## How many immigrants live in Spain? An alternative estimation to the population register based on the 2007 National Immigration Survey

Luis Rosero-Bixby,<sup>1</sup> David Reher,<sup>2</sup> Teresa Castro Martín,<sup>3</sup> Marta Roig<sup>4</sup> and María Isabel Sánchez<sup>2</sup>

<sup>1</sup> Centro Centroamericano de Población & Grupo de Estudios Población y Sociedad (GEPS).

<sup>2</sup> Universidad Complutense de Madrid & Grupo de Estudios Población y Sociedad (GEPS).

<sup>3</sup> Spanish National Research Council (CSIC) & Grupo de Estudios Población y Sociedad (GEPS).

<sup>4</sup> United Nations Population Division.

## Long Abstract

Spain, a country of emigration during centuries, has become a country of immigration in the last two decades. According to census and population register data, Spain hosted 350,000 foreigners in 1991, 1.5 million in 2001 and 4.5 million in 2007; that is, the relative weight of foreigners in the total population increased from 0.9% in 1991 to 9.9% in 2007. In recent years, Spain has turned out to be the main receiving country of immigration flows in Europe (EUROSTAT, 2007). The demographic effects of these trends are evident in the increasing contribution of immigration to population growth. Since 2000, net migration has accounted for approximately 90% of Spain's population growth. And natural increase is also considerably influenced by immigrants' birth rates. In 2006, 16.5% of all live-births were to foreign mothers –and 19.2% to either a foreign mother or a foreign father–, a proportion that exceeded the proportion of foreign nationals in the overall population (9.9%).

The aim of this paper is to provide estimates of the current number of immigrants in Spain, based on the 2007 National Immigrant Survey, in order to provide an indirect evaluation of the quality of the count of immigrants in the municipal population register.

The municipal population register is the administrative register where all municipality inhabitants are recorded. Its formation, maintenance, revision and custody correspond to the respective town councils. Since 1996, a new continuous and computerized management system for municipal registers was established (*padrón continuo*), based on the coordination of all of them by the National Statistical Institute.

Population registers constitute a more reliable source of information on the immigrant population than alternative sources such as the Ministry of Interior Foreign Yearbook, which only covers immigrants with legal residence permits. Many foreigners do not hold the proper documentation required for residing and working in Spain. For instance, in early 2005, the number of foreigners with a valid residence permit was 2 million, 1.7 million below the number of foreigners enumerated by the population register.<sup>1</sup> In the last regularization campaign carried out in mid-2005, 560,000 undocumented immigrants were granted a residence permit conditional on a labour contract.<sup>2</sup>

The coverage of municipal population registers is assumed to be high, since registration provides access to education and health services –regardless of citizenship or legal status– and is a prerequisite to obtain a legal residence permit, for those lacking it upon arrival. However, it is probably not flawless. Prior research suggests that certain foreign groups –particularly those engaged in temporal agricultural work– are undercounted, and that there is a time-lag between arrival and registration. Under-registration is also probable among children aged 0-3, although it diminishes after that age because a certificate from the municipal population register is required for school admission. But most studies warn against the tendency of the population register to overestimate the number of current immigrants in the country. This is so because double-registration is difficult to detect among foreign residents without a unique identity document, and because immigrants do not usually deregister when they return to their country of origin or move on to another country in the EU.<sup>3</sup>

In this study, we will provide alternative estimates for the size of the immigrant population to those provided by the municipal population register, using the *National Immigrant Survey (Encuesta Nacional de Inmigrantes-ENI)*, conducted by the Spanish National Statistical Institute in October 2006-February 2007. Its large sample size (15,519) allows reliable analyses of immigrant groups according to country or subregion of origin. If the estimates of the population register and the *National Immigrant Survey* are coincident, we can be more confident on the accuracy of population register data to bring up to date the number of immigrants, and also on the accuracy of other demographic indices, such as foreign women's fertility rates, which are highly dependent on the reliability of population denominators.

In order to produce these alternative estimates, we will use birth data classified by mother's nationality from vital statistics and information of fertility patterns and household structure from the ENI.

<sup>&</sup>lt;sup>1</sup> Only one-third of this difference can be attributed to the presence of EU citizens, who are not required to apply for a residence permit.

<sup>&</sup>lt;sup>2</sup> Extraordinary regularization programs have taken place in 1986, 1991, 1996, 2000, 2001 and 2005. These programs granted temporary residency permits and allowed a significant proportion of immigrants in the informal economy to incorporate into the formal labour market.

<sup>&</sup>lt;sup>3</sup> Following the legal modifications introduced in 2003, as from December 2005 foreigners from outside the EU are required to renew their inscription in the population register every two years, or else be automatically removed from the register. This measure will probably reduce the likelihood of over-registration in the population register from 2006 on.

We can confidently assume that coverage of birth statistics is virtually complete for both the Spanish and the foreign population, and data on live-births by mother's nationality<sup>4</sup> are available since 1996.

The estimation process has two steps: (a) estimation of the number of foreign women of reproductive age, based on the number of births to foreign mothers; (b) estimation of the size of the foreign population based on the number of women of reproductive age.

For the first step, we will use the number of births from vital statistics and information on reproductive patterns from the ENI. Combining information from registered births and the relative fertility rates of immigrant women from the sample survey –estimated with a Poisson regression model–, we can estimate the number of foreign women of reproductive age residing in Spain. Unfortunately, vital statistics provide limited information on the mother –besides nationality, there is information on age, marital status (but not cohabitation), and place of residence, but there is no information on educational level, and data on employment are not deemed reliable. For this reason, we will estimate a more comprehensive model, which will include, in addition to nationality, numerous socio-demographic variables –such as educational level, employment biography, religiosity, partnership status...–, and a reduced model which will include only the variables available in birth registers. For the second step we will use information from the ENI regarding sex ratios, age composition and household composition, in order to estimate the total immigrant population.

In order to take into account the large heterogeneity of the immigrant population, the estimation procedure will be applied to all nationalities with relevant presence in Spain (i.e. those with at least 4,000 annual births or a population of at least 200,000), and several residual groups (e.g. rest of Latin America, rest of sub-Saharan Africa...). The new estimates will then be compared to those derived from the population register, in order to evaluate its quality and identify potential deficiencies.

<sup>&</sup>lt;sup>4</sup> Vital registration statistics classify mothers by country of citizenship and not country of birth; hence, they do not allow to identify immigrants who have acquired Spanish citizenship. However, although a large proportion of immigrant women, particularly those from Latin America or those married to a Spaniard, qualify for expedited citizenship status (after two years of residence the former and one year the later instead of the ten year standard requirement), the statistics on naturalization reveal lower levels of naturalization than in other European countries with longer immigration tradition. We have not calculated naturalization rates because of the difficulties involved in determining who is eligible for citizenship – only those who have met the requirements for naturalization are truly "at risk" of being naturalized–, but the total number of naturalizations between 1991 and 2004, 195.753, are well below the potentially eligible population.

At this stage, we do not have preliminary results because the data from the National Immigrant Survey (ENI 2007) are not yet available. The survey was conducted from October 2006 to February 2007 and the microdata are currently being cleaned and prepared for release. We have assurances from the National Statistical Institute that the final data set will be made available by December 2007.