

International in-migration in the model of demographic projections adopted by Istat

Le immigrazioni dall'Estero nel modello di previsioni demografiche adottato dall'Istat

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Riassunto: L'immigrazione dall'Estero è la componente più difficilmente prevedibile di qualsiasi modello di previsione demografica. Questo perché si tratta di un fenomeno volatile, condizionato da molteplici variabili socio-economiche dei Paesi coinvolti.

Scopo di questa nota è presentare gli strumenti adottati dall'Istat per tenere sotto controllo l'aleatorietà insita nella proiezione delle immigrazioni dall'Estero con riguardo sia al livello complessivo di ingressi che alle caratteristiche degli immigrati. Per il *livello complessivo* si ricorre a scenari (ipotesi) coerenti con i valori osservati, ma anche attenti alla legislazione attuale e alle tendenze in atto. In merito alle *caratteristiche* le variabili oggetto di analisi sono la cittadinanza e la regione di destinazione. Viene inoltre considerato il legame tra immigrazioni e struttura per età.

Keywords: multiregional model, regularisations, scenarios, region of destination, citizenship

Istat, the NSI of Italy, releases every 5 years demographic projections for the total country and for all its regions adopting a multiregional cohort component model and reasonable assumptions concerning the component of the demographic change. Aim of the present paper is to show the methodological procedure implemented to forecast international in-migration.

Among the components of demographic change international in-migration is the one more difficult to predict: migration can be volatile as changes in economic, social or political factors may occur; the flows may be subjected to a large degree of uncertainty even in the short term. Furthermore, future levels of in-migration rely not only on trends of regular entries into the country from abroad but also on the knowledge of its current level because of the permanence of a large part of unauthorized component.

The huge degree of uncertainty included in the projection of international migrations allows the co-existence of several approaches in the scientific community. Various are concerned on an historical analysis more than on actual legislative measures which impose restrictions at the boundaries. More specifically some authors (Congressional Budget Office, 2006) recommended that assumptions about net migration will be based on an analysis of historical trends because the family rejoining

is excluded by the legal levels of admission. Other authors, on the contrary, identify some socio-economic aspects, and especially the pull and push factors (Hove and Jackson, 2006). Pull factors are linked to higher wages and better opportunities of work in the receiving countries, push factors depend on worse living conditions and on very relevant demographic stream of the sending countries. A further interesting approach is the *Multipoles* model of Kupiszewski and Kupiszewska (1998), where the total population (and hence the in-migration) of a group of countries is projected simultaneously.

The method adopted by Istat is a mixture of instruments based both on assumptions concerning the total levels and the main characteristics of immigrants. To predict the *total level* the choice of the Institute is to identify three scenarios (high, central and low) which result in the meanwhile coherent with: a) the (logistic) extrapolation of historical trend; b) the levels admitted by actual laws; c) the most recent international tendencies.

Explicative variables included in the model are the citizenship and the region of destination of immigrants. The citizenship is not only important because there are limits at the entries of non-European people; it is an explicative factor of a lot of other characters (reason to enter in Italy, gender, age profile, exc.). Furthermore, in-migration is not uniformly distributed into all regions, but is more likely addressed towards areas with more elevated demand of work. Actually, Italian Labor Office distributes the annual quotas of legal entries on the basis of regional requirements.

Last, but not least, the link between the total in-migration and the age profile was also considered. This relation was in detail studied since the seminal work of Rogers and Castro (1981). In the present study the age-profile has been broken down by citizenship and region of destination. In order to minimize random oscillations, having so more robust profiles, regions have been aggregated into clusters. Profiles by gender are quite similar but not identical.

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