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#### **Work Session on Migration Statistics**

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Item 2 of the provisional agenda

#### **Experiences with using data from the 2010 round of censuses for measuring migration**

## **Evaluation of migration patterns in Turkey, according to the 2000-2011 Censuses Results**

**Note by the Turkish Statistical Institute (Turkstat)**

### *Abstract*

Turkey has long been a country of both immigration and emigration. Migration has served an important role since the proclamation of the Republic. However, there is no reliable and accurate system for production of international migration statistics. Although with the last innovations in Turkey, administrative registers are started to be used in production of statistics, population censuses are still the main source for reliable migration data and the analysis of migrants.

In Turkey a total of 14 traditional censuses were conducted between 1927 and 2000. After establishment of Address Based Population Registration System (ABPRS), basic population figures were started to be compiled from this system annually. In addition, this system was used as the basis for the 2011 Population and Housing Census of Turkey (PHC). 2011 PHC was the first census that combined method was used. In 2011 PHC, population registers (ABPRS) were used and large-scaled sample survey was applied.

In the paper, after revealing changing methodology from 2000 PC to 2011 PHC, changes in migration patterns from 2000 to 2011 is tried to be discussed by using common international migration related variables in the last two censuses.

## Introduction

Turkey has long been a country of both emigration and immigration. Migration has served as an important role since the proclamation of the Republic. However, the patterns and directions diversify over time.

Traditionally, Turkey has been a country of emigration with large numbers of population migrating to Europe. Based on bilateral agreements on recruitment with the Federal Republic of Germany in 1961, with Austria, Belgium and the Netherlands in 1964 with France in 1965 and with Sweden in 1967, large numbers of people migrated to Europe in 1960-1973 period. Since that time, remittance flows have been occupying big space in Turkey's Economy. This explosion of Turkish emigration coincided also with the 1962-1967 period Turkey's First Five Year Development Plan. (Abadan-Unat 1995:280)

Europe's oil recession in the 1970s, redirected the labour migrants to Middle East, and in the 1990s to the Russian Federation and CES countries. On the other hand, the recession did not provoke a massive return to the home country and the host countries realized that "guest workers" was becoming "permanent". In 1975-1978 period, migration due to family reunification was realized. Especially host countries' policies contributed to this flow a lot. For instance, West Germany's new child allowance policy which made a distinction between the amounts to be paid for the children left behind and those living with their families encouraged the "guest workers" to welcome their families to the host country.

By the mid-1980's, a new wave of migration has started with the return of migrants from Germany and Turkey has started to become an immigration country. In addition, since the early 1990s, the country has been positioned on the transit route for irregular migrants from Afghanistan, Bangladesh, Iraq, Iran, and Pakistan. (Kirişçi (2003)) Turkey remains a destination for human trafficking in the Black Sea region, with victims usually coming from Moldova, Ukraine, Russian Federation (IOM 2008:8).

Due to Turkey's geographical location as a transit zone between east and west and tragic events cause displacement of large populations (Iranian Revolution, end of the cold war, the Gulf War and currently Syrian Crisis) occurred in the neighbor countries, the country has become a country of destination for refugees and asylum seekers (IOM 2008:8). Thus, emigration from Turkey has diversified with the movement of family members of labor migrants to Europe, with asylum flows in the 1980s and 1990s and with movements of professionals and students.

Briefly, a transition from "migrant-sending country" in 1950-1960s to both "migrant-sending and receiving country" has been experiencing in the last decades. In the last years, in addition to migration of transit migrants, irregular migrants, refugee and asylum seekers, migration of professionals and retired population have also been experiencing (İçduygu et al (2013:1)).

In Turkey the main data source on international migration statistics are population censuses. Although with the last innovations in Turkey, administrative registers are started to be used in production of statistics, population censuses are still the main source.

After establishment of the Address Based Population Registration System (ABPRS) in 2007, information on population size by administrative division, and basic characteristics of population such as age, sex, educational attainment and marital status, etc is started to be announced to the public annually from this system. Within this work, information on size of foreign citizens by citizenship is also started to be published. However these statistics are still limited with country of citizenship and province of residence information.

In Turkey a total of 14 traditional censuses have been conducted between 1927 and 2000. In 2011, the methodology was completely changed and shifted from traditional to combined method. In the census which was conducted with respect to the international recommendations and in line with EU Requirements, combined method was applied by using population registers (ABPRS) and by conducting register based

large-scaled sampling survey for the first time. The aim of the study was collecting information regarding the demographic, social and economic characteristics of the population and buildings and dwellings which are not available in the ABPRS and other administrative registers or not obtained from regular household surveys.

The aim of this paper is to reveal the changing methodology from 2000 PC to 2011 PHC and to discuss the changes in migration patterns from 2000 to 2011 by using common international migration related variables in the last two censuses.

## **Data and Methods**

Methodology of the 2011 PHC differs from 2000 PC in many aspects (Annex 1);

First of all, in 2000 PC, traditional census method was applied. All the places that constitute a household, and do not constitute a household were visited and all the persons resided in these places were interviewed regardless of whether they usually reside or not. Thus, all the persons within the boundaries of the country on the census day were covered regardless of their residence. On the other hand, persons who reside in the country but were abroad on the census day were excluded. In 2011 Turkey applied combined method to census-taking (by using population registers and by conducting register based large-scaled sampling survey). Turkish citizens and foreign people residing in Turkey are covered. Unlike 2000 Census, foreigners residing or planning to reside in Turkey for less than six months and Turkish Citizens temporarily staying in Turkey are not covered and persons who reside in the country but were abroad on the census day are included. For the households, interviews were realized in the selected enumeration areas which correspond 11.7% of the total enumeration areas. In institutional places, full enumeration was realized.

All traditional population censuses including the last one in 2000 were carried out in one day by the application of national curfew according to the de facto population definition. Thus, obtaining usually resident population (de jure), which is a core variable recommended by the UNECE/Eurostat, was not possible from population censuses. In accordance with the UNECE/Eurostat recommendations and regulations, the "de jure population" could be obtained from 2011 PHC in 3 months field application.

For data collection, while using only PAPI method in 2000, when it comes to 2011 CAPI was introduced in addition to PAPI.

In 2000, only one type of questionnaire was used both for households and institutional places. In 2011, two separate questionnaires (household and institutional places questionnaires) were used in the field application.

In 2000, census forms had been transferred to the computer platform at Optical Data Entry System by using ICR technology (Intelligent Character Recognition). In 2011, a java based program was developed for netbook application. Data entry of paper based household questionnaires was realized through this programme. Data entry of institutional places questionnaires was realized through a separately developed web-based programme.

Number of staff in charge of census decreased from one million in 2000 to four thousand and five hundred in 2011.

Together with the changes in the methodology, questions covered and statistics produced from the census also changed from the year 2000 to 2011 (Annex 2). With the transition from full enumeration to (large-scale) sample survey, levels of breakdowns and details are reduced.

Information on emigration could never be produced from the population censuses in Turkey. With diversification between the census years, basic information on immigration and stock population could be derived from all censuses. Information on one of the essential variables, "Country of birth" is available for all

censuses since 1927. "Country of citizenship" which is also important information on migration is not available in 2011 census.

In order to analyze the migration flows, information on "Place of residence five years prior to census" question was used for 2000 census and "Ever resided abroad and year of arrival in the country" question was used for 2011 census.

In the paper, for trend analysis "country of birth" variable was used as one of the indicator. Secondly, "return migration" patterns which has an important share in the total migrants is tried to be analyzed. In order to determine "return migrants", "place of birth" and "immigration within 5 years" was used for 2000 census. In 2000, the population who resided abroad five years ago and reside in the border of the country on the census day is accepted as "immigrant". When it comes to 2011, "place of birth" and "Ever resided abroad and year of arrival in the country" questions were used. The population who have ever resided abroad and started to reside in Turkey after 2007 accepted as "immigrant". Within the immigrants, persons whose country of birth were "Turkey" was accepted as "return migrant" for both two censuses.

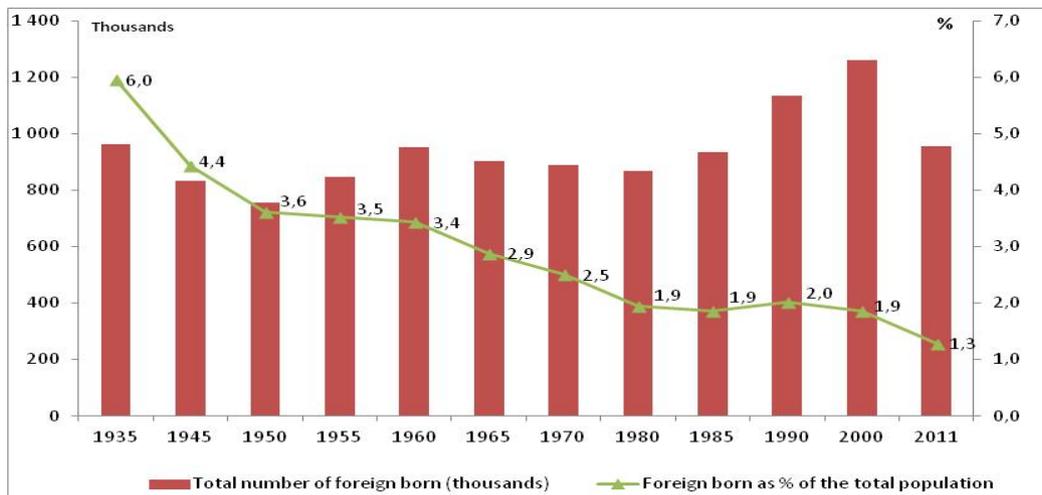
In the study, descriptive analysis were done in order to compare main characteristics of foreign - native born population, migrant-return migrants for 2000 and 2011 years and changing patterns in 2000-2011 period.

## Main Findings

### Analysis on "foreign-native born" Population

Considering the period from the first census to the present, declining trends in percentage of foreign born population can be observed. When the percentage of foreign citizens is examined since the first census, the highest percentage is observed in 1935 with 6,0% and the lowest is observed in 2011 with 1,3%. The reason for the sharp decline both in numerical and proportion between 2000 and 2011 can be explained with underestimation of foreign citizens in the survey sample in 2011 PHC (Graph 1).

**Graph 1. Stock of Foreign Born Population in Turkey, 1935-2011 Censuses**



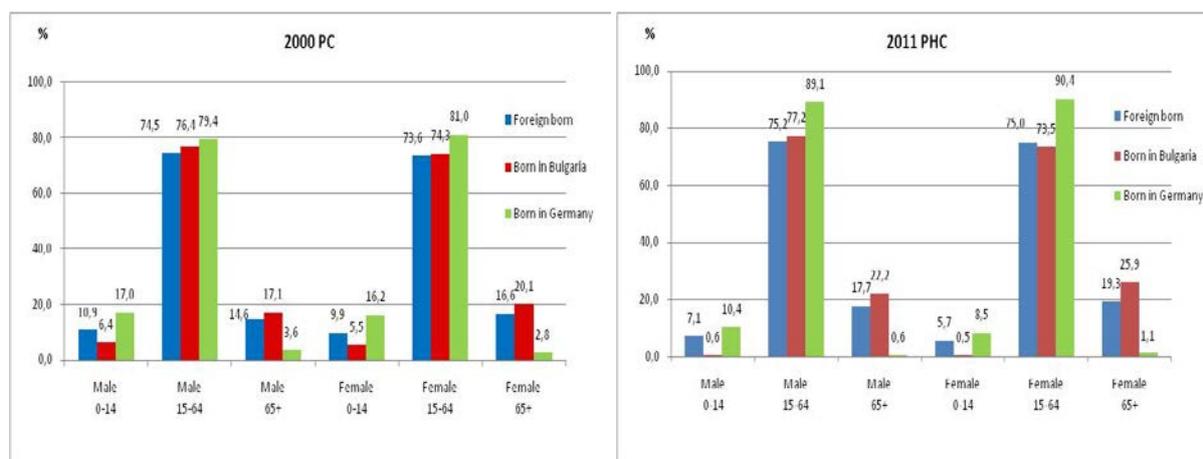
According to the census conducted in 2000, approximately 1,260,000 persons living in Turkey were born abroad, which amounted to 1.9% of the total population. The largest groups among the foreign-born in that year were Bulgarians with Turkish origins, dating back to the Ottoman Empire (%38,1) and German-born (%21,7) ethnic Turks. When it comes to the year 2011, size of the foreign born population fell back to 957 000 with the proportion %1,3. In this year Bulgaria-born population increased by approximately 5 points and reached 42.8%. On the other hand, German-born population decreased by approximately 5,5 points and reached %16,3. (Table 1)

Table 1. Foreign born population by country of birth, 2000 PC-2011 PHC

2000 PC		2011 PHC	
Country of Birth	% in total foreign borns	Country of Birth	% in total foreign borns
Total foreign born population (Thousands)	1260	Total foreign born population (Thousands)	957
Bulgaria	38,1	Bulgaria	42,8
Germany	21,7	Germany	16,3
Federal Rep. Of Yugoslavia	8,9	Macedonia	8,7
Greece	4,7	Greece	3,5
Republic of Macedonia	2,5	Azerbaijan	2,6
Netherlands	1,7	Uzbekistan	1,9
Romania	1,6	Afghanistan	1,7
Russian Federation	1,6	Russian Federation	1,4
England	1,5	Kazakhstan	1,3
Azerbaijan	1,3	United States	1,2

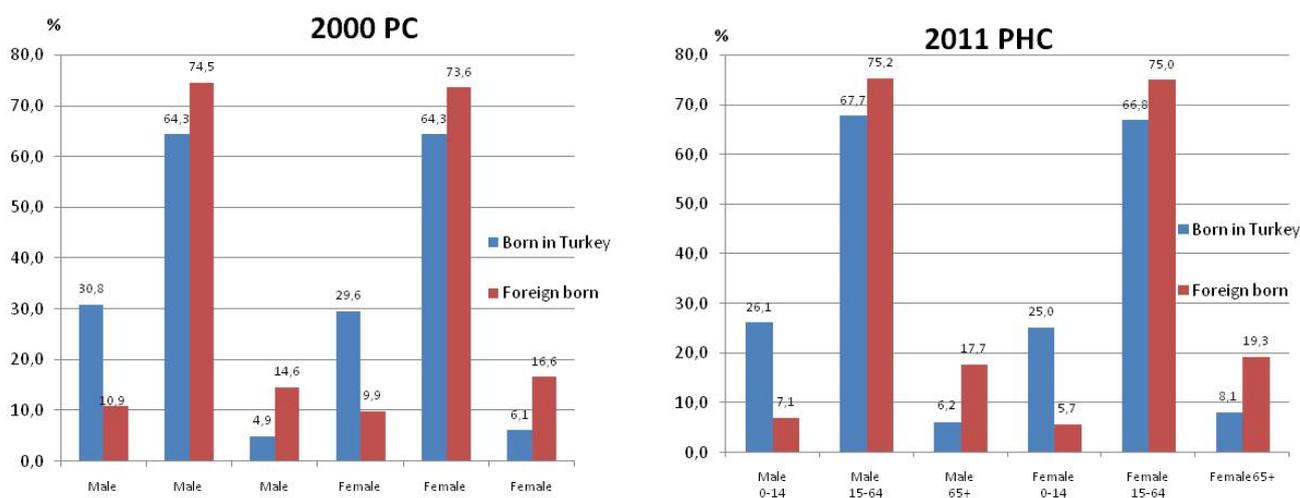
When the broad age groups are examined for the countries having largest proportion in total foreign-born population, Bulgaria and Germany for both 2 periods; a large majority of the population is seen in 15-64 age group for both males and females. The major difference in German-born population is low proportion of 65+ population whilst high proportion of 0-14 age group. In 2011, in Bulgaria born population, percentage of age 65+ increased. On the other hand in German born population, the increase was occurred in 15-64 age group (Graph 2).

Graph 2. Broad age groups for the foreign-borns and the countries having largest proportion in total foreign-born population, 2000 PC-2011 PHC

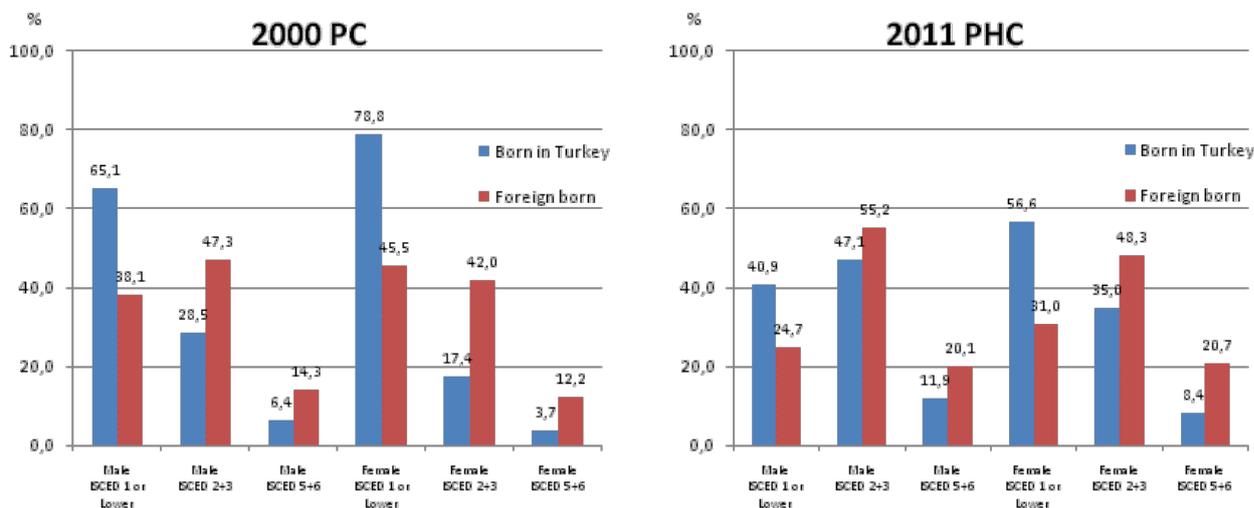


When trends in age and educational status patterns of foreign and native born population is examined, an intensive change between two periods is not observed. In both periods, foreign born population seems to be more older and more educated than the native born population (Graph 3 and Graph 4). As well as the level has increased in both two groups in 2000-2011 period, in particular, improvements in educational attainment for the native born female population are more prominent than that of other groups. Proportion of native-born females with tertiary and lower education in the total native-born female population is grew from 12,2% to 20,7% between 2000-2011 period.

**Graph 3. Age and Sex Structure of native and foreign-born population, 2000 PC-2011 PHC**



**Graph 4. Educational Attainment of native and foreign-born population, 2000 PC-2011 PHC**



**Analysis on “Immigrants”**

When the immigration figures between 1975-2011 period is examined, fluctuations in the time series is observed. One of the main reason of these fluctuations can be unstable condition of the neighbour countries of Turkey.

**Table 2. Immigration in Turkey, 1975-2000 Censuses**

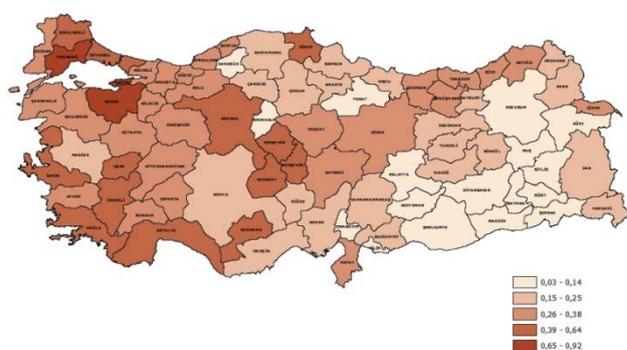
Period	Size of immigrants	% in Total Population
1975-1980	254 171	0,66
1980-1985	410 232	0,92
1985-1990	388 994	0,77
1995-2000	234 111	0,38
2007-2011	316 000	0,42

Note. As mentioned in the "Data and Methodology" Section, between 1975-2000, the information is derived from the question "Place of residence 5 years prior to the census". In 2011, the information is derived from the question "ever resided abroad and year of arrival"

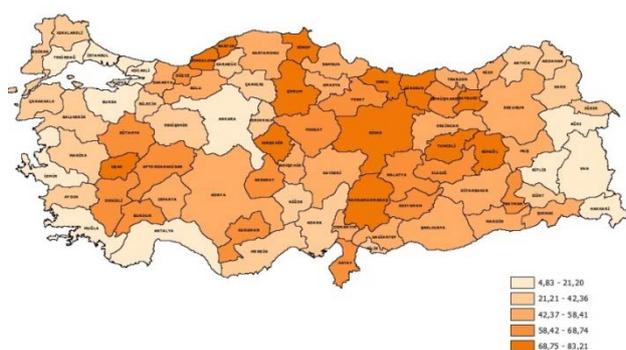
Among the immigrants, native-born Population (return migrants) has a growing trend in Turkey. In 2000, 52% of the immigrants were native-born. In 2011, this percentage increased by approximately 20 points and achieved 72%.

Destination preferences of native borns are compared to the whole immigrants in Map 1 and Map 2 for 2000 and Map 3 and Map 4 for 2011. For both periods, while total immigrants prefer to reside in the more urbanized cities in the west and south part of Turkey, native born migrants prefer to reside in their own place of birth. The top three provinces which have largest proportion of immigrants are; Tekirdağ, Yalova and Bursa for 1995-2000 period, and Hatay, Aksaray and Yalova for 2007-2011 period. In the introduction section, affects of conflicts in neighbourhood countries was mentioned. As an example, affects of Syrian crisis on Hatay Province can be observed from the Map 3. On the other hand, in Bartın, Kahramanmaraş and Bayburt, the proportion of migrants who were born in the same province to the total immigrants is the highest for 1995-2000 period with over than 78%. When it comes to 2007-2011 period, Adıyaman, Hatay and Bingöl are the top 3 provinces with over than 85%.

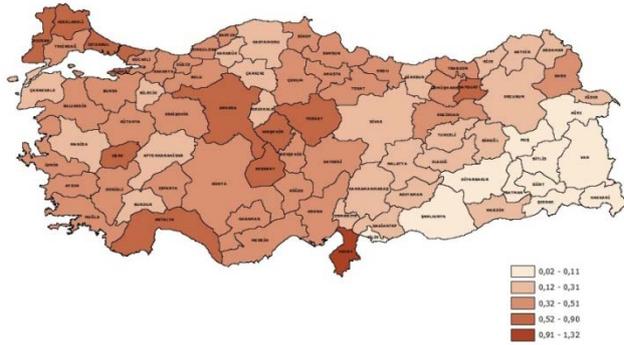
**Map 1. Proportion of immigrants in total population by Provinces, 1995-2000 Period**



**Map 2. Proportion of return migrants residing in the place where he/she was born to the total of immigrants, 1995-2000 Period**



**Map 3. Proportion of immigrants in total population by Provinces, 2007-2011 Period**



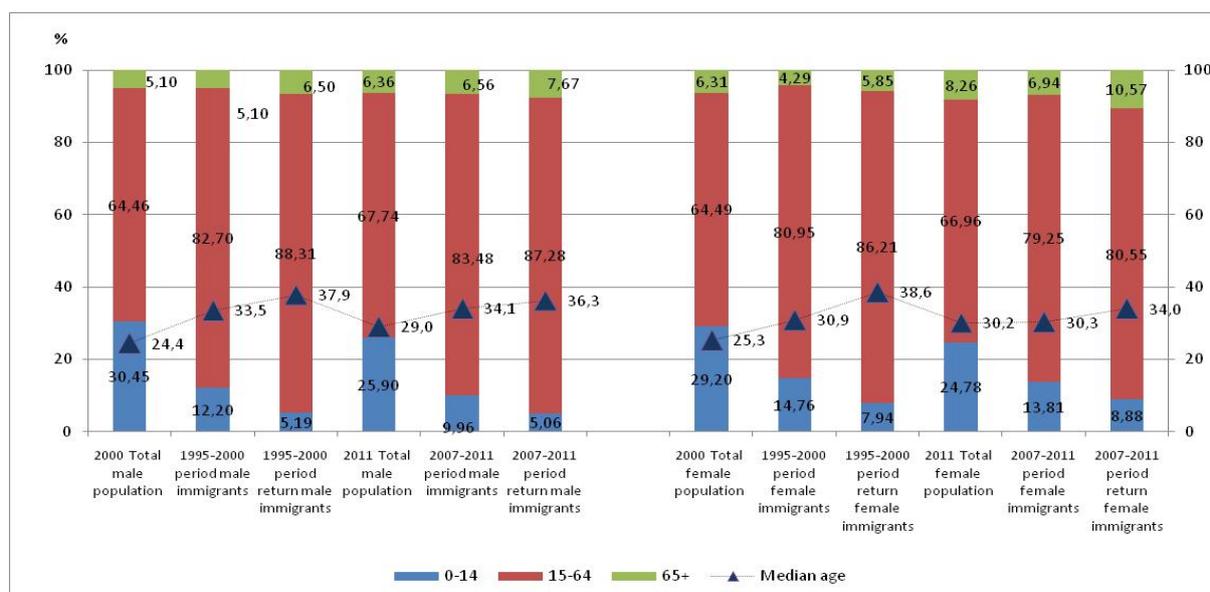
**Map 4. Proportion of return migrants residing in the place where he/she was born to the total of immigrants, 2007-2011 Period**



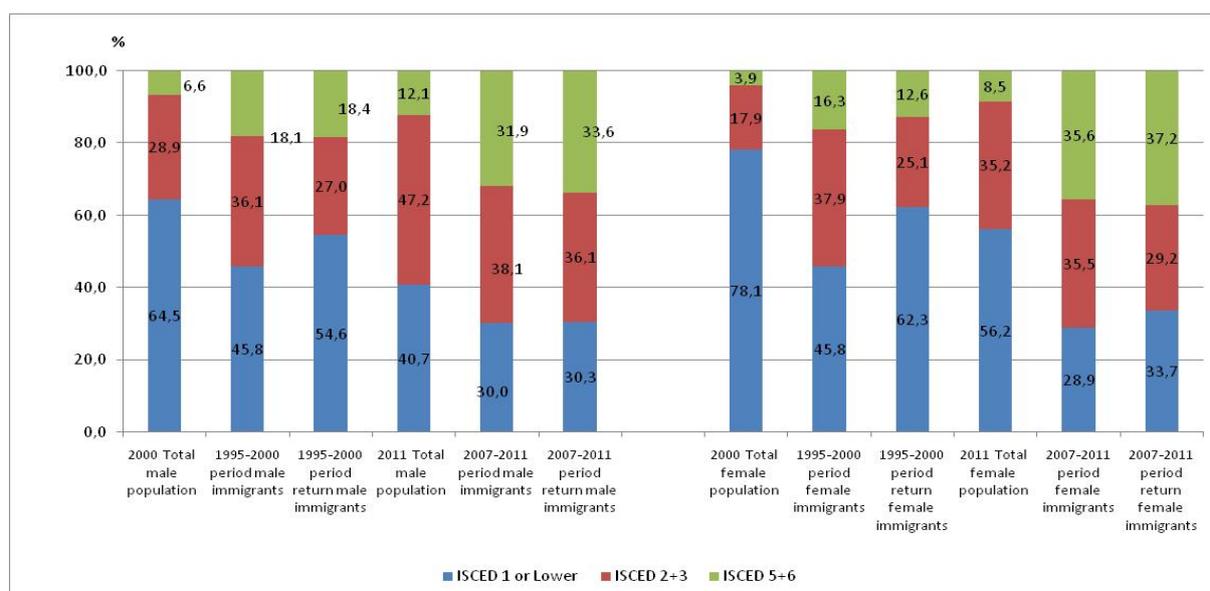
Age distributions of the total population, immigrants and return migrants are shown in the figure 5. When the three groups are compared, the age profile of the total population is the youngest with a median age 24 for males and 25 for females in 2000. In 2011 with an increasing trend, a similar pattern can be observed. In addition, while both total population and immigrants having a slightly aging trend between 2000 and 2011, an opposite trend is observed for solely return migrants and median age of return migrants is placed between the median age of total population and immigrants in 2011.

When the three groups “total population”, “immigrants” and “return migrants” are examined in terms of level of education, for both two periods, immigrants are more educated than the total population and return migrants are the most educated group (Graph 6). While level of education has an increasing trend for both three groups, improvements in return migrants are more prominent than the other groups. Proportion of female returnees having first stage of basic education in the total female returnees is decreased from 62,3% to 33,7% between 2000-2011 period.

**Graph 5. Broad Age Groups for total population, immigrants and return migrants, 2000 PC-2011 PHC**



**Graph 6. Educational Attainment for total population, immigrants and return migrants, 2000 PC-2011 PHC**



## Conclusion

In Turkey, there is still no reliable and accurate system for production of international migration statistics and population censuses are still the main data source.

In the paper, after comparing the methodology of the last two censuses, two variables “country of birth” and “immigration within 5 years” have been analyzed.

In Turkey, the share of foreign-borns in total population has been decreasing since the first census in 1935. When the last two censuses analyzed, the majority of foreign born population has Turkish origin for both censuses. Structure of foreign-borns has a changing pattern similar to the pattern of total population.

In Turkey, when the 1975-2011 period is examined, share of immigrants has never exceed 1%. Share of return migrants in total immigrants is increasing by the years. Both structure and residence preferences vary across the return migrants and overall immigrants.

The analyses in this paper show that return migrants constitute the large portion of total number of migrants in many provinces except those attracting the largest number immigrants. Largest metropolitan cities and popular tourism destinations in the west of the country are attracting immigrants.

## Annexes

### Annex 1. Methodologic comparison of 2000 PC and 2011 PHC

	2000 PC	2011 PHC
Method	Traditional	Combined
Definition for residency rule	De-facto	De-jure
Duration of field application	One day application with a national curfew	2-3 month
Questionnaire	Standard	Household + Institutional Places
Collection method	PAPI	PAPI and CAPI
Data entry	ICR	Online data transfer for CAPI, Web-based program for PAPI
# of staff	1 million	4.500

### Annex 2. Main migration-related topics covered in the censuses

	Traditional censuses	2011 PHC
Definition for residency rule	De-facto	De-jure
Country of birth	✓	✓
Country of citizenship	✓	x <sup>1</sup>
Ever resided abroad	x	✓
Country of residence 1 year prior to the census	x	✓
Country of residence 5 years prior to the census	✓	x

<sup>1</sup>: In Turkey, the share of the foreign citizens in total population is less than 1%. During the analysis stage, it was determined that in the census sample, foreign citizens could not be very well represented.

## References

Abadan-Unat, N. (1995) Turkish Migration to Europe. In: R. Cohen (ed.), The Cambridge Survey of World Migration. Cambridge, Cambridge University Press. p. 279–284.

IOM International Organization for Migration (2008), Migration in Turkey: A Country Profile [http://www.turkey.iom.int/documents/migration\\_profile\\_turkey.pdf?entryId=10260](http://www.turkey.iom.int/documents/migration_profile_turkey.pdf?entryId=10260)

İçduygu, A. et al (2013), MPC-Migration Profile [http://www.migrationpolicycentre.eu/docs/migration\\_profiles/Turkey.pdf](http://www.migrationpolicycentre.eu/docs/migration_profiles/Turkey.pdf)

Kirişçi, K. (2003) Turkey: A Transformation from Emigration to Immigration, Migration Information Source, <http://www.migrationinformation.org/Profiles/print.cfm?ID=176>

Sirkeci, I. (2002) Revisiting the Turkish migration to Germany after forty years, Siirtolaisuus – Migration 2/2002 [https://www.academia.edu/204381/Revisiting\\_the\\_Turkish\\_migration\\_to\\_Germany\\_after\\_forty\\_year](https://www.academia.edu/204381/Revisiting_the_Turkish_migration_to_Germany_after_forty_year)

Turkstat (2005). Census of Population 2000, Migration Statistics. Ankara: Turkish Statistics Institute.

Turkstat (2011). Population and Housing Census 2011. Ankara: Turkish Statistics Institute.