

## Fertility and Female Employment In Europe

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### Extended Abstract

Demographic changes taking place in the last decades are among the most prominent structural social trends in contemporary Europe. Alongside higher life expectancy, the main driver of such changes is the widespread decrease of fertility rates, which has brought fertility below replacement levels in many countries. While extended life expectancy is largely perceived as an indicator of social progress, even if it raises new difficulties for families, social protection, health and economic systems, low fertility has been seen on more “negative” terms, as a social problem.

The causes and consequences of low fertility cover different policy and social fields, from changes in family life and gender conditions, to transformations in labour markets and social protection. However diverse and complex, its deep implications have resulted in growing public visibility and concern and the conditions for family formation and decisions have been the object of academic, social and political debate over the last few decades.

In result, family policies have witnessed an increasing centrality in policy debates. Different types of family policies have been put in perspective to deal with the new challenges, from social services and family support to employment policies. And, not least, we have witnessed the revival of fertility as an autonomous policy topic.

Moreover, and even though a structural common trend can be observed, country situations are significantly different. In Southern Europe, with less or more recently developed welfare states and predominantly familialistic societies, family remained largely responsible for childbearing, particularly women. On the other hand, in northern European countries a set of family friend policies had been implemented focusing on different aspects, but mainly reducing the incompatibility between motherhood and employment for women.

In almost every European society, female participation in the labour market has increased, resulting in a double burden for women. This double burden has often been associated with the current low fertility in Europe if compared with the past decades. Within this context, the availability of childcare in the first years of life has been pointed out as one of the most important points to the conciliation between work and family, as it promotes participation and more autonomy for women, but often complex arrangements to deal with family projects and responsibilities.

Thus, fertility, female employment and childcare are three pieces of the same demographic portrait, and these three pieces are naturally integrated in the individual's life cycle decisions. For these issues the focus is on the relation between employment and fertility at the individual and family level, since childbearing decisions are taken at these levels.

At an aggregate level, the correlation between fertility and female employment have reversed from a negative sign to a positive value during the 80's. In current days, the association between fertility and female labour became positive in the OCDE countries - the regions with higher female employment tend to have larger fertility. This shift,

founded at a macro level, in the fertility-employment relationship has been the subject of numerous debates.

This change in the fertility-employment association could be the result of increasing family-friendly settings that reduce the incompatibility between the role of mother and worker. In fact, the incompatibility between the mother and worker roles can seemingly be diminished by the implementation of family friendly policies. These social policies can focus on a wide-range of issues: promoting a more equal division of the parental cost by means of favouring male participation in childbearing; providing incentives to women re-entrance in the labour market; promoting part-time jobs and/or flexible work hours; creating financial and taxes incentives to childbearing; and also the implementation and support the childcare use..

To sum up, part-time opportunities and childcare use for extended periods of the day are two diverse ways of dealing with the increase of female labour participation, and we will deal with this question in this paper.

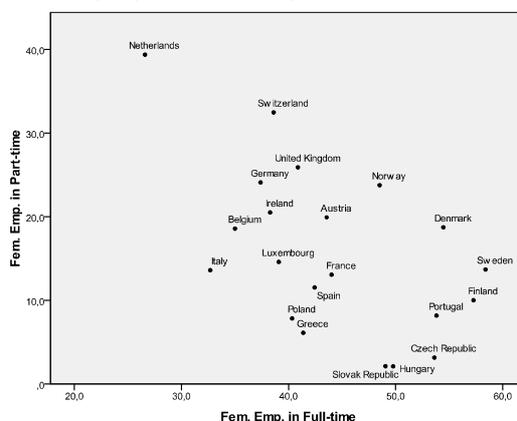
### Female Employment in Europe

In most European countries, increasing levels of female employment became a major trend as the proportion of women engaged in the workforce increased. In almost all European countries at least half of the women are engaged in work, although this participation in the labour market is still very diverse, ranging from very significant percentages in the Nordic Countries, Switzerland, France, Germany, Portugal, Austria Poland and United Kingdom, to South European countries as Spain, Italy and Greece. Despite the diversity that we can find within the current European context, this variety of female participation rates was unmistakably higher than in the past.

In spite of the increasing trend towards female paid labour, the women employment rate conceals a strong diversity of forms of professional commitment. In some countries part-time employment is a common situation, particularly in the Netherlands; in other countries part-time jobs are rarely used. In the next table, we can compare the female employment rates at a global level, and in both situations: part-time and full-time.

In short, this is the only way to clearly identify the significance of the part-time versus the full-time relation with fertility.

Female Employment in European Countries (2006)



At a first glance, we can see that the rate of female work range from almost 50%, in Greece, Italy and Poland to a bit more than 70%, in Denmark, Norway, Sweden and Switzerland.

In some countries, these figures included a significant number of part-time jobs and in some others this situation is unusual. For instance, in the Netherlands part-time employment is close to 60% of female employment and in Switzerland it is almost 46%. On the opposite side, there are countries as the Czech and Slovak Republics, or Hungary, where part-time is almost non-existent (below or near 5%). As we can see there is more regional diversity in the importance of part-time employment than in the full-time or total employment.

We can also look at the female full-time work in the same countries. The countries where the female participation in the labour market is more significant are: Sweden, Finland, Czech, Portugal, Slovak, Hungary and Denmark. In all these countries full-time commitment to a paid job includes about 50% of the women. Briefly, these countries are the majority of Nordic ones, some Eastern ones (except Poland) and Portugal (which is in a rather distinct situation from the other southern European countries, as Spain and Italy or Greece, where the female participation at full time is substantially lower).

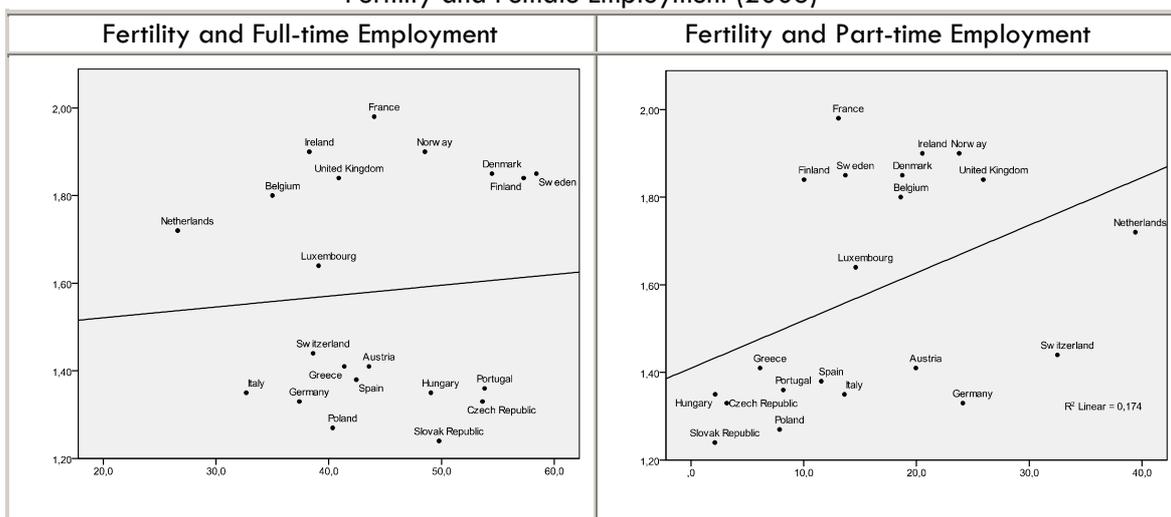
In fact, full-time and part-time employment reveal a decisive geographical diversity and the correlation between the two employment types is negative and expressive (-0.59) meaning that the macro-level relation between employment and fertility must be taken in hand the part-time and full-time components of female employment.

#### The association between Fertility and Female Employment: Part-time and Full-time

An analysis of the association of fertility with female labour regarding the significance of part-time and full-time jobs in the European countries may provide an insightful view to this topic. We propose a decomposition of the overall relationship between female employment and fertility in the two complementary analyses: the fertility bond with part-time jobs for women and the relation with the full-time female work.

The first approach, on this subject, is very traditional by means of a correlation between fertility and both types of female work in the recent period.

Fertility and Female Employment (2006)



As we already know, the correlation between fertility and female employment is, at present, positive – in 2006, correlation was equal to 0.55.

On the other hand, there is significant divergence between part-time and full-time association with countries' fertility rates. Fertility level is more closely associated with the importance of part-time employment for women: such a correlation is equal to 0.42, while the correlation with the full-time situation is almost zero: 0.08.

We can extend this analysis to the period since 2000 and we will find the same kind of correlations between the countries fertility and the full-time and part-time components of the female participation in the labour market.

Correlation between Fertility and Female Employment since 2000

	2000	2001	2002	2003	2004	2005
Full-time	0,010	-0,007	0,014	0,022	0,044	0,096
Part-time	0,569	0,512	0,525	0,525	0,519	0,455

This decomposition analysis enables us to discuss again the shift from the negative correlation between fertility and female employment to the present positive association between these variables. Clearly, the current positive correlation seems to be more strongly determined by the extent of the part-time employment. This means that the countries with higher fertility are the ones where the employment for women in partial time are simultaneously available and provide an adequate amount of income for the couple.

The positive correlation between fertility and female participation does not result from an easier conciliation between a full-time commitment to work and the female childbearing role. On the contrary, fertility it is associated with the increase of part-time employment in the European countries.

#### A Confirmation of the Part-time Association with Fertility: Childcare Use

Childcare is rather common in the vast majority of European countries, particularly for children in the ages close to the compulsory education age. However, regional differences in the use of childcare are particularly significant if we decompose the childcare enrolment rates by age.

After 3 years old the childcare enrolment levels are most significant in almost all the European countries. Usually between 70 and 90% of children are enrolled in some type of formal education. The exception is Poland, where only 1/3 of the children have this chance. Both Switzerland and Greece also have very low rates of children enrolment.

On the other hand, if we consider the childcare enrolment rate for children under 3 years old, the differences between countries are outstanding: the range in the observed values goes from 2%, in Poland and Czech Republic to 73%, in Denmark.

The use of childcare is comparatively low in the Eastern and German speaking countries and also in southern European countries as Italy and Greece. In these regions, the enrolment rate is bellow 10%. On the opposite side, the highest levels of children enrolment are found in the northern regions, like Denmark, Norway, and Sweden, but also Belgium and Netherlands, where the percent is close to 40% or even higher.

The correlation between the enrolment rates for children below 3 years with the fertility is significant (0.50) clearly more impressive than the association between fertility and the childcare enrolment after 3 years old (0.19). The use of childcare facilities by children below 3 years old is a key predictor for fertility levels. As the use of childcare services gets widespread, fertility tends to be higher.

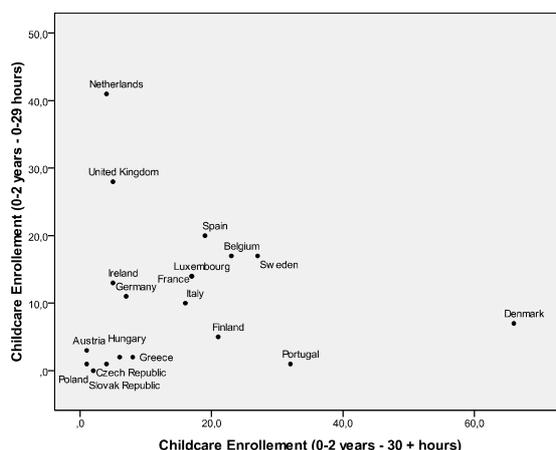
Another analysis, in the use of childcare for children below 3 years old, reveals an exceptionally significant diversity in the European countries regarding the extent of the childcare use, in hours by week.

In Europe, there is a wide range of use of childcare, between the insignificant levels observed in most Eastern situation and the higher level observed in Denmark. The Eastern countries tend to have the lowest utilization of childcare facilities both in partial and full

time options (Estonia and Latvia are exceptions, but only to a limited extent) – usually the use of childcare is below 5%). In the same pole one can find Austria and Hungary as well as Greece and Malta, which have a rather small utilization of childcare. The percentage of children enrolled in childcare is rather low. Furthermore, the few users tend to do so on a partial time basis.

In the opposite situation is Denmark: in this country, 66% of the children spend more than 30 hours by week in childcare facilities, and 7% use them in a lesser extent.

Childcare Enrolment for Children between 0 and 2 Years old by Weekly Duration, 2006



In some countries there is an option between the use of childcare both in a partial or full time: that is the situation of Belgium, Czech Republic, Spain France, Italy, Luxembourg, Malta. In these regions the importance of childcare for more than 30 hours by week varies between 40 and 60%, meaning that both options are significant.

In some other countries, the use of childcare occurs mostly on a fulltime basis. If we exclude the countries where childcare is bellowing 10%, we will find countries where the childcare at fulltime is almost mandatory. Portugal is the European country with higher percentage of children under 3 in this situation: 97%. Other countries – Denmark, Finland, and Slovenia Latvia - have percentages above 80%.

One could expect that the type of use of childcare would be proportional to the female participation rate. Particularly, the use of childcare for a long period during the day would be proportional to the level of female engaged in fulltime jobs. The reverse is also true: the use of childcare for limited periods of the day would be proportional to the prevalence of part-time jobs.

Correlations between the extend of childcare use and the part-time /full-time employment

		Childcare Enrolment	
		30 + hours	1-29 hours
Female Employment	Total	0,462	0,348
	Full time	0,320	-0,625
	Part-time	-0,044	0,807
TFR		0,387	0,518

As we can see, the use of childcare for less than 30 hours by week is clearly associated with part-time jobs (the correlation is 0.81). On the contrary, this type of childcare use is negatively correlated with the extent of full-time employment for females (correlation - 0.63). The extensive use of childcare for more than 30 hours/week is positively associated with female employment, in general or in a full-time basis (respectively 0.46 and 0.32) but not with part-time employment (in this case the correlation is close to zero: -0.04).

To sum up, regarding the correlation between fertility and childcare use results came as an expected outcome: the association is stronger with a partial use of these facilities (below 30 hours/week). But its more intensive use (at least for 30 hours/week) has also a positive and significant correlation with countries fertility.

As we have seen, the correlation between fertility and female employment is clear. The fertility is positively associated with female employment, and this association largely depends on the importance of part-time jobs.

### Conclusion

The low levels of fertility are associated with the postponement of motherhood (and the tempo effects in the current indexes), the increase of job instability, high costs of the housing market, and other factors, in the wider framework of cultural dynamic towards individualization in which individual aspirations tend to extend and reinforce societal norms and values. Within this context, female employment progressively became an established trend in the European societies. However, it apparently did not become a commanding rule.

In all the European countries an important fraction of the women still do not work in paid jobs – the percentage on non-workers is comprised between less than 20% in Denmark, Norway, Sweden and Switzerland and slightly more than 50% in Greece and Poland). The awareness of the major trend to increase female labour participation conceals also the considerable differences in the employment types in the European countries. Part-time jobs are available, so they are a real option in the life course decisions of the families in some countries; but in other regions the labour market does not offer this alternative and the decisions regarding children and jobs do not contemplate a mixed model between the male bread winner earner and the dual-earner model

The comparatively higher levels of fertility in some European countries seem to be associated to the availability of an intermediate option to individuals and to the possibility of childcare use in partial time.

This raises important and delicate questions. More equalitarian gender relations, more flexible work-hours and availability of affordable childcare are the most important factors to reduce the female double burden. Part-time employment is a more traditional solution than childcare use, since it increases the compatibility between family and work roles for women, but the family and household tasks remain as a female duty, since the work status and income are not uniformly distributed for both parents. Female part-time employment seems to be an intermediate or incomplete path between the traditional male breadwinner model and the dual-earner couple, because part-time employment for women results in new-traditional ways of renewing long-established family relations patterns.

In short, the global positive association between fertility and female employment is a consequence of the importance of part-time employment and it is not related with full-time labour. Hence, the change in sign of the fertility employment association, after the 80's, could result from the increase of family-friendly settings that reduce the incompatibility between the mother and worker role, as the increase in the childcare availability but it remains largely as a consequence of the diversification in the labour market.