

### **Spatial fertility differentials in Spain duration the Demographic Transition with a focus on childlessness**

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The historic fall of fertility in Spain occurred much later than in the rest of Europe, and especially in France. Fertility was still very high at the beginning of the Twentieth century with values of the TFR close to 5 live births per women. This is generally explained by the fact that infant mortality levels were still very high at the end of the Nineteenth century. This big picture of a late transition hides some important differences at the regional level and also if we take into account birth order and union status. For example it is well known that the fertility transition started much earlier in the Northeast, at least 50 years before than the rest of Spain. Also childlessness levels were very high for cohorts born during the years 1890-1910, even for married women. Childlessness was also very high in Central Spain during most of the Twentieth century, in regions where the diffusion of birth control occurred much later than in the rest of Spain.

Traditional explanations of the fertility transition use diffusion hypotheses, based on the idea that the adoption of birth control was mainly the result of a change in the collective mind-set, akin to the embracing of a new fashion (for example this is the main conclusion of the European Fertility Princeton Project: Coale and Watkins, 1986). Those conclusions have been recently been revised based on the use of new econometric methods which take into account the spatial dimension, but still using aggregated data (Galloway et al, 1994, Brown and Guinnane, 2007).

We propose to have a new look at the Spanish fertility transition, using individual data thanks to the big retrospective Spanish Socio-demographic survey of year 1991 for which nearly 160.000 were surveyed, with complete biographical history for unions, births, migrations and occupation spells. We will focus on the determinants of childlessness levels by region, union status, educational attainment and other covariates, in order to determine whether birth control was already used by certain population groups, while this was not apparent when measuring fertility at the aggregate level with traditional indexes that does not take into account the birth order. If birth control was used for the first birth at time and in regions where it was not used for the remaining orders, this could represent an indirect proof that the adoption of contraceptive practices was not the result of a change in norms, but an economic necessity.

We will use survival modelling applied to individual data to try to detect spacing behaviour, in the same way than Mroz and Weir (1990) or Van Bavel (2004). We will also use logistic regression modelling on individual data to study the determinants of stopping behaviour focusing specifically on childlessness for men and women who entered a union.

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