and private service providers, with the remainder taking the form of local match or in-kind contributions. Services can be full-time or part-time. However, Head Start serves a small fraction of those economically eligible suggesting that its reach is limited, even among the low-income population.62

The Child Care Development Fund (CCDF) is largest federal program providing child care subsidies. Formally implemented in 1996, the CCDF consolidated several previously existing child care programs. It grew rapidly through 2003 but with relatively stable nominal funding (and so falling in real terms) since then. In fiscal year 2006, program expenditures totaled around $9 billion of which $5 billion came from direct Federal appropriations, around $2.2 billion from required State matching funds, and $1.9 billion from State transfers from the Temporary Assistance for Needy Families (TANF) block grant.63 CCDF funds can be used for children up to 13 years old but around 66 percent are received by those six or under. Subsidies cannot be obtained by children in families whose income exceeds 85 percent of the State median income; in practice the actual thresholds are usually considerably lower (e.g. ≤55 percent of median income in 25 states). The program serves around 1.7 million children per month, or about 20 percent of the income-eligible. Parents have substantial choice regarding the setting in which subsidized care occurs: 57 percent used center-based care, in FY 2006, 29 percent family daycare, with most of the rest cared

60Dan T. Rosenbaum and Christopher J. Ruhm, “Family Expenditures on Child Care,” *B.E. Journal of Economic Analysis and Policy* (Topics), 7, no. 1 (2007), Article 34.

61Except where noted, the information on government programs in this section is from: Green Book, 2008: Background Material and Data on Programs Within the Jurisdiction of the Committee on Ways and Means, (Washington: Committee on Ways and Means, 2009), http://waysandmeans.house.gov/singlepages.aspx?NewsID=10490. Additional information on Head Start was obtained from Administration for Children and Families, “Head Start Program Fact Sheet Fiscal Year 2010” (http://eclkc.ohs.acf.hhs.gov/hslc/Head%20Start%20Program/Head%20Start%20Program%20Factsheets/fHeadStartProgr.htm) and Melinda Gish, “Head Start: Background and Issues” *CSR Report for Congress RL30952* (Washington D.C.: Congressional Research Service, updated January 9, 2006).

62Using FY 2009 enrollment figures from Administration for Children and Families, “Head Start Program Fact Sheet Fiscal Year 2010” and estimates of the economically eligible population in 2004, from Melinda Gish, “Head Start: Background and Issues”, I estimate that the program served 47 percent of income-eligible three and four year olds and 3 percent of income eligible children below age three in fiscal year 2009.

63States are permitted to transfer up to 30 percent of their TANF block grant to CCDF and can directly spend TANF funds on child care. In 2006, they allocated around $1 billion for the latter.

for in their own home or that of another family. Eighty-nine percent of subsidies take the form of vouchers or cash. States are allowed to establish payment rates (within Federal guidelines) and most families pay for a portion of the care on a sliding basis.

A second much smaller source of federal subsidies is the Social Services Block Grant (SSBG). Forty-one states provided child care subsidies in 2006 under this program, primarily to low-income families but appropriations have been falling, with only around $180 million allocated to daycare in that year.64

A substantial share of preschool-age children in low income families have access to subsidized child care through one of the aforementioned programs – 51 percent of poor and 28 percent of income-eligible (for CCDF subsidies) non-poor 0-5 year olds received subsidized care through the CCDF, TANF or SSBG programs in 2005.65 These estimates do not include enrollments in Head Start or State pre-Kindergarten program. However, coverage rates fall rapidly for families with incomes above the poverty level and the required copayments imply that even those subsidized often devote a substantial portion of their incomes to child care.66 Also, with the exception of Head Start, the care need not have an explicit educational orientation, even for children approaching the age of formal school entry.

States have attempted to fill some of these gaps through pre-kindergarten (pre-K) programs. Thirty-eight states provided such services, in 2008-2009, to over one million 4-year olds and 150,000 3-year olds (25.4 and 3.7 percent of these age groups).67 The programs mostly serve low or moderate income children and average spending levels are modest ($4,100 per student annually in 2009 compared to $8,400 for Head Start) and have declined somewhat, adjusting for inflation, during the last decade. The percentage of three and four year olds served has trended upwards (from 3 and 14 percent of these age groups in 2002) but this growth has recently slowed or reversed in many states. Services can be received in a variety of venues, with about one-third of children in private programs. Pre-K is typically received five days per week during the academic year but with substantial local variation – facilities operate less than five days per week in around one-third of states. Most children attend pre-K for two to four hours per day, although “full-day” (6-7 hours) programs are an option in some states and standard in others. However, even in these cases, most employed parents will need to use additional care arrangements.68

Tax policies assist to some families in paying for child care. Employed parents could use the *Child and Dependent Care Tax Credit* to receive a tax credit for between 20 and 35 percent of up to $6,000, in 2009, of expenses to care for two or more children 12 and under ($3,000 for one child).69 However, the tax credit is non-refundable, limiting the benefit to low income families, and the percentage of expenses credited begins to phase out at $15,000 and

64A few states have implemented at-home infant care programs subsidizing low-income parents providing child care in the home (see: National Partnership for Women & Families, “At-Home Infant Care (AHIC): A Side-by-Side Comparison of Federal and State Initiatives (10-05), www.nationalpartnership.org/site/DocServer/AHICchartOct05.pdf?docID=1048).

65“Child Care Eligibility and Enrollment Estimates for Fiscal Year 2005,” *ASPE Issue Brief*. (Washington: Office of the Assistant Secretary for Planning and Evaluation, July 2008.)

66The average family receiving CCDF benefits paid 4.7 percent of their income for subsidized child care services in FY 2006.

67In addition, 319,000 three and four year olds received special education services. Information in this paragraph is from: W. Steven Barnett, Dale J. Epstein, Allison H. Friedman, Rachel A. Sansanelli and Jason T. Hustedt, *The State of Preschool, 2009*, (New Brunswick, NJ: National Institute for Early Education, Rutgers University, 2009).

68Also deserving mention is the U.S. Department of Defense child care program, the nation's largest employer-sponsored child care system, which has been transformed from a low quality program to one viewed as a national model for providing high quality care (Lucan, M.A., “The Military Child Care Connection,” *The Future of Children*, 11, no. 1 (2001), 128-133).

69Internal Revenue Service, Child and Dependent Care Expenses: For Use in Preparing 2009 Returns, Publication 503, 2009, http://www.irs.gov/pub/irs-pdf/p503.pdf.

is at the minimum (20 percent) rate for families with adjusted gross incomes of $43,000 or more.

Alternatively, up to $5,000 can be tax-sheltered for persons in companies with flexible spending accounts. These provisions tend to provide the greatest benefits to high-income families, who have the largest marginal tax rates and probabilities of being offered flexible spending plans. Families must generally choose between the child care tax credit or flexible spending plans, because income sheltered through the latter must be excluded when calculating the tax credit.

The average quality of child care in the U.S. is not high. Evaluation of the process quality of care received in nine states revealed that just 9 percent of 15-36 month old children (observed between 1996 and 1999) generally received positive caregiving, while 61 percent rarely or never did.70 A 1993-94 study of 749 classrooms in 401 child care centers indicated that process quality in 12 percent of centers was so low as to only partially meet basic health and safety needs, with mediocre quality in an additional 74 percent; only 14 percent of centers supplied high quality care and just eight percent of infants and toddlers were in classrooms where the care was rated as high quality.71 This low process quality is accompanied by, and almost certainly related, to the generally poor results found when examining structural outcomes like group size, child-staff ratios and caregiver training and pay.72

A Cross-National Perspective

ECEC arrangements in the comparison nations, while heterogeneous, can often be usefully separated into the periods before and after the third birthday.73 In the earliest years, emphasis is typically on care, health and safety. Depending on the country, this may occur in formal modes (childcare centers or crèches) or informal settings (family daycare, relative care, or play groups). Starting at age three, educational skills receive more emphasis, often in preschools, and institutional responsibility for care usually shifts from the social insurance to educational system. Public provision and payment generally becomes nearly universal at some point during this later period, although financial participation by families is still often required.

Tables 3 and 4 provide descriptive information on care arrangements, costs and financing. Somewhat exceptional is the Nordic countries use of an integrated and nearly universal ECEC system, where care starts after the end of parental leave (generally around age one or two) and continues with an increasingly educationally oriented component until a relatively late (7-year old) school entry. ECEC spending is high in these countries –around one percent of GDP for children aged 0 to 5 in Denmark, Iceland and Sweden – with especially large

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[70]National Institute for Child Health and Human Development (NICHD) Early Child Care Research Network, “Characteristics and Quality of Child Care for Toddlers and Preschoolers,” *Applied Developmental Science*, 4, no. 3 (2000): 116-135.

[71]Suzanne W. Helburn (ed.), Cost, Quality and Child Outcomes in Child Care Centers: Technical Report, (Denver, CO: Center for Research in Economic and Social Policy, University of Colorado, 1995). These results overestimate the overall quality of care if centers eligible for but did not participating in the study had lower than average quality.

[72]In addition to the studies mentioned in the previous note, see Deborah Lowe Vandell and Barbara Wolfe, “Child Care Quality: Does it Matter and Does It Need to Be Improved?,” Institute for Research on Poverty Special Report no. 78 (Madison, University of Wisconsin-Madison, 2000); David M. Blau, *The Child Care Problem: An Economic Analysis* (New York: Russell Sage Foundation, 2001).

[73]This section is based on: Janet C. Gornick and Marcia K. Meyers, Families that Work: Policies for Reconciling Parenthood and Employment, Chapter 7, (New York: Russell Sage Foundation, 2003), p. 185-235; Starting Strong II: Early Childhood Education and Care. (Paris: Organization for Economic Cooperation and Development, 2006); Jérôme de Henau, Daniéle Meulders and Síle O'Dorchai, “Parents’ Care and Career: Comparing Public Childcare Provision” in *Social Policies, Labour Markets and Motherhood*, ed. Daniela Del Boca and Cécile Wetzels (Cambridge: Cambridge University Press,in 2007), p. 28-62; Eurydice, Tackling Social and Cultural Inequalities Through Early Childhood Education and Care in Europe (Brussels: European Commission). For historical perspective see Shiela B. Kamerman, “A Global History of Early Childhood Education and Care”.

expenditures during the first three years of life. One reason is that care facilities are open long hours – around eleven hours per day, year-round. Another is that these nations have the most highly trained childcare workers, with a university degree usually required. By contrast, training levels are typically lower in other countries for infant and toddler caregivers than for those caring for older children in preschool settings. France, Belgium and Italy provide fewer services during the first three years but formal care becomes nearly universal and extensive by age three.

Gender roles in continental countries –like Germany, Austria and the Netherlands – are fairly traditional in that mothers provide a large majority of care to young children. As a result, relatively few infants or toddlers are regularly placed in non-parental settings, particularly in formal modes, and when this is done it is for relatively few hours. Public ECEC spending is therefore limited during the first three years but becomes more generous thereafter. Universal entitlements to preschool begin at age three or four but the programs are often only part-day, or involve long (two-hour) lunch breaks or closures on some weekday afternoons, making it difficult for parents to work full-time without alternative sources of care.

Care arrangements during the first three years of life are often integrated with parental leave rights, such that lengthier leaves imply less extensive use of nonparental care. For example, Finland combines long durations of highly paid parental leave with minimal support for publicly financed early child care, whereas Denmark provides shorter leave but higher rates of child care coverage. Figure 1 further illustrates how lengthy paid leaves are typically associated with reductions in formal care utilization and increased (exclusive) reliance on parents for regular child care.[74]

The U.S. system is most similarly to other Anglo-Saxon nations (like Great Britain, Ireland and Canada) and Switzerland that rely on private market-driven decentralized child care for much of the preschool period. Entitlements to universal early education occur relatively late and three or four year olds are comparatively infrequently placed in formal care. Public ECEC spending is limited in these countries, particularly during the first three years, with (narrowly focused) tax deductions or credits playing a more prominent role.[75] One consequence is that the net cost to parents of placing two and three year olds in formal care is high (see the last two columns of Table 4). However, Great Britain, and to a lesser extent some of the other countries, are moving towards the more typical European system where educationally-oriented preschool is common and inexpensive beginning around age three.

ECEC in the U.S. remains distinctive in at least two ways. First, public investment during the first three year of life is smaller, in absolute terms or as a percentage of GDP, than in any of the comparison countries (the most similar being Germany and the Netherlands). Second, the United States has the lowest enrollment in formal care by five year olds and among the smallest for four year olds, suggesting continuing challenges for many working families during these years, as well as possible negative consequences for children not receiving educationally-oriented care at these ages.

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[74]An extra week of paid leave decreases the predicted use of informal care by a statistically insignificant 0.5 percentage points and raises parent-only care by a significant 1.2 points.

[75]For additional details see: de Henau, Daniéle Meulders and Síle O'Dorchai, “Support for Market Care: Comparing Comparing Child Care and Tax Systems” in *Social Policies, Labour Markets and Motherhood*, ed. Daniela Del Boca and Cécile Wetzels (Cambridge: Cambridge University Press, 2007), p. 107-151; *Benefits and Wages 2007: OECD Indicators* (Paris: Organization for Economic Cooperation and Development, 2007).

Employment Consequences

A large body of U.S. research has examined how child care prices influence the employment rates and (less often) work hours of mothers. Virtually all studies indicate that higher prices reduce labor supply, although the predicted magnitudes differ substantially. Two reviews of research conducted prior to 2000 suggest that child care cost elasticities of maternal employment range from 0 to slightly over -1.0, with the most credible estimates varying between -0.1 and -0.5.76 This uncomfortably wide range of predicted effects reflects the difficulties in adequately accounting for the choice of preferred child care modes (which may include cheap or free sources of informal care) and of nonrandom selection into child care use and employment.

Research undertaken during the last decade, which frequently examines the post-welfare reform period, continues to provide disparate estimates of child care cost elasticities, within the range discussed above. Nevertheless, almost all studies indicate that lower child care costs promote maternal work, particularly full-time employment, especially for single mothers and those with young children or relatively high child care expenses.77 Research for other countries also typically finds a negative relationship between child care prices and maternal employment, although with small effects where non-parental day care at young ages is extremely common.78

The aforementioned investigations may not fully indicate the effects of direct government subsidies, since families may treat these differently from other sources of child care cost reductions.79 Analyses of child care subsidies focused on low-income families during the pre-welfare reform era indicate positive but again often widely varying and small employment effects.80 However, subsidies provided after welfare reform appear to have large effects, particularly for the low-income (usually single-parent) families they target. In particular, the probability that single mothers work and utilize center-based care rises while rates of non-employment or employment combined with the use of informal child care falls. 81 Public ECEC funding also increases maternal employment outside the United States. An analysis of 19 OECD countries predicts that raising public child care expenditures from the sample average to the level in Denmark – the highest of the nations analyzed – would increase the labor force participation rates of 25-54 year old women by 4.4 percentage points, from a base of 76.4 percent.82

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[76]Patricia M. Anderson and Phillip B. Levine, "Child Care and Mothers' Employment Decisions" in *Finding Jobs: Work and Welfare Reform*, eds. David Card and Rebecca M. Blank (New York: Russell Sage Foundation, 2000), p. 420-462; David M. Blau, "Child Care Subsidy Programs" in Means-Tested Transfer Programs in the United States, ed. Robert A. Moffitt (Chicago: University of Chicago, 2003), p. 443-516. Higher child care costs also decrease work hours, conditional on employment, but probably by a smaller amount.

[77]Rachel Connelly and Jean Kimmel, "The Effect of Child Care Costs on the Employment and Welfare Recipiency of Single Mothers," *Southern Economic Journal*, 69, no. 3 (2003), 498-519; Erdal Tekin, "Childcare Subsidies, Wages, and the Employment of Single Mothers,", *Journal of Human Resources*, 42, no. 2 (2007), 453-486; Chris M. Herbst, "The Labor Supply Effects of Child Care Costs and Wages in the Presence of Subsidies and the Earned Income Tax Credit," *Review of Economics of the Household*, 8, no. 2 (2010), 199-230.

[78]For instance, price reductions for publicly provided care implemented in Sweden in 2002 and 2003 led to small or no increases in employment for mothers of one to nine year olds (Daniela Lundin, Eva Mörk, and Björn Öckert, "How Far Can Reduced Childcare Prices Push Female Labour Supply," *Labour Economics*, 15, no. 4 (2008), 647-659).

[79]This may occur for several reasons. Costs may be low in areas where wages or labor market conditions are depressed, muting the observed child care price elasticities. Families may view subsidies as direct encouragement to use child care and so respond more than for other price changes. Public provision of ECEC may provide some guarantee of quality and reduce transaction costs of using it.

[80]See Patricia M. Anderson and Phillip B. Levine, "Child Care and Mothers' Employment Decisions" and David M. Blau, "Child Care Subsidy Programs" in Means-Tested Transfer Programs in the United States for reviews of this research.

[81]Erdal Tekin, "Child Care Subsidy Receipt, Employment, and Child Care Choices of Single Mothers," *Economics Letters*, 89 no. 1 (2005), 1-6; Chris M. Herbst, "The Labor Supply Effects of Child Care Costs and Wages in the Presence of Subsidies and the Earned Income Tax Credit".

[82]Florence Jaumotte, "Labour Force Participation of Women: Empirical Evidence on the Role of Policy and Other Determinants in OECD Counties," *OECD Economic Studies*, no. 37 (2003/2), June 2004, 51-108.

Universal ECEC entitlements also appear to raise maternal labor supply in many situations. Two innovative U.S. studies find that the availability of public kindergarten strongly increased the employment of single mothers whose youngest child was five years old (and so eligible for kindergarten) but with weaker or nonexistent effects for married women or unmarried females who also had younger children.83 Quebec's implementation of almost free ($5 per day) child care for one-to-four year olds, between 1997 and 2000, led to a 13-14 percent rise in the employment of mothers with children of this age.84

However, ECEC service expansions, particularly those aimed at younger children, may not always have this effect. The provision of free pre-kindergarten services to four year olds in Georgia and Oklahoma had little impact on maternal employment; nor did a Norwegian reform, during the mid-1970s, that dramatically increased the availability of heavily subsidized child care slots for three to six year olds.85 In both cases, public subsidies may have "crowded out" the use of informal care. Whether or not this is desirable depends on relative costs and benefits of different modes of ECEC.

Child Health and Development

The consequences of ECEC policies for related to child health, cognitive and social development cannot be completed separated from those of parental leave policies or early parental employment. For this reason, the discussion below largely abstracts from the infancy period, where most studies suggest negative consequences of maternal job-holding or long work hours.86 Although the related literature is too vast to be fully described, an overall conclusion is that the quality of care matters. Put simply, high quality care mitigates any negative effects and enhances positive consequences of ECEC.87 At one extreme, favorable short-run and long-term effects have been obtained from expensive, high-quality, and comprehensive "model" interventions aimed at disadvantaged children – such as the Carolina Abecedarian Project or Perry Preschool Project. Since these are unlikely to be replicated in broad nationwide or state-level interventions, they are not elaborated upon.

Formal ECEC received immediately before kindergarten appears to promote school readiness. Children, particularly those who are disadvantaged, attending prekindergarten in

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83Jonah B. Gelbach, "Public Schooling for Young Children and Maternal Labor Supply," *American Economic Review*, 92, no. 1 (2002), 307-322, uses quarter-of-birth as an instrument for kindergarten enrollment. Elizabeth Cascio, "Maternal Labor Supply and the Introduction of Kindergartens into American Public Schools," *Journal of Human Resources*, 44, no. 1 (2009), 140-169, exploits differences in the timing of the introduction of state funding for kindergarten. Gelbach also finds that Head Start availability also increases employment.

84Pierre Lefebvre and Philip Merrigan, "Child-Care Policy and the Labor Supply of Mothers with Young Children: A Natural Experiment from Canada," *Journal of Labor Economics*, 26, no. 3 (2008), 519-548; Michael Baker, Jonathan Gruber and Kevin Milligan, "Universal Child Care, Maternal Labor Supply and Family Well-Being," *Journal of Political Economy*, 116, no. 4 (2008), 709-745. The greatest subsidy increases occurred at middle and high incomes, since the poor were eligible for subsidies before implementation. Hours and annual weeks of work also rose.

85Maria Donovan Fitzpatrick, "Preschoolers Enrolled and Mothers at Work? The Effects of Universal Prekindergarten," *Journal of Labor Economics*, 28, no. 1 (2010), 51-84; Tarjei Havnes and Magne Mogstad, "Money for Nothing? Universal Child Care and Maternal Employment," *IZA Discussion Paper no. 4504*, 2009.

86For example: Christopher J. Ruhm, " Parental Employment and Child Cognitive Development," *Journal of Human Resources*, 39, no. 1 (2004): 155-192; Jennifer Hill, Jane Waldfogel, Jeanne Brooks-Gunn and Wen-Jui Han, "Towards a Better Estimate of Causal Links in Child Policy: The Case of Maternal Employment and Child Outcomes," *Developmental Psychology*, 41, no. 6 (2005): 833-850; Raquel Bernal and Michael P. Keane, "Quasi-Structural Estimation of a Model of Childcare Choices and Child Cognitive Ability Production," *Journal of Econometrics*, 156, no. 1 (2010): 164-189. More neutral results were obtained by Jeanne Brooks-Gunn, Wen-Jui Han and Jane Waldfogel, "First-Year Maternal Employment and Child Development in the First Seven Years," Monographs of the Society for Research in Child Development, 75, no. 2 (2010).

87Much of the information in this section comes from: David Blau and Janet Currie, "Pre-School, Day Care, and After School Care: Who's Minding the Kids?" in *Handbook of the Economics of Education, Volume 2*, ed. Eric A. Hanushek and Finis Welch (New York: North Holland, 2006), p. 1163-1278; Jane Waldfogel, *What Children Need*, (Cambridge, MA: Harvard University Press, 2006), chapter 3, p. 81-125; Douglas Almond and Janet Currie, "Human Capital Developments Before Age 5," National Bureau of Economic Research Working Paper no. 15827, March 2010; National Institute of Child Health and Human Development, The NICHD Study of Early Child Care and Youth Development: Findings for Children Up to 4 ½ Years, NIH Pub. no. 05-4318, 2006.

the year before formal schooling arrive with better math and reading skills, although some of these gains may be transitory or offset by later compensatory education targeting less prepared children.88 However, early center-based care also predicts somewhat higher rates of behavior problems in the late toddler years and at school entry.89 More generally, formal day care earlier in life may have less beneficial effects, particularly when long hours of such care are received at very young ages.90

ECEC has mixed and generally modest effects on child health and safety. Early exposure to nonparental care (i.e. in the first two years of life) increases the risk of infectious diseases, particularly respiratory ailments, but this may confer some subsequent protection from allergies and asthma (because exposure to microorganisms stimulates immune system responses).91 On average, children are also safer in child care settings than at home and Head Start participation is associated with better dental care and overall health, as well as reductions in obesity.92

Research on other countries indicates diverse consequences of establishing or expanding formal child care programs. The previously described provision of almost free universal care to preschool-age children in Quebec was associated with increased behavior problems among two and three year olds.93 However, no corresponding behavioral effects were found for most Danish 3-year olds enrolled in preschools (but with some deleterious consequences for those in family day care).94 Finally, expansion of highly subsidized formal child care in Norway, during the 1970s, may have increased completed education and earnings at 30 to 33 years of age.95 Such disparities might reflect heterogeneous quality and age effects. Expensive and presumably high quality care was provided in the two Scandinavian countries, whereas the Quebec expansion largely consisted of (probably lower quality) home-based care, often supplied to very young children.

88Katharine Magnuson, Christopher Ruhm and Jane Waldfogel, "Does Prekindergarten Improve School Preparation and Performance," *Economics of Education Review*, 26, no. 1 (2007): 33-51; Katherine Magnuson, Christopher Ruhm and Jane Waldfogel, "The Persistence of Preschool Effects: Do Subsequent Classroom Experiences Matter," *Early Childhood Research Quarterly*, 22, no. 1 (2007): 18-38.

89NICHD Early Child Care Research Network, "Does the Amount of Time Spent in Child Care Predict Socioemotional Adjustment During the Transition to Kindergarten?" *Child Development*, 74, no. 4 (2003): 976-1005; NICHD Early Child Care Research Network, "Type of Child Care and Children's Development at 54 Months," *Early Childhood Research Quarterly*, 19, no. 2 (2004): 203-220; Katharine Magnuson, Christopher Ruhm and Jane Waldfogel, "Does Prekindergarten Improve School Preparation and Performance"; Susanna Loeb, Margaret Bridges, Daphna Bassok, Bruce Fuller and Russell W. Rumberger, "How Much is Too Much? The Influence of Preschool Centers on Children's Social and Cognitive Development," *Economics of Education Review*, 26, no. 1 (2007): 52-66. These results do not apply to the intensive model interventions, for which evidence of benefits has been obtained.

90Jay Belsky, "Early Child Care and Early Child Development: Major Findings of the NICHD Study of Early Child Care," *European Journal of Developmental Psychology*, 3, no. 1 (2006): 95-110 and the references contained therein supply extensive discussion of these issues. However, Duan Peng and Philip Robins, "Who Should Care for Our Kids? The Effects of Infant Child Care on Early Child Development," *Journal of Children and Poverty*, 16, no. 1 (2010): 1-45, uncover beneficial effects of non-parental care for disadvantaged infants.

91For details see Marcia, Meyers, Dan Rosenbaum, Christopher Ruhm and Jane Waldfogel, "Inequality in Early Childhood Education and Care: What Do We Know?" in *Social Inequality*, ed. Kathryn M. Neckerman (New York: Russell Sage Foundation, 2004), p. 223-269.

92Janet Currie and Matthew Neidell, "Getting Inside the 'Black Box' of Head Start Quality: What Matters andWhat Doesn't," *Economics of Education Review*, 26, no. 1 (2007): 83-99; Janet Currie and V. Joseph Hotz, "Accidents Will Happen? Unintentional Injury, Maternal Employment and Child Care Policy," *Journal of Health Economics*, 23, no. 1 (2004): 25-59; David E. Frisvold and Julie C. Lumeng, "Expanding Exposure: Can Increasing the Daily Duration of Head Start Reduce Childhood Obesity?" *Journal of Human Resources*, forthcoming.

93Michael Baker, Jonathan Gruber and Kevin Milligan, "Universal Child Care, Maternal Labor Supply and Family Well-Being."

94Nabanita Datta Gupta and Marianne Simonsen, "Non-Cognitive Child Outcomes and Universal High Quality Child Care," *Journal of Public Economics*, 94 no. 1-2 (2010): 30-43.

95Tarjei Havnes and Magne Mogstad, "No Child Left Behind: Universal Child Care and Children's Long-Run Outcomes," Statistics Norway Research Department Discussion Paper #582, 2009.

Overall Assessment

There is more uncertainty about the overall effects of ECEC policies than for those related to parental and maternity leave. One reason for this is because the policies themselves are so diverse, providing substantial variation in the types of services provided or subsidized, the ages of the children covered, and the modes in which the care occurs. A second is because it is difficult to know which outcomes are of key interest (e.g. cognitive test scores at school entry versus long-term educational and developmental outcomes) and to accurately measure them. That said, it seems clear that new U.S. efforts to cut the cost or increase the availability of ECEC services would make it easier for mothers to work, although the size of the response is uncertain and probably dependent on the specific changes implemented. From the perspective of children, the arguments for expanding ECEC policies are strongest for those focused on those who are disadvantaged toddlers or approaching school entry. Many other countries have implemented or moved in the direction of providing universal rights to public pre-kindergarten. The case for doing so in the United States would be considerably strengthened if such efforts were combined with improvements in the quality of (the currently often poor) care provided.

4. Where Do We Go From Here?

The United States provides relatively limited public support for the efforts of households with preschool-aged children to balance the competing responsibilities of work and family life. Rights to parental leave are particularly restricted, being short and unpaid in all but a few states, in contrast to the paid and often lengthy work absences available in other industrialized countries. The provision of early childhood education and care, while a less extreme outlier, is also mostly a private responsibility. By contrast, most of the comparison nations have moved towards universal entitlements to public prekindergarten, beginning at age three or four, and many have much greater public involvement in child care at younger ages.

A first issue, therefore, is to determine the extent of any *desire* to raise the support for families with young children in this country. The answer is not entirely obvious. The United States has long followed a path of “exceptionalism”, where differences between our policies and practices and those of other countries are viewed with pride. This complements a long tradition of limited government involvement, reliance on the free-market, and suspicion of public efforts to solve social problems. There is nevertheless strong reason to believe that most Americans would like to see more comprehensive efforts to address issues of work-family balance. For instance, a poll conducted in 2009 by the Rockefeller Foundation and TIME revealed that 77 percent of adults think that “businesses should be required to provide paid family and medical leave for every family that needs it”, with 73 percent stating that “business should provide their employers with more child care benefits”, and 59 percent agreeing that “the government should provide more funding for child care to support parents who work”.96 The remaining discussion therefore assumes that increased assistance is desirable and considers how such help could be provided.

Probably the most important question is whether such efforts should be universal or targeted. Observed practices vary across both countries and policies. All of the comparison nations provide universal entitlements to paid parental leave, although often with more extended rights for selected groups (e.g. those with birth complications or larger families), but there is more variation in ECEC policies. Expansions of prekindergarten programs and

96John Halpin and Ruy Teisxeira with Susan Pinkus and Kelly Daley, “Battle of the Sexes Gives Way to Negotiation” in The Shriver Report: A Woman's Nation Changes Everything, eds. Heather Boushey and Ann O'Leary (Washington: Center for American Progress, 2009), p. 395-417.

the integration of early daycare into broader education systems, suggest a movement towards universality. However, other countries remain closer to the U.S. model of fragmented and mostly privately financed care, with public support to groups such as low-income or sole parent families. Nor does the empirical evidence unambiguously indicate the desired direction for policy. Most studies suggest benefits to high quality ECEC immediately prior to school entry but with less clear results for care at younger ages (particularly if its quality is questionable). ECEC generally has the most positive consequences for disadvantaged children, providing potential support for targeted interventions. However, universality may offer other benefits including increasing the political support for high quality (usually more expensive) programs.

If greater assistance is to be provided to families with young children, it must be paid for. International evidence suggests that the costs are not overwhelming – particularly when compared to those of other programs targeting children (e.g. formal education) or seniors (e.g. public pensions and medical care) – but these financing issues are non-trivial in the current era of large current budget deficits and rising costs of other public programs. Once again there are two main alternatives: public versus private funding. In nations with strong traditions of social insurance, these programs are viewed as national responsibility with the costs largely being borne by the public. At the other extreme, the expenses can be directly covered by individuals or their employers, or through taxes whose incidence falls largely upon the affected groups.

"Employer mandates" have often been implemented in the United States and are attractive because they do not impose costs directly on the government. However, they are likely to result in wage decreases for groups most likely to use the benefits (e.g. women of child-bearing age) as employers attempt to pass-through the costs to their employees.[97] Moreover, if there are institutional barriers to reducing earnings, the employment of these workers may decline as, companies become reluctant to hire persons likely to use the benefits.

From an economic perspective, broad payment systems have the substantial advantage of reducing the incentives employers might otherwise have to avoid employing (or investing in) groups with high levels of expected program use. Such systems also provide insurance, in the most fundamental sense, for the costs of expensive and not fully predictable outcomes. Also, to the extent children represent a "public good", it is appropriate to spread these costs throughout the economy.

Such public financing can be provided through either broadly distributed payroll taxes or general revenues. Payroll taxes decrease the net (after-tax) wage, which reduce incentives to work, although these effects may be fairly small when program expenses are spread across all workers. In addition, payroll taxes can be quite regressive (i.e. the tax rate is greater for low than high earners), if the taxes are only paid only up to an earnings threshold, as currently occurs for Social Security but not Medicare.[98]

The use of general tax revenues has several advantages. First, it is the broadest-based source of funding and so provides the fewest incentives to discriminate against high use groups.

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[97] See Jonathan Gruber, "The Incidence of Mandated Maternity Benefits", *American Economic Review*, 84 no. 3 (1994), 622-641 for a comprehensive review of this issue in the context of mandated health insurance coverage for maternity-related expenses and Christopher J. Ruhm, "The Economic Consequences of Parental Leave Mandates: Lessons from Europe." (1998) for discussion specific to parental leave benefits.

[98] Payroll taxes can be levied on both employers and employees (e.g. as is done for Social Security and Medicare) or on just one of the parties (e.g. California's paid leave program is financed on payroll taxes paid only by employees). The actual tax burden is more complicated since employers will often offset their payroll tax payments by reducing wages.

Second, financing comes from unearned as well as earned sources of income, implying that work disincentives are minimized. Finally, such financing is consistent with parental leave and ECEC representing *social* investments in children and families. On the other hand, the use of general revenues may engender particularly strong political opposition, particularly in an era of tight budgets and limited support for federally funded social programs. It may also encourage some individuals to "game the system" (e.g. by working just long enough to qualify for public benefits) and public programs may sometimes "crowd out" efficiently operating private arrangements. Finally, financing through general revenues shows up explicitly in government budgets, which some view as undesirable.

The United States faces many challenges in supporting the efforts of households with young children to balance the competing needs of work and family life. An informed understanding of these issues, the economic tradeoffs surrounding them, and the lessons learned from other countries, is likely to be helpful in designing public policies that make desired changes while remaining consistent with prevailing tastes and national institutions.

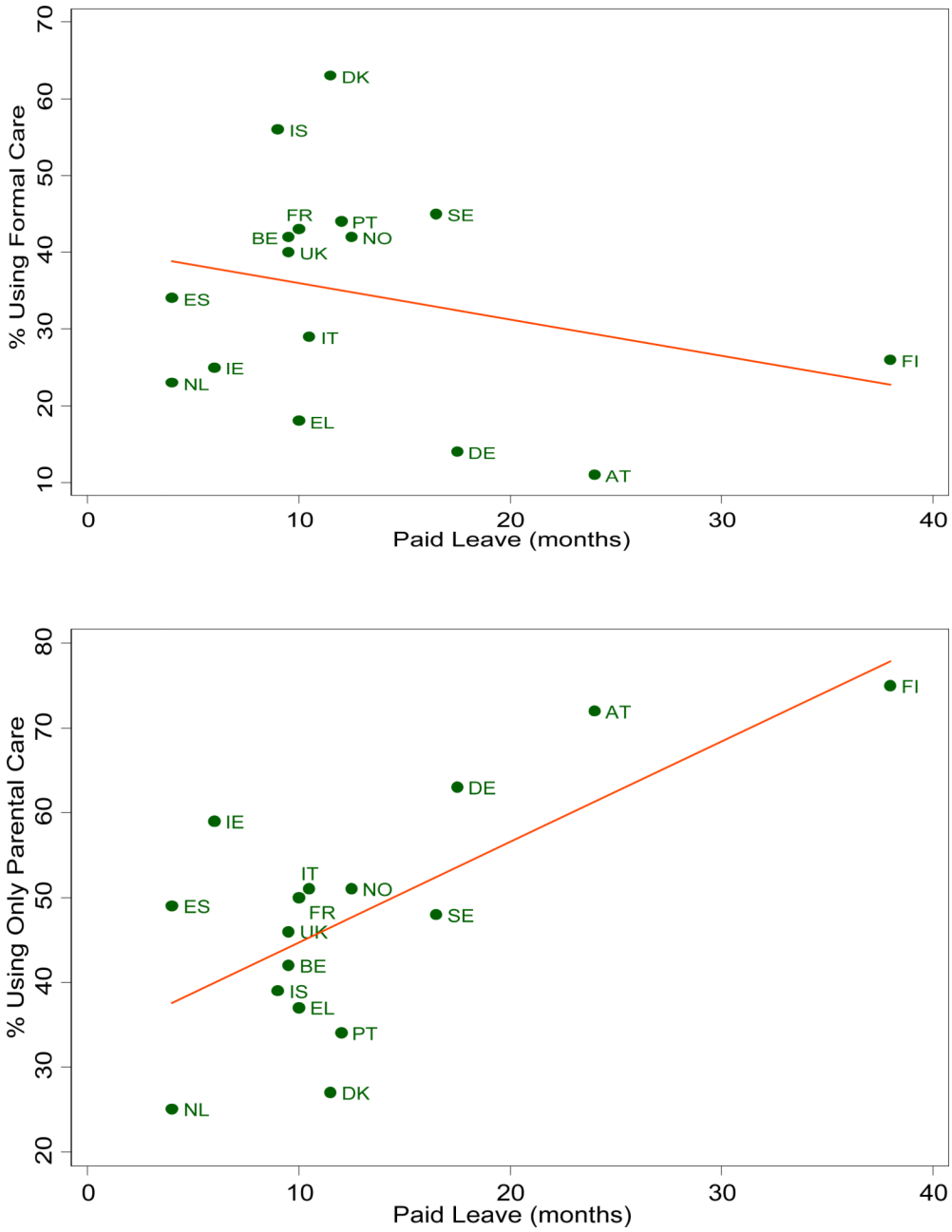

Figure 1.

Use of Formal Child Care and No Regular Non-Parental Care During First Three Years of Life As a Function of Paid Parental Leave Entitlements

Note: Data are from the same sources as in Tables 2 and 3. The solid line indicates the linear regression estimate of the predicted relationship. Country Abbreviations: Austria (AT), Belgium (BE), Denmark (DK), Finland (FI), France (FR), Germany (DE), Greece (EL), Iceland (IS), Ireland (IE), Italy (IT), the Neatherlands (NL), Norway (NO), Portugal (PT), Spain (ES), Sweden (SE), United Kingdom (UK).

Table 1

Additional State Leave Entitlements Beyond FMLA

State	Expanded Rights to Unpaid Leave				Temporary Disability Insurance	Paid Leave
	Smaller Firms	Shorter Tenure	Fewer Work Hours	Longer Leaves		
California					X	X
Connecticut			X	X		
D.C.	X		X	X		
Hawaii		X	X		X	
Maine	X		X			
Massachusetts	X	X	X			
Minnesota	X	X	X			
Montana	X	X	X			
New Jersey			X		X	X
New York					X	
Oregon	X	X	X	X		
Rhode Island				X	X	
Tennessee	X			X		
Vermont	X					
Washington						X
Wisconsin			X			

Sources: Wen-Jui Han and Jane Waldfogel, “Parental Leave: The Impact of Recent Legislation on Parents’ Leave Taking,” *Demography*, 40, no. 1 (2003): 191-200; Sarah Fass, *Paid Leave in the States: Critical Support for Low-Wage Workers and Their Families* (New York: National Center for Children in Poverty, Columbia University, 2009).

Table 2

Parental Leave Entitlements (in Months) in Europe and Canada, 2008

Country	Total Leave	Leave Exclusive to Fathers	Paid Leave	Paid ≥ 2/3 Earnings
Austria	24	0	24	4
Belgium	9.5	3	9.5	4
Canada	12	0	11.5	0
Denmark	12	0.5	11.5	12
Finland	38	1	38	11
France	37.5	0.5	10	4
Germany	39.5	2	17.5	15
Greece	16	6.5	10	8
Iceland	15	6	9	9
Ireland	16	3.5	6	6
Italy	14.5	4	10.5	4.5
Netherlands	16	6	4	4
Norway	34.5	14	12.5	12.5
Portugal	36	5	12	6.5
Spain	72	36	4	4
Sweden	36.5	18	16.5	13
Switzerland	3.5	0	3.5	3.5
United Kingdom	18.5	3.75	9.5	1.5

Sources: Peter Moss (ed.), *International Review of Leave Policies and Related Research, 2009* (London: Employment Relations Research Series no. 102, University of London, 2009); Rebecca A. Ray, *A Detailed Look at Parental Leave Policies in 21 OECD Countries* (Washington, D.C.: Center for Economic Policy Research, 2008).

Table 3

Early Care and Education Arrangements

Country	0-2 Year Olds			In Formal Care By Age in Years		
	In Formal Care	Average Hours	No Non-Parental Care	3	4	5
Austria	11%	23	72%	48%	83%	93%
Belgium	42	30	42	100	100	100
Canada	24	32		16	42	100
Denmark	63	34	27	94	93	85
Finland	26	35	75	66	70	74
France	43	30	50	99	100	100
Germany	14	22	63	82	93	93
Greece	18	31	37		56	86
Iceland	56	36	39	94	95	97
Ireland	25	25	59		47	100
Italy	29	30	51	97	100	100
Netherlands	23	17	25		74	98
Norway	42	31	51	87	92	93
Portugal	44	40	34	63	81	93
Spain	34	28	49	96	97	100
Sweden	45	29	48	82	87	88
Switzerland	<10			9	38	97
United Kingdom	40	18	46	79	91	100
United States	31	31	51	39	58	78

Notes: “Formal Care” refers to care in licensed centers and accredited family daycare; it is measured in 2006 (2005 in the Netherlands and United States). “Average Hours” indicate the weekly time in formal care and is conditional on some use. No non-parental child care is measured in 2008 (except 2007 in France and 2005 in the US) and refers to families without a usual child care arrangement during a typical week.

Sources: *OECD Family Database* (www.oecd.org/els/social/family/database; *Starting Strong II: Early Childhood Education and Care*.

Table 4

Early Care and Education Financing and Costs

Country	Public ECEC Spending, % of GDP	Public Spending Per Child		Net Childcare Costs, % of Family Income	
		0-2 Year Olds	3-5 Year Olds	Dual-Earners	Sole Parents
Austria				15%	17%
Belgium	0.79%	$2333	$4698	4	4
Canada			4052	22	30
Denmark	1.17	6376	3743	8	9
Finland	0.94	7118	2420	7	7
France	1.00	2858	4679	11	10
Germany	0.38	860	3538	8	8
Greece				5	5
Iceland	1.18	5733	4589	15	11
Ireland				29	45
Italy	0.61	1558	4626		
Netherlands	0.47	1092	5881	12	9
Norway	0.77	6425	4127	8	-2
Portugal	0.40		3293	4	4
Sweden	0.98	5928	3627	6	6
Switzerland	0.23	1129	2515	30	18
United Kingdom	0.58	3563	4255	33	23
United States	0.35	794	4660	19	37

Notes: The first column shows public ECEC spending on 0-5 year olds. Public spending per child is in U.S. dollars for 2005, adjusted for purchasing power parity. Net child care costs refer to 2004 for full-time formal care of children aged 2 or 3; and are defined as total fees minus cash benefits, rebates and tax concessions measured as a percentage of family income. Dual-earner (sole-parent) families are assumed to receive 167% (100%) of average wage.

Sources: *OECD Family Database* (www.oecd.org/els/social/family/database; *Benefits and Wages 2007: OECD Indicators* (Paris: Organization for Economic Cooperation and Development, 2007).