

# The study of internal migration by citizenship: new advancements referred to Italy

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## Framework and aim

The study of migration of different populations inside a country has recently developed. Thanks to the availability of detailed individual information on origin/destination migration flows in some countries, particularly those countries with population registers, it is possible to analyze the migration behaviour of resident population by citizenship. In some previous studies, interesting results concerning the differential characteristics of internal mobility by citizenship has been outlined, substantially through the application of gravity models (Casacchia *et al.*, 2012; Lamonica and Zagaglia, 2013). The main results concern the comparison among the characteristics of internal mobility of different demographic groups inside a country of immigration (see, for instance, Finney and Simpson, 2008). In some studies a number of features emerge, such as a higher mobility of foreigners; a robust effect of the distance in reducing mobility among different areas; a differential and opposite effect of the masses - i.e., the population of origin and the population of destination. Moreover, a foreigner seems to move preferably towards areas with a high presence of foreign population.

In our study we have built a series of composite-differential-simultaneous gravity models to analyze the characteristics of internal migration with reference to five selected citizenships (Nationals, Romanian, Albanian, Moroccan and Chinese populations). The analysis is conducted at a provincial level (103 territorial units). The results of different models are discussed.

## Data source and method

Data source are based on the Population Register (*Anagrafe*). Official statistics on migration flows are based on the changes of residence administrative source, which Istat carries out every year.

A descriptive analysis taking into consideration the changes of residence between Italian provinces from 1995 to 2012 for Italians and the four selected communities is proposed. Immigration and emigration rates (total number of registrations and deregistrations over the total amount of resident population of reference) are separately estimated for Italians and foreign communities, to provide a first quantitative description of the phenomenon.

Subsequently, a gravity model is used, derived from Isaac Newton's law of gravity. The model is used to describe and predict the degree of interaction between two places. The "masses" are measured in terms of the resident population number with the underlined idea that as they increase, there will also be an increase in the number of migrants between them. In this work, the model considers the migratory flows between two zones, as directly proportional to the product of the masses (origin and destination) and inversely proportional to their distance (or a function of the distance). A generalised linear model with the Poisson estimation method has been used. The model has been modified considering not only the effect of specific masses and distance, but also interactive factors with a categorical variable by single citizenships. The explicative variables are also taken into account in a unique model, allowing a simultaneous estimation of the effects of the masses and distances on the Italian and foreign internal mobility also divided by citizenship.

### **Main Results**

The application of several gravity models seems to confirm the opportunity to analyze internal mobility by citizenship. Generally speaking, the gravity models fit well the origin/destination matrix between provinces and among the different citizenships selected: the effects are always significant and the sign of the coefficients is as expected (positive for masses, negative for distance).

The most interesting results concern the analyses by ethnic group: different masses as national population and *specific* foreign populations - i.e. the Italians and the selected citizenships - and distance have different significant effect on internal mobility of the various groups. The different role played by the masses of the origin provinces and of the destination ones is clearly detected.

In explaining the different migration behaviour among the various groups, the effects of the distances are particularly interesting. The negative effect of distance is greater for foreigners, but if we consider the single citizenships the effect deeply varies. For example, in the case of Albanians it is worth noting that the distance effect is even less negative than for Italians.

Moreover, the effects of the masses are particularly interesting in explaining the different migration behaviour among the groups. In particular, the foreign population in the origin provinces has a negative effect in the internal mobility of Italians.

Concerning Italian mobility, the foreign masses in the origin and destination provinces play a proxy role of economic and social opportunities.

### **References**

- Casacchia O., Reynaud C., Strozza S., Tucci E. (2002), *Italians' and foreigners' internal mobility in Italy*, paper presented to the European Population Conference 2012, Stockholm, 13-16 June.
- Finney N. and Simpson L. (2008), *Internal Migration and Ethnic Groups: Evidence for Britain from the 2001 Census*, «Population Space and Place» 14, 63–83.

Lamonica G. R., Zagaglia B. (2013), *The determinants of internal mobility in Italy, 1995-2006: A comparison of Italians and resident foreigners*, «Demographic Research», Volume 29, Article 16: 407-440.