

## **The effect of the economic crisis on the Fertility behaviour in Southern Europe: the example of Andalusia.**

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### **Objective**

This paper will try to describe and analyze the effect of the economic crisis on the fertility behavior by educational attainment and employment status in Southern Europe, using as an example one the most deprived areas in the South of Spain: Andalusia. Using the Longitudinal Database of the Population of Andalusia we estimated the fertility of women with permanent residence in Andalusia during the period 2002-2013 using educational attainment and employment status reported in the 2011 census.

### **Data and Methods**

The Longitudinal Database of the Population of Andalusia follows all the individuals residing in the Region from 1996 onwards, following c10 million different individuals with at least a demographic event registered at the LDBPA from 1996 till now and it includes information from the Administrative Census (Padrón), all vital events (births, deaths and marriages) which took place in Andalusia or of Andalusian residents from that date onwards, all the changes in legal residence of the Andalusian residents from 1996 onwards, sociodemographic characteristics included in the 2001 and 2011 Census of Population of Spain and other sociodemographic and administrative data.

For this paper we have analyzed the fertility of all the women interviewed in the sample of the 2011 census in Andalusia, 12% of the occupied housing, born between 01/01/1942 and 31/12/1998 (c245,000 women). For this group of women, we have rebuilt their reproductive and residential biographies during the period 2002-2013 from the information collected by the LDBPA. The above reference population is classified by educational attainment achieved in the census date (end of 2011) and their employment status at that time.

Information regarding reproductive biographies has been processed to obtain the number of events (births) and person-years exposed to the risk of having a child by prior parity and introducing as well educational attainment and employment status. We estimated specific fertility rates by parity (age specific fertility rate and order) and parity progression rates by age group, educational attainment and employment status, building fertility tables (synthetic cohorts) and producing aggregate indicators derived from them such as: (TFR, TFR (parity adjusted), mean age at childbirth,...).

### **Preliminary results:**

In 1975, coinciding with the end of the dictatorship, started in Andalusia a prolonged and intense fertility decline that was discontinued in 1997. During the period from 1999 to 2007 Andalusia went through a slight recovery in fertility which was again abruptly interrupted by the onset of the 2008 economic crisis, which still is affecting the

Andalusian society, harder than in the rest of Spain and many other Southern European Regions.

During the recovery period of 1998-2007, overall fertility and the 1st and 2nd parity grew in all educational levels, except for those women without formal education whose fertility continued declining. This group of women was significantly important in the past in Andalusia, and they have a historically early and intense reproductive behavior, but now only represent a marginal sector of the population, which tends to disappear by aging. Despite the increase in fertility, the mean age at childbearing, for the 1st and 2nd parity order, continued growing in all educational levels, with the exception of women with non-formal education.

The quantum and tempo of fertility of parities 1 and 2 born during this period, 1999-2007, has a clear educational gradient, except for the group of "non-formal education". Those groups with lower educational attainment have an early and intense fertility, although at the end of that decade, the fertility for first parity for women with university studies started to converge with those with secondary studies. Fertility levels for parity 3 and over declined for those groups with primary studies and remained stable for women with secondary or higher education.

During the five years of the great economic crisis 2008-2012, the "quantum" of fertility, declined significantly for all educational attainment levels, with a smaller decline in women with university studies. For this group TFR for the first parity went down slightly, much less significantly than for those women with lowest educational attainment levels. TFR for the 2nd parity, in women with university studies continued to grow, while declined for all other educational groups.

### **Discussion.**

The economic crisis of 1998 has had a major impact on the reproductive behavior of the Andalusian women, although its impact has been very uneven depending on the different groups according to their educational attainment, affecting relatively less to the evolution of the quantum of fertility of women with higher education and however having a considerable impact on women without higher education attainment. The result of this change is that those college-educated women surpass virtually all other educational groups regarding fertility intensity.

The evolution of reproductive timing has been less affected by the economic crisis, continuing the delay on childbearing age during the economic crisis in all relevant educational groups.

Figure 1.- Andalusia, Spain and Sweden. Period TFR and cohort CFR, 1900-2013

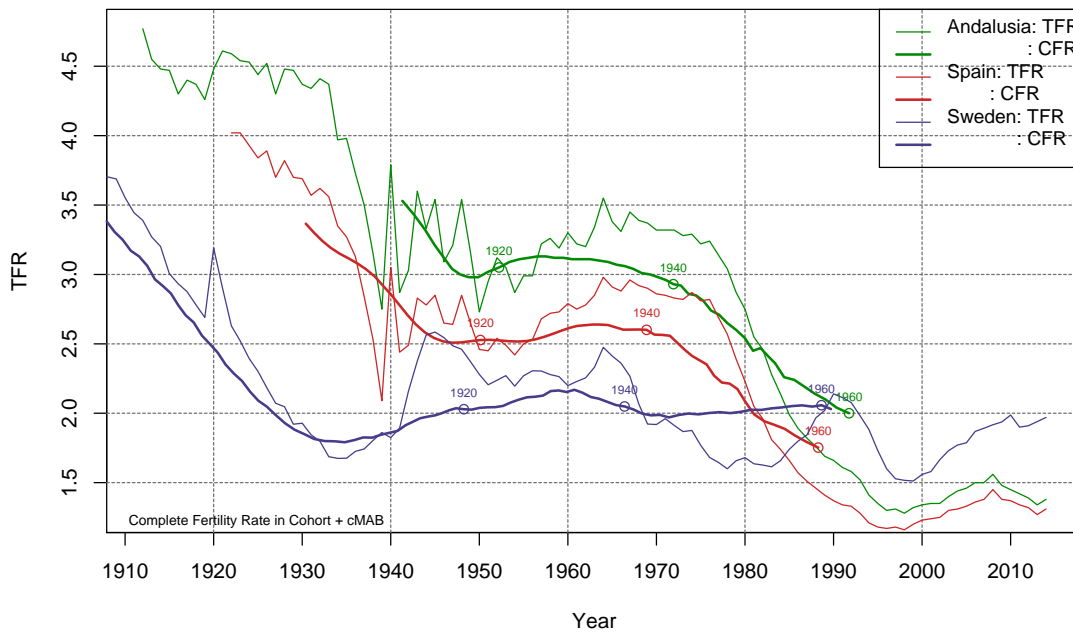


Figure 2.- Unemployment Rate by educational attainment, Andalusia 2005-2013.

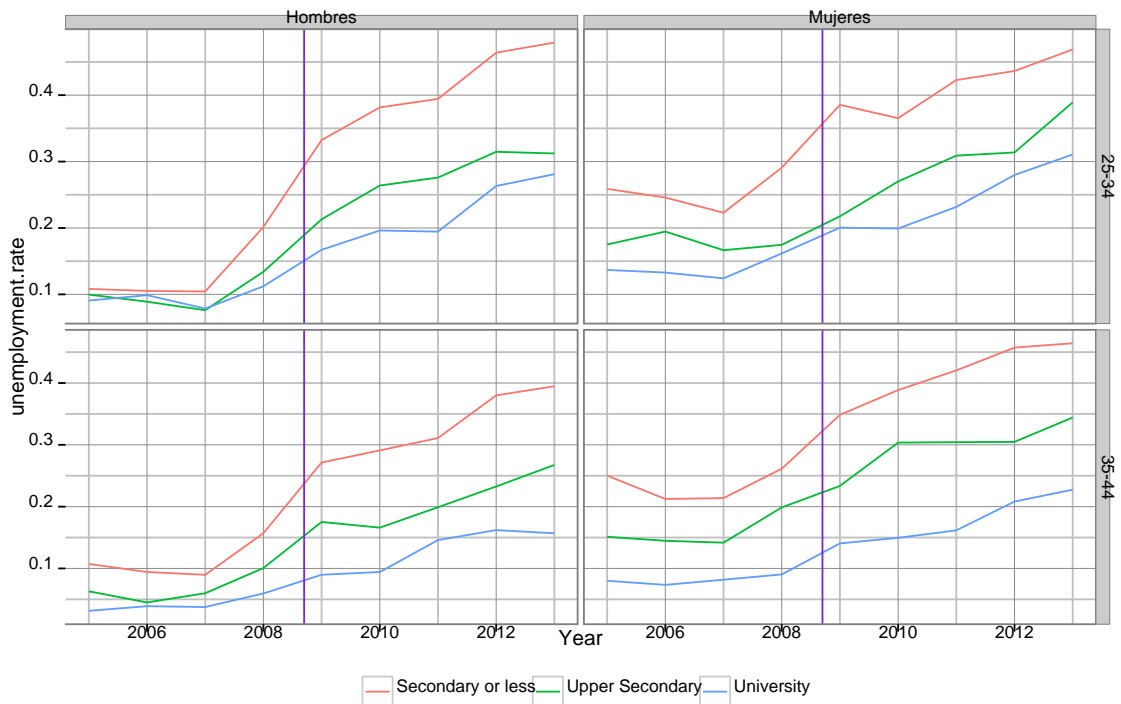


Figure 3. Age and order Specific Fertility Rate. Trend. Andalusia 2002-2013.

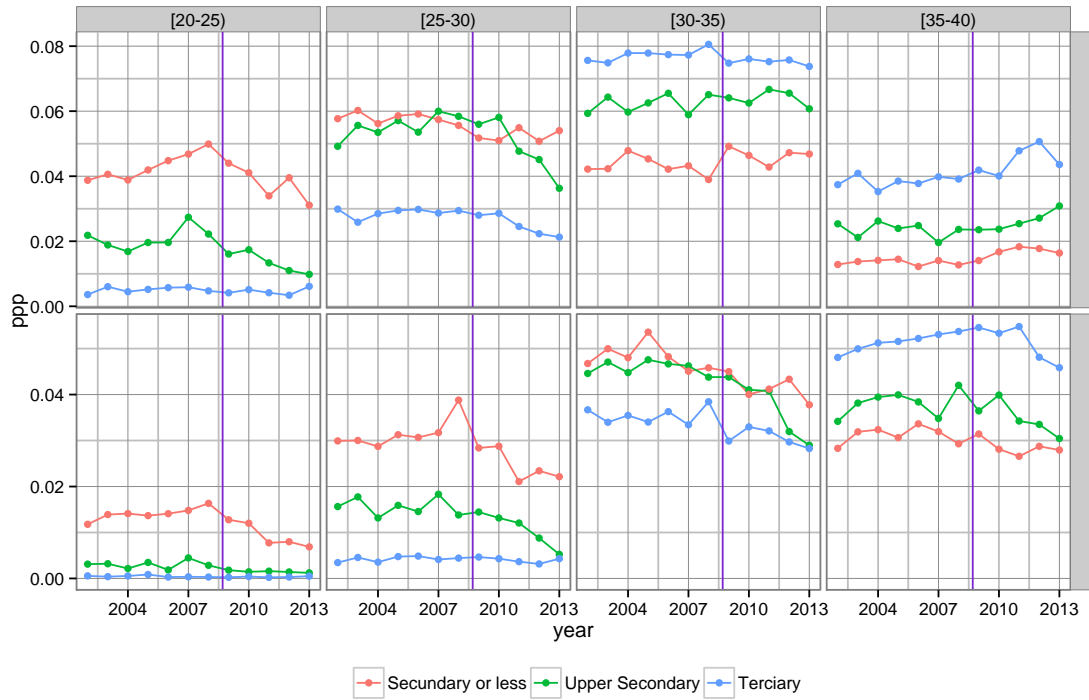


Figure 4. Age specify Parity Progression Probability. Andalusia 2002-2013

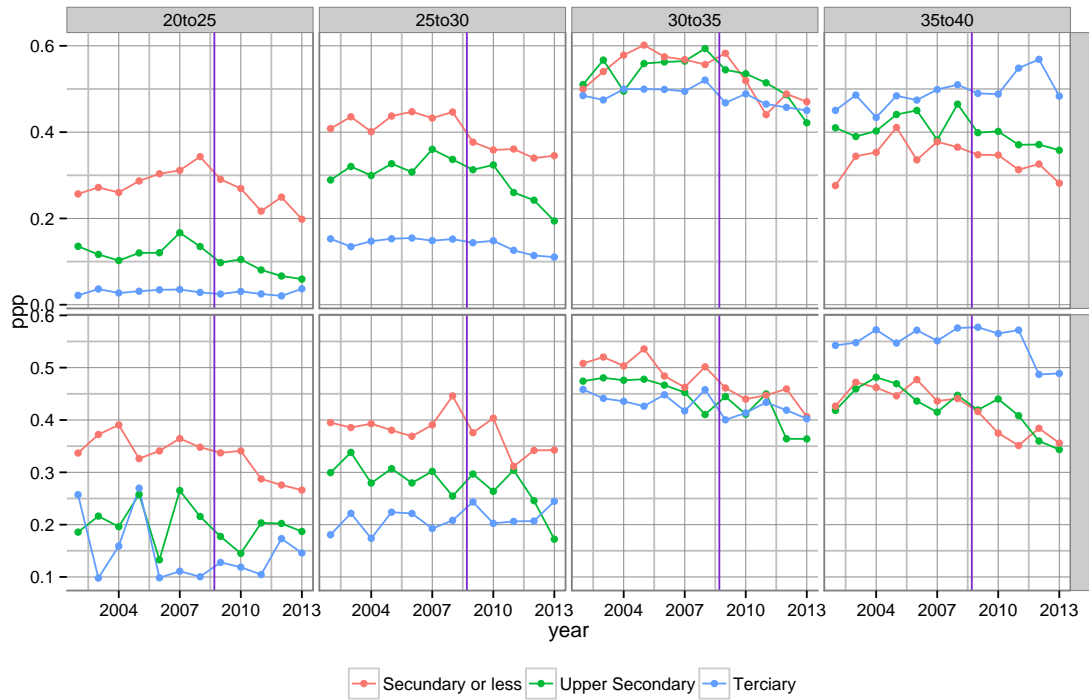


Figure 5. Parity and age adjusted Total Fertility Rate. Andalusia 2002-2013

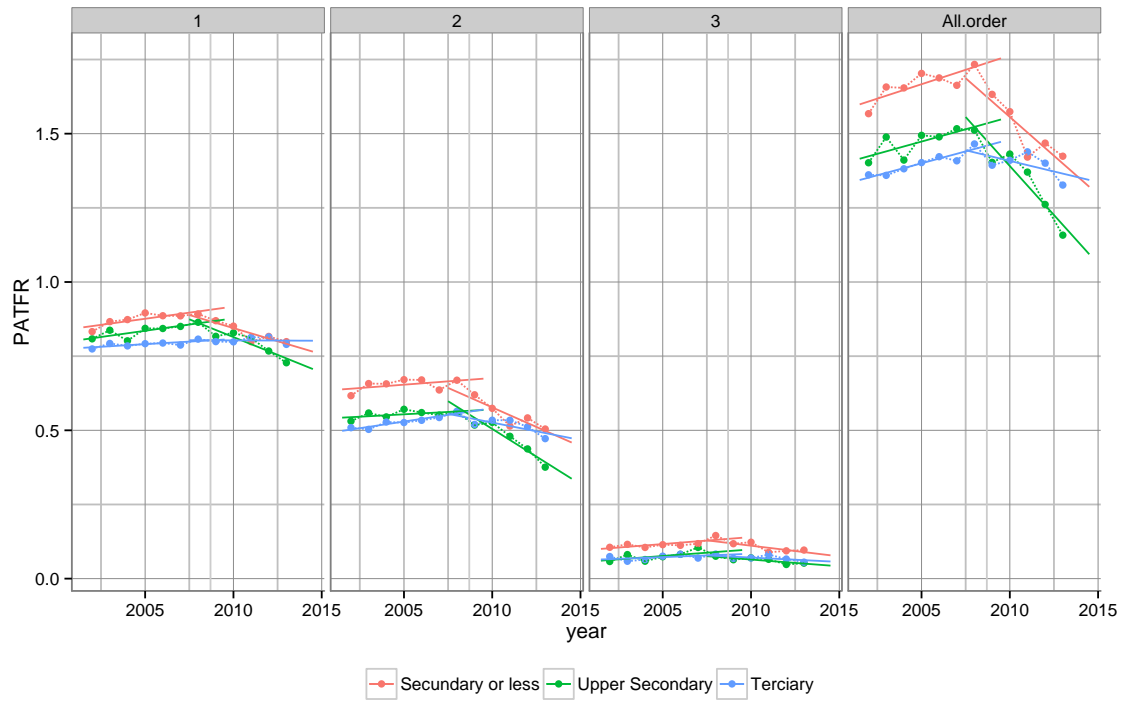


Figure 6.- Parity and age adjusted Mean age at birth. Andalusia 2002-2013

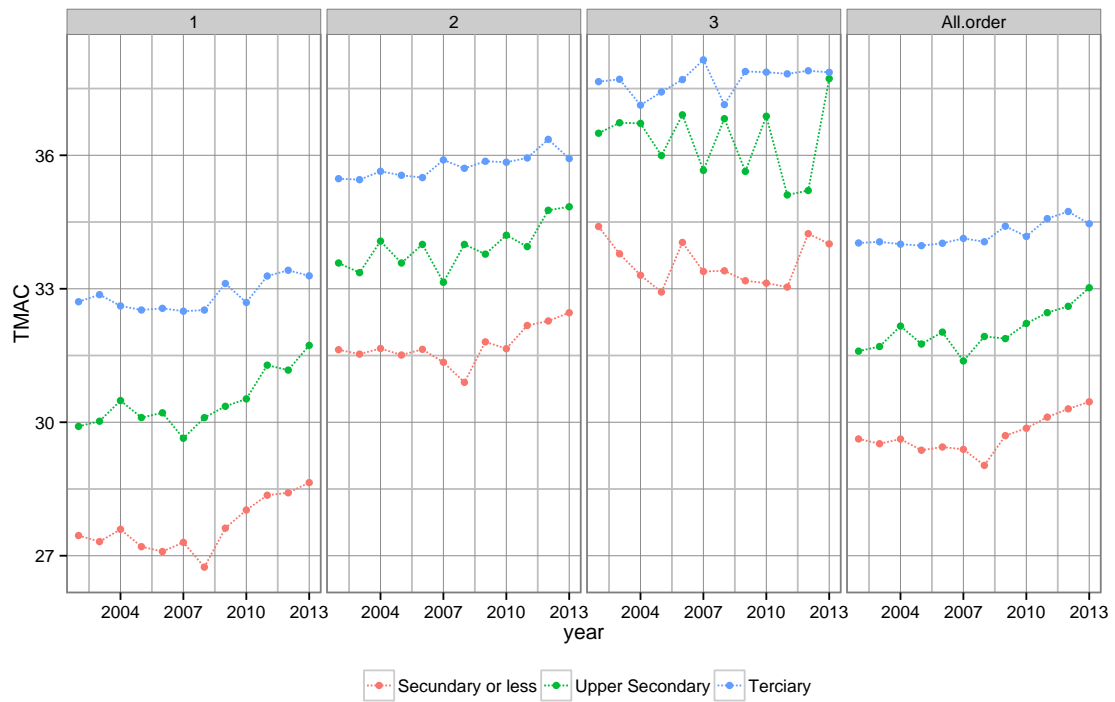


Figure 7. Parity and age adjusted TFR by order, education and employment. Andalusia 2002-2013



Figure 8. Parity and age adjusted Mean age at birth by order, education and employment 2002-2013

