Social class and fertility in Europe

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Introduction

In the last decades, many researchers engaged in explaining the below replacement fertility levels of the European countries by studying the impact of various micro- and macro-level factors on individual childbearing decisions. The association between social classes and fertility behaviour, however, remains undertheorized as the literature focused mostly on the differentials in education and income levels as determinants of fertility behaviour. For instance, members of different social classes do not face equal opportunities and constraints and therefore they do not have similar expectations or levels of certainty about their future (Bourdieu, 1987; Erikson and Goldthorpe, 2002).

Despite the fact that income, education and social class covary together (Leana, Meuris 2015), these three components are only moderately correlated (Kraus et al 2009). As Bourdieu (1987) states, classes can be defined as groups of individuals who hold similar positions in the distribution of power and are therefore endowed, or subject to, similar factors which induce them to similar behaviours. In other words, class relations create diverse life chances and economic endowments shaping individual preferences and attitudes (Brooks and Svallfors, 2010). One of the factors which intrinsically characterize social class is the economic insecurity about the future. Indeed, since the birth of a child implies an irreversible economic investment, this choice may be abandoned or postponed by individuals in economic uncertainty (Rajan 1999; Sommer 2016). The literature has shown the negative association between fertility and economic uncertainty on the one side with, aggregate measures of uncertainty (Adsera 2004; Hondroyiannis 2010; Schneider 2015; Chevalier and Marie, 2017; Chabé-Ferret and Gobbi, 2018) and on the other side in country-specific studies, when uncertainty is measured as persistence in joblessness (Busetta et al. 2019), fixed-term contract (Adsera 2004; Auer and Danzer 2016; Modena et al. 2014), employment protection legislation (Clark, Lepinteur 2020) and government reforms (Klemm 2012; Hofmann and Hohmeyer 2013). Other studies have considered the association between perceived economic uncertainty and fertility (Kreyenfeld 2015; Scherer 2009; Vignoli 2020).

Data and methods

The main goal of this work is to investigate whether there exist different patterns of fertility behaviour across social classes, looking at the association between the couples' probability of having a child and their social class at the moment of the conception.

To do this, we use the longitudinal component of the EU-SILC data for 14 European countries (from 2005 to 2017): thanks to the longitudinal nature of these data, we are able to control for the individuals' unobserved heterogeneity, which represents an important source of bias when the effect of socioeconomic variables on fertility behaviours (Strauss and Thomas, 1995; Bollen et al., 2001). EU-SILC survey, other than providing comparable and harmonised microdata on poverty, income and living conditions, it also includes many other socio-economic and demographic characteristics, such as labour market position, level of education, health and others. In the analysis, we use the EU-SILC longitudinal component of 14 countries (Czech Republic, Denmark, Finland, France, Greece, Italy, the Netherlands, Norway, Slovenia, Spain, Sweden, Poland, Portugal and the United Kingdom) which are all covered for the period from 2005 until 2017. The EU-SILC longitudinal dataset is a rotational panel, usually of four-year duration. This means that individuals are in general observed for a maximum of four years in the panel. Although it provides many variables useful for economic and social analysis, EU-SILC does not provide directly household grids or information on childbirth history of individuals. However, in the longitudinal dataset, there exists the information on whether there has been a newly born child in the household since the previous wave. That means that for all the individuals who were followed-up after the first interview, and using the parents' ID's of the observed newly born children, one can construct the variable indicating whether an individual has had a child in the period between two consecutive interviews.

The strategy of the analysis is the following: couples, observed for at least two consecutive years, are taken as the unit of analysis, while the dependent variable is an indicator of whether the couple experienced the event of childbirth in the previous year. Couples are defined as two individuals who are co-residing, can be linked through partner ID and are or married or in the consensual union (legal or non-legal).

We estimate a three-steps generalized linear mixed model with individual random effects component. We specify the *cloglog* link function ($\ln(-\ln(1-\mu))$), so to account for the rarity of the positive outcome of our dependent variable. In the first step (model 1) we estimate the gross effect of social class, net of the 'usual suspects' socio-demographic. In the second step (model 2) we add education as control, and in the final step (model 3) we include equivalised household income as additional covariate.

M1: $Y = \beta_1 Sociodemo + \beta_2 Social\ class + Z_u + \varepsilon$

M2: $Y = \beta_1 Sociodemo + \beta_2 Social\ class + \beta_3 Education + Z_u + \varepsilon$

M3: $Y = \beta_1 Sociodemo + \beta_2 Social\ class + \beta_3 Education + \beta_4 Income + Z_u + \varepsilon$

Preliminary results

Table I: Random effects log-log model

Variables	Woman's social class			Partner's social class		
	Birth	Transition to 1 child	Transition to 2 child	Birth	Transition to 1 child	Transition to 2 child
ESeG social class (Ref: Managers and Professionals)						
Technicians and associated professional employees	-0.177*** (0.032)	-0.088 (0.056)	-0.206*** (0.048)	-0.125*** (0.034)	-0.076 (0.062)	-0.117** (0.049)
Small entrepreneur	-0.379*** (0.061)	-0.390*** (0.124)	-0.387*** (0.093)	-0.128*** (0.042)	-0.205** (0.092)	-0.076 (0.059)
Clerks, industrial and less skilled employees	-0.336*** (0.031)	-0.219*** (0.054)	-0.366*** (0.045)	-0.232*** (0.028)	-0.086 (0.053)	-0.279*** (0.041)
Unemployed	-0.410*** (0.046)	-0.484*** (0.085)	-0.441*** (0.067)	-0.291*** (0.055)	-0.470*** (0.107)	-0.330*** (0.082)
Students, retired and other inactive	-0.303*** (0.034)	-1.066*** (0.092)	-0.190*** (0.049)	-0.606*** (0.078)	-0.813*** (0.139)	-0.536*** (0.128)
Constant	-2.052*** (0.164)	-1.486*** (0.251)	-2.060*** (0.239)	-2.016*** (0.164)	-1.468*** (0.252)	-2.066*** (0.239)
Observations	137,248	22,006	36,501	129,290	19,909	34,448
Number of individuals	77,834	14,333	23,189	73,334	12,826	21,920

Standard errors in parentheses.*** p<0.01, ** p<0.05, * p<0.1. All models control for country, year, country*year fixed effects and woman's age.

Figure I: Predicted probabilities of birth

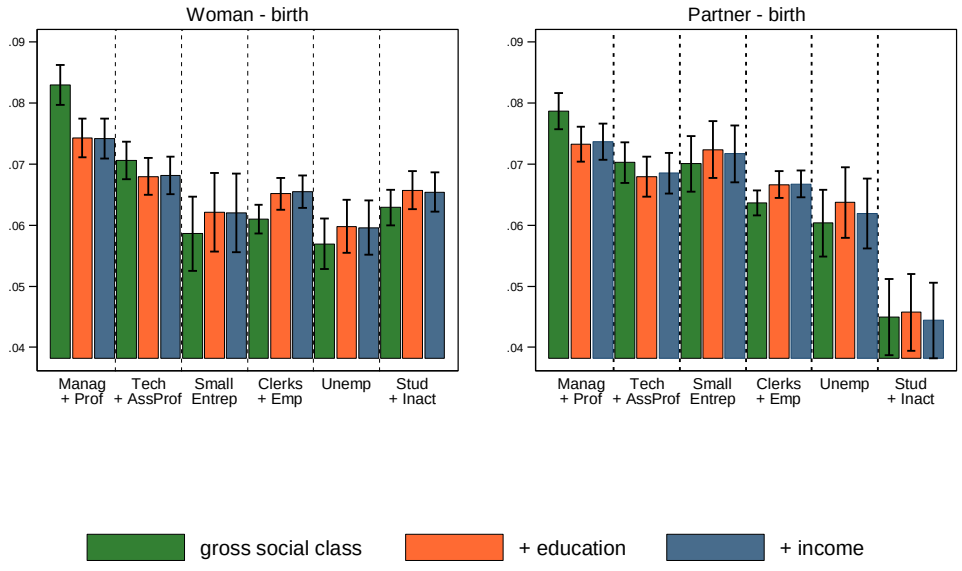

Figure II: Predicted probabilities of birth by parity