

Abstract

Family policy trends in international perspective, drivers of reform and recent developments

Willem Adema, Nabil Ali, Dominic Richardson and Olivier Thévenon

This paper will first describe trends in some family and child outcomes, including fertility, educational attainment, female employment and child poverty since the 1980s and analyse to what extent there has been convergence in these outcomes across OECD countries, and how this could have affected policy reform. It will then summarize trends in family policies, such as child cash benefits, parental leave and childcare policy, and discuss how changes in policy relate to the pursuit of specific policy objectives.

The third section of this paper will determine the extent to which changes in family policy have affected the trend changes in family outcomes, and how these effects may vary across groups of countries.

The paper will conclude with a section that discusses the effect of the recent economic crisis on family policy, and illustrate how the policy response differs across countries. This section will include an analysis using tax/benefits models of the effect of the crisis on net income of families with two children over the 2007/2011 period.

Main Findings

- *Many outcomes for parents and children have converged across the EU and the OECD* (Table 1.1), but underlying trends move in different directions and in some areas there has been a deterioration of family well-being. For example, the decline in infant mortality and the increases in life expectancy and educational attainment contribute to family well-being, but the recorded increase in child poverty does not.
- *Life expectancy and, total fertility rates (TFR) – have converged considerably over the past four decades* leading to greater similarity in population structures across EU and OECD countries. Marriage rates have declined considerably since 1980 while divorce rates have increased.
- *Children today are more likely to end up with divorced parents than in the past.* Divorce rates in 2010 were twice as high as in 1970 and on average across the OECD almost 60% of divorces occur among parents. Although reconstituted families are on the rise, children of divorced parents are still more likely to live with just one parent.
- *Outcomes in educational performance and educational attainment have shown some divergence.* The widespread overall increase in successful completion of tertiary education, and among women in particular, has also contributed to greater female labour force participation; traditionally low-employment countries made greater progress in this area. The increase of part-time employment among women has not been uniform across countries and little convergence is observed.
- *Child well-being outcomes show a mixed pattern.* Child poverty has continued to increase over the past decade in most countries, with greater variation in outcomes across the OECD countries than across the EU. In most cases, measurable outcomes in the health area have improved and converged, most notably in terms of infant mortality which has decreased over the past two decades in all countries.

- *The crisis has had negative effects on employment and households' income.* Since the start of crisis in 2007/2008 on average across the OECD child poverty has continued to rise, while female employment fell until 2010. The recovery in fertility rates observed in many countries since the early 2000s has stalled while the decline in divorce rates that occurred since 2005 was reversed in 2009.

Extended abstract

Section 1: Families and children outcomes have become more similar across OECD countries.

This section looks at trends in some family outcomes including birth-rates, female labour force participation and education and well-being outcomes for children. These outcomes have all changed, but have they led to greater similarity in outcomes for parents and children across the OECD?

Some results

- *Overall, family well-being outcomes are becoming more homogenous across countries.* Many outcomes for parents and children have converged across the OECD (Table 1.1), but the impact of trends lead into different directions: for instance, while the decline in infant mortality and the increases in life expectancy and educational attainment are conducive to the well-being of parents and children, the recorded increase in family poverty is not.
- *The important drivers of population structure – life expectancy and, in particular total fertility rates (TFR) – have converged considerably over the past four decades with the standard deviation in fertility rates across OECD countries more than halving between 1980 and 2010, contributing to a convergence in population structures across European OECD countries.*
- *Outcomes in educational performance and educational attainment have shown some divergence, but female employment participation has converged.* The widespread increase in successful completion of tertiary attainment has also contributed to greater female labour force participation with traditionally low-employment countries making bigger gains. The incidence of part-time employment among women has not converged significantly across countries.
- *Child well-being outcomes show a mixed pattern.* Child poverty has continued to increase over the past decade in most countries, with greater variation in outcomes across the OECD countries. While outcomes in the health area have improved and converged, notably in terms of infant mortality which has decreased over the past two decades in all countries.

Table 1: OECD countries have converged in family outcomes over the past few decades.

OECD average and standard deviation, 1980, 1990, 2000 and 2010

	OECD average				standard deviation			
	1980	1990	2000	2010	1980	1990	2000	2010
Population and demography								
Total fertility rate	2.18	1.91	1.68	1.74	0.80	0.50	0.42	0.37
Crude marriage rate	6.88	6.47	5.48	4.81	1.20	1.29	1.02	1.10
Crude divorce rate	1.68	1.87	2.01	1.86	0.89	0.84	0.83	0.90
Life expectancy at birth	72.6	74.7	77.1	79.7	3.74	2.90	2.64	2.45
Share of population aged 20-64	55.1	58.0	59.8	61.0	4.32	4.01	2.81	2.55
Education								
PISA reading literacy score	-	-	494.1	492.8	-	-	22.86	33.13
Tertiary attainment rate, aged 25-34	-	-	26.4	37.7	-	-	10.67	11.51
Employment								
Female employment rate	-	53.2	56.2	59.5	-	14.0	12.1	10.3
Incidence of part-time employment, women	-	24.5	23.3	25.2	-	12.3	12.6	12.3
Child well-being								
Child poverty rate	-	12.2	12.2	13.2	-	6.6	5.7	6.2
Infant mortality rate	-	12.9	7.5	4.9	-	12.6	7.0	3.9

All average and standard deviations are unweighted.

1. The data for 2009 on PISA literacy scores refer to 2009.

Source: OECD (2013a), OECD Family database

Section 2: have family policies become similar across countries?

This section will consider trends in spending on family policies and different family policy tools: child benefits, child-related (parental) leave and Early childhood education and care supports. In general, countries have expanded their family policies since the 1980s.

Some results

- *Across the OECD public spending on family benefits as a per cent of GDP has increased over time in most countries, but there has been no convergence in overall spending levels.* Countries have pursued different avenues to achieve their desired outcomes in work-family life balance, with different emphasis on financial support through cash benefits, parental leave and/or formal childcare.
- *There has been a small shift in spending toward early life years (0-6) in many countries.* On average across the OECD, the share of spending on early years has increased from 23% in 2003 to 25% in 2009, much of it in the form of investment in early childhood education and care. Spending in middle and late years continues to dominate because of the role public primary and secondary education.
- *Overall, parents have been entitled to longer child-related employment-protection and paid leave since 1970.* Both parents are now entitled to some child-related leave in most countries, but differences remain substantial in terms of duration of leave and payment rates.
- *The total time of paid (maternity and parental) leave that is available to mothers became increasingly different across countries during the 1970s and 1980s.* However, once maternity and parental leave systems became more established across countries there has been some convergence as countries with shorter leave entitlements began to increase entitlements in the 1990s and 2000s.
- *Over the past decade spending on formal childcare provisions, as a % of GDP, has increased in most OECD countries.* However, spending varies considerably across countries with no sign of convergence among OECD countries.

Table 2: Except for maternity and parental leave, there has been little convergence in policy indicators between OECD countries

OECD average and standard deviation, 1980, 1990, 2000 and 2010

	OECD average				standard deviation			
	1980	1990	2000 ¹	2010 ²	1980	1990	2000 ¹	2010 ²
Public spending on family benefits								
Spending on family benefits. % of GDP	-	-	2.08	2.61	-	-	0.99	1.05
Share of spending as cash benefits	-	-	56%	51%	-	-	21%	19%
Share of spending as in-kind benefits	-	-	37%	37%	-	-	17%	16%
Share of spending as tax breaks	-	-	7%	12%	-	-	13%	13%
Child-related leave								
Maternity and parental leave, duration of protected leave in weeks	40.9	62.5	76.0	82.3	48.6	60.3	60.9	57.4
Maternity and parental leave, duration of paid leave in weeks	17.6	37.4	45.5	47.5	14.2	45.1	51.8	37.9
Paternity leave, duration in weeks	0.1	0.1	3.4	4.7	0.3	0.4	7.4	7.7
Early childhood education and care								
Public spending on childcare and preschool for children aged 0-5 years	-	-	0.5	0.7	-	-	0.3	0.4
Childcare enrolment rate among children aged 0-2 years	-	-	20.5	32.6	-	-	15.2	17.8
Childcare and preschool enrolment rate among children aged 3-5 years	-	-	70.8	76.9	-	-	23.7	20.5

1. For public spending on family benefits the data refer to 2001; for early childhood education care spending and enrolment data refer to 2003.

2. For public spending on family benefits the data refer to 2009; for early childhood education and care spending the data refer to 2009.

Source: OECD (2012a), OECD Family database

How are policies and outcomes related?

Three important outcomes of family and child well-being

1. There are many important indicators of family and child well-being. However, for the econometric analysis to be robust, annual time-series of a sufficient length for a sufficiently large number of countries is required (see Annex for detail on the model specifications).¹ These data limitations also contribute to the selection of three indicators of family and child well-being: the total fertility rate, the female employment rate and the infant mortality rate.

- The total fertility rate (TFR) is an important indicator of family well-being as it reflects the difficulties adults are having in combining work and family commitments and the broader set of constraints they face in having as many children as they say they would like.
- Declining fertility rates in many EU and OECD countries will contribute to smaller working-age populations. Mobilising unused labour supply is thus an important element in any strategy towards ensuring future economic prosperity, and increasing female employment is key in this context. Female employment is an important indicator of family well-being for different reasons as, for example, it also reflects upon gender equality in labour market opportunities or family poverty risks as these are lowest in dual earner families.
- Infant mortality provides a measure of the survival chances of a child at the very start of his/her life and thus a central indicator for early child well-being. It is also indicative of a country's health and development status.

The policy determinants of family and child well-being

2. The policy drivers of fertility, female employment and infant mortality are numerous and it is not possible to capture all of them in the regression analysis due to data limitations. The analysis focuses on nine policy measures as exogenous variables for the regression model (detailed model specification, and justification of chosen specification, are available in the Annex).

3. The first three policy measures concern public expenditure for families. The indicators are separated to focus on public support provided to families around childbirth and later in a child's life.

1. Public spending on maternity leave per birth and birth grant, in percentage of GDP per capita;
2. Public spending on childcare services per child aged under 3 years, in percentage of GDP per capita;
3. Spending per child under age 18 in family cash benefits (e.g. child allowances, income support during leave), in percentage of GDP per capita;

¹ For example, the analysis here does not include family poverty. Data on poverty from the OECD Income Distribution database (OECD, 2013b) are available at 5-year intervals. The analysis here is based on annual data, which allows for testing many variables, and provides for more variation than an analysis based on 5-years average (see [DELSA/ELSA/WP1\(2013\)7](#)). It also facilitates the use of lagged dependent variables.

4. Four further policy measures are included that focus on leave entitlements to care for a child, and on childcare services.

4. Total length of paid leave available for mothers (maternity and parental leave combined), in weeks;
5. Total length of paid leave available for fathers (paternity and parental leave combined), in weeks;
6. Childcare enrolment rate for children aged 0-2 years inclusive;
7. Pre-school enrolment rate for children aged 3-5 years inclusive;

5. The last two policy measures relate to work incentives for second earners in couple families, often women.

8. Tax incentives to work part-time – the difference in the household disposable income between a couple-parent household with two children, where one adult earns the entire household earnings (133% of average worker wage) and a couple-parent household where the two adults share the earnings (100% and 33% of average worker wage);
9. Relative marginal tax rate on a second earner.

6. The analysis also controls for unobserved country characteristics as well as for time effects (the Annex contains a detailed description of the model specifications). To address potential bias in the model due to the omission of explanatory variables which are correlated with both the policies and outcomes, a series of control variables are introduced into the model as additional regressors. These control variables capture the socio-economic and institutional context within countries and over time that are likely to have an effect on fertility, female employment and infant mortality. Ten control variables are considered: (i) GDP per capita, (ii) employment protection legislation index, (iii) incidence of part-time employment among women, (iv) incidence of part-time employment among all persons, (v) public employment as a share of working-age population, (vi) service sector employment as percentage of total employment, (vii) unemployment rate, (viii), male employment rate, (ix) public expenditure on health (only in regression model for infant mortality), and (x) number of years spent in education by women. The results are summarized in Table 1 (Annex Table A1 contains relevant detail).

Policy determinants of total fertility rate

7. The model specifications suggest that the following public policies are among the most important (statistically significant) drivers of total fertility rates among EU and OECD countries (Table 1, column (a)):

- Public spending on family cash benefits appears to be associated with increases in the number of children per woman.
- The length of child-related leave for mothers and the childcare enrolment rates (age 0-2) tend to increase the TFR. The duration of paternity leave and pre-school enrolment rates (age 3-5) are also positively associated with the TFR, but their effect is less statistically significant.²

² Both maternity and paternity leave variables reflect only the legislated length of leave and do not concern actual take-up rates. Mothers usually make greater use of available leave provisions (OECD, 2013a,

- The number of years that women spend in education is associated with women having fewer children. Women who study longer may enter the workforce at an older age and start a family later in life, thus having fewer or no children (OECD, 2011a). By contrast, female employment has a positive effect on the number of children per woman, but the effect size is small.

8. The positive and varied effects of financial transfers, child-related leave and childcare on the number of children per woman is consistent with the findings by Luci-Greulich and Thévenon, 2013, and Gauthier, 2013, suggesting that a combination of these forms of support for working parents is likely to facilitate parents' choice to have children.

PF2.2). Since the length of leave available to fathers is correlated with total leave available to mothers, the coefficient for paternity leave is likely to capture part of the effect of maternity leave on family outcomes.

Table 1. Effect of family policies on fertility, female employment and infant mortality across the EU and OECD

Regression results of a two-way fixed-effects model with panel-corrected standard errors

	OECD 30			EU 19		
	LN Total fertility rate	LN Female employment rate	LN Infant mortality rate	LN Total fertility rate	LN Female employment rate	LN Infant mortality rate
	(a)	(b)	(c)	(a)	(b)	(c)
Family spending and benefits						
Spending on leave and birth grants	+	=	=	=	=	=
Spending on childcare services	=	=	=	=	=	=
Spending in family cash benefits	+	=	=	+	=	=
Leave entitlement and childcare services						
Weeks of paid leave for mothers	+	=	-	+	=	-
Weeks of paternity leave	+	=	=	+	=	=
Childcare enrolment rates (lagged for (b))	+	+	-	+	+	-
Pre-school enrolment rates (lagged for (b))	+	+		=	=	
Tax based work incentives for women						
Tax incentives to work part-time	=	++	=	=	++	=
Relative marginal tax rates on second earners	++	=	=	=	=	=
Control variables						
GDP per capita	=	++	=	=	++	=
Squared GDP per capita	=		=	=		=
Female employment	+		=	+		=
Male employment			=			=
Incidence of part-time employment amongst female employees	=			=		
Incidence of part-time employment amongst total employees		+	=		=	=
Unemployment rate (lagged for (b))	=	=		=	=	
Number of years spent in education by women	--	=	=	--	=	=
Employment in services		++			++	
Employment in the public sector		--			=	
Employment protection legislation index		=			=	
Total fertility rate		=			=	
Public health expenditure			--			--
Public social expenditure			-			-

A positive/negative sign indicates an effect which increases/decreases the outcomes. "+" (or "-") indicates that the standardised coefficient is positive (or negative) but is less than 5% (0.05) for one standard deviation change in the unit, and "++" (or "--") if the standard coefficient is 5% or more. The threshold of 5% (0.05) implies that every time the independent variable changes by one standard deviation, the estimated outcome variable changes by on average 5% of a standard deviation, all other things being equal. Please refer to the Annex for the effect sizes.

Values in parenthesis (**, *,) indicate that the estimated coefficient is significant at the 1%, 5% and 10% levels respectively.

"=" indicates insignificant estimates (less than at the 10% level), regardless of the value of the coefficient.

Source: OECD calculation of data on family policies and outcomes from OECD (2013a) OECD Family database

Policy determinants of female employment

9. The results also suggest that the following two public policy areas are among the most important drivers of female employment rates among EU and OECD countries (Table 1, column (b)):

- Childcare and pre-school enrolment rates, both in current and lagged form, have a small but significant effect on female labour force participation, and these effects are much more robust than the effects of paid leave or other family benefits. Combined with the positive association with fertility rates (see above) the analysis highlights the importance of formal childcare provisions as they allow women to stay in the labour market and reduce barriers that childbearing may pose to female employment.
- Tax incentives to work part-time are positively associated with female employment, most likely as working part-time facilitates maternal employment and helps parents reconcile work and family responsibilities. Similar associations are observed for the incidence of part-time employment amongst total employees: as part-time employment opportunities become more widespread, the proportion of working women in the population appears to increase.

10. An increase in the size of the service industry also tends to raise female employment, suggesting that this sector provides greater opportunity for female employment. By contrast, the expansion of the public sector has little effect on female employment.

11. In general the findings in Table 1 in our analysis for female employment are consistent with the findings for female labour force participation as in Thévenon (2013), who also found significant positive effects of female educational attainment on female employment. [DELSA/ELSA/WP1\(2013\)7](#) also found that cash, but particularly in-kind supports can play a significant role in boosting female employment.³

Policy determinants of infant mortality

12. The model specifications suggest that the following public policies have a significant effect on infant mortality among EU and OECD countries (Table 1, column (c)):

- Public expenditure on healthcare is by far the most important factor affecting infant mortality: increases in public health spending greatly reduce the incidence of infant mortality.
- The duration of paid leave that is available to mothers also reduces infant mortality, although its effect is not as strong as for public health spending. Childcare enrolment (0-2) and the overall magnitude of welfare states (public social spending minus spending on health and family benefits) are indicators that reflect the overall ability of family and social services to identify health issues at an early stage, and they also have a negative association with infant mortality. However, the associations are weak (effects are small and of limited statistical significance).

³ Thévenon (2013) looks at the effect of some of the important policy drivers on full-time and part-time female employment separately. This study's findings include an unambiguously positive correlation between the provision of childcare to children under 3 years of age and both full-time and part-time female participation in the labour market, but also that spending on childcare exerts a negative influence on part-time work, which suggests that women move from part-time to full-time work if, other things being equal, longer and/or better care is provided; part-time work appears to be more likely when there are constraints in the provision of affordable childcare services of good quality.

Section 4: Family policies response to the on-going crisis

The onset of the crisis has had negative effects on employment and households' income. Since 2007/2008 child poverty has continued to rise, and increases in female employment have begun to reverse. The recovery in fertility rates since the early 2000s has also stalled in many countries. In the early phases of the economic crisis, public spending on family benefits increased from 2.3 to 2.6% of GDP on average across the OECD, with a larger increase in countries with largely income-tested systems such as Ireland and the United Kingdom. But in many OECD countries a shift in the fiscal stance is now taking place to tackle unprecedented deficits and debt-to-GDP ratios. Countries are currently reviewing and reforming their social programmes and family supplements and child benefits are under scrutiny.

Since 2010, many fiscal consolidation measures have targeted child or family allowances. In the early phase of the crisis, child or family allowances (including tax allowances) were increased in a number of countries on a temporary basis, but often family support had already been extended in the previous years Table 4. For instance in France income taxes for low income families were reduced, while in several other countries (Germany, Italy, Hungary) one-off benefits were paid to families in need. A few countries (e.g. Italy and Poland) also created additional housing benefits. But since 2010, more consolidation measures have been put in place, and some of the cuts included parental leave policies, as well as temporary postponements or reductions in payments. A number of countries froze benefits and/or tightened eligibility conditions (e.g. Greece, Hungary, Netherlands and the United Kingdom). Some froze or reduced birth-related benefits (Czech Republic, and the Baltic countries). Reduction in housing support was less frequent.

Tax/benefit support for families

This section will include a trend analysis of the household income situation of families with two children on basis of tax/benefit models. It will show that while increasing in the early 2000s in many countries, cash support and total net benefits for families have become less generous since the onset of the global economic crisis. The fall in public support for families has been greater for sole-parent families, and there is some convergence in support levels as the largest decreases have taken place in countries with more generous support.

Table 1. Table 4: Cash support has become less generous, especially for sole parent families

OECD average and standard deviation, 1980, 1990, 2000 and 2010

	OECD average				standard deviation			
	1980	1990	2000 ¹	2010 ²	1980	1990	2000 ¹	2010 ²
Cash benefits for families as a share of net income								
Family benefits for couple parents on average wages	-	-	3%	3%	-	-	3%	3%
Family benefits for sole parents on average wage	-	-	10%	8%	-	-	7%	6%
Net additional cash support for couple parents on average wages	-	-	5%	5%	-	-	3%	3%
Net additional cash support for sole parents on average wage	-	-	14%	13%	-	-	7%	6%

1. For cash benefits for families the data refer to 2001.

2. For cash benefits for families the data refer to 2011.

Source: OECD (2012a), OECD Family database

Table 4: Changes in Family-related Benefits (family benefit / child benefit / birth-related benefit / childcare benefit), selected countries, 2009-2012

Country	Type of benefit	Year	Eligibility	Benefit level / duration	Program phased in (+) / out (-)	Reform	Description
Austria	Family benefit	2009		+		One-off family allowance	
	Tax credit	2009		+		Increase in tax-credit for childcare	
Canada	Family related Tax Credits	2011		+		Several measures enhancing non-refundable tax credits for families with children.	
	Maternity Leave	2012	-			Persons no longer authorized to remain in Canada no longer eligible to EI maternity or parental benefits.	
Czech Republic	Income tax	2009	+			Temporary reduction on income tax for low-income families	
	Family benefit	2011-2012	-	-		Parental and social allowance more restrictive and less generous	
	Maternity leave	2009		-		Decrease in replacement rat	
	Birth grant	2011	-	-		More restrictive and less generous	
Estonia	Tax-break	2009		+		Increase for families with 2+ children	
	Tax credit	2009		-		Additional tax-relief removed	
	Family benefit	2011	-			Parents no longer eligible while receiving paid parental leave	
	Study loans	2009		-		For parents with children in school	
France	Family benefit	2009		+		One-off family allowance top-up	
	Income tax	2009	+			Reduction in bottom tier tax	
	Childcare provision	2009		+		One-off increase in childcare vouchers	
Greece	Maternity leave	2009	+			Include mothers in the private sector	
	Child benefit	2012		+	+	New means testing	
	Family benefit	2012	-	-	-	Extension of family allowance for third child onwards abolished	
Hungary	Family benefit	2009		+		One-off payment for low-income families	
	Childcare provision	2009		+		Extension for low-income families	
	Family benefit	2011		-		Temporary freeze on universal allowance	
Ireland	Maternity leave	2009		+		Increase in replacement rate	
	Childcare provision	2009		+		Free pre-school year	
	Child benefit	2009	-	-		Reduction in benefit and age restriction	
Italy	Family benefit	2009		+		One-off payment to low-income families / temporary increase in family allowance	
	Birth grant	2009		+		Temporary lump sum payment	
	Family benefit	2009		-		One-off payment abolished	
Japan	Child benefit	2010-2011	+			Increase in amount	
	Birth grant	2011		+		Increase in amount	
	Childcare provision	2009		+		New voucher for children under 12	
Luxembourg	Birth grant	2010		-		Birth grant abolished	
Spain	Family benefit	2010		+		Increase in amount	
Sweden	Family benefit	2010		+		Increase in amount	
United Kingdom	Child benefit	2009		+		Increase in amount	
	Income tax	2009		+		Increase in tax threshold for low-income families	
	Tax credit	2009	-			Reduction in income test threshold	
	Birth grant					Abolition of a "Health during pregnancy" grant	
United States	Tax credit	2009-2011		-			

Note : For Canada, information does not include Quebec.

Source: OECD Family database and 2013 questionnaire on social policies in the crisis. Note : A "+" means an expansion of eligibility conditions or an increase in generosity of existing programmes, or a new programme phased in. A "-" means the reform headed in the opposite direction. Countries were selected on the basis of reforms being probably linked to the economic downturn or fiscal consolidation.