## The New Census in Turkey

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In Turkey, the first population census was carried out in 1927. The following population censuses were carried out between 1935 and 1990 regularly, in years ending with 0 and 5. After 1990, population censuses were decided to be carried out in years ending with 0 by a law and in this regard, the last census was carried out on 22nd October 2000. Until the last census in 2000, 14 population censuses were conducted in Turkey. All population censuses were carried out in one day by the application of national curfew according to the de facto population definition which means that persons were enumerated at localities where they were present on the census day.

In the absence of reliable data from the registration system, population censuses were main data sources on population size and the characteristics of population. But obtaining usually resident population (de jure), which is a core variable recommended by the UNECE/Eurostat, was not possible from population censuses because of de facto population definition. On the other hand, there was limited information for plans and programs of administrative work, because information on the size and characteristics of population was obtained from population censuses conducted in every five/ten years. And also their data processing took around 3,5 years. So, there was no updated information related to the population.

Address Based Population Registration System (ABPRS) was established in order to obtain the updated information on population of localities and to follow the population movements in 2007. The aim of this study was to develop existing administrative records based on addresses. After the establishment of the ABPRS, annual information on population size by administrative division (province, district, town, village and quarter), and its basic characteristics (age-sex structure, place of registration, nationality, literacy and educational attainment, legal marital status, and internal migration in province level) is announced to the public in January of the following year based on the registers. Besides this information, registers regarding births and deaths have improved prominently in the recent years.

According to the 2007-2011 Official Statistics Program of TurkStat, 2011 Population and Housing Census of Turkey was conducted with respect to the UN Principles and Recommendations for Population and Housing Censuses and in the line of EU Requirements in the 2010 round of population and housing censuses for all over the world. Turkey applied combined method to census-taking (by using population registers

and by conducting register based large-scaled sampling survey-Population and Housing Survey) in 2011. Information collected from the 2011 Population and Housing Census is;

- Building and housing characteristics,
- Marital status,
- Place of usual residence one and five years prior to the census,
- Reason for migration,
- Ever resided abroad and year of arrival in the country,
- Disability,
- Literacy and educational attainment,
- Attendance to pre-primary/pre-school/kindergarten,
- Labor force,
- Fertility,
- Deaths (infant, child and adult).

2011 Population and Housing Survey was conducted on October-December. Reference date of the survey was October 2, 2011. Field application started in October 3, 2011. The period of data collection was three months. In the 2011 Population and Housing Survey, interviewers collected information by face to face interviewing with CAPI and paper based questionnaires. Sampling size of the application was about 2.4 million households (approximately 12,7% of the total households). Complete enumeration was realized in institutional places.

Enumeration areas for household survey were determined in August, 2011 by taking into consideration of all addresses in Turkey by using updated National Address Database, which covers all address information in Turkey. Enumeration areas were defined according to the number of dwellings in which there were registered residents. In each enumeration area there were around 100 inhabited dwellings. After defining enumeration areas, sample units (enumeration areas) were selected. The survey was conducted in a total of 22 861 enumeration areas which were selected among 195 192 enumeration areas.

Population size by administrative units was calculated from the system for the reference date. After that, population size, age-sex structure and size of households were directly taken from the registers, and than other characteristics, obtained from the survey, were calibrated according to the full-scale information.

Field application of the survey was realized in two stages:

- 1. Controlling the addresses in the sample enumeration areas (in the first half of September) and entering new addresses to the database,
- 2. Visiting the all addresses (including conventional dwellings and other housing units that is not designed for human habitation, such as shelters, barns, tents, etc.) in the sample enumeration areas for checking whether a household lives

or not in these addresses, and interviewing the households and filling the questionnaires.

The advantages of the new method are numerous. First of all, the number of field staff needed for collecting data was much less than 2000 Population Census. This created advantage in terms of budget, quality of staff and controlling the field operation and logistics.

Netbook usage (CAPI) provided some cross checks between answers at the time of interview and these checks in the program increased the data quality. Netbook usage for data capture also created time efficiency compared to other methods (ICR, manual data entry). By the online data transfer which allowed interviewers to transfer data to the main system, field application could be monitored daily through central web based system.

There were also some deficiencies in the application which should be mentioned to be taken into consideration before the next census. The duration of data entry program testing should be longer and further program testing procedures should be applied. A longer term should be implemented for choosing and training of the field staff. Geographical Information Systems(GIS) should be used for creating enumeration areas on orthophotos. Duration of the field application period should be shorter. Administrative registers should be used during the field application to check the quality of the data (simultaneously from the beginning to the end of the field application). Organization of the institutional places should be completed earlier and the field application should be completed in one week. Instead of manual data entry of regional offices, each institutional place can realize own data entry on a web based program.

**Key Words:** Census, population, Turkey