



DEMOGRAPHIC BAROMETER

WHAT IS THE REAL POPULATION NUMBER OF THE REPUBLIC OF MOLDOVA?

Olga PENINA,

PhD in medicine, coordinator scientific researcher, Centre for Demographic Research of the National Institute for Economic Research, Republic of Moldova

Abstract: The quality of official population data for the Republic of Moldova and the correspondence of the national definition in the field of international migration to the European Union standards are analysed. The impact of population over-estimation on the basic demographic indicators and its consequences for population projections and population and development policies are shown. A series of recommendations with regard to the improvement of the population data quality is proposed.

TWO TYPES OF POPULATION DATA

The National Bureau of Statistics (NBS) of the Republic of Moldova annually publishes data about two types of population: de jure population (stable population) and de facto population (present population). According to the definitions provided by NBS, the first type of the population (de jure) covers the Moldovan citizens with a permanent residence, including those Moldovan citizens who are temporary absent in the republic. The second type of the population (de facto) includes only those persons who live in the republic at the given moment, including persons with a temporary residence. Figure 1 illustrates the dynamics of de jure and de facto annual population counts from 1980 onwards and de jure population data according to the 1989 and 2004 censuses and

preliminary results of the 2014 census. It is important to highlight that de jure population is still based on the results of the 1989 census, while de facto population takes into account the results of the 2004 census but only partially (in 2005-2006, NBS increased the size of de facto population probably due to the necessity to correct the final results of the 2004 census). This is the only difference between the two types of the Moldovan population counts, while taking into account their definitions, these should also differ by migration flows data. After publishing the final results of the 2004 census, NBS did not produce 1989-2004 intercensal population estimates either for de jure or de facto population.

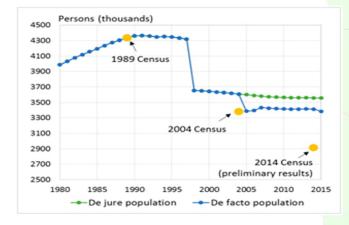


Figure 1. De jure and de facto official annual population counts, de jure population counts according to the 1989 and 2004 censuses and preliminary results of 2014 census, Republic of Moldova, both sexes

Source: National Bureau of Statistics of the Republic of Moldova (http://www.statistica.md). From 1998 data do not cover the Transnistrian region.

The preliminary results of the 2014 census show a clear over-estimation of de facto population counts that in 2014 do not differ from the population size estimated at the moment of the

2004 census, let alone de jure population numbers that do not take into account the results of the 2004 census at all!

NATIONAL AND EUROPEAN UNION INTERNATIONAL MIGRATION DEFINITIONS

There is an important difference between the national definitions in the field of international migration and those recommended by the European Union (Table 1). Thus, the national definitions take into account the citizenship of a person, while the European Union standards are based on a notion of "usual residence", i.e. the place at which a person normally spends the daily period of rest, regardless of temporary absences for purposes of recreation, holiday, etc. According to European recommendations, a person is considered to have a usual residence in a specific geographic area,

if she/he lived in that usual residence for at least 12 months prior to the reference moment. It is important to highlight that the European concepts about the international migration by no means are connected to a person's citizenship, which is characteristic of the Moldovan definitions. The latter leads to a nonsense, because the foreign citizens once being added to the Moldovan population size as "immigrants" have no chance to be excluded from it since they are not the Moldovan citizens!

Table 1. International migration definitions used in the Republic of Moldova and European Union recommendations

	National definitions	European Union definitions
Immigrant	Foreign citizen or person without citizenship who got the right for permanent or temporary residence in the Republic of Moldova	'Immigration' means the action by which a person establishes his or her usual residence in the territory of a Member State for a period that is, or is expected to be, of at least 12 months, having previously been usually resident in another Member State or a third country. Immigrant' means a person undertaking an immigration
Emigrant	Citizen of the Republic of Moldova who leaves abroad for permanent or temporary residence on the territory of another state	'Emigration' means the action by which a person, having previously been usually resident in the territory of a Member State, ceases to have his or her usual residence in that Member State for a period that is, or is expected to be, of at least 12 months. 'Emigrant' means a person undertaking an emigration
Repatriate	Citizen of the Republic of Moldova and/or the person born in the Republic of Moldova and his descendants, and also the person who previously lived for at least 10 years on the territory of country and has the right to set for permanent residence in the Republic of Moldova according to the law	

Source: national definitions: National Bureau of Statistics of the Republic of Moldova, http://www.statistica.md/pageview.php?l=ro&idc=351&id=2263; European Union definitions: 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 http://eur-lex.europa.eu/legal-content/RO/TXT/?uri=uriserv:OJ.L_.2007. 199.01.0023.01.RON

DIFFERENT SOURCES ABOUT MIGRATION

The National Bureau of Statistics take into account the migration flows according to the above-mentioned definitions (known as "definitive" or "documented" migrants) to calculate both de jure and de facto population counts. On the other hand, other information sources about migration flows in accordance with the European Union standards, i.e. based on the criterion of "usual residence", are available for the Republic of Moldova. Figure 2 presents the comparative analysis of the international net migration (difference between immigrants and emigrants) for the Republic of Moldova from different sources: official national migration data, administrative data about the transition of the state border and official migration data from the statistical offices of Russia and Italy. Net migration taken by NBS to calculate annual population counts for 2003-2013 years was very insignificant and even positive (!) in 2010-2012. If in 2009, the official net migration was only two thousand persons, then according

to the official statistical migration data from Russia and Italy, the two most popular countries among the Moldovan citizens, net migration in that year was 30 thousand persons, the difference being 30 thousand (!) per-Migration statistical data from these two recipient countries is quite comparable with the border crossing migration data produced by the State Boarder Guard Service and available in the frame of the Integrated Automated System on "Migration and Asylum" (SIIAMA) from 2009 onwards. For the last years (especially, for 2010-2013) there is a difference between the two sources due to the lack of control over the sate border with Transnistria (border crossing migration data are somewhat lower compared to the Russian and Italian migration data). Nevertheless, border crossing migration data together with the "mirror" migration data from the recipient countries can serve as the best source of information to estimate the real number of the international emigrants in the Republic of Moldova in accordance with the European Union standards.

¹The official net migration for 2004-2013 was calculated by the author based on the annual official de jure population counts and vital statistics (births and deaths). These data can differ from the estimates of net migration calculated as the difference between immigrants (including repatriates) and emigrants.

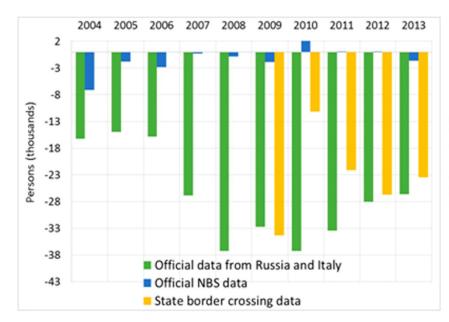


Figure 2. Net migration in the Republic of Moldova: official data, border crossing administrative data and data from two recipient countries (Italy and Russia), both sexes, 2004-2013

Source: calculated based on the data from NBS of the Republic of Moldova, Eurostat, Federal State Statistics Service of the Russian Federation, Centre for State Information Resources "Registru" (via Acces-Web).

ALTERNATIVE POPULATION ESTIMATES

Figure 3 shows the official annual de jure population counts, the census data (1989, 2004, and preliminary results of the 2014 census) and alternative de facto annual population estimates. The alternative population data are calculated based on the censuses results (the last one is 2004), official vital statistics and migration data about state border crossing. These estimates are produced in accordance with the Human Mortality Database (HMD) Methods Protocol together with the researchers from Max-Planck Institute for Demographic Research from Germany (Dr. D.Jdanov and Dr. P. Grigoriev). The results of the last 2014 census are preliminary and refer to de jure population counts, i.e. they include those Moldovan citizens who were absent

at the census moment (about 11% of the total population). On the other hand, the 2014 census data are considered to be incomplete (2.9% of housing units are not covered) and, as declared by Moldovan NBS, are expected to be completed from the administrative sources. At the same time, the preliminary results of the 2014 census for the Republic of Moldova are absolutely logical and in accordance with the final results of the 2004 census. There are no doubt that the two censuses that are the only reliable source of information about the Moldovan population for the period of independence must be taken into account by the National Bureau of Statistics to produce annual population counts.

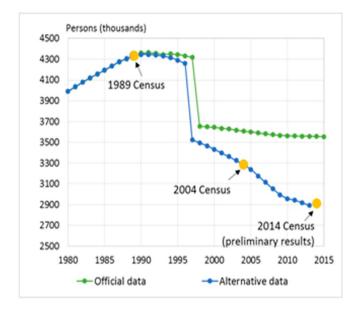


Figure 3. Official population data versus alternative population data

Source: official population data: NBS of the Republic of Moldova; alternative population data: Penina O., Grigoriev P., Jdanov D., 2015 – "About mortality data for the Republic of Moldova" (unpublished material).

² J.R. Wilmoth, K. Andreev, D. Jdanov, D.A. Glei, 2007, "Methods Protocol for the Human Mortality Database".

³ National Bureau of Statistics of the Republic of Moldova, 2015, "Informative note about the preliminary results of the 2014 Population and Household Census", Chisinau.

CONSEQUENCES OF POPULATION OVER-ESTIMATION

Moldovan NBS calculates sex- and age-structure only for de jure population counts. This type of population is a denominator for all the demographical and socioeconomic indicators. On the other hand, the annual de facto population counts are produced only for the total of population by regions and are mostly used by NBS for administrative purposes rather than for statistical ones. At the same time, the vital statistics are referring

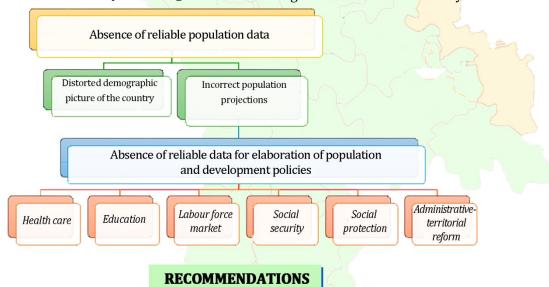
to de facto population, i.e. the official statistics include only those births and deaths that were registered in the territory of the republic. Due to the enormous discrepancy between de facto and de jure Moldovan population counts, this fact leads to a huge underestimation of mortality and fertility rates. Table 2 presents total fertility rate and life expectancy at birth calculated based on the official de jure population counts and the alternative de facto population counts.

Table 2. Total fertility rate and life expectancy at bith by sex estimated based on the official and alternative population counts (year 2012)

una dicernative population counts (year 2012)				
	Based on official population counts	Based on alternative population counts	Difference	
Total fertility rate (children per woman)	1.28	1.65	+0.37	
Male life expectancy at birth (years)	67.24	64.46	-2.78	
Female life expectancy at birth (years)	74.99	73.2	-1.79	
Population, both sexes (thousand persons)	3559	2892	-667	

At present, the official national statistics cannot provide the reliable data about the real (de facto) population number of the Republic of Moldova, which leads to a considerable distortion of the demographic picture of the country, including population projections. The state institutions do not have a reliable informational database for correct planification of the sate budget, social, health care and fiscal policies, regulation

of the labour force market etc. In the present socioeconomic circumstances, reliable effect of the undertaken anti-crisis measures must be evaluated. Depopulation and demographic ageing of the Moldovan population determine the urgent necessity of the reliable population projections for the adequate functioning of the whole of the social system in the country.



- 1. The use of "de facto" population counts for demographic and socio-economic indicators.
- 2. Re-estimation of the number and age- and sex-structure of de facto and de jure population counts based on the final results of the 2004 census before presenting the final results of the 2014 census.
- © Centre for demographic Research, NIER, 2015 Republic of Moldova, Chisinau, 45 str. Ion Creanga www.ccd.md.
- 3. Urgent processing of the 2014 Population and Household Census data.
- 4.Changing the national definitions in the field of international migration in accordance with the European Union standards. The use of the corresponding international migration data for producing annual defacto population counts.

This document was elaborated with the support of the UNFPA, United Nations Population Fund in the Republic of Moldova, and does not necessarily present the UNFPA opinion, of the United Nations Organization or any other of its affiliated organizations.