

Data integration and harmonization for measuring migration in Italy: new perspectives towards continuous Census

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1. Introduction

The latest statistics provide a snapshot of Italy as a country with a resident foreign population of more than 5 million, around 8,3% of the total population (1st January 2017) with heterogeneity among Italian regions and urban areas.

Over the last years the migration pattern in Italy has completely changed: the inflows of migrants are decreasing and have a complete different composition with a growing component of asylum seekers and person under protection. In 2007 the work permits represented the 56,1% of the total inflows. In 2015 the work permits represent only the 9,1% of the new inflows. At the same time the permits for asylum and humanitarian reasons accounted for the 3,7% in 2007 and for 28,2% in 2015. These changes have consequences on characteristics, behaviors and needs of new arrived people and – of course- on the governance of migration flows.

At the same time Italy continues to deal with the integration of migrants arrived between 90's and the early 2000s. There is a growing number of foreigners that acquire the Italian citizenship. In four years, from 2012 to 2016, they have more than tripled: 65.383 acquisitions of citizenship have been registered in 2012 and 201.591 in 2016.

The “second generation of migrants” represents today a relevant part of the new generations with specific needs and expectations, as recently demonstrated by an ad hoc survey carried out in 2015 by Istat.

So we are in a phase of transition, considered ‘epochal’ from a lot of experts of migration studies, first reception and integration. This is also a new challenge for Statistics, called to provide adequate governance tools for an increasingly complex phenomenon.

The integration of administrative data, the use of specific survey and a longitudinal approach represent an important resource that the NSI can exploit for studying both the new inflows of migrants and the integration of settled foreign population.

Migration statistics are under European Regulation since 2007, Regulation (EC) No 862/2007 of the European Parliament and of the Council of 11 July 2007 on Community statistics on migration and international protection and repealing Council Regulation (EEC) No 311/76 on the compilation of statistics on foreign workers. The aim is to promote the harmonization and the integration of data through the cooperation between data producers within the country and between the different Member States. Following the Zaragoza Declaration, another important step has been made with regards to the principal indicators of integrations (2010). Finally Regulations 1260/2013 on demographic statistics represented a milestone in the harmonization process regarding population stocks and flows.

The paper illustrates the steps made by Istat from a system of different sources of data towards an integrated system to measure not only migrations but also social integration and the new challenges offered by the integrated system of Registers, permanent census and social surveys.

2. Following the EU Regulations on migration and demographic statistics: the road towards data integration and harmonization

Governance of immigration on a European level is only possible if based on shared definitions, metadata and statistics. Before the entry into force of the Regulations, Istat, as all the NSIs, cooperated with Eurostat through a gentlemen Agreement, and the statistics provided were based voluntary and only if available. Therefore, data were not provided that exceeded the estimates produced for national needs.

The entry into force of European regulations, both Regulation 862/2007 on migrations and Regulation 1260/2013 on demographic statistics, in addition to ensuring comparability and harmonization between Member States, led to the production of new statistics that were not available before.

Furthermore, the Regulations represented for Italy a kind of "push factor", laying the 'seeds' for a closer collaboration between data producers within the country - both within Istat and between national institutions - and between the different Member States.

Data referring to migratory flows are provided by Istat, using an annually survey based on population register called Anagrafe, but the Regulation 862/2007 was also a starting point for improving statistical information on immigrants by coordinating the work of statistical institutes with that of institutions managing administrative sources. An important contribution to the exploitation of administrative and statistical data is given by the collaboration between Istat and the Ministry of Interior for the provision of statistics to Eurostat.

The activities carried out in Italy have been oriented towards the better use of available administrative registers and the integration of various sources at the micro level. The work was developed thanks to the close collaboration between the two main institutions of data holders and producers of immigration statistics in Italy: the Ministry of the Interior and Istat.

In the past, the Ministry of the Interior collected data on residence permits and sent them to Istat; each Institution, in order to respond to its dissemination needs, processed the data and disseminated the information separately. Lack of harmonization in procedures and methodology sometimes led to data that did not coincide. Since 2008 (with reference to 2007), numerous collaboration and sharing strategies have been implemented with significant improvements in quality, timeliness and quantity of information produced. Istat has also provided technical expertise to the Ministry of the Interior for the implementation of official classifications (occupations, foreign states, academic qualifications) for standardization in the data collection phase. Processing procedures are constantly updated and adapted to any new need and requested by Eurostat.

This collaboration has also allowed the improvement of the quality of the data produced for purposes other than those of the Regulation, ensuring both the quality of the collected administrative data and compliance with the international statistical requirements. Once the data validation is complete by Istat, the data are sent to the Ministry for transmission to Eurostat.

Many administrative sources have been improved thanks to the collaboration between Istat and the Ministry of Interiors. In particular, the statistics on residence permits referred to in Article 6 of the EU Regulation provided an important opportunity to verify cooperation between the institutions.

With regard to data on citizenship acquisitions, at the time of the entry into force of the regulation, sources available in our country did not allow to directly produce data with the disaggregation required by Regulation. Istat, in order to provide data as requested in the Regulation, started an estimate procedure based on the integration of microdata from different sources.

In order to better meet the requirements of Reg. 862/2007 data referring to citizenship acquisitions are now collected by the Ministry of Interior and Istat, and are integrated using statistical processing. Once validated Istat sends them to Eurostat. The data on residence permits are collected by the Ministry of the Interior, validated in collaboration with Istat, and are provided to Eurostat directly by the Ministry.

Since 2011 new opportunities were offered by a new statistical source: the Municipal Registry List (LAC) collected by Istat for the first time to support 2011 Census. The availability each year of the LAC has allowed to adopt new estimation procedures based on the record linkage of individual data of residence permits

from the Ministry and the individual data of the municipal population registers (Anagrafi). Linking the Ministry's data with the municipal population at the beginning and at the end of the year, it was possible to provide Eurostat with more and more accurate estimates of the data for each municipality like changes of citizenship by type of acquisition, age and previous citizenship.

New opportunities for improving migration statistics in Europe could be offered by the exchange of immigration data between countries. After the entry into force of Regulation (EC) No 862/2007, the Romanian Institute of Statistics (INSSE), following a careful analysis of immigration data, in particular on outflows, asked Eurostat to organize a meeting to fill information gaps on national data on outflows in particular with Italy (Istat) and Spain (INE), being the countries of destination of the largest flows out of Romania. This 'trilateral' meeting has been instrumental in the exchange of 'good practice' methodologies, with the aim of improving estimates of outflows from Romania; following the discussion, the Italian and Spanish statistical institutes provide data to INSSE that serve as a 'statistical mirror' for Romania. In perspective, the statistics on flows between the various countries will be more and more integrate.

Regulation 862/2007 on migration statistics and international protection therefore is more and more a very useful instrument for improving the quality of migration statistics. Quality means data produced on the basis of common definitions and therefore comparable; for example, in all European Union countries and migration flows, data on migration flows should always be responsive to the permanent migration requirement (more than 12 months).

Better migration statistics are closely linked to better statistics on usual resident population; as a matter of fact migration flows are the main factor of change of population in all Ue countries. The key question is the application of statistical definitions to administrative data. In order to calculate the usually resident population as defined by article 8 of Regulation 1260/2013 on demographic statistics, Istat carried out a feasibility study of using usual residence concept with 12 month's criteria for all the breakdowns of population and flows in the regulation. Istat defined a preliminary workflow to integrate the use of administrative sources and the official population registers in the frame of the construction of the Base Registry on Individuals and Households (BRIH), from which it will be possible to derive estimates referred both to the usually resident population and the official resident population (enrolled in population registers-Anagrafi). To find consistency between the demographic dynamics (currently referring to the official resident population) and the stock of usually resident population, Istat is studying how to include flows (births, deaths, inflows and outflows) not referring to the resident population using other sources that attest that the events that occur refer to individuals who are usually residing in the territory (Istat, 2016).

3. New perspectives by the integration of Basic registers continuous Census and Social surveys

Since the second half of 2014 Istat implemented its internal standardisation and industrialisation process within the framework of a common Business Architecture Model offices (BA), in accordance with the European Statistical System commitment to Vision 2020. The BA model covers both statistical activities and strategic organisational tasks and capabilities, and is based on an activity model composed of four business lines: Strategy, Corporate Support, Capabilities and Production. Istat modernisation programme aims to give incentive to the development and exploitation of methodological, technological and organisational innovation; to promote reuse and move towards full integration and interoperability of statistical processes, consistent with a service-oriented architecture. This is expected to lead to higher effectiveness and productivity by improving the quality of statistical information and reducing the response burden (Alleva, 2015).

The modernisation process is based on an extensive access to administrative data in accordance with the strategic choice to invest in a register-based approach to industrialisation. Register-based statistics have a notable advantage in terms of reduced costs and response burden, while quality, timeliness and completeness are also safeguarded. Base statistical registers identify the statistical population: they are founded on and linked with administrative registers (gathered in satellite registers) and partly based on surveys.

The target infrastructure is based on four Basic registers (Individuals and households, Economic units, Geographical/territorial units, Activities); they have links that relate each other and connect them to the administrative sources from which they are derived.

The Base Register on Individuals and Households (BRIH) identifies the usually-resident population. It is an on-going Register founded on Population register and linked with administrative registers and it is also partly based on Census surveys. BRIH will be the common target for Continuous Census and Demographic statistics and for Social Statistics. For these purposes ISTAT used the definition of “usual residence” as set out in the European Union Regulation 1260/2013.

The BRIH is derived from the processing of national population registers integrated with a wide range of other (quasi-) universal social and economic administrative data for individuals and households. BRIH can act both as the sampling frame and as the instrument to interlink different data sources, through unified identification code systems (SIM).

Furthermore, Istat is moving toward the integration of social survey system with the continuous population and housing Census. A system of coordinated surveys (Master Samples) will enrich the data available from administrative sources. Based on the sampling frames, they are designed in such a way as to minimise redundancy and burden, whilst allowing for flexibility and responsiveness. Data are collected with appropriate data collection techniques, which will more and more include use of the internet and mixed mode.

The Registers Integrated System (RIS) is the core of the data production process and support the continuous Census. In this view, the Base Register of individuals, households, enterprises, addresses, etc are enriched by the information collected by the thematic ones (Labour, Educational level, etc.). The integrated system enables to enlarge the level of the analysis and the quality of the information collected, linking, at microlevel, the economic and social phenomena. The data collected on the field are not the only source for the production of the final results but one of the sources useful in order to enrich: the registers quality, the integration of new information (*not replaceable variables*), the accuracy of the final outputs.

4. Data integration for measuring migration and social inclusion

The term integration, which is important for policy making, is also a key term for adapting statistics to the new requirements for information on migration. There are a number of statistical sources on migratory flows and on foreign nationals in Italy, which provide a wide range of information. However, each source can only offer a partial view of immigration. In order to gain a complete overview of the migratory phenomenon, Istat is moving from recording individual events to a complex system for mainstreaming migration.

Istat strategy is making all the statistical information on the Italian population also available on the immigrant population, producing estimates by nationality (for the most relevant once at least) from the Registers Integrated System (RIS) and the Census and Social Surveys Integrated System (CSSIS). This requires provision of more data for analyses of demographic and social issues and formulating conceptual frameworks within which the information generated can acquire more meaning and be more informative in order to improve measurement of the size, characteristics, and impact of international migration in Italy.

Istat efforts are particularly oriented to improve data on socio-economic characteristics of migrants and their descendants. The Istat Annual Report 2017 addresses this task by looking at the social structure through the characteristics of groups who make up our society. The multidimensional approach adopted to draw up this social groups has allowed taking into account, with different roles in the formation of groups, aspects of economic (income, occupational status), cultural (education) and social nature (citizenship, household size, type of residence). Considering elements of different nature and origin in defining the different groups allows a broad representation of social reality composed by nine social groups.

Citizenship of the household members intervenes only once to discriminate groups, but decisively; in the second passage, it divides households where at least one member is a foreigner from other households where the reference person is inactive, unemployed, atypical, blue-collar workers or assimilated.

Low-income households with foreigners are intended as those where there is at least one non-Italian citizen. They are nearly 2 million (7.1 percent) for a total of 4.7 million individuals (7.8 percent). As a result of

the discriminating power of the 'citizenship' variable, about three-quarters of households with at least one foreign component fall into this group, that has an income disadvantage of 40 percent, and is, therefore, the 'poorest' among those identified. It is the youngest group, the average age of the reference person being 42.5 years. Although they have on average 2.6 members, they are often composed of single members (35.7 percent of cases) or couples without children (34.4 percent). Although the employed are predominantly in unskilled positions, half of the reference persons hold an upper secondary school diploma and one in ten has a university degree. The disadvantage in income terms is rather evident, but other analyses (such as regional analyses within metropolitan cities) do not reveal particularly intense segregation processes. This group has a strong presence in the Centre and North areas, where labour market conditions are more favourable.

Labour migration and its impact on the labour market need a special attention as well as longitudinal studies and emerging issues (including new sources and methods to estimate Asylum seekers and Refugees).

Applying record-linkage techniques over different periods adds value from a "longitudinal" point of view. A longitudinal approach is well suited for the analysis of the migrant population because settlement into a new country is a long-term process. Socio-economic outcomes of migrants change with increased length of stay. Further analytical benefits of a longitudinal approach include the possibility to study transition between states, such as unemployment to employment, as well as duration to events, such as acquiring citizenship. Many experiences have been carried out, for example, linking the data about the residence permits with the municipality lists, with the vital events and with the data provided by the Social Security System (INPS). This approach allows understanding the development of migratory flows in time and space by following specific groups of new arrivals (Istat note 2014).

In this context we expect some relevant improvement by the RIS. For example the implementation of Labour Register will be fundamental for measuring the process of social integration in the immigrant population by citizenship and place of birth. The data and indicators from the labour market referred to citizen with a migratory background will be an integral part of the system of information on foreigners, together with the information on living conditions and family cycle.

Linking records between administrative and sample sources creates a dialogue between the "longitudinal" potential of the registers with information on behaviors, attitudes and opinions derived from the surveys. Sample surveys will be re-designed in order to study processes of inclusion/exclusion of foreigners in Italy through specific space dedicated to the issue in traditional surveys and new surveys. The survey in fact provided a set of information that can help to improve the understanding of migration and fill the data gaps on some of the fundamental elements of the process of integration. There are numerous topics of interest: the migration route of individuals and families, acquisition of citizenship and linguistic integration, state of health, the cycle of family life, the division of roles within the couple, migratory projects and satisfaction with various aspects, social relationships and use of cultural resources, difficulties in accessing services and possible forms of discrimination.

The attention to naturalised foreign citizens is also fundamental. In recent years, the subject of young people with a migratory background is arising in social politics and consequently it requires more and more reliable and detailed statistical information regarding statistical data on integration of the descendants migrants, which can be obtained both from administrative data and from survey. Among the renewed surveys, the one on second generations will be carried out by Istat in 2019; it will be a more general survey on the condition of youth (young students between 10 and 19 years Italians and foreigners) a special target for integration policies.

The social climate surrounding immigrants and the attitudes towards foreign communities is another relevant field that require ad hoc sample surveys. Istat will conduct in 2019 an extensive survey in order to fill data gaps on racism and stereotyping by the population against immigrants.

Finally, Istat gives special attention on improving migration data in the Context of the 2030 Agenda for Sustainable Development Goals (SDGs); Migration is included in the global development framework, recognizing well-managed contribution to sustainable development. The SDGs will drive policy planning recognizing the linkages between migration and development and the positive contribution of migrants for inclusive growth and sustainable development.

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