

Subregional Fertility Differentials in Western European Countries

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ABSTRACT

The present work presents a project that aims at investigating fertility on a sub-regional basis to determine the existence of possible convergence paths both at country and at European level. In particular I want to investigate fertility trends among Western European countries to better understand when regional differences in fertility behavior started to arise, how they developed across time and which kind of developments for the future we might expect. The framework considered in this project is the Second Demographic Transition, SDT, which allows for a broader understanding of the dynamics involved in the expansion of new values and attitudes towards childbearing and fertility behavior. The SDT diffusion is not homogeneous within countries; indeed, it spread at different speed, sometimes involving only specific features of fertility behavior, Van de Kaa (1987). The first step of the project focuses on analyzing country specific fertility trends at sub-regional level over time, to understand the existence of possible convergence paths in fertility behavior and the role played by net migration in fertility differentials. A second step would involve cross country comparison, considering country specific features such as family policies.

OVERVIEW

The aim of the present paper is to study fertility trends at sub-national level across Western European countries to understand possible convergence paths of fertility both at country and at European level.

Fertility trends have been the object of research and concern in demographic studies, especially ever since the emergence of substantial downward trends in fertility rates, which fell down to low or lowest-low levels in Europe. Nevertheless, Europe shows a remarkable degree of heterogeneity for what concerns fertility differentials, not only across countries but also across regions. Such heterogeneity affects differentials in total fertility rates as well as behaviour specific measures such as mean age at marriage, first childbirth and first union entry.

This study aims at investigating such differentials and their evolution towards time to understand if it is reasonable to talk about the existence of converging paths of fertility across European countries. This would translate into investigating whether such patterns show convergence trends both at cross country and regional level, in particular to understand if fertility differentials at regional level show convergence towards the same fertility level. In particular I want to investigate how the variation and dispersion of fertility rates and fertility behavior measures such as age at first birth and age at entry into first union relate the patterns of country trends to those of regions. After that I want to include the role played by net migration on fertility trends (Barro and Sala-I-Martin 1991).

The Second Demographic Transition represents the environment across which fertility is evolving in contemporary Europe. Van de Kaa (1987) clearly states that the diffusion of the SDT is not homogeneous across different states and some experiences transformations more extensively than others. A first stage to the analysis would be to investigate each Western European country subregional fertility indicators to understand dissimilarities across different areas to better understand convergence (or divergence) paths, in particular at the light of net migration trends which are more extensive in some regions.

A second step to the analysis would be to investigate whether there is convergence to European trends in fertility and if the SDT has reached a common path across different European countries Sobotka (2004). In this context, some macro-areas play an important role in the definition of the study object as macro European areas show remarkable similarities, as delineated by Esping-Andersen (1990).

DATA AND METHODS

Data used to study sub-national differences in fertility focus both on period and cohort measures. The analysis is based on age specific fertility rates as well as parity specific fertility rates and will focus on Western European countries fertility at regional level. The sub-national perspective has as first target the European classification of country areas NUTS ranging from 1 to 3.

I will concentrate in particular on first births timing and how first childbirth trends might differ across various regions in European countries. In particular I want to explore the role played by net migration trends in the overall fertility definition, especially for what concerns tempo and quantum effects and the role played in convergence paths. Moreover, part of the analysis will be devoted to Western European migrants' fertility comparison to understand whether migrants' country of origin may explain their fertility level or whether they adapt to country specific fertility trends.

The methods used to estimate fertility trends is mainly based on various spline interpolation techniques and data smoothing, in particular following Camarda et al (2008). Spline interpolation techniques have proved to be a useful tool to estimate demographic trends as in Schmertmann (2003) and Mc Neil et al. (1996). In particular, in this project data smoothing techniques would play a pivotal role in the interpolation of age specific fertility trends at different sub-regional areas to catch variations of fertility over time for distinct populations and to synthesize the results in order to easily and quickly compare fertility paths for further analysis, as in Marx et al. (1996).

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