

**FERTILITY IN ITALY AND SPAIN:
THE ROLE PLAYED BY FOREIGNERS**

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1. Aim

Similarly to other Southern European countries, Italy and Spain have recently recorded a fast growth of their foreign populations and, at the same time, a remarkable increase in related demographic events (Coleman, 2006; Cordón, Maldonado, 2006; Sardon, 2006; Bonifazi, 2007; Sobotka, 2008). We focus on the period fertility of immigrants in Italy and Spain, which have registered the lowest levels of the period total fertility rate (TFR) among the countries with a certain demographic size (Livi Bacci, Deldado Perez, 1992; Golini, 1999; Kohler et al., 2002; Billari, Kohler, 2004; Roig Vila, Castro, 2007). In these two countries foreigners have become a major reality both in absolute terms and in terms of demographic weight. In 2007 in Spain foreigners accounted for almost 10% of total residents, in Italy slightly less than 7% if non-resident foreigners are also considered. Simultaneously with the foreign population growth, both countries have also recorded a slight increase in total fertility. The values of period TFR recorded by foreign women were remarkably higher, even though quickly decreasing over time in the case of Spain, while those of mean age at childbearing were definitely lower than those of national women. Although the synthetic values of period fertility for migrants must be considered with great caution (see Toulemon, 2004; 2006)¹, they nonetheless indicate a contribution of these populations to the period total fertility.

The aim of the current paper is twofold. First, we investigate a) to what extent foreign women have contributed to the recent evolution of fertility in Italy and Spain; b) how much late fertility growth was limited by immigrants with more intense reproductive behaviour in younger age groups; c) whether it is possible to identify any differences between the two countries in the contribution to period fertility by immigrant women; d) what is the cross-regional variation within the two countries of the foreign contribution. Second, we would like to explore possible determinants of local differences in the contribution of foreign women to the variation of period fertility analysing the effect of some territorial characteristics.

2. Data and methods

The analysis was carried out for Italy and Spain between 2001 and 2006. Alongside the national level, the analysis was also performed at the territorial level of provinces. The data used have been drawn from the online databases available at ISTAT and INE.

First, we try to disentangle the effect of foreign women on a) the TFR variation and b) the variation of the proportion of fertility at age 30 and over. Accordingly we develop two decomposition models. Second, by means of multiple linear regression models we analyse the effect of some explanatory variables on the contribution of foreigners to period fertility change.

2.1. Decomposition models of fertility variation

a) Contribution of foreign women to TFR variation

In order to assess to what extent the period TFR variation in the last few years has been caused by the contribution of foreign women a decomposition model has been proposed which makes it possible to measure the absolute and relative contribution of national (N) and foreign (F) women to total fertility (Strozza *et al.*,

¹ The measurements of fertility used in this paper assume a hypothesis of homogeneity. The available data (notably for Italy) do not allow to apply the solutions proposed by Toulemon (2004 and 2006), based on women's ages at the time of migration and on their prior fertility.

2007). The absolute variation of the TFR in a given period depends on three effects: the TFR variation of national women; the TFR variation of foreign women; the variation of foreign women's incidence in the reproductive age group.

b) Contribution of foreign women to the variation of fertility at age 30 and over

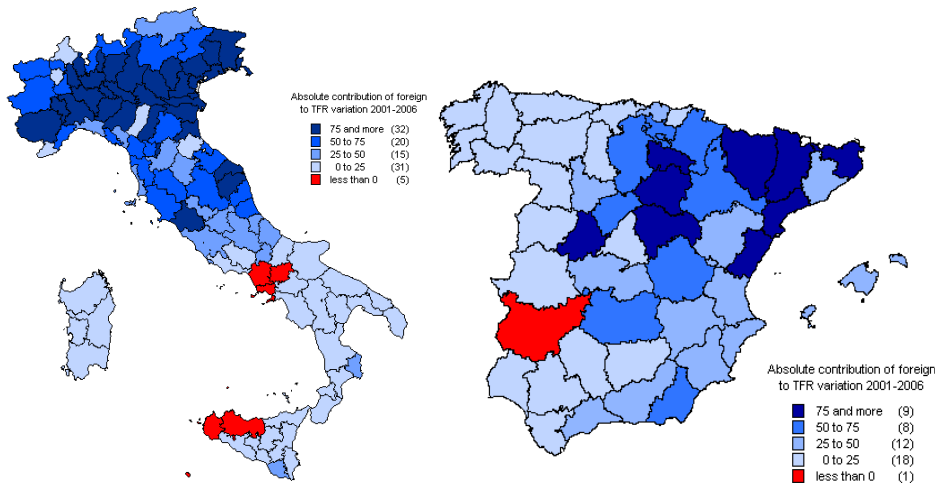
In order to assess the contribution of foreign women to the variation of the proportion of fertility realized at age 30 and over (%TFR₃₀₊) we quantify through a decomposition model the effects on the variation of the %TFR₃₀₊ of fertility in women who are citizens of the country under study compared to the fertility of foreign women (cf. Giorgi and Mamolo, 2007). This paper attempts to explain fertility proportion dynamics at age 30+ dividing the effects of fertility changes into two broad age groups (15-29 and 30 and over) and by nationality, distinguishing national women (N) from foreign (F) ones.

3. Main results of the decomposition models

3.1. The contribution of foreign women to period fertility

The period TFR estimates for Italy and Spain show a slight increase in fertility levels in the two countries between 2001 and 2006. The absolute increase is greater in Spain than in Italy (138 and 91 children per 1000 women, respectively), but it resulted from common determinants, that is the greater incidence of foreign women and the increase in period fertility among autochthonous women. While in Italy these components seem to have acted to the same extent (48 and 43 children per 1000 women respectively), in Spain the effect due to increased fertility among Spanish women is predominant (50 as compared to 106 children per 1000 women). Finally, it is interesting to remark that the effect due to the intensity of the phenomenon among foreigners has always been irrelevant with reference to the recovery of total fertility: nil in the case of Italy and even negative in the case of Spain. The overall contribution of foreign women to the recovery of fertility in Italy is remarkable in the north of the country and only minor in the south (Figure 1). In Spain there seems to be a territorial gradient along the east-west axis.

Figure 1 – Contribution of foreign women to the variation of period total fertility in Italy and Spain 2001-2006.



3.2. The contribution of foreign women to late fertility dynamics

In 2001 and 2006 the proportion of fertility after the age of 30 (%TFR₃₀₊) is equal to 54.11% and 57.96% respectively in Italy and 59.22 and 60.11% in Spain. The contribution of autochthonous women in their respective countries, both over and under the age of 30, favours an increase in the proportion of fertility at age 30+: fertility decreases at young ages and increases at older ages. The role of autochthonous women appears to be always positive in their respective countries and to contribute to increasing the proportion of late fertility.

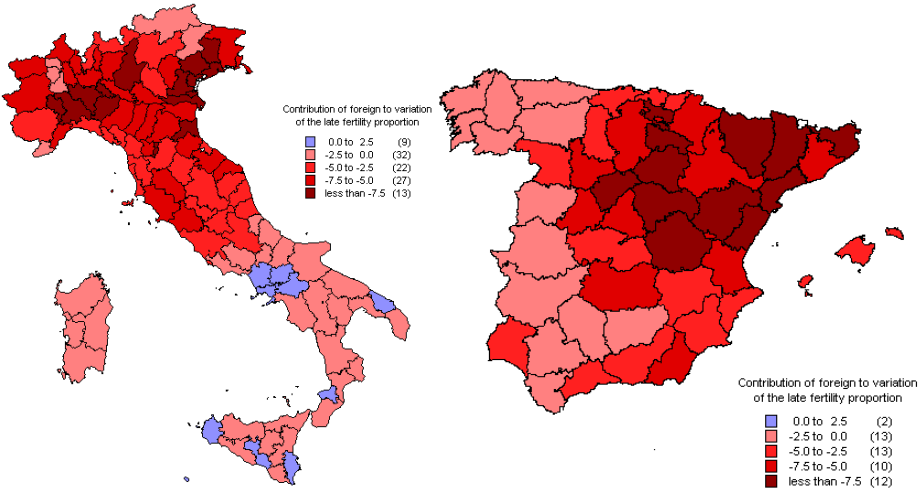
In both countries the greater role played by national women can be attributed to the reduction of fertility in the age group under 30, which means the ageing of fertility is mainly due to its reduction in

the younger age groups. Foreign women aged 15-29 always bring down the proportion of fertility at age 30+, which means they seem to contribute to bringing down the age of fertility or at least to slowing down its ageing imposed by local women. Thus autochthonous women, in their respective countries, always bring %TFR₃₀₊ up, causing an ageing of fertility, whereas foreign women always play the opposite role.

At the level of provinces, in northern Italy and in most of Spain fertility under the age of 30 slows down the %TFR₃₀₊ increase thanks to the contribution of foreign women’s fertility, which manages to contrast the decline of fertility among autochthonous women. In southern Italy the predominant element is the negative effect of autochthonous women’s fertility under the age of 30. In Spain fertility at age 30+ is increasing, although with a less clear-cut and evident territorial gradient. Foreigners always have a role in slowing down the %TFR₃₀₊ increase. The positive effect of foreign women’s fertility is most evident in some provinces in northern Italy and the north-west of Spain (Figure 2). The contribution of foreign women aged less than 30 reduces the ageing of fertility, while the contribution of foreign women aged more than 30, however positive, remains modest. The very evident territorial gradient highlights the growing slowing down from north to south in Italy and from south-west to north-west in Spain, and shows that in the northern regions of both countries the brake effect of young foreign women is stronger. In Italy this may be linked directly to the incidence of foreign women themselves.

Thus, the role of the foreign component in late fertility dynamics both in Italy and Spain becomes clear: foreign fertility slows down the increase of the proportion of fertility at age 30+. The effect is visible particularly under age 30 and in areas where late fertility is more pronounced, i.e. in northern Italy and north-eastern Spain where we noticed a decrease in %TFR₃₀₊.

Figure 2 – Contribution of foreign women to the variation of late fertility in Italy and Spain 2001-2006.



4. Further research: possible determinants of regional differences

In the second part of the research we try to point out some possible determinants of the regional variation in the contribution of foreign women to period fertility. We assume that characteristics of the foreign population and of the area of settlement may affect the contribution of foreign women to period fertility variation. We believe that the foreign contribution to fertility changes is greater in regions with a higher incidence of foreign women. The proportion of foreigners by area of origin may have an impact: regions in which there is a higher proportion of foreigners coming from countries with high TFR might register a positive effect on the foreign contribution to the fertility variation (even though the effect might be biased since we cannot control for parity). The immigration for family reasons and duration of stay might also favour a major contribution of foreign women: we expect that the presence of the family and a longer stay favour the increase of the foreign contribution. Regarding the characteristics of the area of settlement, we expect that a favourable socio-economic situation might have a positive impact also on the contribution of foreign women to period fertility.

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