Unwed Parenthood: Like Marriage or Like Divorce?

Lena Edlund, Laila Haider and Rohini Pande
Columbia University

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Abstract

Over the last three decades, a significant political gender gap has emerged in Europe wherein more women than men favor the political left. This paper uses data from nine European countries to examine the role of different forms of non-marriage in driving this gap, and the implications of the gap for public family transfers. The paper has two main findings. First, the gap responds positively to multiple forms of non-marriage: divorce and out-of-wedlock fertility (with or without cohabitation). This finding is consistent with the view that cohabitation and marriage are not perfect substitutes but that women receive fewer transfers from their partners in cohabitation than in marriage. Second, the relationship between the political gender gap and public family transfers is U-shaped. This finding supports the theoretical prediction of Edlund and Pande [2002] that in a world where women marry richer men, and non-marriage moves up the income distribution with time, increases in the gender gap will have a non-monotone effect on the demand for redistribution.

1 Introduction

The rise in non-marriage is one of the most conspicuous demographic developments in the Western world in the last three decades. Divorce has no doubt contributed to this. However, divorce requires marriage and while the proportion of the adult population that is currently divorced has continued to rise (table 1), divorce rates in many countries have actually fallen.[1] Still, the fall in the adult population that is currently married has seen no attenuation. An important reason is that fewer people marry. This is partly accounted for by an increased age at first marriage – a development accompanied by lower fertility and higher age at first birth. But that is not the entire explanation, as the rise in out-of-wedlock fertility bears witness to. In many countries the rate has tripled over the last three decades (table 1). Today, more than one-third of children are born out-of-wedlock in a number of Western countries, including the U.S., Canada, the U.K., France, Denmark, Sweden and Norway. If the current trends persist, with marriage in decline and out-of-wedlock fertility on the rise, the absence of marriage rather than divorce is going to be an increasingly important contributor to single parenthood, single motherhood in particular.

Arguably, marriage is the most important institution via which men and women share financial responsibility for child rearing, and men acquire custodial rights over children. Since women, on average, earn less than men marriage is also associated with a redistribution of resources from men to women. While a decline in marriage that is accompanied by fewer and later children is likely to reduce the accompanying income loss suffered by women, the implications of the rise in out-of-wedlock fertility for the economic well-being of women and children remain unclear. The continued rise in out-of-wedlock fertility – despite reductions in income support to the very poor, lower rates of teenage births (table 1) – and its prevalence among groups not characterized by either poverty or unbalanced sex ratios make theoretical predictions on this count difficult. While out-of-wedlock fertility is similar to divorce in that it produces couples who are not married to each other but, at least, share a common history important differences remain. For instance, while many divorces do involve children, this is by definition the case with out-of-wedlock fertility. On the other hand, while unmarried parents may share quarters, this is rarely the case with divorced parents. To complicate matters further, non-custodian or unmarried parents (fathers) contribute resources to their partners and children.

These considerations suggest that understanding whether the economic implications of unwed parenthood for women are more similar to single or married motherhood is an empirical question. However, empirical analysis of out-of-wedlock fertility has been hampered by a lack of information on the prevalence of cohabitation or income sharing among non-married partners.[2] In this paper, we spin a different take on this question. We examine the impact of changing

[1] This is particularly pronounced in "high divorce" countries such as the U.S., Denmark and Sweden (e.g., see the Statistical Abstract of the United States 1998: table 156; and Statistical Yearbook of Sweden 1999: table 49).

[2] Most data sets do not identify non-marital unions as a separate category.

family form on men and women's voting behavior. Moreover, we examine how such gender differences in voting behavior affect public family transfers in Europe. Under the assumption that individual's political preferences reflect their relative economic status, changes in men and women's political preferences are informative of changes in their relative economic situation, as argued by Edlund and Pande [2002], henceforth EP.

The methodology used in this paper builds on EP. Using U.S. data, EP showed that divorce risk impacted differentially on men's and women's political preferences, rendering middle class men, but not women, more right wing. Moreover, they argued that if the gender gap is generated by a decline in marriage, the overall impact on demand for redistribution would be ambiguous since, for instance, for each woman who is turned left, a man may be turned right. However, they only provided anecdotal evidence of this mechanism, pointing to the role of the so called Reagan Blue Dogs in supporting Reagan in the 1980's and Soccer Moms in supporting Clinton in the 1990's.

Our analysis uses individual level data from nine Western European countries: France, Belgium, Netherlands, West Germany, Italy, Denmark, Ireland, U.K. and Sweden, and spans the time-period 1973 to 1996. Figures IA and IB graph the evolution of the gender gap, by country (three-year moving averages). The gap is defined as the difference between the proportion of women and the proportion of men supporting the left. For visual ease, we group countries according to the initial level of the gap in 1973.[3] Despite significant level differences, the gender gap in all countries trend upwards. As in the U.S., the last three decades have seen a reversal of the gender gap in Europe, with women becoming more left wing relative to men. Concurrently, these countries have also witnessed similar trends in non-marriage (table 1). European countries have also witnessed a sharp rise in non-marital cohabitation.[4]

Evidence from the U.S. suggests that women – even when cohabiting – receive less support from their partners than married women. For instance, cohabitants are less likely to pool resources, e.g., Winkler [1997], and are more likely to break up, e.g., Bumpass and Sweet [1989]. Cohabiting men earn less than married men, and relative to their partners than married men Stratton [2002]. However, cohabitation is much less common in the U.S. than Europe, and it is unclear to what extent the U.S. findings generalize. Ironically, the lack of European studies of cohabitation may stem from its mainstreaming. In Europe, there is a strong belief that cohabitation is marriage-like and that the choice between marital and non-marital cohabitation is dictated by idiosyncratic tastes rather than involving a comparison of systematic differences between the two (for instance, "Europeans Opting Against Marriage," New York Times, March 24, 2002).

[3]Figure IA presents the evolution of the gender gap for countries where the gap was significantly negative in 1973, and figure IB for countries with an initial gap closer to zero or positive.

[4]See table **??**. In-sample estimates derived from the Eurobarometer Surveys, using eight of the nine countries in our analysis, indicate that 10 percent of individuals were cohabiting in 1996 as compared to only 2 percent in 1975.

This suggests that one important reason for focussing on European countries is the fact that despite similar levels of out-of-wedlock fertility unwed parenthood in Europe is both more often accompanied by cohabitation and is more common among the middle class than in the U.S. So far, the literature on out-of-wedlock fertility has focussed on the U.S. where non-marital fertility remains largely an underclass phenomenon, marked by social ills such as poverty, drug use, teenage pregnancies, father absenteeism, and low male wages (e.g. Wilson [1987]; An, Haveman, and Wolfe [1993]; Schultz [1994]; Kaestner [1998]); welfare (e.g., Murray [1984]; Rosenzweig [1999]; Neal [2001]; Upchurch, Lillard, and Panis [2002]); ineptitude in, or unwillingness to, administering contraceptives [Akerlof, Yellen, and Katz 1996]; and has been particularly pronounced among the Black population whose high male incarceration rate has skewed the sex ratio [Willis 1999]. However, the rise in non-marriage among the middle class is more likely to influence political preferences than have an effect on welfare uptake. And while child poverty may be less of an issue for the middle class, this does not mean that policy interest in the effect of non-marriage among this group is lacking. Public support for taxation in general and the distribution of tax money is likely to be affected. Considering a sample of European countries will help us shed light on these issues.

A second reason for our Europe focus relates to the size and scope of government. A recent paper by Lott and Kenny [1999] posited a strictly positive relationship between increases in the political power for women and the demand for redistribution. They provide evidence that granting women suffrage in the United States increased the size, but not the scope of the government. However, as argued by EP the posited positive relationship between the gender gap and the demand for redistribution unravels if one considers two stylized facts about the marriage market: (i) that women marry richer men; and (ii)that increases in non-marriage first occurred amongst couples situated at the lower end of the income distribution, and moved up over time. Together, these imply that initial increases in the political gender gap would occur among the relatively poorer and increase support for the political right – since non-marriage would lead to the man in an erstwhile left-leaning couple switching to the political right. It is when non-marriage hits the relatively affluent that we may expect the political support for the left to increase. In these cases, the woman who was part of a right favoring couple would switch left upon divorce. As a consequence the impact of the political gender gap on the overall demand for redistribution will be non-monotone. Moreover, if we believe that men and women have different policy preferences we would also expect a similar relationship between gender gap and the scope of government (GIVE REFERENCES). The size and scope of government in Europe makes it a good place to look for evidence on this issue [Alesina, Glaeser, and Sacerdote 2001]. Relative to the United States, European countries redistribute more income and their social welfare programs are more generous. In 1998 general government spending as a fraction of GDP was 44 percent in the European Union and 30 percent in the United States. The difference is even more marked in the case of transfers to families – in the same year, these stood at 2.2 percent of GDP in the European Union as compared to

0.5 percent in the United States.

The remainder of the paper proceeds as follows. Section 2 investigates the relationship between the gender gap and the decline in marriage and section 3 the relationship between public transfers to families and the gender gap. Section 4 concludes.

2 Non-marriage and the gender gap

Our analysis uses individual-level data from the biannual Eurobarometer surveys (EB) and the Swedish Election Studies (SES) for nine European countries. The EB provide nationally representative samples for Belgium, Denmark, France, Ireland, Italy, Netherlands, United Kingdom and West Germany, and the SES for Sweden.[5] We restrict our sample to respondents aged 18-64.[6] These data span the period 1973-1996, and provide information on a respondent's demographic and economic characteristics and political preferences. We measure respondents' political preferences by their stated partisan identification. Descriptives are provided in table 2.

Despite significant level differences, the gender gaps in all these countries trend upwards with women becoming more left wing relative to men (Figures IA and IB). Concurrently, these countries have also witnessed similar trends in non-marriage (table 1). Considering that cross-country regressions are usually beset by problems regarding the comparability of social and economic phenomena across diverse countries, the fact that these countries share similar trends is reassuring. To account for the level differences across countries, all regressions include country fixed effects.

Baseline To provide a baseline we estimate an OLS linear probability regression of the form:

$$l_{ikt} = c_k + \tau_t + \phi_1 f_{ikt} + \phi_2 (f_{ikt} \times \tau_t) + \varepsilon_{ikt}, \tag{1}$$

where l_{ikt} is a "left" dummy variable that takes on the value 1 if individual i, in country k and year t supports the left, and is zero otherwise; c_k are country dummies; τ_t are year dummies; and f_{ikt} is a female dummy ('female' in text). The vectors ϕ_2 and $\phi_1 + \phi_2$ measure the unexplained trend and level of the gender gap respectively.

[5] We use 45 rounds of the Eurobarometer survey. This survey covers the member countries of the European Union. East Germany and Finland entered in 1992 and are omitted due to small sample size. We also exclude Luxembourg for the same reason. Greece, Spain and Portugal were excluded for want of divorce data. For Sweden, the SES were conducted during election or referendum years: 1973, 1976, 1979, 1980, 1982, 1985, 1988, 1991, 1994 (two surveys) and 1995; 11 surveys in all.

[6] Our sample is restricted to an average of 10,249 respondents per year when key information on partisan identification and gender is present. We have an average of 9,759 respondents per year from the eight countries in the EB and an average of 1,128 respondents per year from Sweden (SES).

Table 3, column (1) reports the results. For expositional ease we only report ϕ_2 for every second year – the full set of coefficients are graphed in figure II A. Relative to 1973 (the omitted year) the unexplained gender gap trends upwards throughout and differs significantly from zero after 1984.

To examine the roles of individual characteristics and own marital status we estimate regressions of the form:

$$l_{ikt} = c_k + \tau_t + \phi_1 f_{ikt} + \phi_2(f_{ikt} \times \tilde{t}) + \phi_3 X_{ikt} + \phi_4(f_{ikt} \times c_k) +$$

$$\phi_5(f_{ikt} \times c_k \times \tilde{t}) + \phi_6(c_k \times \tilde{t}) + + \varepsilon_{ikt}, (2)$$

where X_{ikt} is a vector of individual demographic and economic controls, and $\tilde{t}$ is a linear time trend $= t - 1973$. To take account of country specific trends which may confound the effect of these non-marriage variables we include a country specific time trend, both alone and interacted with the female dummy. All regressions cluster standard errors by country.

Table 3, column (2) reports results for a regression which includes controls for individual characteristics. Married, better educated or richer individuals are more right wing (as are farmers and fishermen). Since married individuals are likely to report a higher family income than the non-married, we interact the non-married and income dummies to capture this effect. The SES report respondent income rather than family income, which results in married individuals from Sweden appearing poorer than they actually are.(AND NONMARRIED?) We include interactions of income and nonmarried dummies with the Swedish country dummy to control for this. Column (3) includes as additional covariates the 'female×country' terms, and the country-specific trend terms, both alone and interacted with 'female'. These terms help explain the overall trends in political affiliation, but not the gender gap.

Finally, in column (4) we include controls for own marital status.The EB provide detailed information on the non-married status, enabling us to study the gender differential effect of the aggregate non-marriage variables on the political preferences of men and women while controlling for their marital status. Non-married individuals are identified as single, cohabiting, divorced or separated (henceforth divorced-separated), or widowed. While cohabiting, divorced-separated and widowed individuals are more left than married ones, single and cohabiting females are significantly more left than their male counterparts.

We then include aggregate non-marriage controles, i.e. run regressions of the form:

$$l_{ikt} = c_k + \tau_t + \phi_1 f_{ikt} + \phi_2(f_{ikt} \times \tilde{t}) + \phi_3 X_{ikt} + \phi_4(f_{ikt} \times c_k) +$$

$$\phi_5(f_{ikt} \times c_k \times \tilde{t}) + \phi_6(c_k \times \tilde{t}) + \phi_7 \nu_{kt} + \phi_8(f_{ikt} \times \nu_{kt}) + \varepsilon_{ikt}, (3)$$

ν_{kt} is a vector of non-marriage controls. Our measure of divorce risk is the proportion of adult population that is currently divorced, **pdiv**, and our measure of unwed parenthood is the proportion of births out-of-wedlock in a country, **out**. Both measures vary by country and year.

Table 4 Column (1) includes **teen** and 'female×**teen**' as explanatory variables.– no effect. Column (2) includes **out** – **out** has a gender differential effect on po-

litical preferences with increases in **out** raising the numbers of women, but not men, who favor the left. As in column (4) the magnitude of the unexplained gap is reduced, although a significant part of the gender gap remains unexplained. The point estimate suggests that a 1 percentage point rise in out-of-wedlock fertility is associated with a gender gap of 0.24 percentage points. Over this period, out-of-wedlock fertility increased by 19 percentage points, suggesting that the rise in out-of-wedlock fertility can account for a gender gap of 4.6 percentage points (0.24×19), or 42 percent of the increase in the gender gap.

Column (3) includes **pdiv**, alone and interacted with the female dummy. The unexplained trend in the gender gap becomes statistically insignificant, and its economic magnitude falls to near zero. The coefficients on the individual controls are unaffected. However, **pdiv** has a gender differential effect on political preferences. The point estimate suggests that a 1 percentage point rise in the proportion population divorced is associated with a gender gap of 2.9 percentage points. Over this period, the proportion divorced increased by 3.6 percentage points, suggesting that the rise in divorce can account for a gender gap of 10.6 percentage points (3.6×2.95), or 97 percent of the increase in the gender gap (the gender gap went from -5 to 5 percentage points during this period).

The coefficients from parallele regressions where we include a full set of 'female $\times$ year' dummies are illustrated in figure II.

These results underline the importance of out-of-wedlock fertility as an important source of divergence between men and women's political preferences, and, presumably, economic situation, only partly alleviated by cohabitation. One interpretation consistent with our results is that as the legal implications of cohabitation are less well-defined, it offers less economic partner support to women. **to add**

3 The gender gap and policy outcomes

A natural interpretation of the political gender gap is that it reflects greater support for State redistribution amongst women than men. The fact that increases in this gap are related to increases in non-marriage would suggest that the types of redistribution which are increasingly favored by women, but not men, will be related to how the economic status of the two groups is changed by non-marriage.

Arguably, one of the most important changes is in who bears the cost of child-rearing. Unmarried mothers are more likely to be sole custodians of their children than married mothers, and hence face a greater share of child-rearing costs. As an immediate consequence, unmarried fathers shoulder less of this burden than married fathers. This suggests that with increasing non-marriage men and women would diverge in their preferences for State redistribution to "families."[7]

[7] By a family we mean a household with children and their custodian(s).

- Underlying model: party preferences are driven by redistributive preferences. It is relevant to examine the implications of increased divergence in gender political preferences for actual redistribution.

- In general, hard to answer as non-marriage may not only alter demand for State redistribution to women and children, but such income support may in fact promote non-marriage. A second concern is that there may simply be a mechanical link between the number of children living with single parents and total income support to families.

- We therefore restrict ourselves to examining whether the shape of the relationship is one which is consistent with gender gap being driven by non-marriage. Under the assumptions that
  (i) Men earn more than women (ii)Positive sorting in the marriage market (iii)Income pooling within marriage, and (iv)Marriage increases with income and falls more among the poor
  the demand for redistribution will first fall and then increase with the gender gap.

- How should we measure changes in the demand for redistribution – consider size and scope of government. Both levels (per capita) and as share of GDP. Also, we would expect that if non-marriage affects redistribution, then the non-monotone relationship would be pronounced for transfers to parent with custodial rights over child will

The OECD Social Expenditure Database provides consistent annual country-level data on public-spending on families for the nine European countries in our sample since 1980. There are two main categories of expenditure – family cash and family services.[8] Cash benefits include lone parent cash benefits, family allowances for children, and maternal and paternal leave. Family services include formal day care and other in-kind benefits. In our analysis we normalize these series by child population, where children are defined as the population aged under 15. Over this period, the average child population fell from 22 percent in 1980 to 18 percent in 1996.

We use this data to examine the link between redistribution to families and the political gender gap. We estimate log-linear regressions of the form:

$$p_{kt} = c_k + \tau_t + \phi_1 g_{kt} + \phi_2 g_{kt}^2 + \delta X_{kt} + \varepsilon_{kt}, \tag{4}$$

where, for country k in year t, p_{kt} denotes policy outcome and g_{kt} the political gender gap. The latter variable is computed from the Eurobarometer data, and is defined as the difference between the proportion of women favoring the left and the proportion of men favoring the left (graphed in figure I). To examine the

[8] Education is a separate budget item that is not included in this measure of the share of public spending going to children. This is a major omission in terms of magnitude of public spending on children. Moreover, it is means tested to a lesser extent than either family cash or family services.

potentially non-monotone relationship between the gender gap and redistribution we include both the level of the political gender gap, and its square. Finally, X_{kt} is a vector of country-level characteristics, including age distribution of the population, per capita income and ideology of ruling party.

SEE TABLE FOR RESULTS –U-shaped relationship between the gender gap and Public family transfers. Relationship not shared by other components of social expenditure

4 Summary and discussion

This paper has investigated the role of non-marriage, with a particular focus on out-of-wedlock fertility, in driving the political gender gap among nine Western European countries. There are several reason for focussing on out-of-wedlock fertility. First, to the extent that non-marriage is driven by women not having children at all, it is less clear that it would be associated with an economic disadvantage relative to men, in particular with women's having gained substantial inroads on the labor market. Clearly, out-of-wedlock fertility is a form of non-marriage that does involve children. Second, if current trends persist, future non-marriage is not going to be driven by divorce but rather by the absence of marriage altogether. A third reason is explorative. The extent to which out-of-wedlock fertility mirrors an economic lagging behind of women is moot. Unwed parenthood does not necessarily imply single motherhood. This is particularly true in many European countries where non-marital cohabitation, with our without children, has become common among all walks of life. Moreover, the absence of marriage is often linked to relative economic strength of women, and it is conceivable that the economic headway made by women in the labor market in the last three decades have resulted in women rejecting marriage, and thus does not mirror a decline in women's economic status.

Our reasons for focusing on the political gender gap as a gauge of male to female economic wellbeing is two fold. One, direct measurement of individual's economic wellbeing is complicated by unmeasured transfers between individuals, for instance family members, or expectations thereof. For instance, the extent to which the fiscal interests of a woman with low income is aligned with those of a man's (with higher income) depends on whether he transfer resources to her. In marriage, one could argue that transfers are done in the shadow of the law, and hence divorce law legislation has an impact on these transfers. Among unmarried couples, it is less clear what to expect, although the basis for a transfer may be there.

The second reason for looking at political preferences is that the literature on out-of-wedlock fertility has so far focussed on outcomes that are associated with the lower class. However, as out-of-wedlock fertility is no longer confined to the poor, its consequences will be less felt in terms of teenage pregnancies, substance abuse, truancy, etc. In fact, to measure the impact of changing family forms among the middle class, on could argue that changes in political preferences are going to be more suitable.

We find that out-of-wedlock fertility is linked to a political gender gap and argue that there is support for the notion that it rather than divorce is going to be an important contributor to gender inequality in future.

To end on a speculative note, a little discussed connection is that between the decline in marriage, and the decline in fertility. Total fertility rates are well below replacement level, and falling, in the Western World. [Council of Europe: Recent demographic developments in Europe, 2001. Strasbourg]. Superficially, the link may seem tenuous, since some of the countries with the highest out-of-wedlock fertility rate are also among those with the highest total fertility rates

in the Western world. Still, this may have more to do with a compressed wage distribution and a generous welfare state (which lowers the opportunity cost of taking time out for children) than non-marriage as being an inherently superior family form in which to raise children. Hence, it is conceivable that the decline in marriage is symptomatic of a decline in male willingness to support child rearing by a partner, and consequently, women have turned to other activities, primarily wage work, in order to secure their economic and social status (e.g., Johnson and Skinner [1986]). It is well established that children are time intensive to mothers and that higher female labor supply depresses fertility. Hence, the decline in marriage, may have contributed to both an increase in female labor supply and a reduction in fertility.[9]

[9]In the U.S., the period 1980 to 1998 saw the proportion of childless women aged 40-44 go from 10 to 19 percent, and the sharpest increase was not among archetypical career women but among women with less than a Bachelor's degree [Bachu 1999].

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Data appendix

Eurobarometer Survey Series is abbreviated "EB," the Swedish Election Studies "SES" and The World Bank's World Development Indicators "WDI."

Data for individual-level analysis

We use individual-level data from the biannual EB and the SES for nine European countries: from the EB for Belgium, Denmark, France, Ireland, Italy, Netherlands, United Kingdom and West Germany, and the SES for Sweden. We us West Germany even post-unification (the EB reports data separately for East and West Germany). We use 45 rounds of the EB which span the period 1973-1996. For Sweden, we use 11 rounds of the SES which were conducted during election or referendum years: 1973, 1976, 1979, 1980, 1982, 1985, 1988, 1991, 1994 and 1995 (both an election and a referendum occurred in 1994).

Individual-level data

In EB and SES "no answer", "do not know" and "not applicable" are coded as missing values. The samples are restricted to respondents aged 18-64 years.

left (EB and SES) Dummy equals 1 if respondent supports a left party.

(EB) The respondent was asked "If there were a General Election tomorrow which party would you support?" We recode the response according to whether respondents support a left, center or right party, following the classification proposed by the EB with the exception that we code environmental (green) parties as left.

(SES) The respondent was asked "Which party do you like best?" We recode the response according to whether the respondents support a left, center or right party. The left includes the Social Democratic party, and all parties to its left, including the Green party.

female (EB and SES) Dummy equals 1 if respondent is female.

age (EB) Gives respondent's age in years.

(SES) We calculate respondent's age from year of birth.

Cohort (EB and SES) We create four cohort dummies according to year of birth (EB - imputed):

1959+ : born 1959-present

1943-58 : born 1943-58

1921-42 : born 1921-42

pre-1920 : born prior to 1920

Education (EB) We obtain education level from the question "How old were you when you finished your full-time education?" If the response was "still studying" as opposed to the age when the respondent finished schooling, we impute the level of education from his/her age. We attribute high school education to respondents aged 18 to 20; and more than high school education to respondents aged 21 and over.

(SES) Respondents were asked to state educational attainment.

We create three education dummies:

>high school : 0-15 years old

high school : 16-19 years old

<high school : 20 or more years old

income (EB) Gives quartile position of respondent's family income in own country's income distribution.

(SES) Gives respondent's income rather than family income, with the exception of the 1976 and 1979 surveys when only family income is given. When respondent income was reported, we place individuals according to position in own gender income distribution (obtained in sample).

We create two income dummies:

Income 0-50 Dummy assumes value 1 if family income falls in lower half of income distribution.

Income 50-100 Dummy assumes value 1 if family income falls in upper half of income distribution.

Agri (EB and SES) Dummy equals 1 if respondent is a farmer or a fisherman.

Marital Status

Married (EB and SES) Dummy equals 1 if respondent is married. The SES does not distinguish between married and cohabiting couples.

Non-married (EB and SES) Dummy equals 1-**married**. The nonmarried category is further divided into the four sub-categories (there is no information on cohabitation, divorce/separation and widowed in 1973 and for Sweden):

Single (EB and SES)	Dummy equals 1 if respondent is single.
Cohabiting (EB)	Dummy equals 1 if respondent is "living as married," i.e. unmarried and cohabiting with partner.
Divorced-separated (EB)	Dummy equals 1 if respondent is divorced or separated.
Widowed (EB)	Dummy equals 1 if respondent is widowed.

Country-level data

out (Eurostat, German statistical office) Proportion of births out-of-wedlock. Data are from Eurostat, with the exception of West Germany, where the data are supplied by the German statistical office.

pdiv (WDI, Eurostat, UN Demographic Yearbook, country statistical offices) Proportion of adult population that is currently divorced. The data on adult population, aged 15 and over are from WDI. The population divorced (aged 15 and over or aged 18 and over depending on data availability) data are from various sources listed above. Due to inadequate data, we use the proportion of adults divorced in England and Wales as a proxy for the proportion divorced in the United Kingdom. We use linear interpolation/extrapolation to complete missing values in the proportion divorced data for Belgium and Italy. During the studied period, divorce was not allowed in Ireland, and we therefore code **pdiv** as 0 (it was legalized in February 27, 1997).

teen UN Demographic Yearbook, Eurostat, German statistical office: Births to teenage mothers over all births. Data on births to teenage mothers are from the UN Demographic Yearbook and total births are from Eurostat and the German statistical office.

Data for aggregate expenditure analysis

We use annual country-level data between 1980 and 1996 for nine European countries: Belgium, Denmark, France, Germany, Ireland, Italy, Netherlands, Sweden and United Kingdom. Note that German data are for West Germany until 1991 and unified Germany thereafter.

All monetary variables are deflated using country-level GDP deflators with 1995 as the base year. GDP deflators are from the WDI for all countries but pre-unification Germany, in which case they are from Milesi-Ferretti, Perotti, and Rostagno [2002] (MPR). Moreover, these variables are expressed in millions of local currency for all countries with the exception of Italy where they are in billions.

Total population data are from Eurostat. Data on population age distribution are from the WDI and the German Statistical Office. Land area figures are from the CIA Worldbook 2001.

GDP (WDI and MPR) We use deflated per capita GDP, logged. GDP data in current local currency are from WDI for all countries but Germany prior to 1991. Nominal GDP data for West Germany are from MPR.

family transfers (OECD) Deflated child targeted public transfers per child, logged. Public transfer data on families in current local currency are from the OECD Social Expenditure Database and comprise of family cash benefits and family services. We normalize expenditures by population aged 14 and under.

Family transfers consist of the following two sub-categories:

family cash	These expenditures comprise of family allowances for children, parental leave, lone parent cash benefits, family support benefits and other family cash benefits.
family services	These expenditures comprise of formal day care, personal services, household services, and other in-kind family benefits.

15-64popshare Share of population aged 15 to 64.

65+popshare Share of population aged 65 and up.

Gap (EB and SES) Raw political gender gap. Country-level gender gaps, i.e. the difference between the proportion of women supporting the left and the proportion of men supporting the left, are derived from EB and SES.

Popden Population density, logged. We compute it as population divided by land area in square kilometers.

Ideology The source is Woldendorp, Keman, and Budge [1993]. An index – 1,2,...,5 – indicating the ideology of the government, where 1 indicates a right wing government and 5 a left wing government. Note that we code the Italian government in 1995 and 1996 as 3 since it was apolitical (consisted of technocrats).

Table 1: Non-marriage indicators, by country

	Divorce 1/1000		Out-of-wedlock 1/100		Teen births 1/100		Age at first marriage years	
Country	1973	1996	1973	1996	1973	1996	1980	1996
France	22	58	8	39	7	2	23.0	27.4
Belgium	17	59	3	18	9	3	22.3	25.6
Netherlands	15	60	2	17	5	1	23.2	26.7
W. Germany	26	58	6	14	9	3	23.4	26.6^{e}
Italy	1	10	2	8	10	1	23.9	26.8
Denmark	43	85	17	46	7	2	24.6	29.7
Ireland	0	0	3	25	n.a.	n.a	24.7	28.2
UK	17	80	8	36	11	7	24.5^{c}	26.7
Sweden	45	98^{a}	29	53^{a}	8	2^{a}	26.0	28.7^{a}
All	20	56	9	28	8	3^{b}	23.9^{d}	27.3^{f}

Notes: The variable Divorce refers to the number of currently divorced adults per thousand adults (**pdiv**); Out-of-wedlock to the number of births out-of-wedlock per hundred births (**out**), Teen to the number of births to teenage mothers per hundred births, and Age of first marriage to the mean age of first marriage in years amongst females. Pol. gender gap to the difference between the proportion women and men who favor the left n.a. - not available. ^{a} - pertains to 1995. ^{b} - excludes Sweden. ^{c} - pertains to 1982. ^{d} - excludes the UK. ^{e} - pertains to Unified Germany. ^{f} - excludes West Germany and Sweden. See Data Appendix for further details on construction, and data source.

Table 2: Descriptive statistics 1973-1996

	All		Men		Women	
	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.
A.1. Individual-level data						
Female	0.496	0.499				
Non-married	0.324	0.468	0.328	0.469	0.319	0.466
Age	39.5	12.9	39.6	13.0	39.3	12.8
1959 +	0.191	0.393	0.190	0.392	0.192	0.394
1943-58	0.389	0.487	0.385	0.486	0.392	0.488
1921-42	0.371	0.483	0.374	0.484	0.367	0.482
pre-1920	0.048	0.213	0.049	0.216	0.046	0.211
>High school	0.364	0.481	0.357	0.479	0.372	0.483
High school	0.394	0.488	0.372	0.483	0.416	0.492
< High school	0.241	0.427	0.270	0.444	0.211	0.408
Income 0-50	0.425	0.494	0.398	0.489	0.453	0.497
Agri	0.025	0.157	0.041	0.198	0.009	0.000
Left	0.504	0.499	0.502	0.499	0.507	0.499
N	188990		95128		93862	
A.2. Individual-level data: marital status						
Single	0.199	0.399	0.233	0.423	0.164	0.371
Cohabiting	0.048	0.214	0.050	0.218	0.046	0.209
Divorced-separated	0.045	0.209	0.033	0.180	0.057	0.233
Widow	0.034	0.182	0.013	0.116	0.055	0.228
N	170513		85275		85238	
B. Country-level data						
pdiv	3.7	2.5				
out	16.7	13.7				
teen	4.8	2.6				
Popdens	194.2	128.4				
Ideology	2.2	1.46				
15-64 popshare	66.0	2.48				
65+ popshare	14.4	1.85				

Notes for Table 2: Panel A.1 and A.2: Individual data from the Eurobarometer surveys and the Swedish Election Studies. In Panel A.2, Sweden is not included as the Swedish data-set codes cohabitants as married.
Panel B. For **pdiv** and **out** we have 194 observations (8 countries for 23 years and Sweden for 10 years: 8×23 + 10= 184+10=194). For **teen** there is no data for Ireland. Hence, we have 171 observations (7 countries for 23 years and Sweden for 10 years: 7×23 + 10= 161+10=171). The variables Popdens, Ideology, 15-64 Population share and 65+ population share are for 1980-96 for 9 countries, yielding 153 observations (9×17). Units for **pdiv**, **out**, **teen**, popdens are 1/1000 adults, 1/100 births, 1/100 births and persons/km^2 respectively.

Table 3: Basic specification, dependent variable **left**

variable	(1)	(2)	(3)	(4)
female	-0.0432**	-0.0605***	-0.0540***	-0.0543***
	[0.0145]	[0.0144]	[0.0077]	[0.0083]
female ×	0.0040***	0.0048***	0.0036***	0.0034***
trend	[0.0007]	[0.0008]	[0.0003]	[0.0003]
Non- married		0.0398***	0.0398***	0.0817***
		[0.0110]	[0.0104]	[0.0149]
Age		-0.0013	-0.0013	-0.0035*
		[0.0015]	[0.0015]	[0.0017]
Age-squared		-0.0022	-0.0023	0.0001
		[0.0016]	[0.0017]	[0.0018]
1959 +		-0.2704	-0.3799	-0.8637
		[1.2580]	[1.2417]	[1.2245]
1943-58		2.9885**	2.8175**	2.4812*
		[1.0808]	[1.0688]	[1.1652]
1921-42		-1.3345	-1.4331*	-1.4146
		[0.8482]	[0.7695]	[0.8205]
Agri		-25.0884**	-25.5751**	-22.9005**
		[9.1507]	[9.0832]	[9.0514]
High school		-8.5597***	-8.6419***	-7.7035***
		[1.8246]	[1.8114]	[1.6599]
>High school		-8.1202**	-8.0393**	-6.3333**
		[2.6120]	[2.4781]	[1.9872]
Income		-6.3957***	-6.4000***	-6.9378***
50-100		[1.1759]	[1.1933]	[1.3287]
Single				-0.0731***
				[0.0148]
Cohabiting				0
				[0.0000]
Divorced-				-0.021
Separated				[0.0222]
Widowed				-0.0387*
				[0.0195]
Female×				0.0252*
Single				[0.0111]
Female×				0.0237**
Cohabiting				[0.0069]
Female×				0.0188**
Div-Sep				[0.0055]
Female×				-0.0481**
Widowed				[0.0183]
female× country	no	no	yes	yes
Country specific trend	no	no	yes	yes
		20		
female×Country specific trend	no	no	yes	yes
N	235,734	188,990	188,990	170,513
Adj. R^2	0.03	0.06	0.06	0.06

Notes: All regressions include country and year dummies. The F-test in column (4) refers to the probability that **pdiv** and **f-pdiv** are jointly zero,

Table 4: Marital status, dependent variable **left**

	(1)	(2)	(3)
female	-0.0563***	-0.0549***	-0.0865***
	[0.0129]	[0.0079]	[0.0185]
female×	0.0038***	0.0025***	-0.0002
trend	[0.0004]	[0.0006]	[0.0019]
teen	-0.8333		
	[1.0726]		
female×	-0.129		
teen	[0.3455]		
out		-0.0873	
		[0.3076]	
female×		0.1691*	
out		[0.0978]	
pdiv			-3.277
			[3.9408]
female×			1.8796**
pdiv			[0.9428]
Controls	yes	yes	yes
Observations	172665	188990	188990
Adj. R-squared	0.07	0.06	0.06

Robust standard errors in parentheses. * significant at 10 percent; ** significant at 5 percent; *** significant at 1 percent.

Table 5: Size and Scope of Government in Europe: Descriptives

Country	Social Expenditure/ GDP	family transfers Total/ GDP	Cash / GDP	Services/ GDP
France	25.96	2.62	2.18	0.45
	(2.61)	(0.17)	(0.31)	(0.30)
Belgium	25.87	2.56	2.43	0.12
	(0.83)	(0.34)	(0.33)	(0.02)
Netherlands	27.65	1.85	1.42	0.43
	(1.28)	(0.43)	(0.37)	(0.07)
Germany	24.72	2.03	1.44	0.59
	(1.39)	(0.25)	(0.23)	(0.13)
Italy	22.42	0.96	0.73	0.22
	(2.20)	(0.16)	(0.23)	(0.14)
Denmark	29.86	3.20	1.30	1.90
	(1.71)	(0.44)	(0.33)	(0.13)
Ireland	19.30	1.55	1.49	0.07
	(1.67)	(0.24)	(0.22)	(0.03)
UK	22.59	2.30	1.84	0.46
	(2.76)	(0.15)	(0.11)	(0.05)
Sweden	31.62	4.18	1.95	2.23
	(2.48)	(0.39)	(0.32)	(0.28)
All	25.55	2.36	1.64	0.71
	(4.11)	(0.94)	o.55	0.75

N 9*17 =153. Standard errors in parentheses. Germany: West until 1990, Unified 1991 and onwards. The data series above are described as a share of total gdp for ease of reference but appear per capita in real country currency in the regressions. Family transfers consist of the following two sub-categories:

family cash These expenditures comprise of family allowances for children, parental leave, lone parent cash benefits, family support benefits and other family cash benefits.

family services These expenditures comprise of formal day care, personal services, household services, and other in-kind family benefits.

Table 6: Social expenditure and transfers to families, percapita

		family transfers:		
	Social expenditure	total	cash	services
	(1)	(2)	(3)	(4)
Gap	0.1669	0.0989	-0.0527	0.3698
	(0.2058)	(0.3648)	(0.4624)	(0.6696)
Gap-	-1.9543	8.9633**	18.1245***	-11.3301*
squared	(2.1091)	(4.2372)	(5.8902)	(6.4729)
Population	0.2377	-1.0801***	0.1549	-3.1986***
density	(0.1759)	(0.3914)	(0.5637)	(0.6201)
15-64	1.4513	6.6994***	4.8318*	25.1764***
Popshare	(1.1427)	(2.1958)	(2.8784)	(3.3266)
65+	-0.6696	-0.3726	-15.0210***	33.0185***
Popshare	(1.0896)	(2.7189)	(3.6019)	(5.1062)
GDP	0.4914**	1.6437***	1.8052***	-0.6935
p.c.	(0.2096)	(0.4175)	(0.5174)	(0.6058)
Ideology	-0.0058	-0.013	-0.0039	-0.0228
	(0.0041)	(0.0104)	(0.0145)	(0.0214)
N	153	153	153	153
Adj. R^2	1	0.99	0.99	0.99

Table 7: Social expenditure and transfers to families, share of GDP

		family transfers:		
	Social expenditure	total	cash	services
	(1)	(2)	(3)	(4)
Gap	0.1669	0.3044	0.6172	-0.3128
	(0.2058)	(0.7797)	(0.6892)	(0.3854)
Gap-	-1.9543	20.7407**	25.3850***	-4.6443
squared	(2.1091)	(9.9886)	(8.6162)	(4.2421)
Population	0.2377	-1.9820**	-0.0153	-1.9667***
density	(0.1759)	(0.9763)	(0.8761)	(0.5152)
15-64	1.4513	8.3504	4.7634	3.5870*
Popshare	(1.1427)	(5.3424)	(4.1800)	(2.0630)
65+	-0.6696	-11.2217*	-22.9728***	11.7511***
Popshare	(1.0896)	(6.6546)	(5.4617)	(3.7622)
GDP	-0.5086**	0.6772	0.9646	-0.2874
p.c.	(0.2096)	(0.9714)	(0.7273)	(0.4534)
Ideology	-0.0058	-0.0336	-0.0094	-0.0242
	(0.0041)	(0.0300)	(0.0252)	(0.0183)
N	153	153	153	153
Adj. R^2	0.87	0.91	0.8	0.96

Robust standard errors in parentheses * significant at 10%; ** significant at 5%; *** significant at 1%. The dependent variable in Table 6is logged expenditures per capita, and in Table7 is expenditure as share of GDP. Population density and GDP are entered in logged terms.

FIGURE IA: Political Gender Gap, by country

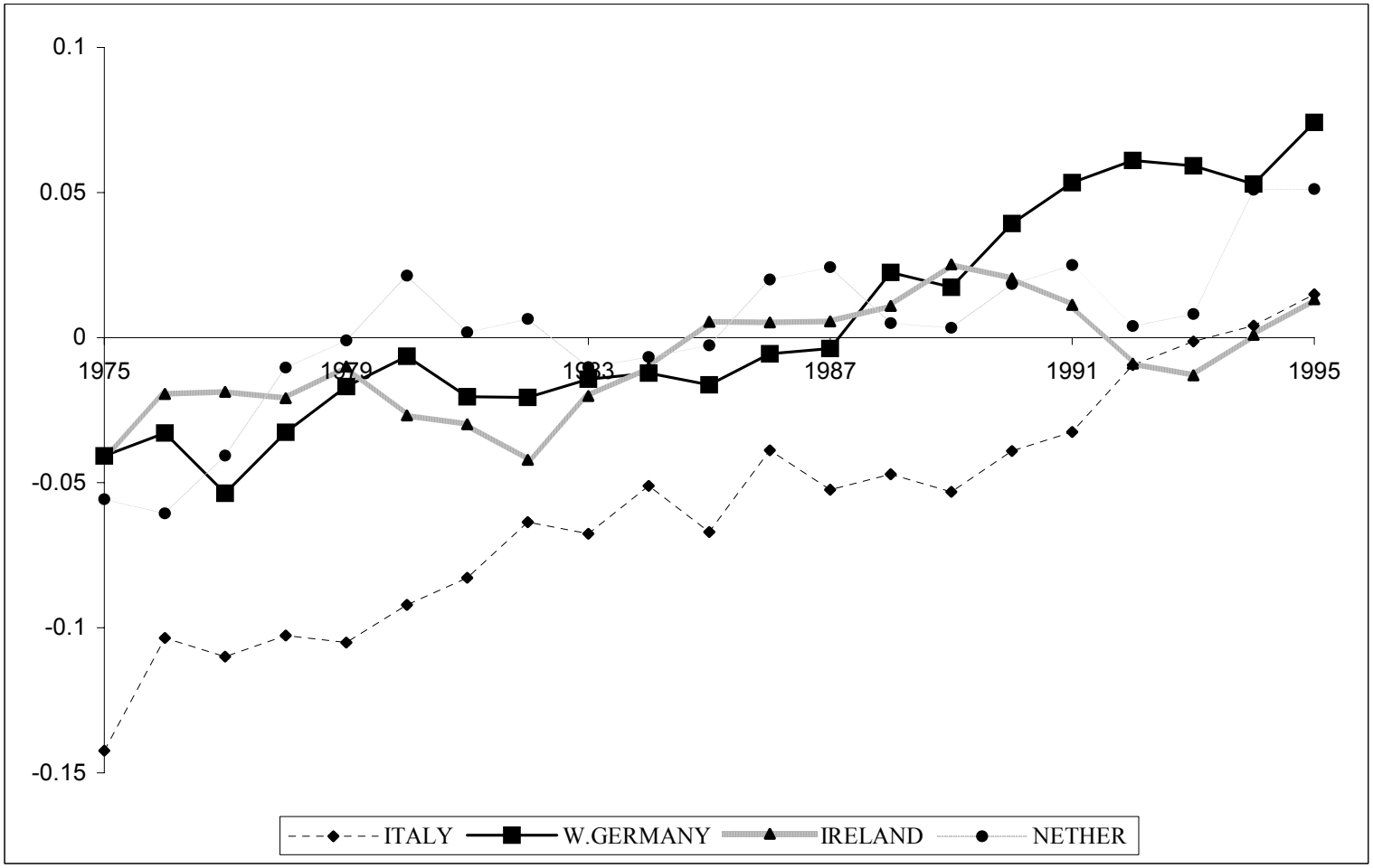
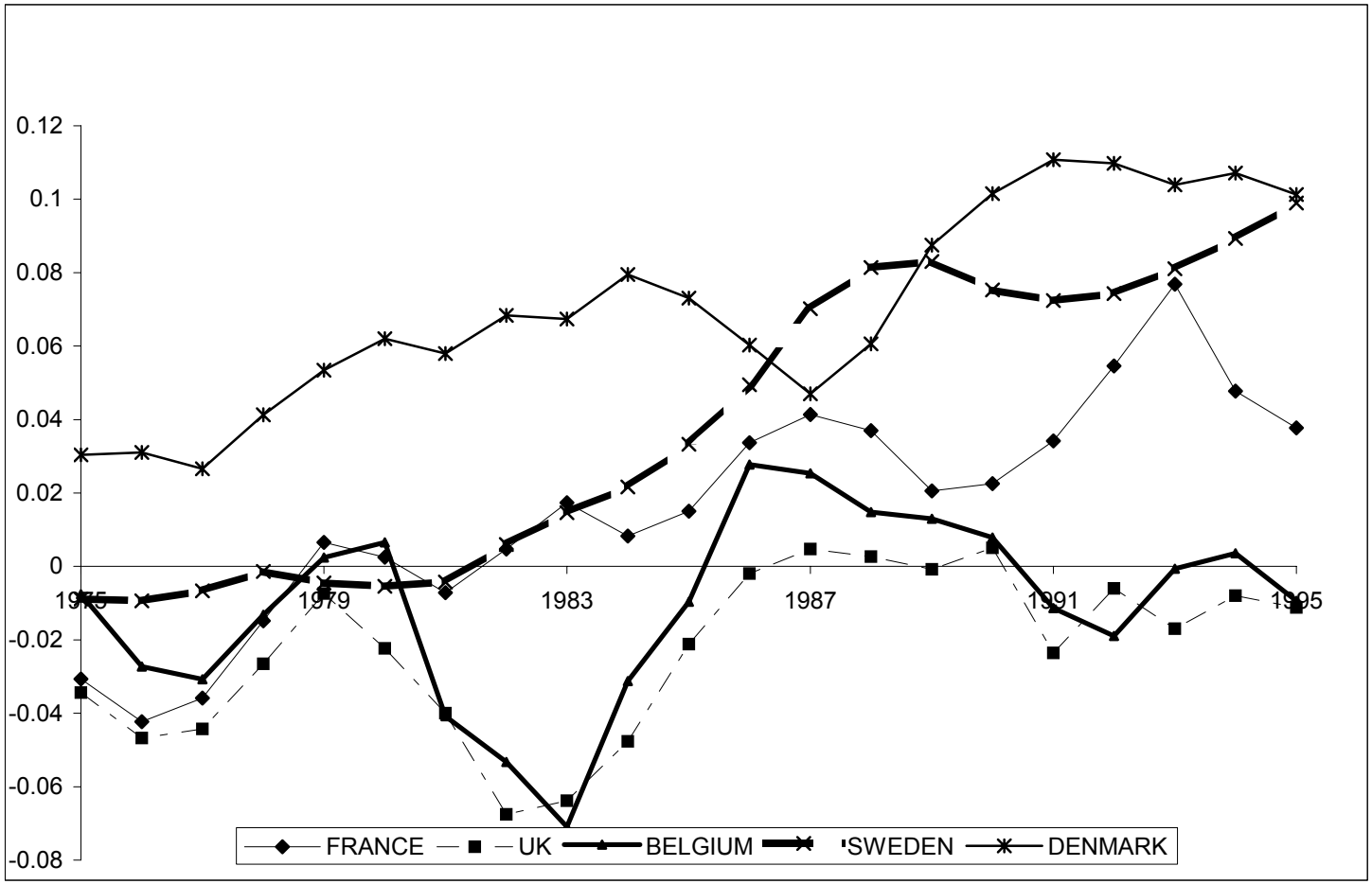


FIGURE IB: Political Gender Gap, by country



The gap is defined as the difference between the proportion of women who favor the left and the proportion of men who favor the left. Three year moving averages reported. The data source is the Eurobarometer surveys for all countries, except Sweden. For Sweden we use the Swedish Election Studies Survey.

FIGURE II: Time Trend in the Gender Gap, all incomes