# **The Economic Consequences of Family Policies:**

# Lessons from a Century of Legislation in High-Income Countries

## **Claudia Olivetti**

(Boston College and NBER)

## **Barbara Petrongolo**

(Queen Mary University, CEPR and CEP (LSE))

#### Abstract

We draw lessons from existing work and our own analysis on the effects of parental leave and other interventions aimed at aiding families. The outcomes of interest are female employment, gender gaps in earnings and fertility. We begin with a discussion of the historical introduction of family policies ever since the end of the nineteenth century and then turn to the details regarding family policies currently in effect across high-income nations. We sketch a framework concerning the effects of family policy to motivate our country- and micro-level evidence on the impact of family policies on gender outcomes. Most estimates of the impact of parental leave entitlement on female labor market outcomes range from negligible to weakly positive. The verdict is far more positive for the beneficial impact of spending on early education and childcare.

Keywords: parental leave, childcare, family policies, gender gaps.

JEL: J13; J16; J18.

Among the most remarkable changes in the laborkets of high-income nations during the past century have been the rise in the female workforce and the narrowing of gender gaps in schooling and earnings. At the same time, government mandates and firm policies regarding families expanded. In sometainses, legislation was preceded by great economic change, as when the spread of industrialization in the nineteenth century led to calls for restrictions on female work. Other legislation resulted from social and political change, as occurred during the womenÕs movement of the 1960s and 1970s. Demographic change also played a role as nations have sought to address declining fertility or when dictatorships desired to increase population. By the early twitestycentury, most high-income countries have put

within-country variation in intervention, exploiting internationally consistent data on a variety of labor market outcomes. The provide the advantage of considering an array of policy interventions and interdependencies among them, as well as gequilibrium effects of the policies. But such measurement is invariably coarse and the identification of the causal impacts of interest can be problematic. Since we hold some estimates based on country level data, we will need to emphasize these limitations throughout our discussion.

The micro-level approach evaluates the causal impact of specific policies within a country by combining rich micro data with variation from natural experiments, such as the lengthening of leave policy or the provision partial leave. The approach generally considers just one policy intervention at a time, but detailed characterization of the institutional environment allows for more meaningful comparisons.

We draw lessons here from existing work and our own analysis on the effects of parental leave and other interventions aimed at aiding families. The outcomes of interest are female employment, gender gaps in earnings and fertility. We begin with a discussion of the historical introduction of family policies ever since **thred** of the nineteenth century and then turn to the details regarding family policies currently in effect across in the nations. We sketch a framework concerning the effects of family policy to motivate our coantly micro-level evidence on the imapt of family policies on gender outcomes. Do7rk 4r o1to tj [(leve

ļ

leave, followed by France, United Kingdom, Italy, Spain Greece in the early 20th century<sup>1</sup>.

The emphasis in early legislation was mostly about protecting physically weaker workers from extreme working conditions, and concerns for the health of mothers and children typically led to bans on female employment within a few weeks of birth. Mandated leave was only sporadically accompanied by job protection or income support. Unions often latched ontoon such special provisions for womienorder lobby for a shorter workweek for men (Goldin 1988). In 1919, the International Labor Organization advocated maternal rights to 12 weeks' leave from work around the time of birth, combined with job protection and partial income support. While maternal leave was ratified in most member countries, job and income protections did not become the norm until muchilate 20th centurý.

In the 1950s, the design of family policies across Europe emphasized traditional gender roles, and explicitly protected women in their capa**eisies** and mothers. During World War II, women in countries with high rate of male mobilization had filled jobs in male-dominated sectors like manufacturing, transportation, and military indust spite these developments or sometimes as a response to the farmily policy legislation in some European countries often seemed designed re-affirm women's household roles. For example, some countries extended leave rights without granting job prote (Ridmm 1998, and references therein), which he interpreted as encouraging women to take leave, while raising uncertainty about the ability to return work in a similar position.

The late 1960s and 1970s brought important changes in maternity leave provisions and set the basis for wider selection of nodern family policies. The sharp rise in female labor market participatiogenerated greatelemands or maternity leave provisions as a way to reconcile careers and motherhood untries that had dopted maternity leave earlier often extended these provisions substantially, while other countries **Clarea** and Australia introduced such provisions Most high-income countries combined leave periods with job protection and increased income support during loyment breaks Sweden was the first country to introduce explicit paternity leave rights in 1974, allowing mother and father to share six months of parental leave there European countries started to supplement Òmaternity leave divailable to mothers around the time of childbirth, with Òparental, deave available to both parents uring a childÕs early yea (as reported in the DECD Family

<sup>&</sup>!See Wilkander, Kessl<del>drl</del>arris and Lewis (1995).

!

<sup>#</sup>!In Appendix Table A1, available online with this paper at http://ep.org,we report a summary of early legislation based on a comparative study published by the US DepartnbeatboofChildrenÕs Bureau (Harris 1919).

Database ÒPF 2.5 Annex: detail of change in parental leave by countingsé)changes, together with the decline in the manufacturing sector and the weakening of trade unions, contributed to eroding the male breadwinner model in mostiling me countries.

,

The United States

## Family Policies in OECD Countries

At present, allhigh-income industrialized countrieshave in place paid maternity leave rights (with the exception of the United States where this is unp**aid**) provide some support, in cash okind, for child care.Table 1 provides a snapshot soft me keyfamily policies in a recent cross-section of developed economiescluding the US, Canada, Australia, Japan and 11 large European countAilesindicators reported are obtained from the OECDFamily DatabasendSocial Expenditure databased refer to the latest available year, between 2011 and 20<sup>3</sup>15.

Countries are organized idecreasingorder of duration of job-protected leave provisions for mothers, whicks reported in column 1. This includes maternity leave and the maximum job-protected parental leave available to mothefuser home care of children, whether or not income support is also included simplicity we will refer to this variable as Òparental leave.Ó The mediamentalleave is about 60 weekswith very wide variation across countries, summarised by a standard deviation of almost exactly or **Geyrese**my, France,Spain and Finlandhave leave entitlements above three years, followeblobyway and Swedenwith around 20 monthesf entitlement.At the other extremethe United States has 12 weeks of parental leaveWhile this figure refers to federal entitlements reare currently 25 states that have expanded by or anotheurpon federallegislation. Interestingly, cross-country variation in parental leave rights is much wider than in other labor market institutions such as the unemployment benefit replacement ratio and the tax wedge Đ and, as we will discuss later, wider than in gender employment outcomes.

Variation in maternity leave provisions around the tiorfechildbirth, shown in column 2, is modest in comparison, withmost countries ranging between 14 and 22 weeks. As shown in column 3, average about one-third of thistime must be taken before birth. The bansthat some countries have on workiding ring late pregnancy are likely a vestige

#### 

<sup>3</sup> TableA2, available online with this paper at http://mp.org 041 Te2 0 Td s

ļ

early legislation, from a time whean larger share of jobs, like manyanufacturing jobs of the past, were physically strenuous.

In all countries except the United Statessubstantial portion of parental leave is paid as shown in column 4Leave benefits are usually funded by combination of)

\*

To give an example, women in Denmark and Italy have very similar entitlement to parental leave around 50 weeks, with nearly identical replacement ratios. However, maternity leave extensions in Italy happened mostly before the 1960s, with long mandaterry eabs periods before and after birth, especially in manufacturing and agriculture, and no provisions for fathers. In Denmark, the bulk of parental leave legislation came into play after 1960, during decades of rapidly evolving social norms, and with limitated stitutability between maternal and paternal leave rights. Comparable maternal leave rights are currently coexisting with relatively gender-biased norms in Itation where, according to th€uropean Value Survey, 70% of thepopulation agree or strongly agree with the statement ÒPre-school children suffer from a working motherÓ, but with much more gender-neutral attitudes in DenmarkDwhere only 10% of the population do so. In factoss-country evidence does not reveal any clear-cut association between the generosity of parental leave and answers to gender-related survey questions between the generosity of parental leave and answers to see likely to accommodate flexible working arrangements.

# Framework

Most family policies areintended to encourage female labor supplyor Fexample, subsidized childcare seeks provide direct substitutes for maternal childcare. Maternity leave seeks to enable mothers to stay attached to the labor market during temporary interruptions of employment, while retaining firm-specificor occupation-specific human capital. Similar arguments can be made for flexible or part-time work arrangements. However, extended maternity leave may have detrimental effects on female labor is upply the long-runif it induces women to stay out of work for long enough repeated periods in a way that hinders them from re-entering employment on the same pre-maternity track.

Besidesthesefirst-order impactson labor supply, family policies may feed into labor demand decisions via at least two chann@ls.the one handnsofar as part of the costs of these arrangements directly or indirectly triskdewn on employers, the demand female labor (and especially for women of childearing age)would benegativelyaffected.On the

#### 

!

other side if family policies effectively ease continuity of employment for mothers, and their enhanced labor market attachment is incorporated into employeeliefs, the extent of statistical discrimination (if any) against women would be reduced, with beneficial effects on labor demand for women.

In a competitive labor market with imperfect substitution inputs, the change in the gender wage rations are sult of family policies is theoretical symbiguous, depending on the relative shifts in labor supply and labor demand and the context in which such shifts occur. For example, if equal pay legislation effectively prevents a fall in female wage spolicies that would raise the cost of hiring women may lead the transfer employment at constant wages. Similar effects are to be expected in the presence of union contracts or

alongthese and other dimensionly age effects may be mitigated or even reversed whenever continuous labor market attachmentlabor market experience is highly valuable in the presence of search frictions, high returns to actual labor market experience and feedback mechanisms onto employersÕ beliefs. the other hand, theories of gender statistical discrimination suggest that these policies might backfire by reinformployersÕ beliefs and social norms regarding womenÕs comparative advantage in childcare and home production more generally.

# Cross-Country Evidence

Given wide international variation in family policies, several papers have compared institutions and gender labor market outcomes achiges-income

parental leave rights and lead simultaneously to both extended rights and higher female employment rates.

The generalapproachin Ruhm (1998) has been extended by later work to cover more recent years, a wider set of countries, and a richer sietstitutions. ThŽvenorand Solaz (2012)broadlyconfirm RuhmÕs findings carcross-section of 0 countries observed between 1970 and 2010. Using dataon a sample of 1 high-incomeOECD countries or 1990-2010, Blau and Kahn (2013) find that gender gaps in both employment and wages shrink with parental leave rights, the generosity of benefits, the right oftipært work, and equal treatment legislation (although on the effects of the latter two are statisticallygenificant). The authors conclude that the expansion these policies outside the United States the early 1990s relative to other OECD countries. Cipollor effects by showing that female participation of medium-and highly-educated women is more responsive to faroitivented policies as measured by a synthetic index encompassing parteratee, family subsidies and elderly subsidies D than participation of less-educated women.

A few papers have exploited staggered introduction of parental leave rights across geographies within a country. Bau(2003) focuses on the partial state-leaded ption of leave rights in the United Stateschead of the Family and Medical Leave Airt 1993, and fails to detect any significant impact of leave rights comployment or wages of mothers. Using a similar approach an et al. (2009) detect detrimental employment effects of parental leave and welfare benefits, and positive effects of childcare spending, for single mothers and the less-skilled. Baker and Milligan (2008) finds that the introduction of leave rights in Canadian provinces delays return to work mothers shortly after birth, but eases returns to the pre-birth employer.

Below we complement existing cross-country evidence by bringing together data on 30 countries that are currently in the OECDFigure 1 summarizes evidence on female employment inthesecountriessince the 1970s (or the 1980s wheres werlier data are not available). The employment rate is measured these number of individuals aged 25-54 who are employed, divided by the relevant populat Countries are ranked in ascending order of female employment in the 2010s, ranging from 28% in Turke 790% in Iceland. The average employment rate in the sample is currently 60%, with a standard deviation of 10%. The US female employment rate of 62% us to be average. Scandinavian countries rank towards the top of the chart, followed by most English-speaking countries,

!

while southern European countries and lower income countries rank towards the **bo**ttom. relative terms, there is much wider variation in parental leave rights across these countries

correlation with the fertility rate. None of the policy variables resignificantly correlated with the gender earnings  $g_{A}^{Z}p$ .

We have explored hese correlations further, looking at different groups of women. When we differentiate relevant outcomes across three skill groups N below secondary education, secondary education and tertiary education N the result show that only for the less skilled are female arrning shigher in countries with flexible working arrangemen to skill the other hand, correlations with employment outcomes are consistent across the skill distribution.<sup>8</sup>

We next look at the impact of family policies on gender outcomes explicitieir evolution over time, and controlling for country and year fixetidects D while bearing in

!

from our working sample countries without available information on the replacement ratio, which happen to have systematically lower rates of union density than the rest of the countries<sup>11</sup> In other words, the results of colur**6** rare obtained on a sample of countries with a lower average incidence of binding union contracts than those of column 5, and thus provide evidence of a more sizeable wage response to policy in a context in which wages are relatively more flexible.Overall, coefficients on parent**be** ave denote a stronger effect on earnings gaps in column 6 than on employment gaps in column 4, which implies that wage gaps are also closing for a wide range of parental leave durations.

Column 6 also shows evidenceaofelatively strong effect of early years spending on closing earnings gaps, whicks larger than the corresponding effect on employment gaps in column 4. By the same logic, this implies that wage gaps are predicted to shrink with childhood spending.

In columns 7 and &ve show thathe effect of parental leave on fertility is also nonmonotonic, but quantitatively this negligible throughout independent of the specification used, consistent with ShimÕs (2014) finding that fertility decisiones not much responsive parental leave is also adequately paid Early childhood spending has sizeable correlation with raising fertility, with one extra percentage point of GDP speadis opciated with 0.2 extra children pervoman. The results reported in column 9 are overall consistent with Adema, Ali and ThŽvenonÕs (2014) findings that public spending on family benefits and the duration of paid child-related leave for mothers is significantly associated with an increase in the total fertility rate.

In Table 4, we consider heterogeneous policy effdogtseducational attainmenT.he sample sal 1ae0 Td [-1.72 Td n(educatr)]TJ in tilo8.5e

ļ

resulting insignificant reductions infemale employment and earnings during the first three yearsafter birth, but only minor effects beyond three years. While fertility effects are stronger for women with below-median pre-birth earnings, the shortreduction inearnings larger for high-wagethan low-wage women. Later Austrian reforms of 1996 and 2000 shortened and extended, respectively, entitlement to replacement benefits, leaving jectept deave unchanged, and allive et al. (2013) estimate that longer cash benefits significantly dela return to work of mothers when leave is job-protected, but less so once job protection has expired.

Germany enactetive major expansions in maternity leave coverage between 1979 and 1993, whiched to gradual and staggered extensions inpicture ted leave from 2 to 36 months, and in the time of receipt for ash benefits from 2 to 24 month Schoenberg and Ludsteck (2014) find that extension of coverage at short durations leads to small delays in return to work, and extension at long durations lead larger delays, but it has almost no effect on employmentrates and earning for women more than three earsafter childbirth. However, extensions of cash benefits beyond the job protection period cprosignificant long-run employment and earning losses for affected mothers, suggests cole for job guarantees in avoiding long-lasting negative effects of benefit extensions.

Norway enacted **a**eries of seven expansions in paid maternity leavec, hwhearly doubled from 18 weeks in 1977 to 35 weeks in 1929abl et al. (2016)

ļ

Schmitz, 2014)Raute (2015) investigate ertility effects of the 2007 German reformand finds sizeable fertility gains for women with above-median earnings and older whomen.

While most high-income countries currently have in place leave provisions for fathers, their relatively recent introduction, as well as their more limitedupakete, imply that the evaluation ofheir effects on female outcome is still in its infandyvailable

The Canadian province of QuŽbietroduced child-care subsidies for four year-olds in 1997, combined with wider availability and high quality of servlices ebvre and Merrigan (2008) find a sizeable impact of this scheme on mater229.2(on )1fon this f(of 2 0 4.888nd )T

disincentive ffects on the participation rate of married men, consistent with the fact that the EITC raises average taxation on the secondary earner's earheitzgand Scholz (2003), Nichols and Rothstein (2016), and references in tpasers offer detailed discussion of the effects of the EITC on work, poverty, health and family outcomes.

In the United Kingdom, the main in-work benefit is the Working Family Tax Credit, introduced in 1999, and its effects on the labor supply of various groups (most notably single mothers) was evaluated both via simulations based on structural modelson supply (Blundell et al. 2000; Brewer et a2006) and differences-in-differencesodels based on comparisons with mothers living in couple and/or single women without kids (for example, Franced [794af.2o-1(946.633 0 T2 [(2006)Gregg, [794af.2Harkness(, )-62.2(tand )-1()]Tdtan )-Sr

!

recent estimates find positive effects up to 1 year and negative effects adtentived widespread extensions to leave rights in most countries in avide ably shifted the focus of later studies based on micro data towards variations in parental leave at much longer durations, up to three years thus, it might be possible that the availability of some job protection, relative to no protection at all, would ensure continuity of employment and discourage transitions out of the labor market, while further extensions would simply delay return to work without further gains in employment, cross country studies often The United Statebasbeenan outlierin the adoption of amily policies acrosshighincomecountries since the turn of the entieth century As Goldin and Mitchell argue in this symposium, the female labor force participation in the US has evolved inducter with very high rates of employmentarily in the life cycle, but harply declining with motherhood, which is being progressively delayed the cross-country and micro-level evidence has not found an overall strong connection between maternity leave and female labor force participation. But possibly the relatively short leave entitlements available to mothers in the United States contributes to this life cycle pattern of delaying therhood, with persistently low rates of participation while women are in their 30s and 40s References

Dahl, Gordon, Katrine L¿ken an Magne Mogstad. 2014. ÒPeer Effects in Program Participation.Ó American Economic Review 104: 2049-2074.

Dahl, Gordon, Katrine L¿ken, Magne Mogstad and Kari Vea Salvanes. 2016. ÒWhat is the Case for Paid Maternity Leave?Ó Review of Economics and Statistics 98: 655-670.

Eissa, Nada and Hilary Hoynes. 2000 Taxes and the Labor Market Psrticipation of Married Couples: The Earned Income Tax Credit.Ó Journal of Pubic Economics 88,95831

Ekberg, John, Rickard Eriksson and Guido Friebel. 2013. ÒParental NeavePolicy Evaluation of the Swedish ÒDaddy-MonthÓ ReformÓ. Journal of Public Economics 97: 131 143.

EUROPEAN AND WORLD VALUES SURVEYS FOURVAVE INTEGRATED DATA FILE, 1981-2004, v.20060423, 2006. Aggregate File Producenstiss Sociol—gicos Econ—micos y Pol'ticos (ASEP) and JD Systems (JDS), Madrid, Spain/Tilburg University, Tilburg, The Netherlands. Data Files Suppliers: Analisis Sociologicos Economicos y Politicos (ASEP) and JD Systems (JDS), Madrid, Spain/Tillburg University, Tillburg, The Netherlands/ Zentralarchiv fur Empirische Sozialforschung (ZA), Cologne, Germany:) Aggregate File Distributors: An‡lisis Sociol—gicos Econ—micos y Pol'ticos (ASEP) and JD Systems (JDS), Madrid, Spain/Tillburg University, Tilburg, Theetherlands/Zentralarchiv fur Empirische Sozialforschung (ZA) Cologne, Germany.

Fortin, Nicole. 2005. ÒGender Role Attitudes and the Labour Market Outcomes of Women across OECD Countries.Ó Oxford Review of Economic Policy 21: 416-438.

Francesconi, M. anW. van der Klaauw2007. OThe Socioeconomic Consequences of In work' Benefit Reform for British Lone Mothers. Journal of Human Resources 42: 1-31.

Flood, Sarah, Miriam King, Steven Ruggles, and J. Robert Wantegrated Public Use Microdata Series, Current Population Survey: Version 4.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2015.

Gauthier, A.H. 2011. Comparative Family Policy Database, Version 3 [computer file]. Netherlands Interdisciplinary Demographic Institute and Maland Institute for Demographic Research (distributors).

Gelbach, Jonah B. 2002 Public Schooling for Young Children and Maternal Labor Supply. American Economic Review 92: 307-322.

Geyer, Johannes, Haan, Peter, Wrohlich, Katharina, 2015. OThe effects of family policy on maternal labor supply: combining evidence from a structural model and æqpesimental approach.O Labour Economics 36: 84Đ98.

Givord, Pauline and Claire Marbot. 2015. ODoes the Cost of Child Care affect Female Labor Market Participation? An Evaluation of a French Reform of Childcare Subsibility for Economics 26: 99-111.

Goldin, Claudia. 1988. Notaximum Hours Legislation and Female Employment: A Reassessment. Journal of Political Economy 96: 189-205.

Goldin, Claudia and Josh Mitchell.The New Lifecycle of WomenÕs Employment: Disappearing Humps, Sagging Middles, Expanding Tops.Ó This Journal.

Gordon B. Dahl, Katrine V. L¿ken, Magne Mogstad and Kari V. Salvanes. 2016. ÒWhat is the case for Paid Maternity Leave?Ó Review of Economics and Statistics ming.

Gregg, PaulSusanHarkness and Sarasmith. 2009. Welfare Reforms and Lone Parents in the UKÓ. The Economic Journal 119: F38-F65.

Harris, Henry J. 1919. ÒMaternity Benefit System in Certain Foreign Countries.Ó US

Washington, Government Printing Office.

!

Haeck, Catherine, Pierre Lefebvre and Philiprrigan (2015). ÒCanadian Evidence on Ten Years of Universal Preschool Policies: Toeod and the BadÓabour Economics6: 137-157.

Han, Wen-Jui, Christopher Ruhm, Jane Waldfogel and Elizabeth Washbrook. Policies and Women Employment after ChildbearingÓ. NBER Working Paper No. 14660.

Havnes, Tarjeand Magne Mogstad. 2011, a Money for Nothing? Universal Child Care and

Manski, Charles. 1993. Oldentification of Enetrogues Social Effects: The Reflection Problem. Ó Review of Economic Studies 531-542.

Nichols, Austin and JesseRothstein. 2016ÒThe Earned IncomTeax Credit.Ón Robert A. Moffitt, (ed.), Economics of Means-Tested Transfer Programs in the United Schutes go: University of Chicago Press.

Nollenberger, Natalia, Rodr'guez-Planas, Nuria, 2015. ÒFull-time universal childcare in a context of low maternal employment: quasi-experimental evidence from **Ópaib**our Economics. 36, 124Đ136.

OECD (2014), OECD Social Expenditure DatabæcCX), www.oecd.org/social/socialpoliciesanddata/socialexpendituredatabasesocx.htm.

OECD-Social Policy Division-Directorate of Employment, Labour and Social Affairs (2016), Family Database, ÒPF2.5. Trends in parental leave since 1970Ó and ÒPF2.5 Annex: Detail of Change in Parental Leave Policy, pp. 1-49Ó (Annex last updated 01/07/2014). www.oecd.org/els/social/family/database

Raute, Anna. 2015ÒCan Financial Incentives Reduce the Baby Gap? Evidence from a Reform in Maternity Leave Beneftôrs Mimeo.

Rossin-

!

### 1. Institutions

Maximum job-protected leave available to mothers, regardless of income (weekis)the maximum number of veeks of employment protected parental leave available to mothers, regardless of income support This is the sum of weeks of maternity leave, parental leave and homencare. countries where the entitlement to parental leave lasts up until the point at which idme aches a certain age (as is the case in Germany, for example, where one pertitted to leave until the child of s third birthday), any weeks of maternia week to maternia to be

- ! !!"#\$"%& : The "average payment rate" refeosthe proportion of previous earnings replaced by the benefit over the length of the paid leave entitlement for a person earning 100% of average national (2014) earnings. If this covers more than one period of leave at two different payment rates then a weighted average is calculated based on the length of each period. In most countries

### 2. Outcomes

<u>Employment to population</u> ratio by gender is from the OECD Labor databas the employment rate refers to the number of people ployed divided by the relevant population the employed are defined as those who work for pay or profit for at least one hour a week, or who have a job but are temporarily not at work due to illness, leave or industrial action are for men and wom enged 25-54 and are available for the period 19270014.

http://stats.oecd.org/Index.aspx?DataSetCode=LFS\_SEXAGE\_I\_R

Employment to population by gender and educational attainments obtained from the OECD Employment databasehis indicator shows the employment databasehis indicator shows the employment in three caegories below upper secondary, upper secondary-teotiary, or tertiary. The employment rate computed as percentage of the populatiaged 2564

ac 18.44 0 9.998

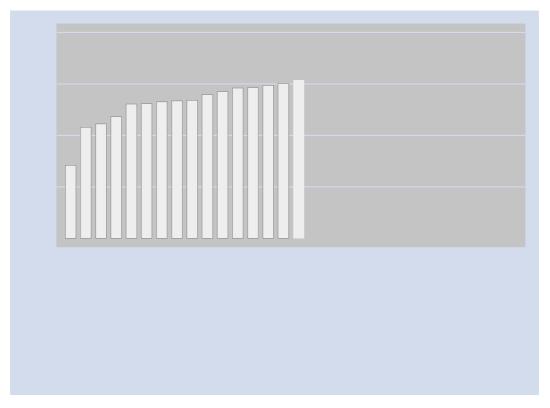


Figure 1: Evolution of Female Employment Rates: 1970s to 2010s

*Notes*: The figure reports average employment rates for women aged 25–54, by decade. The employed are defined as those who work for pay or profit for at least one hour a week, or who have a job but are temporarily not at work due to illness, leave or industrial action. We report female employment since the 1970s or the earliest available decade.

*Sources:* OECD Employment Database, http://stats.oecd.org/Index.aspx?DataSetCode=LFS\_SEXAGE\_I\_R, 2016.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
country	Maximum job- protected leave for mothers (weeks)	Total maternity leave (weeks)	Pre-birth leave (% maternity leave)	Total <i>paid</i> leave available to mothers (weeks)	Average Payment Rate for Mothers (% of average, 2014, national earnings)	Total paid leave available to father (% total paid leave for both parents)	Early childhood education and care (%GDP)	Accumulate days off /vary start/end of daily work (% companies)
Spain	166	16	63	16	100	12	0.6	34.07
France	162	16	38	42 / 110	44.7	40 / 33	1.2	54.29
Germany	162	14	43	58	73.4	13	0.5	62.00
Finland	161.03	17.5	29	161.03	26.5	5	1.1	86.05
Norway	91	13	23	91	50.0	10	1.2	
Sweden	85	15.6	45	60	63.4	14	1.6	74.18
United Kingdom	70	52	21	39	31.3	5	1.1	46.83
Greece	60.33	43	19		0	31 0 Td (19	))aSe2c2(19)aSe2d2(1	9) 50.4m 50.(

		Employment	Earnings
Maximum weeks of job-protected leave available to mothers	0.188	-0.385	

	Table 3: Family friendly policies and women's outcomes									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		
	Female emp	loyment rate	Employ	ment gap	Earni	ngs gap	Fertil	ity rate		
Maximum weeks of job-protected leave	0.113*** (0.019)	0.063** (0.029)	-0.050*** (0.018)	0.023 (0.022)	-0.011 (0.033)	-0.210*** (0.033)	0.002 (0.001)	-0.001 (0.001)		
Maximum weeks squared/100	-0.078*** (0.010)	-0.062*** (0.014)	0.043*** (0.010)	0.012 (0.011)	0.016 (0.016)	0.108*** (0.016)	0.001 (0.001)	0.001** (0.001)		
Percentage of total leave that is paid		-0.037*** (0.008)		0.029*** (0.006)		0.006 (0.008)		0.002*** (0.000)		
Average payment rate		-0.036*** (0.011)		0.027*** (0.008)		0.012 (0.019)		0.000 (0.000)		
Early childhood education and care		3.613*** (0.903)		-1.587*** (0.564)		-2.852** (1.258)		0.270*** (0.024)		
Constant	43.955*** (1.561)	47.007*** (2.016)	41.954*** (1.913)	37.892*** (2.497)	44.709*** (0.936)	52.367*** (1.144)	2.810*** (0.117)	1.753*** (0.057)		
R-squared	0.914	0.921	0.931	0.944	0.943	0.967	0.718	0.692		
Mean of dependent variable	54.8	55.1	20.6	21.0	23.4	23.7	1.9	1.7		
Observations	1,026	667	1,026	667	545	340	1,325	806		
Time period	1970-2014	1970-2010	1970-2014	1970-2010	1970-2013	1970-2010	1970-2014	1970-2010		
Number of countries	30	22	30	22	30	22	30	22		

Table 3: Family friendly policies and women's outcomes

*Notes:* Robust standard errors in parentheses. All specifications include country and year effects. The average payment rate is from the Max Planck Institute's Comparative Family Policy Database (Gauthier, 2011). It's computed as a weighted average of payment rates for maternity leave, parental leave and childcare leave with weights given by the length of each leave type. The cash benefits are expressed as a percentage of the average female wage in manufacturing. See notes to Table 1 and 3 for all other variables definitions and sources. Percentage of total leave that is paid is the ratio of total paid leave available to mothers to maximum weeks of job-protected weeks (paid/unpaid) available to mothers.

	(1)	(2)	(3)	(4)	(5)	(6)
--	-----	-----	-----	-----	-----	-----

	Female employment rate	Earnings Gap	Female employment rate	Earnings Gap	Female employment rate	Earnings Gap
Maximum weeks of job-protected leave	0.164**	-0.112	0.097	0.062	-0.011	0.232**
	(0.083)	(0.152)	(0.060)	(0.114)	(0.046)	(0.107)
Maximum weeks squared/100	-0.171***	-0.257**	-0.097*	-0.122	-0.054*	-0.138*
-	(0.059)	(0.130)	(0.054)	(0.081)	(0.030)	(0.078)
Constant	47.872***	62.487***	63.132***	50.854***	79.560***	39.626***
	(3.274)	(5.852)	(2.013)	(4.537)	(1.736)	(4.955)
R-squared	0.946	0.840	0.956	0.883	0.921	0.758
Mean of Dependent Variable	46.6	44.3	65.7	40.0	78.7	42.6
Observations	492	300	504	300	504	300
Time period	1997-2013	1997-2013	1997-2013	1997-2013	1997-2013	1997-2013
Number of countri 4467en 914 687 456 3 Td	(e. asil. 559 - 504)Ti 7.4	29 0 Td 504				

Number of countri.4467ep.914 687.456 3 Td (e asil. 559 -504)Tj 7.429 0 Td 504

Country	Year	Maternity Le	ave (weeks)	Manda	ted (Y/N)	Job-Protection	Paid	Sammaa - 6	
Country Year		Post-birth	Total	Pre-birth	Post-birth	Post-birth (Y/N)		Source of payment	
					Panel A: 1870	- 1940			
Austria	1985	4	•		Y	•	•		
	1988	4			Y	Y	Y		
	1917	6			Y	Y	Y; 60%	Employer $(1/3)$ ; insured person $(2/3)$	
Belgium	1889		4		Ν		•		
Denmark	1892		1.1		Ν		Y	Voluntary sickness societies subsidized by the State	
	1901	4			Y				
	1915	1.4			Y		Y	National Government	
	1933		2		Y		Y	National Government	
Finland	1917	4					•		
	1919	6					•		
	1922	6				Y			
	1937	6				Y	Y	Maternity allowance	
France	1909		8			Y	Ν		
	1913	4	8		Y	Y	Y	Mutual aid societies (subsidized by the national or local Government); Ministry of Education for teachers maternity leave.	
Germany	1878	3			Y	Ν			
	1900	6			Y	Ν	Y	Even law $(1/2)$ , insured mercer $(2/2)$ , mercers who insure	
	1908	6	8	Y	Y	Ν	Y	Employer (1/3); insured person (2/3); persons who insure voluntarily must pay the entire cost of their insurance.	
	1924	6	14	Y	Y	Y	Y	voluntarily must pay the entire cost of their insurance.	
Greece	1910			Y			Ν		
	1921	6	12	Ν	Y	Y	Y	Public funds or insurance	
Italy	1902	4	•	•	Y	•	Ν		
	1910	4			Y	Y	Y	Employee and owner of establishment pay half and half;	
	1934	6	10	Y	Y	Y	Y	the National Government also adds support	
Mexico	1917	4	4	Ν	Y	•	Y; 100%		
Netherlands	1889		4	Y		•			
	1913						Y; 100%	Compulsory sickness insurance: one-half paid by the employer and one-half by the insured person	
	1919	8	10	Y	Y				

#### Table A1: Pre-1969 trends in maternity leave legislation

Country	Year					Job-Protection	Paid	Source of payment
		Post-birth	Total	Pre-birth	Post-birth	(Y/N)	(Y/N; %)	
Norway	1892	6			Y (4 weeks)		Ν	
	1909	6			Y	Y	Y;60%	Compulsory sickness insurance paid by: (1) The insured, 60%; (2) the employer, 10%; (3) the local government, 10%; (4) the National Government, 20%.
	1915	6	10	Ν	Y	Y	Y	Add voluntarily insurance paid by: (1) The insured, 70%; (2) the local government, 10%; (3) the National Government, 20%.
Poland	1924	10	12	Ν			Y; 100%	
Spain	1900					Y		
	1907	6			Y	Y		
Sweden	1891	4			Y		Ν	
	1937	6	12	Y	Y	Y	Ν	
Switzerland	1877	>=6	8	Ν	Y		Ν	
	1914	6	•		Ν	Y	Y	Dues of the members and the subsidy of the Federal Government
	1920	6	8	Y	Y	Y	Y	

Country	Country Year Maternity Lea Post-birth		Maternity Leave (weeks)		Mandated (Y/N)		Paid	Source of payment	
			Total	Pre-birth	Pre-birth Post-birth		(Y/N; %)		
France	1946	4	14		Y	Y	Y	Mutual aid societies (National or local Government); Teacher's maternity leave annual budget of the ministry of education	
Germany	1968	8	14	Y	Y	Y	Y	Social security system and employers	
Ireland	1952		12		•	•	Y	Maternity allowance	
	1968		12				Y	Compulsory insurance & Maternity allowance	
Iceland	1946						Y		
	1954				Ν				
			20 (industry);				Y; 80% of earnings in		
Italy	1950	8	16 (agriculture); 14 (other)	Y	Y	Y	private sector; lump-sum in agriculture		
Japan	1947	5			Y	Y	•		
Netherlands	1966	8	10	Y	Y	•	Y		
Norway	1956	6	12	Ν	Y	Y	•		
Portugal	1963		8.6				Y; 100%	Maternity reserve funds	
	1966		8.6			Y	Y; 100%	Maternity reserve funds	
Spain	1966						Y;75%	Social security system	
Sweden	1955		24				Y		
	1963		24				Y;80%		
Turkey	1950	3	6	Y	Y		Y		
	1967	3	6	Y	Y		Y;66%		
UK	1948		13			Ν	Y	Maternity allowances	
	1953		18			Ν	Y	Maternity allowances	

Sources: Harris (1919) and OECD Family Database, "PF2.5 Annex: Detail of Change in Parental Leave Policy," www.oecd.org/els/social/family/database

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
country	Maximum job- protected leave for mothers (weeks)	Total maternity leave (weeks)	Pre-birth leave (% maternity leave)	Total <i>paid</i> leave available to mothers (weeks)	Average Payment Rate for Mothers (% of average, 2014, national earnings)	Total paid leave available to father (% total paid leave for both parents)	Early childhood education and care (%GDP)	Accumulate days off /vary start/end of daily work (% companies)
Poland	203.67	26	8	52	80	4	0.5	43.97
Spain	166	16	63	16	100	12	0.6	34.07
Slovak Republic	164	34	24	164	32.0	0	0.4	54.49
Czech Republic	162	28	21	110	51.1	0	0.4	59.64
France	162	16	38	42 / 110	44.7	40 / 33	1.2	54.29
Germany	162	14	43	58Slovak Re	public 164	34	24	164

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Iceland	Male 0.8973	Female 0.8115	Male 0.8562	Female 0.7471	(3)-(1)	(4)-(2)	