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Résumé

Un important développement des congés parentaux en faveur des parents qui travaillent a été réalisé durant les dernières décennies qui ont vu un fort accroissement de la participation des femmes à l'emploi. Ainsi, 17 semaines de congé rémunéré étaient octroyées en moyenne dans les pays de l'OCDE en 1980, 48 semaines en 2011, avec des disparités fortes de durées selon les pays. Nous estimons l'effet de l'allongement des périodes de congé accordés après une naissance sur les situations relatives des femmes et des hommes en matière d'emploi, à partir de données collectées pour 30 pays de 1970 à 2010. On trouve que l'allongement de la durée du congé a un petit effet positif sur le taux d'emploi des femmes (et négatif sur la différence homme-femmes), lorsque la durée du congé est inférieure à un maximum de deux ans (la différence homme-femmes est réduite de 2 points de pourcentage lorsque le congé est de deux années); au-delà, l'allongement supplémentaire du congé exerce un effet négatif sur le taux d'emploi des femmes et contribue à accroître les différences hommes-femmes. Les semaines de congé ont aussi un effet positif sur la durée hebdomadaire des femmes relativement aux hommes, jusqu'à un certain point. En revanche, les différences de revenus salariaux des employés à temps plein sont accrus par l'octroi de congé.

Mots clés : congé parental ; emploi des femmes ; genre

Abstract

Paid parental leave has gained greater salience in the past few decades with the growing participation of mothers in the workforce. Indeed, the average number of weeks of paid leave to mothers among OECD countries increased from 17 in 1980 to 48 weeks by 2011, but with very large cross-country variations. We investigate how increases in periods of paid leave after a birth affect prime-age labour market outcomes for men and women in 30 OECD countries from 1970 to 2010. We also examine gender differences in outcomes. We find that extensions of paid leave have a positive, albeit small, influence on female employment rates and on the gender ratio of employment, as long as the total period of paid leave does not exceed two years. Weeks of paid leave also raise the average number of hours worked by women relative to men, up to a certain limit. By contrast, the provision of paid leave widens the earnings gender gap among full-time employees.

JEL classification: E24, J16, J38

Keywords: Parental Leave, Gender, Female Labour Force Participation, Wage Gap.

Introduction

Parental leave entitlements give employment protection, and sometimes income support, to workers who take time off work to care for their newborn (or newly adopted) children. Parental leave policies are multidimensional.. First parental leave has a social dimension as parental leave may affect the health of working mothers as well as the physical and emotional development of children. Parents' decisions about whether or not to have children may be also affected by leave, which is an integral part of the work-life balance and demographic policies. Lastly, there is evidence on the economic dimension of parental leave since it affects labour force participation and labour market regulation. Governments may view weeks of leave as a less expensive family support solution than providing formal childcare services, although such an attitude overlooks the potentially adverse effects of lengthy leave on labour market outcomes. So leave entitlements must be designed with a view to balancing different policy objectives. In particular, concerns about children's well-being may need to be weighed against the effects of leave entitlements on parental labour market outcomes, especially those of women who are most likely to take them up (Galtry and Callister, 2005; Ray et al., 2010; OECD, 2011a).

Entitlements to parental leave around the time of childbirth have greatly expanded over recent decades in most OECD countries. The basic right to a few weeks leave before and after childbirth was the first entitlement granted to working mothers. All OECD countries now grant such periods of "maternity leave" and, with the exception of the United States, ensure that income support is paid during this period. They have also introduced additional parental leave entitlements for both parents, although their length, payment rates, and transferability between parents vary considerably from country to country. Differences in the design of leave policy (the length and the payment rate) influence the extent to which parents use and share their rights. If the length of parental leave is too short, the mother and child's well-being may be at risk, whereas if it is too long, parents' careers may suffer.

A balanced use of leave entitlements by both parents after childbirth is also good for gender equality and improved female labour market outcomes, but mothers remain, by and large, the main users of parental leave. The upshot is that, in many countries, parental leave policies effectively perpetuate existing gender differences in the provision of care and unpaid household chores. Since fathers are often the main earners in families, women are likely to take most of the available leave in order to keep the loss of household income to a minimum. Payment rates are a key parameter. Some countries have attempted to achieve a more gender-balanced use of leave entitlements by increasing payment rates and/or granting individual rights that parents cannot transfer to their partners. While non-negligible, success here is limited in that gender differences in the use of parental leave remain wide in practice. As a consequence, the labour market effect of leave chiefly impacts on women.

Expectations are balanced. On the positive side, the provision of leave or the extension of existing rights for the birth of a child can be expected to increase female labour supply before and after childbirth: working before having a child becomes a more attractive prospect, as does returning to work – provided, of course, that the mother has worked long enough to be eligible for parental leave. However, if employees take up very long leave entitlements, they may become detached from the labour market as their skills depreciate. They might also have trouble getting the same job back. Moreover, consequences of leave mandates also depend on how employers respond. Some may be reluctant to hire women, whom they perceive as more likely to take leave, if similarly qualified male workers are available. They may also seek to keep women in jobs where time off has a limited impact on the production process or where it is relatively easy to replace them. All this may impact both the female participation rate and their earnings.

While parental leave protects the right to return to work, there is often no strict guarantee that workers can go back to the same job.

Plainly, however, the different perspectives on the labour market outcomes of paid leave mandates make it difficult to draw conclusions with any certainty as to the overall effect.

Yet, a key issue is the potential non-linearities in the effect of length of leave on labour market outcomes. Quite "short" periods of leave are likely to have a limited but positive influence on female labour force participation as they may foster female labour market attachment. Longer leave may have more mitigated effects because it may attract women who are less attached to the labour market or who experience more difficulties in combining work and family life; employers may also be more reactive to long leave as there is an organisational cost to pay when employees are away from work for a long time. Therefore, the effect of leave is likely to vary with its duration, and to switch from positive to negative. Lessons from the last forty years of parental leave policies give us a new insight into the balance between the positive and negative effects of leave on labour market outcomes.

Beyond labour force participation, leave duration might also affect the number of hours that women spend at work relative to men. This is all the more likely given that working hours have become increasingly flexible over the past decades with, among other things, the development of part-time work. There are large gender differences in practices, however. The provision of leave might help women to maintain their working hours after returning to work, hence contributing to reduce the gender gap in working hours. But taking prolonged leave can also be a step towards reduced working hours and potentially a switch to part-time work, in which case the provision of paid leave will be associated with a decrease in women's working hours relative to men.

This paper assesses how the extension of paid childbirth-related leave entitlements in OECD countries since the early 1970s has shaped gender differences in labour market outcomes. Three types of outcomes are considered: employment rates, average working hours and weekly earnings of full-time employees. We use an empirical procedure that builds on the framework proposed by Ruhm (1998) who analysed how leave mandates affected labour market outcomes in 9 European countries up to the early 1990s. Here, we cover a much larger set of countries (30 OECD countries) for a longer period of time going from the early 1970s to the late 2000s, during which time many leave policy reforms were introduced. Variations in leave duration and payment are thus much larger than in Ruhm's analysis: lengths of paid leave varied from zero to 164 weeks in 2011, for example. These differences are quantitative and qualitative since they signal different political priorities. When the period of leave is kept relatively short the priority is often to foster parental (and especially maternal) work attachment and to boost full-time employment. By contrast, beliefs on child development and the benefits of maternal care over alternative childcare arrangements are often the main motives for extending the leave period up to few years (Kamerman and Moss, 2009; Huerta et al., 2011)². In this latter case, enhancing female employment is a second-order priority, and the provision of long leave might end up with more women working part-time and/or in low paid sectors. Our contribution goes deeper than Rhum's paper into the analysis of possible non linearities in the effects of weeks of paid leave on labour market outcomes. We also address estimation issues that Ruhm left out of his seminal paper, such as non-stationarity and the potential cross-country heterogeneity in relationships between leave duration and labour market outcomes.

1. PARENTAL LEAVE POLICIES IN OECD COUNTRIES

The legally enshrined entitlement to take leave from work to care for a newborn child has a long history in the OECD area.

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² The financial aspect is another government motive since extending lengths of "parental" leave by subsidising parents to take time off work to care for their children is often much less costly than expanding childcare capacity. Long leave can also be a means of deterring parents (particularly mothers) of very young children from supplying labour in periods of high unemployment (Kamerman and Moss, 2009; Martin, 2010).

The basic right to stop work for a few weeks prior to and after the birth of a baby was first granted to working mothers to protect their health and that of their child. This is "maternity" leave, often incorporated into social security systems alongside health insurance and paid sick leave. It ensures a period of rest from work for women before and after childbirth, and a return to their previous job within a limited number of weeks. Maternity or pregnancy leave is generally available to mothers only, but in some countries (Belgium, Finland, Germany, Israel, Italy, Portugal, Poland, Slovenia and Spain) part of the leave can be transferred to fathers under certain circumstances. Maternity leave that begins and ends either side of childbirth is mandatory, although when it starts and how long it lasts vary across countries and can, in any event, be adjusted for medical reasons or by employer-employee agreement.

Across the OECD, the average duration of maternity leave was around 19 weeks in 2011. It is longest in the United Kingdom (52 weeks), although the country has no parental leave scheme. There are no separate maternity and parental leave entitlements in Australia, but mothers may take only six out of 52 weeks of parental leave prior to the birth of their child.³ In the United States – the only OECD country that has no nationwide legislation on paid maternity leave – some states provide income support through either sick-leave insurance or maternity-leave programmes (Kamerman and Waldfogel, 2010).⁴

Additional leave entitlements to care for a newborn child have been progressively introduced as "parental" leave which can be taken by either one parent or the other after the maternity leave period or later on, usually before the child reaches eight years old. A few countries make no legal distinction between maternity/paternity and parental leave, though they may set aside a certain period of "parental leave" for the specific use of each parent.⁵

Payment conditions of leave entitlements vary widely across countries. Parental leave is unpaid in Ireland, the Netherlands, Spain, Turkey, and the United Kingdom. In all other countries it is paid – at least for part of the leave period – although payment rates vary widely. Twelve countries provide benefits that cover the full period of leave, while 14 provide financial support for only part of the job-protected leave time. In the Czech Republic and Norway, payment spanned a longer period in 2011 than job protection, which could make it difficult for recipients of benefit for the full parental leave period to re-enter the labour market. France is the only country where duration of benefit entitlement varies with the number of children. §

³ In fact, there is no statutory entitlement to maternity leave as such in Australia, although the country has granted entitlements to paid and unpaid parental leave since January 2011. Entitlements provide for up to 12 months of postnatal leave for women, of which up to six weeks may be taken prior to the expected birth of the child. For births after 1 January 2011, eligible mothers may receive payment for up to 18 weeks of leave under the Government's new Paid Parental Leave scheme.

⁴ Payment during leave is most often obtained through sick leave insurance in the United States (Kamerman and Waldfogel, 2010). Five states (California, Hawaii, New Jersey, New York, and Rhode Island) and Puerto Rico have Temporary Disability Insurance (TDI) programmes or cash sick leave benefits. A few others have enacted family paid leave (California, Washington, and New Jersey). Minnesota, Montana and New Mexico also have active At-Home Infant Care policies providing low-income working parents who choose to have one parent stay home for the first year of a newborn or adopted child's life, with a cash benefit offsetting some portion of the wages forgone.

⁵ Actually, the legal basis of parental leave varies across countries (OECD, 2011). It can be granted as either a family right that parents can divide between themselves as they choose, an individual right which can be transferred or not (both parents have an entitlement to a specified amount of leave). Moreover, as mothers are usually the main users of parental leave entitlements, some countries have introduced leave quotas to be used by fathers in an attempt to promote greater gender equality in the use of parental leave.

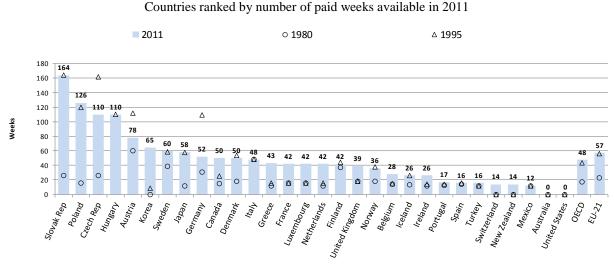
⁶ Note also that only parents of two or more children are granted three years of paid leave in France. Figure 1 shows the situation for the birth of a first child for whom six month of parental leave is available.

few countries (Finland, Norway and Hungary⁷) also grant additional entitlement for a childcare leave which can be taken after expiry of parental leave over which a per-family home-care allowance can be received.

So labour market outcomes are likely to depend on the total duration of leave, i.e. when both maternity and parental leave entitlements are combined. For this reason, we have calculated the total number of paid weeks granted to mothers when parental leave follows maternity leave entitlements. Some assumptions are needed to get this total, however, since in some countries parents have the choice between different durations and payment rates. Figure 1 shows the total obtained when the shortest, best-paid option is chosen by mothers after their maternity leave. This total varied greatly across countries in 2011 – from a few weeks of job-protected, but unpaid, leave in Australia and the United States to two to three years of paid leave in the Czech Republic, Hungary, Poland and Slovakia in 2011. Germany and Austria have also offered a three-year period of leave, but the shortest option, introduced respectively in 2007 and 2008, is shown in Figure 1. Finland and Norway also grant home-care allowance to parents up to the child's third birthday, but home-care leave on top of parental leave entitlements are not included here. A second indicator takes into account these different and longer parental leave options in our robustness checks.

Overall, the average total period available for leave in OECD countries has increased, although there are wide disparities across countries (see Figure A1 in the annex). Such differences also appear to be linked to the period when parental leave entitlements were introduced, suggesting that leave policies are governed by strong path-dependencies (authors' working paper). Countries that first passed parental leave entitlement legislation in the early 1970s currently grant comparatively longer post-childbirth leave. And while entitlements have undergone reform in many countries, most of the cross-country differences have been either maintained or accentuated over time.

Figure 1. Total weeks of paid leave granted to mothers(1) in 1980, 1995 and 2011



Notes: (1) Weeks of maternity and parental leave that women can take after maternity leave are included. Weeks of childcare or homecare leave have also been added where relevant. When there are several payment options, the shortest period with highest payment is taken into account.

Source: OECD Family database, from various sources Moss, P. (ed.) (2010), "International Review of Leave Policies and Related Research 2010", Employment Relations Research Series, No. 115, Department for Business Enterprise and Regulatory Reform,

⁷ In Hungary, non-insured parents can actually receive a flat-rate payment until the child's third birthday. Insured parents are eligible to a benefit of 70 per cent of average daily earnings from the end of the maternity leave period until the child's second birthday followed by the flat-rate benefit from the child's second to third birthdays.

Institute of Education, University of London; European Commission, Mutual Information System on Social Protection/Social Security (MISSOC), and information provided by the authorities of non-EU countries.

2. THEORETICAL BACKGROUND AND REVIEW OF FINDINGS

HYPOTHESES

Assessing the consequences of parental leave policies on male and female labour market outcomes is somewhat difficult because, by changing the cost of labour, they are likely to affect both supply and demand sides of the labour market. They may affect parents who take up their right to leave, but also, through labour market mechanisms, the demand for workers who seem to be at risk of doing so.

If leave entitlements did not exist, some women might quit their employment and stay at home for a quite extended period of time, or they may decide to work part-time after a childbirth. The provision of paid and employment-protected leave may prevent eligible women from giving up work entirely. It might thus lower the number of labour market exits and reduce the time spent by mothers away from work, and may also help women to maintain their working hours at the same level as before birth. If the duration of paid is increased, women may be less tempted to reduce their working hours (switch to part-time work) when they resume work in response to childcare constraints. The children of mothers who take extended paid leave are older when they resume work and the prolongation of leave, to some extent, gives them more time to find a childcare solution that matches their working hours. This positive influence will be felt if parents on leave do not experience a strong depreciation of their human capital that increases the cost of work interruption for the employer and employees. Such a depreciation of skills and human capital is likely to occur, however, if women remain out of their job for long period of time. Both the supply and demand sides might react to this situation.

On the supply side, women may have less incentive to go back to work if their earnings potential and career prospects become less attractive. Long leave may also be taken by mothers who are less attached to employment and who enjoy spending time with their children, and therefore become less likely to resume work after the period of leave. In such circumstances, the marginal positive effect of leave duration on female labour supply is likely to decrease as the length of the leave period increases, as suggested by Ruhm (1998). As for labour market participation, the positive effect on weekly working hours is likely to decrease along with the extension of the period of leave due to the selection process going with it. Thus, women who are strongly attached to full-time employment may become relatively less numerous to take a long parental leave than those "family-oriented" who are more likely to resume work with shorter working hours.

On the demand side, employers might also react to the risk of having female employees on leave, but here again the reaction might vary with the length (and the implied cost) of the leave period. Thus, mandated leave increases the likelihood that employees will resume work following the birth of their newborn and employers will thus reap returns on their investment in human capital (Klerman and Leibovitz, 1994). In that case, the cost of employees on leave borne by employers might be offset by the future rewards of having trained employees back to work. This positive pattern is, of course, more likely to be true for skilled and qualified workers than for low-skilled workers. However, if the period of leave is prolonged, employers may have to change the production process or to hire, and possibly train, temporary staff during the vacancy of parental leave takers, therefore raising significantly the non-wage costs of labour. Although fathers' take-up of parental leave is increasing, it remains too low to be a change that could affect directly employers' attitudes towards male workers. In these circumstances, employers may be less likely to recruit women (either a mother or at risk of becoming so) who are most likely to make use of long leave entitlements. Gender-asymmetric effects are then expected from the wide differences between women's and men's leave take-up. Since women remain much more likely than men to claim all their leave entitlements, we expect the adverse effect of long leave on demand for female employees to be the main cause of this asymmetry. But mandated leave can also have a knock-on positive influence on male employment if employers are increasingly reluctant to recruit women.

In all, the above discussion leads us to anticipate an effect of leave that depends on its duration. Granting few weeks of paid leave is most likely to have a positive effect on female employment and on the gender gap in labour market outcomes. We expect paid leave provisions to weakly affect men's labour market situation since they do not make much use of them. However, the positive balance might decline or even reverse with gradual extension of leave duration, under the influence of the supply and demand effects explained above.

Thus, the provision of paid leave is expected to raise both female-to-male relative employment rates and average working hours in comparison to a situation with no leave entitlements. The gender gap may widen up to a certain point with the prolongation of the leave period. Overall, the downward demand response of employers – if any – may be slight compared with the shift in female labour supply (particularly as leave benefits in most OECD countries are paid primarily through public funds), at least when leave is granted for a sensibly short period of time. Conversely, forces pushing down employment rates of women relative to men are likely to dominate when leave entitlements are extended to longer periods.

The effect of leave mandates on female-to-male difference in earnings is likely to follow the same pattern. On the one hand, employers may wish to invest in their female employees – especially those with high qualifications – if they expect them to resume work after leave, which increases labour productivity and women's relative earnings. But long periods of leave may encourage employers to recruit female employees primarily in jobs and sectors where employees on leave have a limited impact on work organisation. If women anticipate this, they are also more likely to select jobs where their earnings and career progression will be less affected by career interruption (Polachek, 1981). In such cases, women's wages are likely to fall in relative terms after a long period of leave (even if binding equal pay legislation may curb such effects).

The effects of leave policies may, over time, be modified by changes in normative attitudes to female employment, to which leave policies can contribute. If leave entitlements foster continuous female participation in the labour market, there will be growing acceptance from families and employers and greater career rewards for women.⁸ A careful assessment of the effect of leave mandates in the long-run should therefore aim at controlling for such time effects.

EMPIRICAL EVIDENCE

Empirical evidence corroborates the ambivalent influence of leave mandates on labour market outcomes. Several papers have established the positive effect of short leave mandates on mothers' return to work. In the United States, where leave entitlements are short (12 weeks of unpaid leave after birth, supplemented in some states only by payment), Berger and Waldfogel (2004) find that mothers employed in jobs covered by leave entitlements return to work more quickly after the leave than those who are not. The

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⁸ Changes in the supply side are, for instance, likely to occur through social interactions that may produce a knock-on effect as more women feel they can enter the labour market, invest in a career before having children, time childbirth, take maternity leave, and return to work afterwards (Bernhardt, 1993; Gustafsson and Kenjoh, 2007). In this perspective, Maurin and Moschion (2011) also show that the neighbourhood is an important vector for the transmission of socially normative attitudes towards mothers' labour force participation. In this context, women who are not yet in a position to claim paid parental leave would also benefit from its provision. They are also likely to benefit even further over time, as there is evidence that whole generations of women have been influenced by the shift in women's identity from a family-centred world to a more career-oriented one (Goldin and Katz, 2002; Goldin, 2006).

introduction of leave mandates for family or health reasons in some states has also been associated with a significant 4.7 point increase in the probability of working within nine months following childbirth (Han *et al.* 2009)⁹. The proportion of Canadian women quitting their jobs has fallen and the share of those returning to their pre-birth employers has increased since the introduction of 17-18 weeks of mandated leave (Baker and Milligan 2008). A further extension of job-protected leave, up to 70 weeks in some provinces, has been found to significantly increase the probability of women returning to their pre-birth employer.

But leave may be longer in some countries (e.g. Austria, France, Germany, and Norway). A short-term effect of for 2-3 years of leave has been to increase the time women spend off work. The long-term effects of these long periods of paid leave on labour market outcomes show mixed results. Norway, for example, introduced a "cash-for-care" allowance in 1998 for women who leave the labour market to care for a newborn child for up to three years, with part-time option. A few months after the allowance was introduced, the main effect was that women with children aged up to two years old shifted from full-time to part-time work (Ronsen, 2009). Some years later, they were more likely to leave work completely and receive the full rate of benefit. In all, Schone (2004) found that "cash-for-care" payment prompted an average 4% fall in the labour force participation of women with children below the age of three – with high-earning households and those with high levels of educational attainment being relatively less likely to take up the benefits (Aassve and Lappegard, 2009). In 1985, France also introduced a three-year cashfor-care allowance for women with three children, before extending it to households with two in 1994. As in Norway, this extension of parental care allowance led to an 11% reduction in the employment rate of mothers with a second child under three years of age (Piketty 2005). Evidence for Germany and Austria also suggests that long leave entitlements significantly increase the time women spend out of work, but does not show any significant impact on female labour supply. Germany had lengthened the duration of paid leave a number of times over the decades before shortening it in its most recent reform (in 2007). The earlier increases in the length of paid leave have been found to affect employment rates more than recent ones. Schönberg and Ludsteck (2007) show that the extension in job-protected paid leave from two to six months prompted the most delays in returns to work, while the 18-to-36 month extension in 1992 led to the least. Austria has also made several changes to its leave legislation over recent decades, enacting two major reforms in 1990 and 1996. In 1990, it lengthened the maximum duration of parental leave by one year-from a child's first to second birthday - before cutting it from 24 to 18 months. Lalive and Zweimüller (2005) concluded that the 1990 increase led to a significant increase in time effectively spent out of work. The depressing effect on employment rates seems to have lingered on, even after the mandated period of leave came to an end, with a reduction of 11 percentage points in the probability of being back at work within 36 months of a birth. The same authors also point out that parents resuming work after the job-protected period expires experience unwelcome labour market outcomes contrary to those who return more quickly (Lalive and Zweimüller, 2009). Lalive et al. (2011) disentangle the effects of the job-protection guarantee from those of income support in Austria by considering variations in paid parental leave durations for a constant period of job protection. Even correlated, the duration of payment is identified as the main determinant. Applying a cross-national perspective, Pronzato (2009) interprets the effects of variations in leave entitlements on differences in time spent away from work by women after childbirth in Europe between 1994 and 2001. She suggests that although job guarantees have no significant effect during the child's first year, they do during the second and third years. By contrast, leave payments do appear to postpone returns to work within the first year of a child's life, though not thereafter.

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⁹ Espinola-Arredondo and Mondal (2009) add that the impact of the Family and Medical Leave Act (FMLA) on female employment rates has been positive and significant in states that complement the benefits and eligibility criteria of FMLA.

A number of studies have also looked at the effect of leave mandates on earnings in the short and long run. Most observe a negative impact: women who make full use of their maternity or parental leave entitlements receive, on average, lower wages in the years following their resumption of work than those who return before leave expires. Evidence on how long this effect lasts is mixed, however. Several studies identify the persistence of wage penalties even as earnings grow. In Germany, for example, each year of leave is estimated to lower the wage received upon resuming work by 6% to 20% (Ondrich et al., 2002; Kunze and Ejrnaes, 2011; Beblo et al., 2006). Schönberg and Ludsteck (2007) find that wage penalties can be observed for as long as eight years after a mother returns to work. Lequien (2012) observes that in France – where the three-year paid leave period was extended to families with two children in 1994 – wage growth over the six years following the birth of a second child is lower among women who gave birth after the reform than among those who did so before. Each year of absence from work – up to 10 years after the reform – is estimated to lower wages by 7% to 17%. However, these results are challenged by studies that find no adverse effect on mothers' labour market outcomes in the medium or long term. For example, Lalive et al. (2011) did not discover any wage penalty in Austria, suggesting that the assurance of returning to the same or a comparable job is a good arrangement for protecting earnings. Zhang (2010) advances the same argument, estimating that Canadian mothers who return to work apparently recover their lost earnings in about seven years. Mothers who return to their original employers recover their wage levels fastest, even though they incur substantial income losses in the first two years after resuming work.

The relationship between extensions of leave entitlements, labour market outcomes, and gender differences has seldom been examined at the macro level (except Jaumotte 2003) since the most prominent study of Ruhm (1998), which looks at the impact of paid leave durations on employment trends in nine European countries¹⁰ from 1969 to 1993. The results show that lengthening paid leave has been associated with increases in female-to-male employment rates, but with (small) reductions in their relative wages. A modest, albeit negative impact, is also found for the duration of leave on the female-to-male ratio in weekly working hours. This paper performs an analysis which builds on Ruhm's approach, while expanding both its geographical area – spread is widened to 30 OECD countries with diverse parental leave policies – and the period of observation, which has been extended to 2010. This much larger time window allows, in particular, to consider the major changes in family leave that took place from the late 1980s onwards, with an increasing number of countries supplementing the basic rights to maternity leave with diverse parental leave entitlements. It also allows us to look deeper into the non linearities of the effect of paid parental leave which was suggested by Rhum's article, but insufficiently documented due to the limited variations in leave duration across the nine countries considered and over time. It is also increasingly difficult to accurately benchmark the cross-country differences in leave duration because of an increasing diversity of patterns and options granted to parents. For this reason, we also test the results' sensitivity to alternative measures of the periods of paid leave. Lastly, we improved the potential inconsistencies in estimates due to non-stationarity and heterogeneity in the data.

3. DATA ISSUES

This analysis draws on the information collected for the OECD Family database on changes in childbirth-related leave legislation spanning from 1970 to 2010 for 30 OECD countries. ¹¹ The total duration of paid

¹⁰ These nine countries are: Denmark, Finland, France, Germany, Greece, Ireland, Italy, Norway and Sweden.

¹¹ This information has been provided by national experts and/or OECD delegates in Ministries of Social Affairs who were also asked to comment on coding issues. For recent years, the information provided by the *International Network on Parental Leave Policies and Research* were also used. Detailed documentation on leave legislation and

leave that women are authorised to take just before and after childbirth has been estimated each year on the basis of this information. Figure A1 in the Annex shows changes in the main explanatory variable, *i.e.* the duration of *paid* leave. With the exception of Australia and the United States, all the OECD countries considered have either lengthened or shortened leave during the observation period. Using the information on leave entitlements to code trends in leave duration is not a straightforward matter. It requires assumptions about the schemes and options considered. Furthermore, parents can often choose between options with different payment rates and durations. The present paper considers the maximum period of time during which a woman can receive payment while on maternity and/or parental leave. Payment is a strong incentive to take leave. For this reason, we take into account periods of *paid* leave for which changes in legislation are most likely to be associated with changes in take-up and labour market behaviour.

However, alternative restrictions can be used to compare leave duration.¹³ In many countries, employees' leave entitlements are regulated by the labour code and collective agreements, while the payment of income support during leave is often regulated by social welfare legislation (and payment can take the form of a parental leave benefit or a cash-for-care allowance). For this reason, the period of leave with employment- (or job-) protection can be different than the period for which a parent receives income support. Here, the total duration of paid leave takes into account the period for which a family can receive a homecare allowance, even though it may be separate from the right to take leave from work and from job protection.

Furthermore, different payment options (combining various lengths a various payment rates) can be offered to parents with a newborn child. A few countries (for example Finland, Sweden in 2010) also grant a higher wage replacement rate during an initial period of parental leave and then a lower one for the rest of the period. Since changes are not very frequent in any country, results are likely to be sensitive to how the independent variable is estimated. For this reason, the analysis in this paper examines the sensitivity of results to the coding of leave legislation into variables measuring the duration of paid leave. For the duration of paid leave, two alternative measures have been considered, depending on the payment option taken into account:

- A first version of the duration variable considering the shortest period of leave with the highest pay is coded when there are several payment options.
- A second version considers the longest period with lower pay. In some countries, parents can prolong their absence from work by taking 'childcare' leave and receiving a cash-for-care benefit after their basic 'parental' entitlement. This period is included in this second estimation of the duration of paid leave¹⁴

coding issues is available on the OECD Family database (indicator PF2.5 "Trends in leave entitlements around childbirth").

¹² This total length of leave is given by summing maternity and parental leave entitlements but it includes neither periods of maternity leave that overlap with parental leave entitlements nor parental leave entitlements for exclusive use by the father.

¹³ One key difference with respect to Ruhm's (1998) study is that he considered paid leave at a time when basic (maternity) rights for mothers were most often not supplemented by the 'parental' leave entitlements introduced mainly during the 1990s and after. A combination of the two types of entitlements is considered here because they cannot be distinguished from each other in countries where there is only one legislative framework for parental leave. The mother's total period of leave entitlement is probably, therefore, a more accurate proxy for analysing the influence of leave policies on labour market outcomes.

¹⁴ For France, the entitlements considered are those attached to the birth of a second or subsequent child, as such payments are granted for longer periods than for the first birth.

The main conclusions of the present paper are drawn from the empirical assessment using the duration of paid leave as estimated in the first version. However, take-up rates of cash-for-care allowances are far from negligible in countries where this option exists. ¹⁵ For this reason, the robustness of results is checked by using the second estimation of leave duration in the regression analysis. The results are reported in the Appendix.

Changes in leave entitlements obviously affect the employment profile of leave takers, but as argued before, it can also influence the situation of employees who do not make full use of these rights. For this reason, the main aim of our analysis is to estimate the overall 'effect' of a lengthening of the period of paid leave on gender differences in labour market outcomes at the (macro) national level. In that respect, the evaluation carried out here is an intention-to-treat analysis which accounts for the overall effect of policy changes on both treated and non-treated populations.

The analysis draws its data on employment rates from the OECD Labour Force Statistics, which provide time-series data on employment ratios by age category. The dependent variables are natural logs of gender-specific employment-to-population ratios, average working hours, and hourly wage rates. The analysis focuses on women and men aged 25 to 54. Young adults and seniors are consequently excluded, as they face specific employment issues and are less likely to be affected by leave legislation. A continuous increase in employment rates for women aged 25 to 54 over the years in almost all countries is observed. In contrast, employment rates for men between 25 and 54 years old were relatively stable or declined slightly over the same period. Measurement errors may, however, affect the comparison of employment rates across countries since, despite international conventions, ¹⁶ national employment statistics use different standards in accounting for employees on leave.

Data on working hours in the analysis refer to the average number of hours worked per week job per worker in his/her main job, disregarding his or her age. These data are available for 27 countries and a time span that varies from country to country. The data for weekly earnings (in USD PPP) cover full-time workers only and are taken from the OECD Earnings database. These data are available for 10 countries only, and time series are often limited to a few years. The analysis considers only those countries where earnings have been observed for at least nine years, all of which show either a stable or increasing ratio of female-to-male earnings.

4. EMPIRICAL SETTING

Fixed-effect models are used to estimate separately for men and women the impact of within-country changes in leave duration on the three following employment outcomes: employment rates, average working hours, and earnings. The effect on gender gaps is then estimated.

The labour market outcome Y_{ijt} – measured in natural logs – for each sex i (where f indicates female and m males) in country j in year t is assumed to be determined by:

$$Y_{ijt} = \beta_i L_{jt} + \alpha_{ij} C_j + \theta_{ijt} X_{ijt} + \delta_{jt} X'_{jt} + \partial_{it} T_t + e_{ij} t + \varepsilon_{ijt}$$
[1]

¹⁵ For example, it is estimated that in the mid 2000s 86% of Finnish families took advantage of the home care allowance at least for some of the time after parental leave (Moss and Korintus, 2008).

¹⁶ For European countries for instance, EU guidelines stipulate that parents on parental leave must be counted as employed if the period of absence is less than three months or if they continue to receive a significant portion of previous earnings (at least 50%). However, national treatment of long or unpaid parental leave might vary.

$$\begin{split} Y_{ijt} &= \beta_i L_{jt} + \alpha_{ij} C_j + \theta_{ijt} X_{ijt} + \delta_{jt} X'_{jt} + \partial_{it} T_t + e_{ij} t + \epsilon_{ijt} \\ & \text{where.} \end{split}$$

- L_{it} is the duration of paid leave in weeks;
- C_i is country-fixed factors;
- X_{ijt} are other time-varying, sex and country-specific factors that drive the evolution of labour market outcomes, while X'_{jt} are those factors which affects the outcomes of both sexes identically;
- T_t is year dummies which capture the impact of the time-specific circumstances that all countries faced over the 1970-2010 period;
- $-e_{ij}$. t denotes exogenous trends in outcomes (assumed to be country- and sex-specific and linear).

 β_i provides an unbiased estimate of leave effect if ε_{ijt} and L_{ji} are uncorrelated. If, however, the time-varying country effects are correlated with changes in parental leave entitlements (as, for example, when countries lengthen leave entitlements at times of growing unemployment) bias is introduced into the estimates. One possible way of overcoming this issue is to estimate the influence of lengthening leave duration on the female-to-male difference in labour market outcomes:

$$Y_{fjt} - Y_{mjt} = (\beta_f - \beta_m) \cdot L_{jt} + (\alpha_{fj} - \alpha_{mj}) C_j + (\theta_{fjt} - \theta_{mjt}) (X_{fjt} - X_{mjt})$$

$$+ (\partial_{ft} - \partial_{mt}) T_t + (e_{fj} - e_{mj}) T + (\varepsilon_{fjt} - \varepsilon_{mjt})$$
[2]

or equivalently,

$$\Delta Y_{jt} = \beta L_{jt} + \propto C_j + \theta \Delta X_{jt} + \partial_{jt} T_t + e_j T + \varepsilon_{jt}$$
 [3]

which can be interpreted as a "difference-in-difference" estimate (Ruhm, 1998) where β measures the effect of paid leave duration on gender differences in labour market outcomes.

Since women use almost all days of parental leave, β_m may be close to zero. In this case β will provide an unbiased estimate of β_f . However, since men are increasingly taking days of leave, and especially because of the knock-on effects of women taking leave on men's situation, β_m could also be positive, but smaller than β_f . Under these circumstances, β captures the effect of leave duration on gender differences in outcomes and will approach β_f results when β_m is close to zero¹⁷

The effect of the duration of parental paid leave might not be linear. A short period of leave may, for example, be expected to have a positive influence on employment rates, whereas a negative or lesser effect may arise from long leave entitlements. Then a continuous variable may poorly capture the effects of parental leave mandates if threshold effects exist. The potential non-linearities are first tested by the inclusion of quadratic values of leave duration. To allow for "step effects", models are also re-estimated with an "any leave" dummy (equal to 1 if the country has enacted a paid leave mandate and 0 otherwise).

 $^{^{17}}$ β_f and β_m might also have opposite signs, if employers respond to longer leave by substituting employment away from women and toward men, or *vice versa*. In this case, approximating β_f with β will result in an underestimation.

Indeed, five OECD countries (Canada, Iceland, Korea, New Zealand and Switzerland) actually introduced paid leave after 1970, the incidence of which can be captured with the inclusion of a dummy variable in the model specification. "Any paid leave" is therefore equal to 1 if the country has enacted a leave mandate and 0 otherwise, so that it captures the existence of a step effect due to the introduction of leave entitlements of a few weeks. Lastly, non-linearities in the influence of leave duration on labour market outcomes are further investigated with piecewise linear regressions that allow parameters measuring this influence to change along with the increase in leave length. In this perspective, leave length is divided into four categories to clearly distinguish between short and long periods of leave: less than 18 weeks – which is the average OECD duration of maternity leave in 2011; between 19 and 52 weeks; between 52 and 104 weeks; and more than two years.

Because changes to leave duration are infrequent, it is important to control for other country- and time-specific confounding factors (denoted by X'_{jt}) that may be correlated with changes in leave duration. Annual variations in the relative increase in GDP *per capita* are used. Time trends are systematically included in the regression to account for exogenous trends in labour market outcomes.

Some additional issues complicate the estimation of equations [1] and [3]. First, the nature of changes in the number of paid weeks of parental leave exhibits high persistence with a non-stationary profile that has to be taken into account in the estimation. Although the overall number of changes in leave duration is quite large (a total of 110 changes are counted over 40-year period under consideration), the number of changes within each country is often small (3.6 changes per country on average), and the duration of leave remains unchanged for long periods of time. Secondly, the trends in labour market outcomes show a non-stationary profile due to the multiple factors which, over and above leave policies, drive their country- and sex-specific increases. In order to remove these trends, country- and sex-specific (linear) time trends (e_{ij} , t) can be added to the set of regressors, with the advantage that they are exogenous and fit the changes in (the log) of labour market outcomes. Nevertheless, time trends may not be sufficient, as the variables need to be cointegrated in order to guarantee the consistency of the estimations. This condition was therefore tested with the unit root test proposed by Im $et\ al\ (2003)$. The test was applied to the residuals obtained from the estimations of equations [1] and [3]. The test assumes independence across the cross-sections, an assumption which is in turn tested through the test of cross-section independence designed by Pesaran (2004) ¹⁸.

Some other possible problems have been checked. First the possible delay between policy implementation and behaviour changes, has been tested with lagged values. Secondly, the possible reverse causality between employment trends and leave policies is also a concern if leave is lengthened when tensions occur in the labour market. One standard strategy for overcoming this endogeneity problem involves using instrumental variables. However, there is no obvious good exclusion variable, and we used the lagged values as instrument (which is quite popular but not the best strategy). Nevertheless, both lagged value of the variable of interest and IV regressions show similar results (authors' working paper). Lastly, a final concern is the potential heterogeneity in the effect of leave duration on outcomes across countries and over time (Lee *et al.*, 1997). A useful approach in such an event is to use the Mean Group estimator (MG) proposed by Pesaran and Smith (1995) or an alternative method, the common correlated effects (CCE) specification, to take into account the fact that countries might react differently to the same shock (Pesaran, 2006). These estimation procedures, however, did not provide convincing results due to the

¹⁸ The test is performed for the analysis of employment rates for which there are enough common observations across panel, which is not the case for data series on working hours and earnings. Furthermore, the data set on earnings does not meet the requirement of having at least 10 observations per country to perform the Im-Pesaran-Shin test of residuals stationarity.

highly unbalanced nature of our panel. The corresponding results are therefore not commented in the next section but available on request (authors' working paper).

5. RESULTS

THE EFFECT OF PAID LEAVE DURATION ON EMPLOYMENT TRENDS

Table 1 reports a first set of employment rate estimates, for each sex and the gender gap separately as described in equations [1] and [3]. Female and male employment rates are expressed as a function of the highest number of available paid weeks of leave (divided by 100 for ease of parameter interpretation). All model specifications include country-fixed effects to capture the effects of within-country changes in leave duration. Time dummies and country-specific (linear) time trends are also added to eliminate the effect of exogenous factors on (changes in) labour market outcomes. Yearly variations in the relative increase in log GDP are used to further control for any time- and country-specific events that may have occurred at the same time as changes in the leave legislation. The first column tests for the linear relationship between the number of paid leave weeks on the labour market participation rate, whereas the next columns reports several tests of non-linearities.

The influence of leave periods on employment rates is positive but not a linear function of the number of weeks, as suggested by the lack of statistical significance of the leave duration linear coefficients in Columns 1 and 3. Estimations with non-linear relations between leave duration and employment rates perform better and also give prominence to gender differences in the reaction of employment to leave entitlements. The estimation in Column 2 shows that the extension of leave duration contributes to an increase in female employment up to a certain limit, after which employment rates are negatively affected by additional extensions of leave. As Figure 4 illustrates, female employment rates are at their highest when leave is slightly longer than two years (125 weeks), then start to fall with additional weeks of leave. Moreover, Column 4 suggests that female employment rates are most affected by the duration of leave, while the introduction of paid leave *per se* – captured by the dummy variable – does not have a significant independent impact.

By contrast and as expected, the duration of leave has little effect on male employment rates (Column 2 in Table 1 and Figure 2). Nevertheless, the "any-leave coefficient" is very small¹⁹ but positive and statistically significant in column (3) and (4), which suggests that an introduction of paid leave had some upward effect on male employment rates. This finding contrasts with Ruhm's (1998) findings. Then again, Ruhm (1998) covered European countries of which many were most advanced in the development of parental leave policies. Our study also includes countries that were late with introducing paid maternity and parental leave, which suggests the presence of more unfavourable attitudes towards parental leave taking, also among employers. This may contribute to slightly higher demand for male rather than female employees in the aftermath of the introduction of paid leave.

An interesting profile also emerges from the last part of the table: the female-to-male gap in employment rates (always negative). Neither the linear nor the quadratic form of the leave duration captures a link between leave duration and employment rates gap. The results of the piecewise linear regression (Columns 5 and 6 in Table 1 and Figure 2) analysis afford a better grasp of the changes in the incidence of leave with the gradual extension of leave duration. The results are especially useful for contrasting the effects of short and long leave periods. Interestingly, results indicate different profiles for men and

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¹⁹ The gender gap in employment rates rises by no more than two percentage points with the introduction of a few weeks of paid leave (Figure 6) – and the estimate is, in fact, closer to one percentage point if only statistically significant coefficients are taken into account.

women. The provision of leave clearly boosts women's relative employment rate, but the increase happens only when paid leave is for a certain period of time, ranging here from one and two years. Shorter periods of leave have positive but not statistically significant effect on female employment rates. A more interesting finding is the significant and substantial negative effect on female employment and the gender employment gap for leave which lasts longer than two years. Shorter leave periods seem to be less detrimental than longer ones. The same results are obtained with a larger magnitude when using the second definition of leave which considers the longest period of paid leave whatever the amount of the parental leave allowance (see Appendix A1). Piecewise regression also confirms that male outcomes are affected positively by the provision of a few weeks of leave. In any case, the evidence clearly suggests that lengthening paid leave has a stronger negative effect on female employment relative to male. The estimations in Column 5 show that each additional week above two years of paid leave reduces women's employment rates by 1 percent relative to men's. Results do not change dramatically but show a more pronounced negative effect of long leave with a slightly modified leave variable which includes the longest period of leave when parents can choose between different options (see Table A1 in Appendix).

In all, the estimates given by piecewise linear regressions show clearly that the effect of extending periods of paid leave varies along with the duration of leave. The effect on female employment and on the gender gap of lengthening the period of paid leave turns from positive to negative for durations of leave exceeding two years²⁰. It provides a clear picture of the contrasting effects of short and long leave schemes on employment outcomes and gender equality. The results thus suggest that the provision of a few weeks of paid leave has a positive effect on male employment rates and increases the employment gender gap as long as the period of leave is not long enough to increase women's employment rates significantly²¹.

Finally, residual properties were also tested. First, a unit root test was performed on them – using an Im-Pesaran-Shin test for heterogeneous panels – in order to check residual stationarity. For all model specifications, the test rejects the assumption of co-integration between data series and suggests that residuals are stationary. It further suggests that the country-specific time trends included in the model specification help to efficiently eliminate trends in employment series which are clearly non-stationary. A drawback, nevertheless, arises when the test firmly rejects cross-sectional independence between panels in most cases, although the absolute correlation is reasonably low for the gender gap in employment rates. Consequently, the bias which can affect the estimated coefficient if unobserved common factors simultaneously affect leave policies and employment trends cannot be completely ignored.

²⁰ Using a cross-national model to obtain a more precise estimation is not feasible since the duration at which the effects of extending paid leave change from positive to negative is certainly country-specific.

²¹ Additional regressions were also performed with lag values of parental leave (results available on request). The lagged values of leave duration are all statistically non-significant and therefore provide no new information on how employment rates respond to leave duration. Mean group estimations were also tested but their results are very similar to those of the estimation with instrumental variable. In particular, the estimates given by mean-group estimations are of the same sign as those of the fixed-effect model, but with larger standard errors so that most of them are statistically non-significant.

Table 1. Influence of paid leave on employment rates

		(1)	(2)	(3)	(4)	(5)	(6)
	Dependent	variable: natur	al log of female	employment rate	s (25-54 years old)	
Any paid leave	e > 0 weeks (dummy)	_	_	0.006	0.006	_	-0.002
Leave duration		0.014	0.040**	(0.006)	(0.006)		(0.020)
		0.014 (0.009)	0.040** (0.0017)	0.012 (0.009)	0.038** (0.018)	-	-
Leave duration	n causead	(0.009)	-0.016*	(0.009)	-0.016*		
Leave duration	ii squared	-	(0.008)	-	(0.008)	-	-
ar	Leave < 18 weeks	-	-	-	-	0.082 (0.084)	0.096 (0.175)
line n	19 to 52 weeks					-0.007	-0.008
ewise lii function	19 to 32 weeks	-	-	-	-	(0.030)	(0.036)
Piecewise linear function	53 to 104 weeks	-	-	-	-	0.058*** (0.022)	0.058*** (0.022)
Piec	> 104 weeks					-0.330**	-0.032***
, ,		-	-	-	-	(0.010)	
Im-Pesaran-Sh of $\tilde{\mathbf{Z}}$)	nin cointegration test (p-value	0.03	0.02	0.02	0.01	0.01	0.01
	f cross-section dependence –	0.30 (0.001)	0.29 (0.001)	0.29 (0.001)	0.29 (0.001)	0.30 (0.001)	0.30 (0.001)
		variable: natu	ral log of male e	mployment rates	(25-54 years old)		
Any paid leave	e > 0 weeks			0.034***	0.033***		0.030**
(dummy)		-	-	(0.007)	(0.007)	-	(0.013)
Leave duration	n	0.006	0.023*	0.001	0.013	_	_
		(0.006)	(0.012)	(0006)	(0.013)		
Leave duration	n squared	-	-0.011** (0.005)	-	-0.007 (0.007)	-	-
•	Leave < 18 weeks		(0.003)		(0.007)	0.182***	0.025
ıeaı	Leave < 10 weeks	-	-	-	-	(0.051)	(0.098)
Piecewise linear function	Btw 19 and 52 weeks	-	-	-	-	-0.021 (0.017)	-0.004 (0.018)
ewise li function	Btw 53 and 104 weeks					0.021*	0.020*
fr fr	Btw 33 and 104 weeks	-	-	-	-	(0.011)	(0.011)
Ā	> 104 weeks	-	-	-	-	-0.018**	-0.019***
Im-Pesaran-Sh	hin cointegration test (p-value	0.04	0.02	0.05	0.04	(0.007)	(0.007)
	of $\widetilde{\boldsymbol{Z}}$)	0.04	0.03	0.05	0.04	0.03	0.03
Pesaran test of cross-section dependence		0.31 (0.005)	0.31 (0.004)	0.32 (0.002)	0.32 (0.002)	0.31 (0.002)	0.31 (0.002)
abs.c	correlation (p-value) Dependent variable: for	emale-to-male o	difference in nati	ıral log of emplo	vment rates (25-5	4 years old)	
Any noid loov				-0.025***		- years ora;	0.022*
Any paid leave (dummy)	c > 0 weeks	-	-	-0.025*** (0.007)	-0.026*** (0.007)	-	-0.033* (0.017)
` ',		0.007	0.017	0.011	0.025		(0.017)
Leave duration		(0.007)	(0.015)	(0.007)	(0.016)	-	-
Leave duration squared		-	-0.005	-	-0.008	-	-
	•		(0.006)		(0.006)	-0.099	0.070
ear	Leave < 18 weeks	-	-	-	-	(0.066)	(0.140)
Piecewise linear function	19 to 52 weeks	-	-	-	_	0.014	-0.003
						(0.025) 0.037*	(0.028) 0.038*
> ⊑	53 to 104 weeks	-	-	-	-	(0.020)	(0.020)
fun		_	_	-	_	-0.014**	-0.013*
Piecew fun	> 104 weeks					(0.007)	(0.007)
	> 104 weeks	0.00					
Im-Pesaran-Sh	hin cointegration test (p-value of $\tilde{\mathbf{Z}}$)	0.000	0.000	0.000	0.000	0.01	0.01
Im-Pesaran-Sh	hin cointegration test (p-value of $\tilde{\mathbf{Z}}$) f cross-section dependence	0.000 0.27 (0.001)	0.000 0.27 (0.001)	0.000 0.27 (0.001)	0.000 0.27 (0.001)		

Robust standard errors in brackets. ***, ** and *: significant at the 1%, 5% and 10% levels, respectively.

Note: All models include time dummies, country-specific linear time trends, and year-to-year variations in the log of GDP.

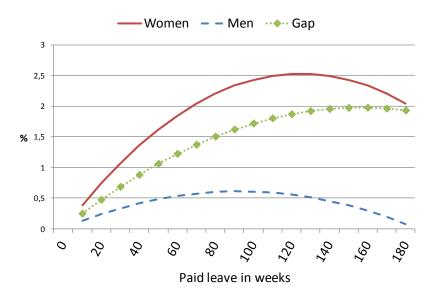
Leave duration refers to the number of weeks of paid leave (irrespective of the wage replacement level) divided by 100

.

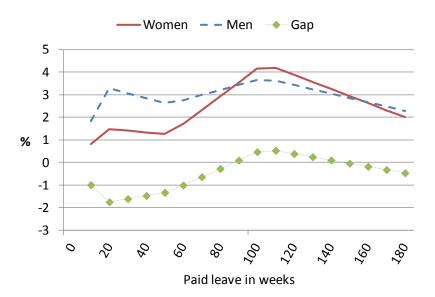
The dependent variables are the log of employment rates and their difference by gender in the bottom section.

Figure 2. How employment rates vary with the extension of parental leave

Employment rates specified as a quadratic function of leave duration



Estimation from a piecewise linear regression of employment rates



Note: These estimates show predicted differences in employment rates compared with no paid leave entitlements. Panel A show the profiles estimated from coefficients reported in Table 1, Column 2. Panel B refers to the coefficients obtained by the piecewise linear regression estimations, the results of which are reported in Column 5 of Table 1. These profiles take into account all reported coefficients, whether statistically significant or not.

THE EFFECT OF LEAVE ENTITLEMENTS ON AVERAGE WORKING HOURS

The effect of leave entitlements on average working hours is summarised in Table 2, which shows a positive association between leave duration and women's average working hours in various model specifications (models 1 and 2). The significant negative sign of the squared leave duration coefficient in Column 2 indicates that the influence of a marginal increase in leave duration declines with the gradual extension of paid leave up to the point where working hours start to decline (Figure 3). This result is also obtained with the second definition of leave duration (see Appendix A1). This maximum is reached at around 110 weeks of paid leave. The assumption that the provision of parental leave gives more freedom to parents to look for childcare solutions matching their working hours might be true. The profile for men is much flatter and their average working hours are actually not found to be affected by leave duration. The difference in the response of male and female working hours is confirmed by the positive association found between the extension of paid leave and the average female-to-male working hours ratio.

Results from the following specifications including the any-leave dummy (models 3 and 4) and those from the piecewise linear model (models 5 and 6) basically confirm this finding. They also suggest, however, that male working hours are negatively affected by the provision of short paid leave. An explanation might be the coincidence between the general upward trend of the time spent by parents with children (both mothers and fathers) observed in many countries in the period (Bianchi 2000) and the introduction of parental leave. But this effect which remains very weak for men and limited to the provision of parental leave, does not undermine the overall positive effect of paid leave on the ratio of female-to-male average working hours, cleaned of such general trend effect.

However, the influence of a marginal increase in leave duration declines with the gradual extension of paid leave, as shown by the significant negative sign of the squared leave duration coefficient (Column 2). For instance, paid leave of 20 weeks leads to an increase of 0.5 hours per week in the average female-to-male working hours ratio. The effect peaks (at 1.8 hours) when a period of leave is slightly longer (by 14 weeks) than two years, then decreases. This finding is consistent with a situation where women who stay on leave for two or more years are more likely to go back to work on a part-time or reduced-hours basis. There appears to be no evidence of any step effect due to the introduction of paid leave (Columns 3 and 4). By contrast, the results suggest that the extension of paid leave has contributed to helping women maintain or increase their working hours in the vast majority of countries, thereby contributing to a reduction of the gender gap in working hours.

Table 2. Influence of paid leave on weekly working hours

		(1)	(2)	(3)	(4)	(5)	(6)
	Depende	nt variable: natu	ıral log of femal	e average weekly	working hours		
Any paid leave > 0 weeks (dummy)		-	- 0.000 byts	-0.012*** (0.003)	-0.017*** (0.004)	-	0.005 (0.016)
Leave durat	ion	0.006 (0.004)	0.022** (0.009)	0.009* (0.005)	0.036*** (0.014)	-	-
Leave durat	ion squared	-	-0.010** (0.004)	-	-0.015*** (0.005)	- 0.400 de de de	-
ıear	Leave < 18 weeks	-	-	-	-	-0.108*** (0.030)	-0.143 (0.116)
ewise lir function	19 to 52 weeks	-	-	-	-	0.033** (0.015)	0.036* (0.018)
Piecewise linear function	53 to 104 weeks	-	-	-	-	0.024*** (0.006)	0.024***
	> 104 weeks	-	-	-	-	-0.022** (0.009)	-0.022** (0.009)
Im-Pesaran- value of $\tilde{\mathbf{Z}}$)	Shin cointegration test (p-	0.00	0.00	0.00	0.00	0.00	0.00
	Depende	ent variable: nat	tural log of male	average weekly	working hours		
(dummy)	ave > 0 weeks	-0.005	-	-0.006* (0.003)	-0.007* (0.004)	-	0.004 (0.016)
Leave durat	Leave duration		-0.003 (0.010) -0.000	-0.003 (0.010)	0.002 (0.012) -0.003	-	-
Leave durat	Leave duration squared		(0.006)	-	(0.006)	- -0.058**	- -0.086
near	Leave < 18 weeks	-	-	-	-	(0.029)	(0.115)
ewise lir function	19 to 52 weeks	-	-	-	-	0.015 (0.017)	0.017 (0.020)
Piecewise linear function	53 to 104 weeks	-	-	-	-	-0.009 (0.009) -0.003	-0.010 (0.008) -0.003
	> 104 weeks	-	-	-	-	(0.015)	(0.015)
value of $\tilde{\mathbf{Z}}$)	Shin cointegration test (p-	0.00	0.00	0.00	0.00	0.00	0.00
	Dependent variable	: female-to-male	difference in n	atural log of ave		ing hours	
Any paid lea (dummy)	ave > 0 weeks	-	-	-0.005 (0.004)	-0.009** (0.004)	-	0.001 (0.013)
Leave durat		0.011** (0.005)	0.026** (0.011) -0.009**	0.013** (0.006)	0.034*** (0.012) -0.012**	-	-
Leave durat	ion squared		(0.005)	-	(0.006)	-	-
Piecewise linear function	Leave < 18 weeks	-	-	-	-	-0.048* (0.028)	-0.056 (0.086)
	19 to 52 weeks	-	-	-	-	0.018 (0.017)	0.018 (0.021)
	53 to 104 weeks	-	-	-	-	0.034*** (0.011)	0.034*** (0.011)
	> 104 weeks	-	-	-	-	-0.019 (0.014)	-0.019 (0.014)
Im-Pesaran- value of $\tilde{\mathbf{Z}}$)	Shin cointegration test (p-	0.00	0.00	0.00	0.00	0.00	0.00
Number of observations		542	542	542	542	542	542

Robust standard errors in brackets. ***, ** and *: significant at the 1%, 5% and 10% levels, respectively.

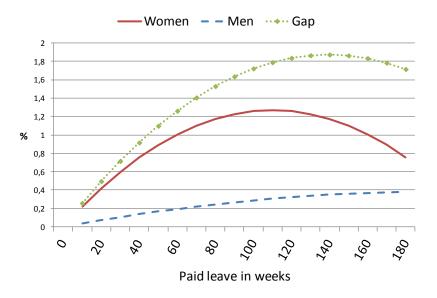
Note: All models include country-fixed and time dummies, as well as country-specific linear time trends, and year-to-year

variations in the log of GDP.

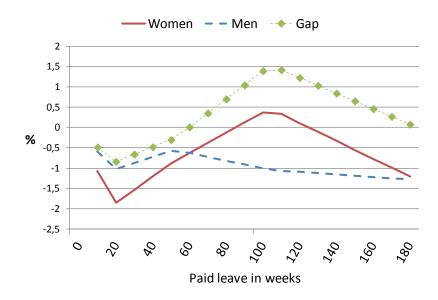
The dependent variables are the log of the weekly average working hours and their ratio by gender in the bottom section. Leave duration refers to the number of weeks of paid leave (irrespective of the wage replacement level) divided by 100.

Figure 3. How average weekly working hours vary with duration of paid leave

Working hours specified as a quadratic function of leave duration



Estimation from piecewise linear regression of working hours



Note: These estimates show predicted differences in average working hours compared with no paid leave entitlements. Panel A show the profiles estimated from coefficients reported in Table 2, Column 2. Panel B refers to the coefficients obtained by the piecewise linear regression estimations, the results of which are reported in Table 2, Column 5. These profiles take into account all reported coefficients, whether statistically significant or not.

THE EFFECT OF LEAVE DURATION ON THE GENDER EARNINGS GAP

Table 3 shows the results obtained for the estimation of the effect of leave duration on the weekly earnings of full-time employees. Because earnings data are much more limited than for the previous outcomes, the estimations here apply to a sample of 10 countries and for a limited period of time, which limits the external validity of our results compared to previous ones on employment rates and working hours. The estimates obtained with the piecewise linear regression show large standard errors and for this reason do not provide more information than the model estimated in Columns 2 and 3. Although not all these later estimations find statistically significant associations with the average earnings of women and men, they do show a significant negative effect on the earnings gap, here measured as the log difference between female and male average weekly earnings. This latter gap is found to grow slightly with the length of the leave period (represented in Figure 4). It stops increasing and the effect almost disappears for periods longer than one year, as also confirmed by the piecewise linear models. The increase in gender gap earnings for full-time employees might be due to a discrimination effect against full-time women, and a preference for male employees when parental leave is implemented. The absence of effect when parental leave becomes longer might be explained by a selection process due to the fact that women who work full-time are more likely to have higher earnings potential, and are less likely to take a long period of leave.

Table 3. Influence of paid leave of weekly earnings - country-fixed effect

		(1)	(2)	(3)	(4)	(5)	(6)
	I	Dependent variable	: natural log o	f female average	earnings		
Any paid leave > 0 weeks (dummy)		-	-	0.056 (0.050)	0.058 (0.052)	-	0.163*** (0.057)
Leave durat	ion	0.028 (0.036)	0.016 (0.075)	0.018 (0.037)	-0.006 (0.081)	-	-
Leave durat	ion squared	(0.030)	0.007 (0.030)	-	0.015 (0.032)	-	-
ar	Leave < 18 weeks	-	-	-	-	-0.213 (0.492)	-1.375** (0.586)
e line ion	19 to 52 weeks	-	-	-	-	0.003	0.185 (0.141)
Piecewise linear function	53 to 104 weeks	-	-	-	-	0.128 (0.083)	0.135* (0.081)
Pie	> 104 weeks	-	-	-	-	0.008	0.006
		Dependent variab	le: natural log	of male average	earnings	(0.0.07	(01017)
Any paid le	ave > 0 weeks	-	-	0.017 (0.051)	0.016 (0.053)	-	0.065 (0.058)
Leave durat	Leave duration		0.051 (0.071)	0.036	0.045	-	-
Leave durat	Leave duration squared		-0.007 (0.029)	-	-0.005 (0.032)	-	-
ear	Leave < 18 weeks	-	-	-	-	-0.126 (0;509)	-0.590 (0.601)
ewise lin function	19 to 52 weeks	-	-	-	-	0.049 (0.138)	0.123 (0.142)
Piecewise linear function	53 to 104 weeks	-	-	-	-	0.088 (0.085)	0.091 (0.084)
<u></u>	> 104 weeks	-	-	-	-	0.018 (0.048)	0.017 (0.048)
	Dependent	variable: female-to	-male differen			igs	
Any paid le (dummy)	Any paid leave > 0 weeks (dummy)		-	+0.038*** (0.011)	+0.041*** (0.011)	-	0.098*** (0.016)
Leave durat	ion	-0.011 (0.010)	-0.035* (0.020)	-0.017 (0.011)	-0.052** (0.021)	-	-
Leave durat	Leave duration squared		0.015* (0.008)	-	+0.021** (0.008)	-	-
ıear	Leave < 18 weeks	-	-	-	-	-0.087 (0.102)	-0.785*** (0.163)
ewise lir. function	19 to 52 weeks	-	-	-	-	-0.046 (0.028)	0.062 0.031
Piecewise linear function	53 to 104 weeks	-	-	-	-	0.039 (0.026)	0.044* (0.025)
<u>P</u>	> 104 weeks	-	-	-	-	-0.010 (0.014)	-0.011 (0.014)
Number of	Number of observations		445	445	445	445	445

Robust standard errors in brackets. ***, ** and *: significant at the 1%, 5% and 10% levels, respectively.

Notes: Countries included are: Australia, Germany, Finland, France, Japan, Korea, Netherlands, Sweden, the United Kingdom and the United States. All models include country-fixed and time dummies, as well as country-specific linear time trends, and year-toyear variations in the log of GDP.

APPENDIX

Table A1. Influence of paid leave (other definition¹) on our three outcomes

		(1)	(2)	(3)	(4)	(5)	(6)
		Depende	nt variable: natura	l log of female:			
		emplo	yment rates	weekly working hours		weekl	y earnings
Leave duration		0.018 (0.025)	-	-0.007 (0.016)	-	-0.180 (0.120)	-
Leave duration squared		-0.013 (0.013)	-	0.000 (0.009)	-	0.103 (0.063)	-
Piecewise linear function	Leave < 18 weeks	-	0.105 (0.096)	-	-0.098*** (0.036)	-	-0.545 (0.565)
	19 to 52 weeks	-	-0.019 (0.029)	-	-0.002 (0.015)	-	-0.132 (0.145)
ewise lir	53 to 104 weeks	-	0.083* (0.045)	-	0.033** (0.013)	-	0.307 (0.196)
Piece	> 104 weeks	-	-0.087** (0.039)	-	-0.040*** (0.015)	-	-0.202 (0.175)
		Depend	lent variable: natur	al log of male			
		emplo	yment rates	weekly working hours		weekly earnings	
Leave duration		0.003 (0.018)	-	-0.052*** (0.018)	-	-0.119 (0.119)	-
Leave duration squared		-0.003 (0.010)	-	-0.021** (0.010)	-	0.058 (0.062)	-
Piecewise linear function	Leave < 18 weeks	-	0.214*** (0.058)	-	-0.093*** (0.034)	-	-0.453 (0.586)
	Btw 19 and 52 weeks	-	-0.021 (0.016)	-	-0.027* (0.014)	-	-0.096 (0.149)
ewise lii	Btw 53 and 104 weeks	-	0.009 (0.026)	-	-0.021 (0.015)	-	0.269 (0.202)
Piece	> 104 weeks	-	0.007 (0.027)	-	0.005 (0.021)	-	-0.225 (0.182)
	I	Dependent variab	le: female-to-male	difference in natu	ral log		
		emplo	employment rates weekly working hours		orking hours	weekly earnings	
Leave duration		0.015 (0.019)	-	0.044** (0.019)	-	-0.065* (0.038)	-
Leave duration squared		-0.010 (0.010)	-	-0.020** (0.010)	-	0.044* (0.020)	-
Piecewise linear function	Leave < 18 weeks	-	-0.109 (0.073)	-	-0.004 (0.028)	-	-0.092 (0.129)
	19 to 52 weeks	-	0.001 (0.024)	-	0.024 (0.018)	-	-0.035 (0.030)
ewise lir	53 to 104 weeks	-	0.092*** (0.031)	-	0.054*** (0.019)	-	0.037 (0.068)
Piece	> 104 weeks	-	-0.094*** (0.022)	-	-0.046** (0.020)	-	0.023 (0.060
Number of observations		847	847	542	542	445	445

Robust standard errors in brackets. ***, ** and *: significant at the 1%, 5% and 10% levels, respectively.

Note: All models include time dummies, country-specific linear time trends, and year-to-year variations in the log of GDP.

The dependent variables are the log of employment rates and their difference by gender in the bottom section.

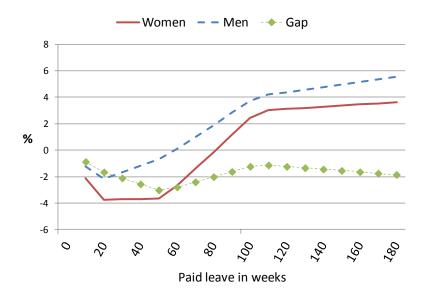
When there are several options for parental leave, the longest period is taken into account, while the shortest was considered previously

Figure 4. How average earnings of full-time employees vary with duration of paid leave

Earnings specified as a quadratic function of leave duration



Estimation from piecewise linear regression of average earmings



Note: These estimates show predicted differences in employment rates compared with no paid leave entitlements. Panel A show the profiles estimated from coefficients reported in Table 3, Column 2. Panel B refers to the coefficients obtained by the piecewise linear regression estimations, the results of which are reported in Column 5 of Table 3. These profiles take into account all reported coefficients, whether statistically significant or not.

6. CONCLUSIONS

This study has reviewed parents' entitlement to leave their jobs temporarily when their child is born and the consequences of such leave on parental labour market outcomes. During the past four decades, there has been an increasing diversity of leave mandates across OECD countries, which generally include maternal leave and parental as well as paternity leave and homecare leave in some countries. Such diversity reflects the different options chosen by countries to meet, within budgetary constraints, various objectives related to child education, labour market, and gender equality. A divide persists between countries that first promoted rights to parental leave in the late 1960s and early 1970s – and which still grant long periods of paid leave – and those that introduced such rights from the 1980s onwards. Some 110 changes in leave duration were identified in the 30 OECD countries between 1970 to 2010, which makes it possible to estimate their influence on employment rates, average working hours, and weekly earnings. The macro-level perspective adopted here makes it possible to consider both the direct effect of leave policies on the working age population that uses leave entitlements and the indirect effects produced through labour market forces and the diffusion of labour market practices. The findings emphasise the importance of fully appreciating how the provision of paid leave affects labour market achievements and gender inequalities. In that light, it is important to consider not only the direct effects of leave entitlements on the outcomes of employees who use them, but the indirect "macro-level" effects mediated by the adjustments of the labour market which can affect other categories of workers.

Ruhm's (1998) seminal paper predominantly focused on relatively short periods of maternity leave. The dataset developed here also facilitates analysis of the effects prolonged periods of leave may have on male and female labour market outcomes. Compared with Ruhm's (1998) findings, our study confirms that a relatively short period of paid leave reduces the gender employment gap, but it shows now more clearly that prolonged periods of leave have the opposite effect. Thus, extending paid leave beyond two years has counterproductive effects on female employment rates, and, by the same token, on the gender employment gap. Overall, the provision of paid leave has had a positive effect on the employment rates of prime-age women and has contributed to reducing the gender employment gap. Lengthening paid leave is also found to have had a positive influence on the average number of hours worked by women relative to men, a suggested reason being that a prolongation of paid leave by few weeks might help women to find childcare arrangements that match their working hours. By contrast, an extension of leave duration above two years is associated with an increase in the gender difference in weekly working hours, which is likely due to an increasing number of women who opt for part-time employment after resuming work.

That being said, the overall effects of paid leave on employment rates of prime-age women are relatively small, since variations in the duration of paid leave are estimated to be responsible for reducing the employment gender gap by no more than 2 percentage points. Yet our results also suggest that the labour market situation of women relative to men reacts differently to the provision of "short" versus "long" paid leave, though the mechanisms on the labour market are not fully identified. Leave duration reflects different policy priorities which end up with qualitatively different consequences on the gender gap in labour market outcomes. This is consistent with Ruhm's initial findings (1998) and with many other micro-level studies which indicate that entitlements to a *few* weeks of leave tend to favour mothers' labour market attachment. It also suggests that the effect is even more positive when paid leave is extended beyond the few weeks generally granted for "maternity" reasons.

Finally, the provision and gradual lengthening of paid leave have contributed to a widening in the gender pay gap of full-time employees. This may reflect the fact that women experience slower career and earnings progression on returning from leave to full-time employment than men, much fewer of whom take leave. In sum, the development of parental leave policies in most countries appears to have had a positive, albeit marginal, role in the rise of female employment, although women pay a price in the form of reduced earnings progression.

BIBLIOGRAPHY

- Aassve, A. and T. Lappegard (2009), "Childcare Cash Benefits and Fertility Timing in Norway", European Journal of Population, Vol. 25, No. 1, pp. 67-88.
- Baker, M. and K. Milligan (2008), "How Does Job-protected Maternity Leave Affect Mother's Employment?", *Journal of Labor Economics*, Vol. 26, No. 4, pp. 655-691, University of Chicago Press.
- Beblo, M., Bender S. and E. Wolf (2006), The Wage Effects of Entering Motherhood A Within-firm Matching Approach, ZEW Discussion Paper No. 06-053, Mannheim.
- Berger, L. and J. Waldfogel (2004), "Maternity Leave and the Employment of New Mothers in the United States", *Journal of Population Economics*, Vol. 17, No. 2, pp. 331-349, European Society of Population Economics, Springer-Verlag.
- Bernhardt, E. (1993), "Fertility and Employment", *European Sociological Review*, 9(1), pp. 25-42, Oxford Journals, Oxford University Press.
- Bianchi, S. (2000). 'Maternal Employment and Time with Children: Dramatic Change or Surprising Continuity?' *Demography*, 37: 401–414.
- Cameron C., and Moss P. (2007), *Care Work in Europe: Current Understandings and Future Directions*, Routledge, London.
- Espinola-Arredondo, A. and S. Mondal (2009), "The Effect of Parental Leave on Female Employment: Evidence from State Policies", *Working Paper No. 2008-15*, School of Economic Sciences, Washington State University,
- Goldin, C. (2006), "The Quiet Revolution that transformed Women's Employment, Education, and Family", *American Economic Review Papers and Proceedings*, Vol. 96, No. 2, pp. 1-21, American Economic Review, Pittsburgh (PA).
- Goldin, C. and L. Katz (2002), "The Power of the Pill: Oral Contraceptives and Women's Career and Marriage Decision", *Journal of Political Economy*, Vol. 110, No. 4, pp. 730-70.
- Galtry J. and P. Callister (2005) « Assessing the optimal length of parental leave for child and parental well-being: How can research inform policy? », *Journal of Family Issues*, 26(2): 219-246.
- Gustafsson, S. and E. Kenjoh (2007), "Timing of Maternity" in Del Boca, Daniela and Wetzels, Cecile (eds.), Social Policies, Labor Markets and Motherhood: A Comparative Analysis of European Countries, Cambridge University Press.
- Han, W., C. Ruhm and J. Waldfogel (2009), "Parental Leave Policies and Parent's Employment and Leave-Taking", *Journal of Policy Analysis and Management*, Vol. 28, No. 1, pp. 29-54.
- Hansen B. (2000), "Sample splitting and threshold estimation", *Econometrica*, Vol. 68, No. 3; pp. 575-603.
- Huerta, M.C, W. Adema, J. Baxter, M. Corak, M. Deding, W.J. Han and J. Waldfogel (2011), "Early Maternal Employment and Child Development in Five OECD Countries", *Social, Employment and Migration Working Papers*, N° 118, OECD Publishing, Paris.
- Im, K., M. Pesaran and Y. Shin (2003), "Testing for unit roots in heterogeneous panels", *Journal of Econometrics*, Vol. 115, No. 1, pp. 53-74.
- Jaumotte, F. (2003), "Female Labour Force participation Past Trends and Main Determinants in OECD Countries", *OECD Economics Department Working Papers*, OECD Publishing, No. 376.
- Kamerman, S. and P. Moss (2009), The Politics of Parental Leave Policies, Policy Press, Bristol.
- Kamerman, S. and J. Waldfogel (2010), "United States", in P. Moss (ed.), *International Review of Leave Policies and Related Research 2010*, Employment Relations Research Series No. 115, Department for Business & Skills, London, pp. 240-243.
- Klerman J, Leibowitz A. (1994) The Work-Employment Distinction Among Mothers of Very Young Children. *Journal of Human Resources*, 1994;29(2):277-303.

- Kunze M., and A. Ejrnaes, 2011 « Work and Wage Dynamics Around Childbirth », IZA Discussion Paper No. 6066, Bonn.
- Lalive R., Schlosser A., Steinhauer and J. Zweimüller (2011) « Parental Leave and Mothers' Careers: The Relative Importance of Job Protection and Cash Benefits », IZA Discussion Paper No. 5792, Bonn.
- Lalive, R. and J. Zweimüller (2005), "Estimating the Effect of Maximum Parental Leave Duration on Mother's Subsequent Labour Market Careers", mimeo, University of Lausanne & University of Zürich.
- Lalive, R. and J. Zweimüller (2009), "How Does Parental Leave Affect Fertility and Return-to-Work? Evidence from Two Natural Experiment", *Quarterly Journal of Economics*, Vol. 124:3, pp. 1363-1402.
- Lee, K., M.H. Pesaran and R. Smith (1997), "Growth and convergence in a multi-country empirical stochastic Solow model", *Journal of Applied Econometrics*, Vol 12, 357-92.
- Lequien, L. (2012), "The impact of parental leave duration on later wages", *Annales d'économie et de statistique*, forthcoming.
- Mark N., and D. Sul (2003), "Cointegration Vector Estimation by Panel DOLS and Long-run Money Demand," *Oxford Bulletin of Economics and Statistics*, University of Oxford, Vol. 65, No. 5, pp. 655-680.
- Martin C. (2010), "The Reframing of Family Policy in France: Actors, Ideas and Instruments", *Journal of European Social Policy*, Vol. 20, No. 5, pp. 410-421.
- Maurin E. and J. Moschion (2009), "The social multiplier and labour market participation of mothers", *American Economic Journal: Applied Economics*, Vol. 1, No. 1, pp. 251-272, January.
- Moss P. and M. Korintus (2008) *International Review of Leave Policies and Related Research*, Employment Relations Research Series n°100, BERR, Department for Busness Enterprise & Regalutory Reform.
- OECD (2011a), Doing Better for Families, OECD Publishing, Paris.
- OECD (2011b), OECD Family Database, www.oecd.org/els/social/family/database
- Ondrich, J., K. Spiess and Q. Yang (2002), "The Effect of Maternity Leave on Women's Pay in Germany 1984-1994", DIW, German Institute for Economic Research, Berlin, www.diw.de/documents/dokumentenarchiv/17/39209/ondrich spiess yang.pdf.
- Pesaran, M. H. (2004), "General diagnostic tests for cross section dependence in panels", *IZA Discussion Paper No.1240 and CESifo Working Paper No. 1229*.
- Pesaran, M. H. (2006), "Estimation and inference in large heterogeneous panels with a multifactor error structure", *Econometrica*, Vol. 74, No. 4), pp. 967-1012.
- Pesaran, M.H., Y. Shin, and R. Smith (1997), "Pooled Estimation of Long-run Relationships in Dynamic Heterogeneous Panels", *Journal of the American Statistical Association*, Vol. 94, pp. 621-634.
- Pesaran, M.H. and R. Smith (1995), "Estimating long-run relationships from dynamic heterogeneous panels", *Journal of Econometrics*, Vol. 68, No. 1, pp. 79-113.
- Piketty, T. (2005), "L'impact de l'allocation parentale d'éducation sur l'activité féminine et la fécondité en France, 1982-2002", in C. Lefèvre (ed.), *Histoires de familles, histories familiales*, Les Cahiers de l'INED, No. 156, pp. 79-109, Paris.
- Polachek, S. W. (1981). "Occupational Self-Selection: A Human Capital Approach to Sex Differences in Occupational Structure," The Review of Economics and Statistics, MIT Press, vol. 63(1), pages 60-69, February
- Pronzato, C. (2009), "Return to Work after Childbirth: Does Parental Leave Matter in Europe?", *Review of the Economics of Households*, Vol. 7, pp. 341-360.
- Ray, R., J. Gornick and J. Schmitt (2010), "Who cares? assessing generosity and gender equality in parental leave policy designs in 21 countries", *Journal of European Social Policy*, Vol. 20, No. 3, pp. 196-216.
- Ronsen, M. (2009), "Long-term Effects of Cash for Childcare on Mothers' Labour Supply", *Labour*, Vol. 23, No. 3, pp. 507-533.
- Ruhm, C. (1998), "The Economic Consequences of Parental Leave Mandates: Lessons from Europe", *Quarterly Journal of Economics*, Vol. 113, No. 1, pp. 285-317, MIT Press, February.

- Schönberg, U. and J. Ludsteck (2007), "Maternity Leave Legislation, Female Labour Supply, and the Family Wage Gap", *IZA Discussion Paper*, No. 2699, Bonn.
- Schone, P. (2004), "Labour Supply Effects of a Cash-for-Care Subsidy", *Journal of Population Economics*, Vol. 17, pp. 703-727, European Society of Population Economics (ESPE), Springer-Verlag.
- Thevenon O., Solaz A. (2012), "Labour Market Effects of Parental Leave Policies in OECD Countries", *OECD Social, Employment and Migration Working Papers*, n°141.
- Zhang, X. (2010), "Can Motherhood Earnings Losses Be Ever Regained? Evidence from Canada", Journal of Family Issues, Vol. 31, No. 12, pp. 1671-1688.

FIGURES AND TABLES

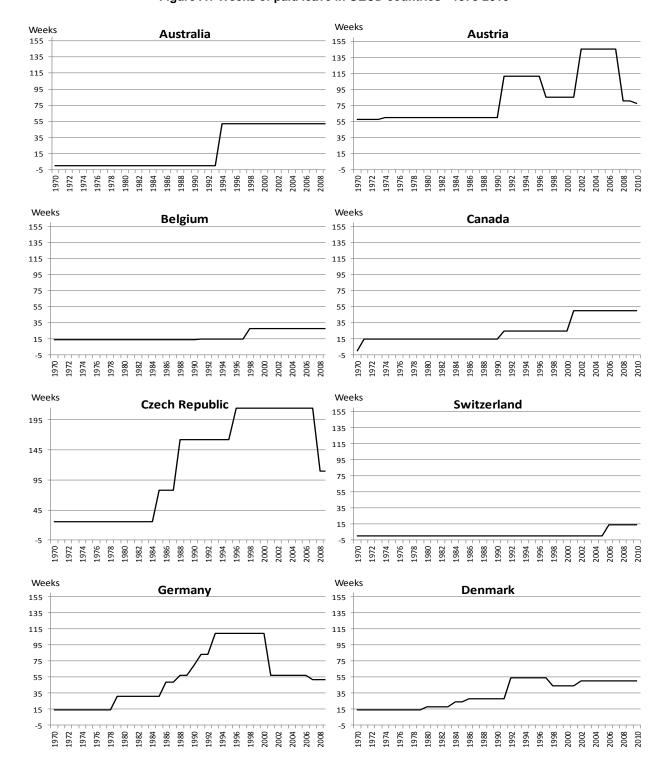
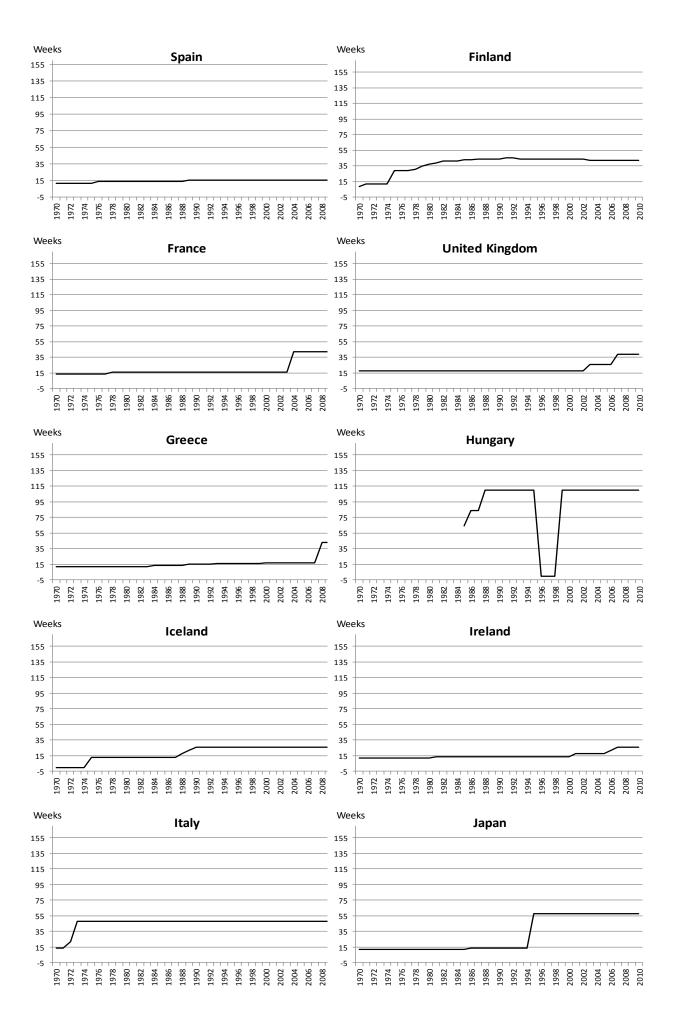
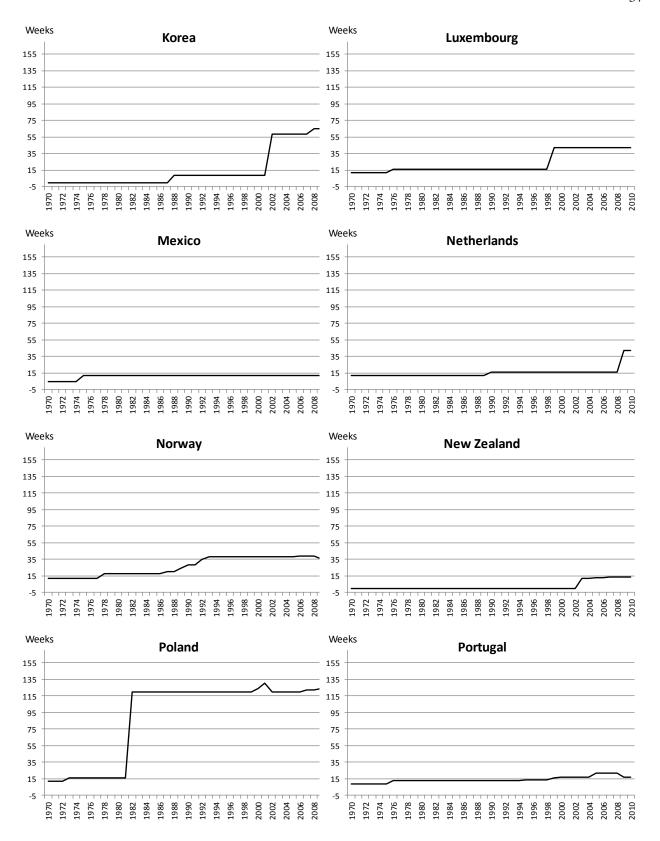
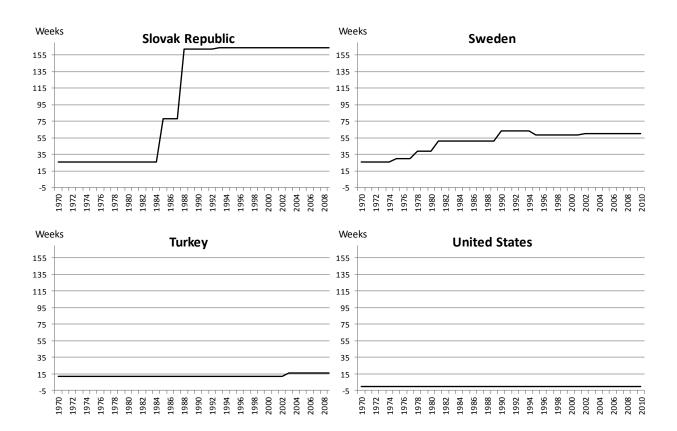


Figure A1 Weeks of paid leave in OECD countries - 1970-2010







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