Fertility After Migration in Southern Europe: Romanians and Moroccans in Italy and Spain

Miriam Carella (University of Bari)
Alberto del Rey (University of Salamanca)

Extended abstract

Introduction

The aim of this study is to analyze the reproductive behavior of two groups of migrant women in two lowest-low-fertility countries in Europe. In particular, we analyze the factors that affect the birth of the first child after migration, taking into consideration the particular socio-demographic and family conditions upon arrival.

Currently, in many societies with very low levels of mortality and fertility, as in Italy and Spain, immigration has become the determining factor in demographic dynamics. Specifically, in these countries the fertility of the immigrant population is an important subject of study because of its strong impact on the process of renewal and/or aging of these populations (Roig-Vila y Castro-Martin 2007; Sobotka 2008; Del Rey y Cebrián 2010). In general, the higher fertility rate of the immigrant populations has resulted in a slight increase in the fertility rate in these countries (Roig Vila y Castro-Martín 2007; Sobotka 2008), which, together with the high number of immigrants, has led to a substantial recovery of the number of births (Del Rey y Cebrián 2010). All of this has modified the future prospects for aging in these countries, hence the relevance of this subject of study.

Our study adopts a longitudinal perspective in the analysis of the fertility patterns of immigrant women. To explain the behavior in the country of destination, we take into account its particular conditions at the time of arrival through the information provided by the "National Immigrant Survey" of 2007 (INE) and the survey on "Social Integration and Condition among Foreign Citizens" of 2011-2012 (ISTAT). Specifically, we focus on marital status upon arrival and on the number of previous children as determining factors of the first birth in Spain, controlling in turn for the socioeconomic characteristics of the women. Many of the studies that analyze the fertility behavior of immigrant populations emphasize sociodemographic characteristics, together with the region of origin. However, those that take into account marital status and parity are very scarce. These aspects are fundamental to the study of general fertility, but, in the case of migrant fertility, have received less attention, mainly due to the lack of data regarding the situation prior to migration. Also, we take into account the arrival context as a possible conditioner of reproductive behavior.

Theoretical framework and hypothesis

The fertility rates and reproductive behavior of immigrant populations has been an important subject of demographic study for several decades, especially, in countries with very low fertility levels where the volume of immigration and the corresponding fertility rates are fundamental factors in demographic dynamics.

On the one hand, at the aggregate level, the studies that point out the differences in fertility levels between immigrants and the native population generally stand out. On the other hand, there are the studies that focus on analyzing the variations in reproductive behavior of immigrants during the period of stay in the destination society, highlighting different patterns: those that point to a process of «assimilation-adaptation», which predicts that immigrants gradually adjust their reproductive behavior to that of the country of destination (Kahn 1988 and 1994; Andersson 2004; Parrado and Morgan 2008); those that, on the contrary, find that certain immigrant groups tend to "maintain" the reproductive norms and patterns of the country of origin (Abbasi-Shavazi and McDonald 2002), noting that the lack of adaptation can be explained by the existence of a "selection" process among migrants (Goldstein 1973; Abbasi-Shavazi and McDonald 2000; Feliciano 2005; Bledsoe, Houle and Sow 2007); and finally, those studies which confirm the existence of a process of "interruption-rupture" in the fecundity of the immigrant population caused by the moment of migration and the separation of husbands and wives (Ford 1990; Stephen and Bean 1992; Carter 2000; Toulemon 2004 ; Kulu 2005; Lindstrom and Giorguli 2007; Milewski 2007).

Apart from these macro approaches to the study of migrant fertility in the country of destination, at the micro level it is necessary to consider the diversity in the composition of the immigrant collective from the reproductive point of view such as: their different geographical and cultural origins (Bongaarts 2003; Anderson 2004; Roig-Vila and Castro-Martín 2007; Sobotka 2008); their socioeconomic and demographic characteristics (Coleman 1994; Khan 1994; Milewski 2007), particularly with regard to educational level (Hoem 1986; Blossfeld and Jaeninchen 1992; Bongaarts 2003); and their previous reproductive behavior (Rindfuss, Morgan and Swicegood 1988; Kiernan 1999; Frejka and Sardon 2001; Baizán, Aassve and Billari 2003). These three aspects affect reproductive behavior after emigrating, to which we add the possible effect of the norms of the country of destination.

Taking into account these theoretical approaches, the hypothesis we propose is that the fertility rates observed among migrant women in Italy and Spain are diverse and are conditioned by the three aspects mentioned: the region of origin or culture of origin, the socio-economic characteristics, and the previous reproductive situation produce certain interferences that are necessary to control for, without ruling out the effect of the country of destination.

Methodological approach

The National Immigrant Survey of 2007 for Spain and the "Social Integration and Condition among Foreign Citizens"survey of 2011-2012 for Italy permit individualized analysis of immigrants from Romania and Morocco. These are surveys that provide retrospective information on the social and demographic characteristics of the immigrant population and specifically provide us with the complete histories of migration and births, which allows us to study the complex interactions between migration and fertility.

The National Immigrant Survey contains 15,465 records of immigrants aged 16 and over who were born outside of Spain and who have been in the country at least 1 year or intend to reside there for at least one year, 55% of whom are women. The survey "Social Integration and Condition among Foreign Citizens" was

conducted with 9,553 families containing at least one resident foreigner, for a total of 25,326 individuals interviewed.
For all immigrants, we have separated them according to maternity status and marital status at the time of arrival.
Longitudinal models have been used to analyze the time of birth of the first child after migration. The advantage of these models compared to transversal or cross-sectional ones is that they allow us, in a very simple way, to assume the existence of different reproductive calendars due to the different personal and family situations in which migrants arrive in the country of destination, as well as the existence of a temporary effect on the reproductive calendar due to the fact of migration.

The duration of the transition was calculated, taking into account the year of arrival and the year of the first birth. Since this information is available only in years, discrete time models have been used. This model does not assume a defined pattern that forces a priori the relationship between the independent variables with the explanatory variable, and given the existence of a certain endogeneity, between family variables and personal characteristics with reproductive behavior. Taking into account this situation, we focus more on the analysis of the significance that in the absolute value of the coefficients.

The discrete time logistic regression model is defined as:

$$h(t/x) = 1 - \exp\{-\exp(\beta_{ot} + x'\beta\}, \text{ siendo } x'\beta = (x_1\beta_1 + x_2\beta_2 + \ldots + x_n\beta_n)$$

Where h (t|x) is the conditional probability or risk that the first child after emigration occurs as a function of time (t) and a set of explanatory variables (x), where β is its parameters.

Preliminary results

Two types of results are presented. First, we present the survival curves at the birth of the first child, which inform us regarding the reproductive calendar, taking as a starting point the time of arrival in Spain and Italy. Second, the results of the discrete time regression models are presented to measure the effect of the explanatory variables on the probability of having the first child at a particular point in time.

Figure 1.

Survival estimates for First Birth Among immigrants Women in Spain by motherhood (situación de maternidad: Sin hijos = Without children; Con hijos = With children) and marital status (Estado civil: Soltera = Single; Casada = Married), 1990-2007.

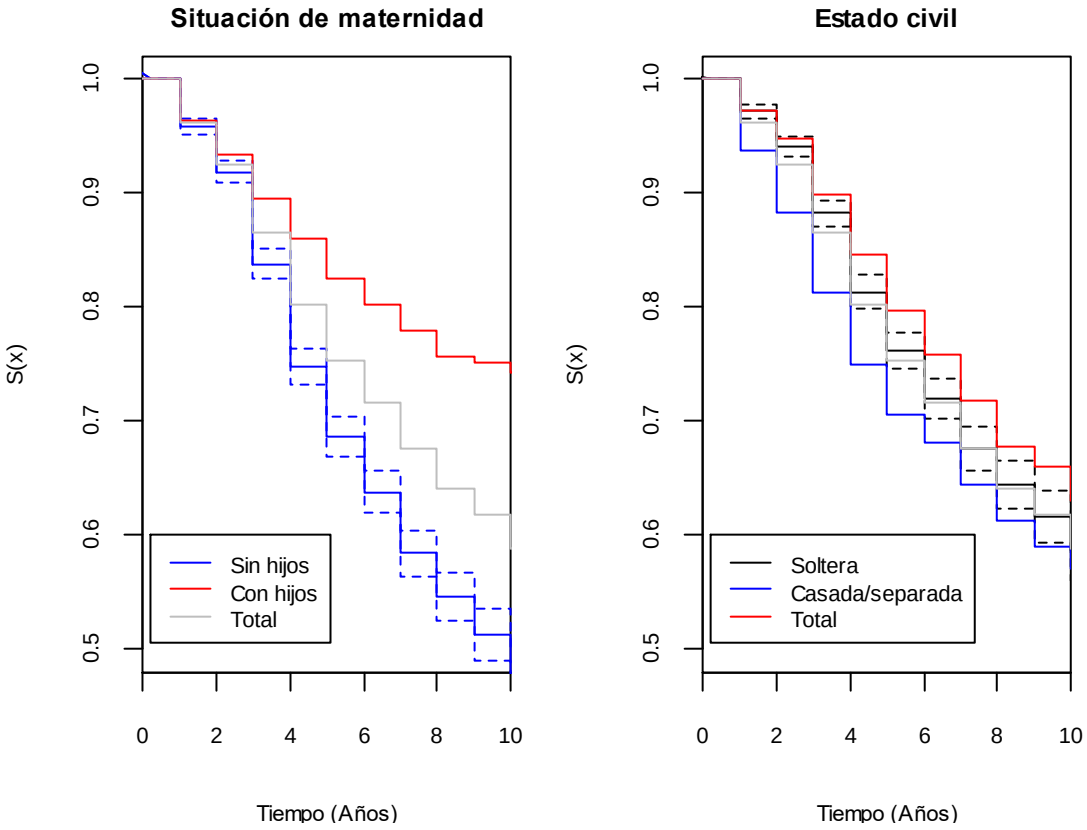

Table 1.

Relatives risk at first birth after migration (Discrete time loglog Model).

	MODEL 1: Socio-demographic Var.			**MODEL 2: + Origen - Culture**			**MODEL 3: + Family situation**		
	Exp(B)	**S.E.**	**Sig.**	**Exp(B)**	**S.E.**	**Sig.**	**Exp(B)**	**S.E.**	**Sig.**
Const.	4,64	0,63	*	27,00	0,39	***	3,78	0,63	*
<15 (r.c.)	*1*			*1*			*1*		
15-19	7,92	0,51	***	7,35	0,51	***	6,83	0,51	
20-29	9,47	0,51	***	8,83	0,51	***	7,97	0,51	***
30-39	5,87	0,51	***	5,70	0,51	***	5,45	0,51	***
40-49	0,52	0,59		0,53	0,59		0,52	0,60	
50 and plus	0,03	1,16	**	0,03	1,16	**	0,03	1,17	**
Less than primary (r.c.)	*1*			*1*			*1*		
Primary	0,88	0,12		1,00	0,13		0,98	0,13	
Secondary and plus	0,68	0,10	***	0,93	0,11		0,87	0,12	
Labor reasons (r.c.)	*1*			*1*			*1*		
Family reason	1,40	0,07	***	1,19	0,08	*	1,13	0,08	
Other reasons	1,32	0,09	**	1,26	0,09	*	1,19	0,09	·
Without nationality (r.c.)	*1*			*1*			*1*		
With nationality	0,92	0,21		1,03	0,21		0,97	0,21	
EUROPE (r.c.)				*1*			*1*		
AFRICA				2,05	0,15	***	2,04	0,16	***
AMERICA				0,94	0,10		0,98	0,10	
Ecuador				1,79	0,12	***	1,89	0,13	***
Morocco				1,91	0,12	***	1,82	0,12	***
Other areas				1,45	0,22	.	1,40	0,22	
Romania				0,66	0,13	**	0,66	0,13	**
Without children(r.c.)							*1*		
1 child							0,78	0,09	**
2 or more children							0,57	0,11	***
Singles(r.c.)							*1*		
Married							1,55	0,08	***
Separated /widows							1,71	0,09	***

Sources: Encuesta Nacional de Inmigración 2007: *r.*c. reference category. Sig. codes: *** p<.001, ** p<.01, * p<.05, · p<.1. S.E: Standard Error.

REFERENCES

Abbasi-Shavazi, M. and P. McDonald. 2000. «Fertility and Multiculturalism: Immigrant Fertility in Australia, 1977-1991». *International Migration Review* 34:215-242. http://dx.doi.org/10.2307/2676018

Abbasi-Shavazi, M. and P. McDonald. 2002. «A comparison of fertility patterns of European immigrants in Australia with those in the countries of origin». *Genus* 58:53-76.

Andersson, G. 2004. «Childbearing after migration: Fertility patterns of foreign-born women in Sweden». *International Migration Review* 38:747-774. http://dx.doi.org/10.1111/j.1747-7379.2004.tb00216.x

Baizán, P., A. Aassve and F. Billari. 2003. «Cohabitation, Marriage, and First Birth: The Interrelationship of Family Formation Events in Spain». *European Journal of Population* 19:147-169. http://dx.doi.org/10.1023/A:1023343001627

Bledsoe, C. H., R. Houle and P. Sow. 2007. «High fertility Gambians in low fertility Spain: The dynamics of child accumulation cross transnational space». *Demographic Research* 16:375-411. http://dx.doi.org/10.4054/DemRes.2007.16.12

Blossfeld, H.-P. and U. Jaeninchen. 1992. «Educational expansion and changes in women's entry into marriage and motherhood in the Federal Republic of Germany». *Journal of Marriage and the Family* 54:302-315.http://dx.doi.org/10.2307/353062

Bonngarts, J. 2003. «Completing the fertility transition in the developing world: The role of educational differences and fertility preferences». *Population Studies* 57:321-335.
http://dx.doi.org/10.1080/0032472032000137835

Carter, M. 2000. «Fertility of Mexican immigrant women in the U.S: A closer look». *Social Science Quarterly* 81:1073-1086.

Coleman, D. A. 1994. «Trends in fertility and intermarriage among immigrant populations in Western Europe as measure of integration». *Journal of Biosocial Science* 26:107-136.http://dx.doi.org/10.1017/S0021932000021106

Feliciano, C. 2005. «Educational selectivity in U.S. immigration». *Demography* 42:131-152. http://dx.doi.org/10.1353/dem.2005.0001

Ford, K. 1990. «Duration of Residence in the United States and the Fertility of U.S. Immigrants». *International Migration Review* 24:34-68. http://dx.doi.org/10.2307/2546671

Frejka, T. and J.-P. Sardon. 2007. «Cohort birth order, parity progression ratio and parity distribution trends in developed countries». *Demographic Research* 16:315-374. http://dx.doi.org/10.4054/DemRes.2007.16.11

Goldstein, S. 1973. «Interrelations Between Migration and Fertility in Thailand». *Demography* 10:225-241. http://dx.doi.org/10.2307/2060815

Hoem, J. M. 1986. «The impact of education on modern family-union initiation». *European Journal of Population* 2:113-133. http://dx.doi.org/10.1007/BF01796886

Instituto Nacional de Estadística (INE). 2007. «Metodología General». Pp. 12-13 en Encuesta Nacional de Inmigrantes 2007. Consultado en Marzo de 2013 (www.ine.es/ fenómenos demográficos/Encuesta Nacional de Inmigrantes 2007).

Istituto Nazionale di Statistica (ISTAT). 2014. Condizione e Integrazione Sociale dei Cittadini Stranieri anno 2011-2012.

Kahn, J. R. 1988. «Immigrant Selectivity and Fertility Adaptation in the United States». *Social Forces* 67:108-128. http://dx.doi.org/10.1093/sf/67.1.108

Kahn, J. R. 1994. «Immigrant and Native Fertility during the 1980s: Adaptation and Expectations for the Future». *International Migration Review* 28:501-519. http://dx.doi.org/10.2307/2546818

Kiernan, K. 1999. «Chilbering outside marriage in Western Europe». *Population Trends* 98:11-20.

Kulu, H. 2005. «Migration and fertility: Competing hypotheses re-examined». *European Journal of Population* 21:51-87. http://dx.doi.org/10.1007/s10680-005-3581-8

Lindstrom, D. P. and S. Giorguli. 2007. «The interrelationship between fertility, family maintenance, and Mexico-U.S. migration». *Demographic Research* 17:821-858. http://dx.doi.org/10.4054/DemRes.2007.17.28

Milewski, N. 2007. «First child of immigrant workers and their descendants in West Germany: Interrelation of events, disruption, or adaptation?». *Demographic Research* 17:859-896. http://dx.doi.org/10.4054/DemRes.2007.17.29

Parrado, E. A. and S. P. Morgan. 2008. «Intergenerational fertility among Hispanic women: new evidence of immigrant assimilation». *Demography* 45:651-71. http://dx.doi.org/10.1353/dem.0.0023

(Del) Rey, A. and M. Cebrián. 2010. «Population Replacement and Migration in Two Spanish Regions during the Twentieth century». *Population* 65:481-498. http://dx.doi.org/10.3917/pope.1003.0481

Rindfuss, R. R., S. P. Morgan and G. Swicegood. 1988. *First Birth in America: Change in the Timing of Parenthood*. Berkeley: University of California Press.

Roig-Vila, M. and T. Castro-Martín. 2007. «Childbearing patterns of foreign women in a new immigration country: the case of Spain». *Population*-E 62:351-380. http://dx.doi.org/10.3917/pope.703.0351

Sobotka, T. 2008. «The rising importance of migrants for childbearing in Europe». *Demographic Research* 19:225-248. http://dx.doi.org/10.4054/DemRes.2008.19.9

Stephen, E. H. and E D. Bean. 1992. «Assimilation, Disruption and the Fertility of Mexican-Origin Women in the United States». *International Migration Review* 6:67-88. http://dx.doi.org/10.2307/2546937

Toulemon, L. 2004. «Fertility among immigrant women: new data, a new approach». *Population and Societies* 400:1-4.