POPULATION DYNAMICS IN GEORGIA

An Overview Based on the 2014 General Population Census Data



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Preface

The National Statistics Office of Georgia and the United Nations Population Fund (UNFPA) Country Office in Georgia present: *Population Dynamics in Georgia - An Overview Based on the 2014 General Population Census Data.*

By its scale and content, the Census represents a unique source of data on the social, economic and demographic situation of the population in the country. As a result of the 2014 Census, the most current and accurate information has been collected on population size, its sex and age structure, employment, education, health, sources of income, housing and agricultural activities in Georgia. Using the Census 2014 data and the back-projection model, the present report reassesses the statistical data on population growth, fertility, nuptiality, mortality, as well as urbanization, internal and international migration, etc and presents a revised vision of population dynamics in Georgia.

This report is another step by UNFPA to support the use of reliable population data and its analysis in the formulation of rights-based policies, including on population dynamics, through cutting-edge analysis of its trends and interlinkages with sustainable development.

Acknowledgement

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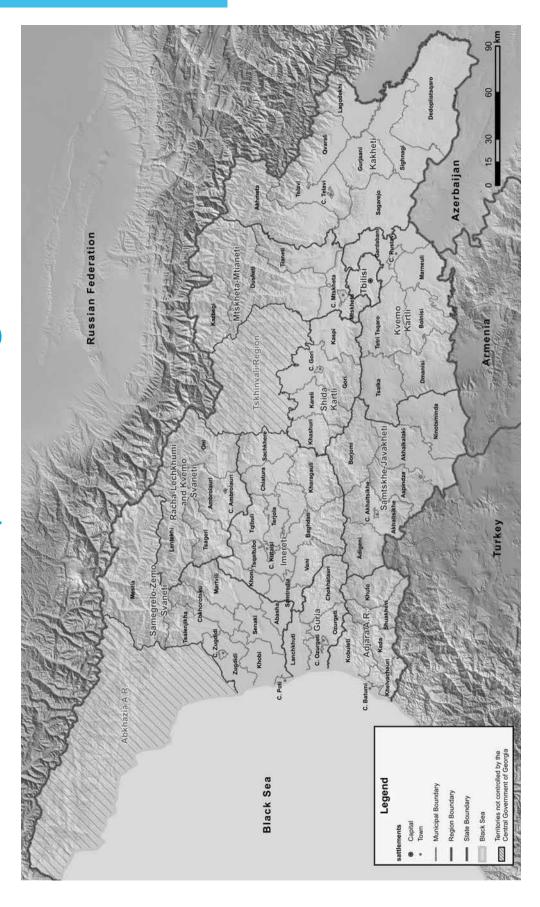
The present report also reflects the utmost dedication of the staff of the United Nations Population Fund Office in Georgia. The author thanks Ms. Lela Bakradze, Assistant Representative, UNFPA Georgia and Ms. Anna Tskitishvili, Programme Associate for their guidance, and tireless support.

The monograph has been enriched by the insight and contribution from Mr. Eduard Jongstra, PD Adviser, UNFPA Eastern Europe and Central Asia Regional Office for which the author is grateful.

Abbreviations

CRRC	The Caucasus Research Resource Centers
EECA	Eastern Europe and Central Asia
Geostat	National Statistics Office of Georgia
GERHS	Reproductive Health Survey in Georgia
IDP	Internally Displaced Person
MICS	Multiple Indicator Cluster Surveys
PSA	Population Situation Analysis
SMAM	Singulate Mean Ages at Marriage
TFR	Total Fertility Rate
UN	United Nations
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNPD	UN Population Division
USAID	United States Agency for International Development
WHO	World Health Organization
WMS	Welfare Monitoring Survey

Administrative Map of Georgia



1. Introduction

Since Independence in 1991, the monitoring of population trends in Georgia has been negatively affected by problems in the collection of statistics on births, deaths, and especially migration. During the Soviet period, population trends were monitored with a reasonable degree of accuracy through the censuses, updated regularly through the vital statistics system. However, in the period from 1991 until about 2010 this system became disorganized as a result of institutional change, restructuring of the economy, ethnic unrest, armed conflicts, and massive out-migration. Although steps are taken by the statistical authorities to restore some order in the national demographic statistics, there continue to be doubts about detailed demographic trends during the past 20 years. In this context, the 2014 General Population Census was anxiously awaited as an opportunity to establish new baselines and eliminate uncertainties about past trends.

The General Population Census 2014 was conducted during the period of November 5-19, 2014 and covered 82 percent of the whole territory of Georgia (57,000 km²) except Abkhazia, Georgia and the Tskhinvali region/South Ossetia, Georgia (total area of 13,000 km²). The information in this report on data for 2014 only refers to the areas covered by the census. Because of its scale and content, the census represents a unique source of information on the social, economic and demographic situation of the population in the country. As a result of the 2014 census, the most updated information has been obtained on the population size, its sex and age structure, employment, education, health, sources of income, housing and agricultural activities.

During the last decade UNFPA has been supporting the Government of Georgia in strengthening the capacity of the National Statistical Office with the objective to support the body of evidence for the formulation of rights-based policies, including on ageing, through cutting-edge analysis on population dynamics and its interlinkages with sustainable development. The 2014 Census was

conducted by the National Statistics Office of Georgia (Geostat) with the support of UNFPA, the Government of Sweden and the World Bank.

Of all the uncertainties mentioned above, international migration has probably had the most disruptive impact on population statistics. In Soviet times, it had been tightly controlled, but in the 1990s it took on such large proportions that monitoring population change became very challenging. Not only was there no good system for distinguishing between short- and long-term migrants, but it also became difficult to know if births registered in the country were of children indeed residing in the country or living abroad. Even the 2002 census was affected, as many migrants who had actually left the country were still declared by their families as being part of the household, for fear of losing certain rights or benefits. It is now believed that the 2002 census may have been inflated by as much as 8 or 9 percent due to this problem. The quality of registration of births, deaths and marriages also became more problematic. Births were often registered with considerable delays and the registration of cause of death deteriorated. It was not until 2010 that the Government managed to restore some of the reliability of the previous monitoring system.

Several attempts have been made to estimate population trends in Georgia since 1990, based on different data sources and correction mechanisms to deal with errors in the population data and vital statistics. Table 1.1 compares four alternative sequences of estimated and projected population sizes: the official one used by Geostat, an alternative sequence elaborated by Prof. G. Tsuladze, of the Ilia State University, the back-projection of national and regional population statistics between the 2002 and 2014 censuses used for many of the estimates in this monograph, and the latest update (2017) of the World Population Prospects elaborated by the UN Population Division (UNPD). Unlike the first two data series (except Geostat 2015), the UNPD estimates and projections

Table 1.1: Estimates and projections of the population of Georgia 1990-2020 (in thousands)

Voor	Canatat	Toulodae	UN Population Division (2017 Revision) ²			
Year	Geostat	Tsuladze	Back-projection ¹	Low	Middle	High
1990	5,424	5,178			5,410	
1991	5,453	5,206			5,371	
1992	5,467	5,216			5,298	
1993	5,346	5,078			5,205	
1994	4,930	4,625			5,108	
1995	4,794	4,475			5,020	
1996	4,675	4,342			4,946	
1997	4,558	4,213			4,881	
1998	4,505	4,152			4,825	
1999	4,470	4,112			4,773	
2000	4,435	4,073			4,722	
2001	4,401	4,034			4,672	
2002	4,372	4,001	3,991		4,625	
2003	4,343	3,966	3,966		4,579	
2004	4,315	3,931	3,938		4,533	
2005	4,322	3,899	3,917		4,487	
2006	4,401	3,869	3,888		4,439	
2007	4,395	3,839	3,873		4,391	
2008	4,382	3,814	3,848		4,341	
2009	4,385	3,797	3,829		4,288	
2010	4,436	3,790	3,800		4,232	
2011	4,469	3,786	3,774		4,171	
2012	4,498	3,777	3,739		4,108	
2013	4,484	3,768	3,718		4,046	
2014	4,491		3,717		3,992	
2015	3,714		3,714		3,952	
2016				3,938 ³	3,925	3,947
2017				3,922	3,912	3,943
2018				3,905	3,907	3,939
2019				3,887	3,904	3,935
2020				3,867	3,899	3,930

Source: Updated and expanded from UNFPA, 2015: Table 4

¹ According to the geographic borders at the time, including South Ossetia/Tskhinvali region, Georgia and the Kodori Valley before 2009.

² The Geostat and Tsuladze data series refer to January 1st of each year, the back-projections to January 17th, the UN Population Division estimates and projections to July 1st. The UNPD estimates and projections also consider Abkhazia, Georgia and Tskhinvali region/ South Ossetia, Georgia, whereas the former are limited to areas currently controlled by the government.

³ The published low variant of the UN Population Division projections for 2016 and 2017 is higher than the middle variant. This may be due to an error in the methodology or an oversight in updating the information.

already take into account the preliminary results of the 2014 census.

One feature of *Table 1.1* that stands out is the different treatment given to the data of the 2002 population census. Geostat takes the result of the census for what it is, without any corrections. The UNPD applies a 5.9 percent upward correction, reflecting the fact that it continues to include Abkhazia, Georgia and Tskhinvali region/South Ossetia, Georgia as part of the national territory, even after 1993.⁴ Tsuladze, on the other hand, applies an 8.5 percent downward correction to adjust for the problems with international migrants mentioned above.

The back-projection in the third column retroactively corrects the national and regional population statistics assuming that the 2014 census was correctly enumerated and that the 2002 census should be adjusted downwards by 8.7 percent, based on the national total of the Integrated Household Survey. The detailed methodology used for this purpose is explained in a separate document. Here it suffices to explain that the over-count was more serious in the rural areas. Consequently, the 8.7 percent correction that was applied here is, in fact, an average between a small downward correction (1.7 percent) in the urban areas and a much larger downward correction (16.4 percent) in the rural areas. These different correction factors were determined, on the one hand, based on the total national population of the 2002 Integrated Household Survey and on the other hand by the consideration that the degree of urbanization of the country (52.3 percent) in

4 The exact present size of Abkhazia's population is unclear. The 1989 census counted 525,061 people in Abkhazia. According to a census carried out in 2003 by the local authorities it measured 215,972 people, but this is contested by Georgian authorities. Geostat estimated Abkhazia's population to be approximately 179,000 in 2003, and 178,000 in 2005, the last year when such estimates were published. The International Crisis Group estimated Abkhazias total population in 2006 to be between 157,000 and 190,000 while UNDP in 1998 estimated it between 180,000 and 220,000. According to the last census in 2011 by the local authorities, Abkhazia, Georgia, had 240,705 inhabitants, 122,069 of whom were ethnic Abkhazians. Data on the current population of Tskhinvali region/South Ossetia, Georgia are even harder to come by, but the most commonly cited figure is 70,000 inhabitants. The 2017 UNPD estimate of 3.992 million (see Table 1) for the entire internationally recognized national territory in 2011 implicitly assumes that less than 220,000 people lived in Abkhazia, Georgia or Tskhinvali region/South Ossetia, Georgia, in that year.

the 2002 census was too low in the context of the historical trend and was likely to have been closer to 56.3 percent. The latter percentage was adopted, therefore, as a second criterion for adjusting the rural and urban populations in the 2002 census.

In addition to the 2002 census, Tsuladze also applied corrections to the number of births and deaths in the civil registration system, as shown in *Figure 1.1*. As is explained in the Population Situation Analysis (UNFPA Georgia, 2015), the 1999, 2005 and 2010 Georgia Reproductive Health Surveys (GERHS) show significant discrepancies in child mortality rates from national statistics and survey data, particularly the 1999 GERHS. The latter found an infant mortality rate of 41.6 per 1,000 and an under-five mortality rate of 45.3 per 1,000, compared to just over half of those values in the civil registration data.

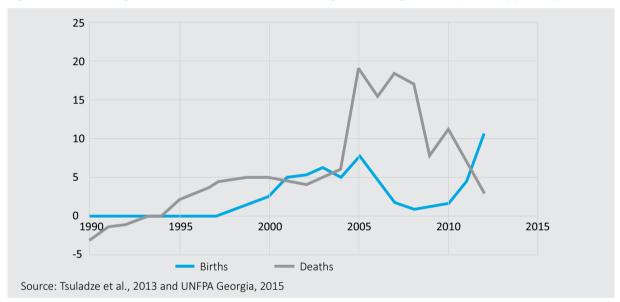
While the GERHS did not find any major differences in birth registration by birth order, age of the mother or even urban versus rural residence, it did detect a higher proportion of unregistered births in Kakheti, Guria and Kvemo Kartli and among the lowest educational categories and the lowest wealth quintile. Most importantly, there is a major difference between births delivered in hospitals (more than 97 percent registered) and births delivered at home or elsewhere, about a third of which are not registered. The Georgia Welfare Monitoring Survey (WMS) of 2011 (UNICEF, 2012) reached similar conclusions, but also found slightly lower proportions of registered children among the Armenian and Azeri ethnic groups and in Shida Kartli. It also noted a significant improvement of the proportion of children registered, from 91.9 percent in the 2005 MICS to 98.5 percent in 2011. Together with the 92.9 percent percentage found in the 2005 GERHS and the 97.3 percent found in the 2010 GERHS, this confirms a significant improvement in the coverage of birth registration in recent years. According to the 2014 census, the problem now seems to be over-registration, rather than under-registration.

The census makes it possible to compare certain indicators, such as the number of children under age 10, with data from the vital statistics, to

assess consistency and make corrections where needed. In addition, it contains data on internal and international migration which cannot be obtained from any other source. Throughout this monograph, it is assumed that the information collected in the census of 2014 is accurate, except where noted otherwise. The corrections that will be made, therefore, will affect mostly the continuous statistics of the vital registration systems. As mentioned earlier, it will also be assumed, based on evidence from both the 2014 census and from earlier household surveys, that the 2002 census was over-counted.

It should be emphasized that in retrospect there is no guaranteed procedure to reconstruct beyond any doubt what has been the trajectory of the Georgian population and its components over the past 25 years. All that can be done is to provide the best possible guesses based on the best available information, the most plausible assumptions and the most consistent and transparent methodology. This is what the present monograph hopes to achieve.

Figure 1.1: Percentage corrections to births and deaths of the civil registration system applied by Tsuladze



In terms of the subjects covered, the emphasis will be on trends in fertility, mortality and migration and their impact on the total national population and its distribution among the regions. Issues linked to the age distribution will be addressed in less detail as there is a separate monograph specifically dealing with aging and other age distribution effects (De Bruijn & Chitanava, 2017) and with issues relating to youth (Eelens, 2017). With respect to births, the monograph will mostly concentrate on the overall numbers and their distribution by region. The important issue of sex imbalances in birth rates, which have been shown to be significant in the Caucasus, will also be treated in a separate monograph (Guilmoto & Tafuro, 2017).

AGE-SEX DISTRIBUTIONS
AT THE NATIONAL AND

2. Population Sizes and Age-Sex Distributions at the National and Regional Levels

One of the main findings of the 2014 census was that it confirmed, as some Georgian demographers (Tsuladze et al., 2013) had predicted, that the population of Georgia is declining, rather than being on its way towards the 5 million goal declared three years before. *Table 2.1* shows the national population on Nov. 5 of 2014, by age and sex.

These numbers should be compared to the equivalents from the 2002 census in *Table 2.2.*

As was already pointed out in the previous section, the backprojection is based on the total population of the country as estimated in the 2002 Integrated Household Survey, rather than the 2002 census itself, due to widespread suspicions that the 2002 census may have been over-counted by about 8.7 percent (1.7 percent in urban areas and 16.4 percent in rural areas).

These caveats also apply to the backprojected age structure by sex and single years of age for 2002, shown in Figure 2.1 (right). As one would expect, these age structures are quite similar, except for the fact that the graph on the right is slightly smoother than the one on the left, especially at higher ages. The large gap between ages 55 and 60 in 2002 is a consequence of high mortality of civilians and low birth rates during the Second World War. This does not include the estimated 300,000 Georgian soldiers who died in the service of the Soviet Union, as these would have been over age 80 in 2002. Figure 2.2 clearly shows the recovery of the birth rate, which manifests itself as a broadening of the base of the pyramid, up to age 7 or 8.

While the exact population numbers may be

disputed, *Tables 2.1 and 2.2* show that the population of Georgia has aged, although maybe not as much as expected. The percentage of the population over age 60 increased from 18.6 percent according to the 2002 census (19.1)

Table 2.1: Population of Georgia by age and sex according to the 2014 census

Age Group	Male	Female
0-4	132,700	122,389
5-9	121,245	108,779
10-14	109,481	96,735
15-19	118,877	107,145
20-24	135,305	130,820
25-29	139,945	138,717
30-34	129,921	132,139
35-39	121,943	126,606
40-44	118,318	124,963
45-49	114,036	125,371
50-54	126,710	144,676
55-59	111,641	133,750
60-64	92,412	118,973
65-69	64,036	88,430
70-74	49,336	77,505
75-79	49,895	85,869
80-84	25,100	46,575
85-89	10,166	24,342
90-94	1,620	5,875
95-99	163	1,008
100+	14	273
Total	1,772,864	1,940,940

Source: Geostat, the 2014 General Population Census

Table 2.2: Population of Georgia by age and sex according to the 2002 census and according to the back-projection

A	Census		Backpr	ojection
Age Group	Male	Female	Male	Female
0-4	127,470	115,525	122,393	107,846
5-9	154,937	146,718	138,756	124,173
10-14	187,266	182,000	171,859	156,518
15-19	179,436	177,010	169,641	156,963
20-24	162,256	164,601	151,170	146,194
25-29	151,405	159,115	139,539	142,780
30-34	144,341	155,654	130,937	142,590
35-39	151,662	171,169	139,250	156,019
40-44	157,401	177,392	143,441	162,144
45-49	133,819	153,255	121,580	144,392
50-54	114,359	132,527	100,238	124,826
55-59	66,803	81,719	60,852	76,295
60-64	110,842	146,303	101,251	130,918
65-69	87,138	114,594	82,115	105,847
70-74	72,296	103,048	68,238	96,074
75-79	36,135	68,362	36,114	65,093
80-84	11,536	32,086	12,888	31,500
85-89 ⁵	4,828	15,169	8,168	22,671
90-94	1,522	5,338		
95-99	299	1,579		
100+	69	570		
Unknown	1,236	1,086		
Total	2,057,056	2,304,820	1,898,430	2,092,843

Source: Geostat, the 2002 General Population Census and backprojection model

percent according to the backprojection) to 20.0 percent in the 2014 census. This process will continue in the coming decades. According to the report World Population Ageing (United Nations, 2013 b), Georgia ranks 37th among 201 nations and territories in terms of ageing, above Australia and the USA. The median age increased from 34.5 years according to the 2002 census (34.9 according to the back-projection) to 37.7 years in the 2014 census. According to the UN Population Division's 2017 revision, this compares to 2015 figures of 33.9 years in Armenia, 30.3 in Azerbaijan, 43.5 in Bulgaria, 35.6 in the Republic of Moldova, 41.3 in

Romania, 38.7 in the Russian Federation, 29.9 in Turkey and 40.3 in Ukraine.

There are important differences between the age structures of the regions. The region with the oldest age structure by far is Racha-Lechkhumi & Kvemo Svaneti, where almost 53 percent of the population is over the age of 50, which marks the end of reproduction in women and less than 20 percent is in the key ages for raising a family (25-44 years). Guria, Samegrelo & Zemo Svaneti, Imereti and Kakheti also have relatively high percentages of population over age 50, although in all of these cases, the populations aged 25-44 years are larger,

⁵ The backprojected numbers in this category refer to all persons over age 85

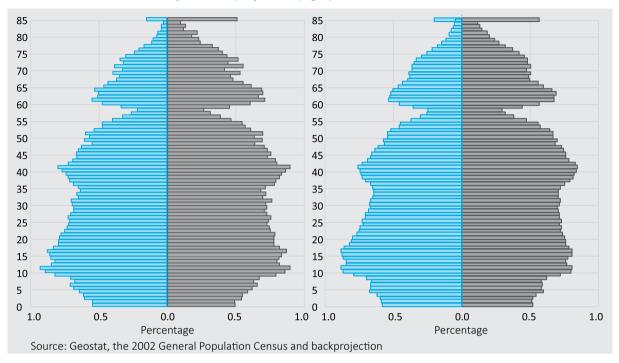
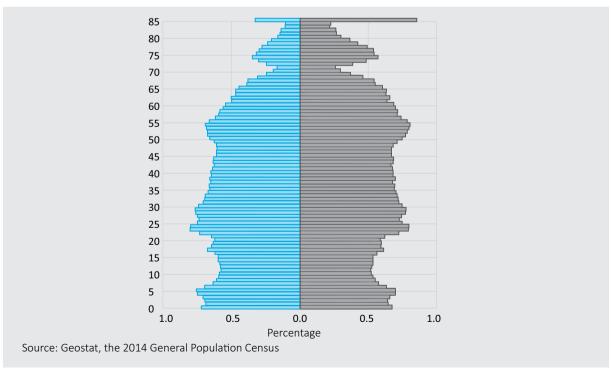


Figure 2.1: Population age and sex pyramids by single year of age for the uncorrected 2002 census (left) and the corrected structure of the backprojection (right)





in the range of 25-27 percent. Tbilisi, Adjara and Kvemo Kartli are the youngest regions, with less than 30 percent of their populations over the age of 50.

Tables 2.3 and 2.4 present the population distributions by regions according to the official results of the 2002 and 2014 censuses. *Table 2.5* presents the results of the backprojection by regions.

In comparing *Tables 2.3, 2.4 and 2.5*, several considerations have to be taken into account:

The data are presented in terms of current borders, i.e. borders as they were at the time. Although the territory of Georgia controlled by the government suffered losses as a result of the 2008 armed conflict, it can be assumed that this change did not affect the total population of the country as almost all inhabitants of the

Table 2.3: Population of Georgia by region, sex and urban-rural residence according to the 2014 census

	Males	Females	Urban	Rural
Tbilisi	502,890	605,827	1,078,297	30,420
Adjara	162,928	171,025	184,774	149,179
Guria	54,660	58,690	31,904	81,446
Imereti	258,598	275,308	258,510	275,396
Kakheti	156,154	162,429	71,526	247,057
Mtskheta-Mtianeti	47,645	46,928	21,259	73,314
Racha-Lechkhumi & Kvemo Svaneti	15,584	16,505	6,970	25,119
Samegrelo & Zemo Svaneti	159,070	171,691	129,391	201,370
Samtskhe-Javakheti	78,521	81,983	54,663	105,841
Kvemo Kartli	208,532	215,454	180,118	243,868
Shida Kartli	128,282	135,100	105,211	158,171
Georgia	1,772,864	1,940,940	2,122,623	1,591,181

Source: Geostat, the 2014 General Population Census

Table 2.4: Nominal population of Georgia by region, sex and urban-rural residence according to the 2002 census⁶

	Males	Females	Urban	Rural
Tbilisi	488,507	593,172	1,081,532	147
Adjara	181,139	194,877	166,398	209,618
Guria	67,234	76,123	37,531	105,826
Imereti	331,908	367,758	323,792	375,874
Kakheti	195,041	212,141	84,827	322,355
Mtskheta-Mtianeti	60,395	65,048	32,144	93,299
Racha-Lechkhumi & Kvemo Svaneti	24,029	26,940	9,587	41,382
Samegrelo & Zemo Svaneti	219,818	246,282	183,133	282,967
Samtskhe-Javakheti	100,400	107,198	65,535	142,063
Kvemo Kartli	241,285	256,245	186,505	311,025
Shida Kartli	150,999	163,040	113,812	200,227
Kodori Valley	998	958	-	1,956
Georgia	2,061,753	2,309,782	2,284,796	2,086,739

Source: Geostat, the 2002 General Population Census

⁶ The numbers listed in this table are the ones published in the official General Population Census results, without any corrections.

Table 2.5: Backprojected population of Georgia by region, sex and urban-rural residence according to the 2002 census

	Males	Females	Urban	Rural
Tbilisi	490,872	571,285	1,062,034	123
Adjara	165,604	176,484	166,880	175,208
Guria	58,623	66,685	36,854	88,454
Imereti	300,270	331,856	317,954	314,172
Kakheti	168,004	184,732	83,298	269,438
Mtskheta-Mtianeti	53,019	56,529	31,564	77,984
Racha-Lechkhumi & Kvemo Svaneti	21,083	22,920	9,414	34,589
Samegrelo & Zemo Svaneti	197,916	218,433	179,831	236,518
Samtskhe-Javakheti	89,392	93,704	64,353	118,743
Kvemo Kartli	220,924	222,186	183,142	259,968
Shida Kartli	131,881	147,238	111,760	167,359
Kodori Valley	842	791		1,633
Georgia	1,898,430	2,092,843	2,247,084	1,744,189

Source: Backprojected from the 2014 General Population Census

now occupied territories fled in 2008 and most of them became IDPs. For the purposes of the back-projection, it was assumed that the former population of Akhalgori (or at least the majority) was displaced to the rural area of the municipality of Mtskheta, that the (majority of the) population displaced from the occupied territories in Shida Kartli was displaced to the rural area of the municipality of Gori, and that the (majority of the) population of the Kodori Valley was displaced to the rural area of Zugdidi, in Samegrelo & Zemo Svaneti.

- In 2007, part of the municipality of Mtskheta (18,281 inhabitants according to the 2002 census, 17,188 according to the 2014 census) and part of the municipality of Gardabani in Kvemo-Kartli (21,333 inhabitants according to the 2002 census, 19,647 according to the 2014 census) were incorporated into Tbilisi. There were also internal border changes within the Adjara A.R. in 2012, but these do not affect the regional population distribution.
- As was mentioned above, different correction factors were applied to urban and rural areas (1.8 percent for urban areas and 16.4 percent for rural areas). This results in a 56.3 percent degree of urbanization in *Table 2.5*, compared to 52.3 percent in *Table 2.4*. The result in *Table 2.5*

is considered to be more in line with historical trends in the country, particularly in view of the results of the 1989 and 2014 censuses.

 Another consequence of the different adjustment criteria for urban and rural areas is that predominantly rural regions like Kakheti or Racha Lechkhumi & Kvemo Svaneti suffered a greater downward adjustment than predominantly urban regions such as Tbilisi. As a result, the regional population distribution (in percentages) in *Table 2.5* is different from that in *Table 2.4*.

Table 2.6 shows the percentage changes in population sizes by region, sex and urban-rural residence obtained by directly comparing Table 2.3 with Table 2.4. It is considered unlikely that changes of the magnitude registered in some of the regions, such as Racha-Lechkhumi & Kvemo Svaneti or Samegrelo & Zemo Svaneti could be real as this would have required massive outmigration, beyond reasonable estimates. A more likely explanation is that the 2002 census may have been over-enumerated for the reasons already alluded to in the Introduction, i.e. the declaration of household members living abroad as still being part of their Georgian households.

The percentage changes shown in Table 2.7 are

Table 2.6: Nominal percentage change of the enumerated population by region, sex and urban-rural residence between the 2002 and 2014 censuses

	Males	Females	Urban	Rural
Tbilisi	2.94	2.13	-0.30	7
Adjara	-10.05	-12.24	11.04	-28.83
Guria	-18.70	-22.90	-14.99	-23.04
Imereti	-22.09	-25.14	-20.16	-26.73
Kakheti	-19.94	-23.43	-15.68	-23.36
Mtskheta-Mtianeti	-21.11	-27.86	-33.86	-21.42
Racha-Lechkhumi & Kvemo Svaneti	-35.15	-38.73	-27.30	-39.30
Samegrelo & Zemo Svaneti	-27.64	-30.29	-29.35	-28.84
Samtskhe-Javakheti	-21.79	-23.52	-16.59	-25.50
Kvemo Kartli	-13.57	-15.92	-3.42	-21.59
Shida Kartli	-15.04	-17.14	-7.56	-21.00
Georgia ⁸	-14.01	-15.97	-7.10	-23.75

Source: Geostat, the 2002 and 2014 General Population Censuses

Table 2.7: Percentage change of the enumerated population by region and sex between the 2002 and 2014 censuses, according to the backprojected 2002 population figures

	Males	Females	Urban	Rural
Tbilisi	2.45	6.05	1.53	⁹
Adjara	-1.62	-3.09	10.72	-14.86
Guria	-6.76	-11.99	-13.43	-7.92
Imereti	-13.88	-17.04	-18.70	-12.34
Kakheti	-7.05	-12.07	-14.13	-8.31
Mtskheta-Mtianeti	-10.14	-16.98	-32.65	-5.99
Racha-Lechkhumi & Kvemo Svaneti	-26.08	-27.99	-25.96	-27.38
Samegrelo & Zemo Svaneti	-19.63	-21.40	-28.05	-14.86
Samtskhe-Javakheti	-12.16	-12.51	-15.06	-10.87
Kvemo Kartli	-5.61	-3.03	-1.65	-6.19
Shida Kartli	-2.73	-8.24	-5.86	-5.49
Georgia	-6.61	-7.26	-5.54	-8.77

Source: backprojection

based on comparing *Tables 2.3 and 2.5*. This comparison is more to the point since it eliminates spurious trends due to different census coverage and to border changes. According to *Table 2.7*, the only regions that gained population between 2002 and 2014 were Tbilisi and Mtskheta-Mtianeti

(including gains or losses due to border changes). The heaviest population losses correspond to the regions of Racha-Lechkhumi & Kvemo Svaneti and Samegrelo & Zemo Svaneti. The fact that male populations in Mtskheta-Mtianeti and Shida-Kartli grew more than female populations may be due

⁷ Tbilisi's rural population in 2002 was so small that comparisons would be misleading.

⁸ Includes 2002 census data for Kodori Valley

 $^{9\} Tbilisi's\ rural\ population\ in\ 2002\ was\ so\ small\ that\ comparisons\ would\ be\ misleading.$

to differential migration by sex during the period in question.

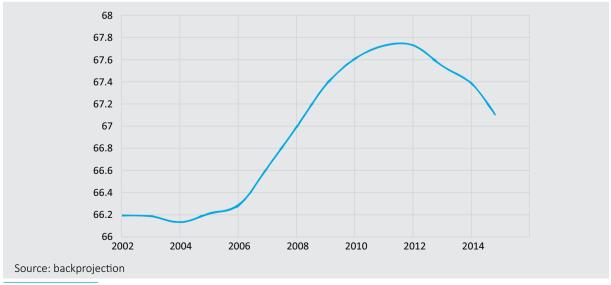
One of the indicators of the age structure that has attracted attention in recent years is the percentage of the population in the 15-64 year age range in which people are considered to be potentially economically active. The so-called "demographic dividend" or "demographic window of opportunity" (Bloom, Canning & Sevilla, 2003) is thought to have been of key importance for the growth of the Eastern Asian economies (Korea, Taiwan, Thailand, etc.) and might hold a promise for the growth of other economies.

As is shown in *Figure 2.3*, the percentage of people in the 15-64 year age group, according to the back-projection at the national level, was already fairly high in 2002 and it has further increased in the period from 2005 to 2011, but it is unlikely that the Georgian economy has received a boost as a result of this trend. As Bloom, Canning and Sevilla themselves point out in their paper, the demographic dividend is not automatic but depends on the existence of certain enabling conditions such as full employment. In the situation in which Georgia finds itself, which is far from full employment, the high percentage of persons in the economically active ages may actually have had the effect of further stimulating

labour migration to neighbouring countries such as Russia and Ukraine which have higher demand for labour, even though the percentages of people in economically active ages in these countries are slightly higher than those in Georgia.

Another aspect of Tables 2.3, 2.4 and 2.5 that merits a brief comment is the sex ratio between the total number of men and women. For the country as a whole, Table 2.3 suggests a sex ratio of 91.3 men per 100 women. This is relatively low, but not exceptional in any way, particularly for countries with a large life expectancy gap between men and women. According to the UN Population Division (2017 Revision), the 2015 sex ratio in Armenia was 88.7, whereas it was 86.8 in the Russian Federation and 85.9 in Ukraine. On the other hand, it was 99.1 in Azerbaijan and 96.8 in Turkey. If anything, the Georgian sex ratio seems to have become slightly more balanced as compared to the 2002 census which recorded a value of 89.3 (90.7 according to the back projection). More remarkable are the large variations by regions, ranging from a low of 83.0 in Tbilisi to 101.5 in Mtskheta-Mtianeti. The latter is the only region where the 2014 census counted more men than women. In the other regions, the variations are smaller, ranging from 92.5 to 97.





¹⁰ Note that the variation is not as dramatic as it seems because the vertical axis only covers the range from 66 to 68 percent.

3. Household Composition

Table 3.1 shows that the proportion of one-person households in Georgia is still well below the Eastern and especially the Western European average. This has not changed markedly since 2002 when the percentage of one-person households was 16.3 percent. Nevertheless, average household sizes are not large. Overall, rural household sizes are slightly larger than urban household sizes, but the difference is small. The smallest average household size is found in rural Racha-Lechkhumi & Kvemo Svaneti. This region also has the highest percentage of one-person households (34.1 percent in the rural area and 26.2 percent in the urban area). As many as 61.8 percent of the households in this region only have one or two people. It is probably no coincidence that this region also has a very high percentage (almost 53 percent) of people over age 50 and just under 20 percent of persons in the key family formation ages (25-44 years). Net internal out-migration from this region is the highest in Georgia, at almost 6 per 1,000 inhabitants. Guria and Samegrelo & Zemo Svaneti are second and third, with rates of around 4.4 per 1,000. As a result, the population of Racha Lechkhumi & Zemo Svaneti was more than 25 percent smaller in 2014 than in 2002. On the other hand, Racha-Lechkhumi & Kvemo Svaneti is the region with the second highest fertility level in Georgia (TFR = 2.27 children per woman in 2014), but due to the small number of persons in the reproductive ages the higher TFR did not offset the loss of population through migration.

The largest household sizes are found in rural Adjara. This region is also well below the national average in percentage of one person households. By and large these numbers are fairly similar to those found in 2002, when the average household size varied regionally from a low of 2.83 in Racha-Lechkhumi & Kvemo Svaneti to a maximum of 4.08 in Adjara.

According to UNDP (2013), based on survey data, 33.8 percent of Georgian households have no children under age 18, 24.9 percent have one child, 28.4 percent two children and 12.9 percent three or more children. The households of IDPs or people with disabilities tend to have slightly below average numbers of children, whereas households living in high mountain areas tend to be slightly larger (42.2 percent have two or more children), but the differences are quite small. Femaleheaded households¹¹ make up 27.9 percent of the total. The proportion is larger (31.8 percent) among IDPs and households with at least one person with a disability (29.9 percent), and smaller in high mountainous areas (20.6 percent).

¹¹ The concept used in the census is that of "reference person" which does not necessarily imply that the person thus identified is the main breadwinner or decision-maker. Therefore, this information has to be interpreted with some caution.



Table 3.1: Average household size by region and urban/rural residence and percentage of one person households

	Total	Urban	Rural	One Person
Tbilisi	3.26	3.25	3.80	17.2
Adjara	3.98	3.68	4.44	9.9
Guria	3.24	3.24	3.24	19.3
Imereti	3.15	3.16	3.13	20.2
Kakheti	3.22	3.04	3.27	20.1
Mtskheta-Mtianeti	3.10	3.03	3.12	22.8
Racha-Lechkhumi & Kvemo Svaneti	2.49	2.73	2.43	32.6
Samegrelo & Zemo Svaneti	3.26	3.18	3.31	18.1
Samtskhe-Javakheti	3.64	3.35	3.81	14.5
Kvemo Kartli	3.68	3.36	3.95	14.0
Shida Kartli	3.28	3.31	3.26	18.3
Georgia	3.34	3.27	3.44	17.5

Source: Geostat, the 2014 General Population Census

4. Population Growth and Its Components

Slow demographic growth is a relatively recent phenomenon in Georgia. During Soviet times, its population grew at just over 1 percent per year (1950-1991), faster than most countries in Eastern Europe, although slower than the Central Asian Republics, Albania, Azerbaijan, Moldova, Turkey or even Armenia. This situation remained mostly unchanged until independence, although there was some change in migration patterns between the 1950s and 1960s, when the migration balance was positive, to the 1970s and 1980s, when it became marginally negative. However, since independence the rate at which the country has been losing population, even without counting the loss of Abkhazia, Georgia and Tskhinvali region/ South Ossetia, Georgia, due to acts of war, has

been almost unmatched in the region. Low birth rates are generally seen as the main culprit, but, in fact, the greater problem is international migration (Hakkert & Chitanava, 2016). According to the UN Population Division (2017 Revision), net 1990-2010 emigration rates from Georgia (including Abkhazia and Tskhinvali Region/South Ossetia) were the third highest among the countries of the world with over 1 million inhabitants, after Albania and Armenia.

Table 4.1 describes population change and its components between the date of the 2002 census (Jan. 17, 2002) and the date of the 2014 census (Nov. 5, 2014). For the sake of convenience, it has been assumed that the changes in population

Table 4.1: Population of Georgia on Jan. 17 of each calendar year and components of change between Jan. 17 of the current year and the next year

Date	Population	Resident Births	Deaths	Immigration	Emigration
2002 census					
Jan. 17, 2002	3,991,273	45,127	47,514	47,616	70,746
Jan. 17, 2003	3,965,756	45,450	47,114	48,338	74,714
Jan. 17, 2004	3,937,716	45,751	49,746	61,356	78,114
Jan. 17, 2005	3,916,963	46,063	49,534	57,516	83,034
Jan. 17, 2006	3,887,974	46,845	50,014	74,918	87,004
Jan. 17, 2007	3,872,719	48,499	50,204	67,540	90,958
Jan. 17, 2008	3,847,596	52,442	50,490	74,372	94,914
Jan. 17, 2009	3,829,006	56,568	50,794	63,632	98,580
Jan. 17, 2010	3,799,832	55,230	51,066	72,776	103,214
Jan. 17, 2011	3,773,558	51,565	49,818	71,220	107,202
Jan. 17, 2012	3,739,323	49,969	49,347	69,063	90,584
Jan. 17, 2013	3,718,424	49,657	48,564	92,458	95,064
Jan. 17, 2014 ¹²	3,716,911	41,783	39,610	66,304	71,584
2014 census	3,713,804				
Total		634,949	633,815	867,109	1,145,712

Source: backprojection

¹² The birth, death and migration figures for 2014 cover only part of the year, up to the date of the census (Nov. 5).

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between Jan. 17 of each successive year can be equated with the changes occurring during the calendar year. This avoids the need for too many adjustments due to differences in calendar dates.

The population of the 2014 census is assumed to have been correctly enumerated and hence no adjustments were made to it. However, as was noted previously, the population in 2002 was corrected, using the national population total enumerated in the 2002 Integrated Household Survey and the adjusted regional distribution according to the census, with different adjustment factors for urban and rural areas. This yielded a national population of 3,991,273 on January 17, the date of the 2002 census. *Table 4.1* defines a consistent set of numbers related to each other through the so-called Growth Balance Equation.¹³

Looking at the components of growth, one notices that the number of births in the country has been increasing since 2002, reaching a peak of 56,568 in 2009. Since then it has fallen slightly, to 49,650 in 2013. The number of 41,806 births in 2014 looks like a steep drop, but it only covers births occurred between Jan. 17 and Nov. 5 of the year. This same observation applies to the other components of population change in 2014.

The detail that may seem strange is the qualifier "Resident" in "Resident births". This qualification has to do with the fact that there is a discrepancy of about 15 percent between the numbers of births by calendar year registered in the country, by the Birth Registry and the department

13 The second column of Table 4.1 shows the estimated population totals for the country based on the backprojection. The difference between each successive population size can be explained in terms of the four components of population change for each year, i.e. Population Year t+1 = Population Year t + Births Year t - Deaths Year

t + Immig. Year t – Emig. Year t For example, population growth between Jan. 17, 2002 and Jan. 17, 2003 can be decomposed as 3,965,756 = 3,991,273 + 45,127 – 47,514 + 47,616 – 70,746. The result of the four last terms is always negative, as the country has been losing population in every year during the period between the two censuses.

responsible for issuing identity cards (Personal Identification Number or PIN data), both within the Ministry of Justice, and the number of children of the corresponding ages actually counted in both the census and in the enrollment statistics of the Ministry of Education and Science. So far, no good explanation has been found for this phenomenon although there are several possible explanations. For the purposes of the backprojection model and indeed for this monograph, it has been assumed that the excess number of births registered and identity cards issued is due to births of non-resident children whose mothers may come to Georgia to give birth, because of the lower cost, the presence of family support, and to ensure that their children will have the full benefits of citizenship. However, this is an issue that warrants further investigation on the part of the authorities responsible for the civil registration system.

Deaths are subject to two opposite trends. On the one hand, the fact that the country is growing older means that more people tend to die. On the other hand, the facts that people live longer and that the population is decreasing tend to reduce the number of deaths. Judging from the series in *Table 4.1*, the first effect has tended to predominate in the period from 2002 until 2010, whereas the second effect has predominated since then.

An important feature of *Table 4.1* is that the total number of births between the censuses is, in fact, slightly larger than the number of deaths. This means that the so-called natural or vegetative growth rate of the country was marginally positive (actually, it was 0.0023 percent per year) during the period between the censuses. If only the 2010-14 period is considered, the natural growth rate was 0.054 percent per year. This means that the declining population trend in the country is not due to a shortage of births, but to emigration. If there were no international migration, the Georgian population would grow, albeit quite slowly. This

Table 4.2: Crude Birth Rates, Crude Death Rates (per thousand population) and Natural Growth Rates (percentage) for several neighbouring countries in the 2010-2014 period

Country	Crude Birth Rate	Crude Death Rate	Natural Growth Rate		
Armenia	14.5	9.7	0.48		
Azerbaijan	19.2	6.7	1.25		
Bulgaria	9.4	15.0	-0.56		
Georgia ¹⁴	14.4	13.1	0.13		
Rep. of Moldova	10.9	11.4	-0.05		
Romania	9.8	12.4	-0.26		
Russian Federation	13.0	13.4	-0.04		
Turkey	17.3	5.8	1.15		
Ukraine	10.8	14.9	-0.41		

Source: UN Population Division, World Population Prospects, 2017 Revision

14 The UN figures include Abkhazia, Georgia and Tskhnvali Region/South Ossetia, Georgia

is actually becoming somewhat exceptional in the European context as an increasing number of European countries nowadays have negative natural growth. *Table 4.2* illustrates this in terms of so-called Crude Birth Rates and Crude Death Rates, i.e. the number of births and deaths divided by the average population during the period in question for several neighbouring countries, some of which (Azerbaijan, Iran, Turkey) still have younger populations and sometimes higher fertility.

The third component of demographic change, which is fundamental in the case of Georgia, is international migration. Between the 2002 and 2014 censuses, according to *Table 4.1*, as many as 1.15 million people left the country for a period of 6 months or more. During the same period, almost 807 thousand people settled in the country. The net balance was 278,648 people who left the country, almost 7 percent of the number of inhabitants that lived in Georgia in 2002. To compensate for this outflow of people, the number of births in Georgia during the period should have been 44 percent higher than it actually was, i.e. almost one child per woman.

Despite the precision with which the migration numbers in *Table 4.1* are presented, there is a considerable doubt about their exact values. For 2012, 2013 and 2014, the numbers presented in *Table 4.1* are based on statistics from the Ministry of Internal Affairs. According to the system

introduced in 2012, the passport information of persons entering or leaving the country is checked against the information from people moving in the opposite direction. This makes it possible to determine who visited or left the country only for a few days or weeks and who actually stayed or moved out for a period of more than 6 months. Previously this system did not exist and all the information that the Ministry of Internal Affairs could provide was on numbers of people crossing the border in either direction, without any way of knowing who were migrants and who were short-term visitors or tourists. This means that prior to 2012 the information provided in *Table 4.1* is based on little direct information.

In the case of immigration, the census does provide some data, but these indicate much lower numbers of people entering the country than one would expect based on the post-2012 statistics. The criterion adopted was to scale the number of immigrants to make it more or less consistent with the trend after 2012 and to vary the numbers proportionally according to the census data before 2012. In the case of emigration, even less information was available. This variable was determined indirectly, by assuming a linear trend and scaling the numbers so that they would be consistent with the population change between 2002 and 2014 implied by the estimate of the 2002 population that was chosen. Of course, there is no guarantee that either option is correct. However, to assume that the population figures from the 2002 census were correct would have meant that the country lost a net total of almost 650 thousand people during the period due to emigration, which seemed implausible.

Finally, *Table 4.3* displays the same data as the first column of *Table 4.1*, but broken down to the regional level. Note that in some regions (Tbilisi, Kvemo-Kartli & Mtskheta) the numbers are affected by the border change that occurred in 2007.

Table 4.3: Evolution of the population by regions, according to the backprojection

	TBL	ADJ	GUR	IMR	ККН	MTS	RLKS	SZS	SJV	KVK	SHK
2002	1,062,157	342,088	125,308	632,126	352,736	109,548	44,003	416,349	183,096	443,110	279,119
2003	1,062,846	341,041	124,160	622,748	349,150	109,159	43,055	410,612	181,744	441,987	277,644
2004	1,060,626	340,026	122,631	614,419	345,884	108,776	42,220	403,686	180,061	441,329	276,475
2005	1,067,168	338,585	121,065	605,724	341,639	108,925	40,849	397,727	178,252	440,755	274,714
2006	1,064,570	336,447	119,913	596,340	339,406	108,712	39,752	391,330	176,601	440,122	273,246
2007	1,103,483	335,126	119,250	590,592	336,933	92,394	38,860	387,074	174,993	421,935	272,079
2008	1,102,971	333,180	118,376	582,030	334,520	93,105	37,937	380,280	173,102	421,238	270,857
2009	1,105,437	332,421	117,736	576,162	331,894	92,088	37,271	373,746	171,454	423,962	266,835
2010	1,100,015	332,508	117,241	568,601	329,170	92,520	36,319	364,878	169,730	422,811	266,039
2011	1,097,685	332,194	116,767	559,448	326,269	93,050	35,431	356,656	167,330	422,768	265,960
2012	1,091,200	331,853	115,811	550,554	323,376	93,350	34,443	347,176	165,039	421,548	264,973
2013	1,092,003	332,471	114,918	542,843	321,253	93,461	33,497	339,812	163,074	420,954	264,138
2014	1,101,203	333,236	114,125	538,275	320,104	94,085	32,745	335,093	161,678	422,521	263,846
2014c	1,108,717	333,953	113,350	533,906	318,583	94,573	32,089	330,761	160,504	423,986	263,382

Source: Backprojected from 2014

5. Fertility

It has been known for some time now that there are problems with the number of registered births in Georgia. These problems fall into several categories:

- 1. Birth rates were very low between 2002 and 2007 but began to recover in 2008. There is some controversy about whether this recovery was real or whether birth rates had been higher all along and it was the registration system that had not accurately captured all the births that it should have.
- 2. Sex ratios at birth in Georgia are abnormally high, which may be real (the long tradition of abortion in the country certainly facilitates sex-selection), due to differential under-registration or due to a sex differential in the registration of non-resident children (see point 3). There are indications that the issue is real, such as the fact that the highest sex ratios are found at higher birth orders. But apart from the fact that the sex ratios are high, they also fluctuate

- rather erratically between years and regions, especially in 2008 and 2009.
- 3. For some time, there have been suspicions that a substantial proportion of births registered in the country are of children living abroad, whose emigrant parents register them in the country as a precaution, to facilitate reintegration if they ever decide to return. The number of children of ages 0, 1, 2, 3, etc. found in the 2014 census is about 15 percent lower than the births registered in 2014, 2013, 2012, etc. The enrolment figures from the Ministry of Education and Science seem to support the numbers found in the census, not the official Birth Registry data. Problems of this kind are not unheard of in other countries with strong emigration. To some extent, they are also present, for example, in the 2011 census of Bulgaria.

Matters are further complicated by the fact that there is a systematic difference between the

Table 5.1: Number of births by calendar year according to the Birth Registry and number of identity cards of newborns issued by the Ministry of Justice (data from Personal Identification Number or PIN registers)

Year	Birth R	egistry	PIN I	Data
Tear	Boys	Girls	Boys	Girls
2002	24,598	22,007	27,598	24,430
2003	24,397	21,797	26,792	23,666
2004	26,039	23,533	27,781	24,202
2005	24,654	21,858	27,027	24,007
2006	25,236	22,559	27,223	24,380
2007	25,882	23,405	27,569	24,916
2008	31,720	24,845	31,223	28,133
2009	32,385	30,992	33,699	30,885
2010	32,488	30,097	33,498	31,040
2011	30,330	27,684	31,434	28,729
2012	29,801	27,230	30,906	28,293
2013	30,027	27,851	30,974	28,757
2014	31,325	29,310	32,203	30,114

Source: Ministry of Justice

FERTILITY

number of births registered by the Birth Registry and by the Public Service Development Agency of the Ministry of Justice responsible for issuing personal identity cards, as shown in *Table 5.1*.

This multiplicity of numbers of registered births in the country makes it difficult to come up with consistent fertility estimates. For the whole of the country, for example, one can stipulate three different Total Fertility Rates (TFRs) for 2010-2014, i.e. the number of children that a woman would

have at the end of her reproductive life based on current age-specific fertility rates:

- 1. The TFR according to the birth statistics of the Birth Registry, combined with the population denominators of the backprojection yields a TFR of 2.31 children per woman.
- 2. If instead of using the births from the Birth Registry, the PIN data are used (while assuming the same distribution of births by age of the mother), the TFR increases slightly, to 2.40.

Table 5.2: Total Fertility Rates (TFRs) by year and region according to Civil Registration (CR) data with backprojected denominators and according to fertility of residents in the backprojection model

	TBL	ADJ	GUR	IMR	ККН	MTS	RLKS	SZS	SJV	KVK	SHK	Georgia
2004	1.41	2.04	1.91	1.88	1.66	2.12	1.56	1.32	2.20	1.96	1.93	1.71
2005	1.46	1.67	1.95	1.66	1.54	1.81	1.92	1.56	1.76	1.56	1.99	1.61
2006	1.53	1.66	1.83	1.78	1.76	1.77	1.28	1.60	1.60	1.78	1.65	1.66
2007	1.55	1.68	1.99	1.85	1.90	2.11	1.78	1.71	1.61	1.82	1.69	1.72
2008	1.65	1.95	2.39	2.15	2.32	2.39	2.38	2.07	1.99	2.10	2.22	1.99
2009	1.82	2.31	2.91	2.56	2.55	2.53	3.35	2.49	2.26	2.23	2.57	2.26
2010	1.78	2.32	2.88	2.71	2.59	2.45	3.33	2.52	2.14	2.23	2.66	2.26
2011	1.83	2.12	2.51	2.45	2.31	2.33	3.14	2.24	1.88	2.17	2.31	2.12
2012	1.81	2.15	2.35	2.47	2.49	2.09	2.87	2.36	1.99	2.08	2.19	2.11
2013	1.85	2.25	2.48	2.52	2.58	2.17	2.74	2.49	2.04	2.12	2.30	2.18
2014	1.96	2.43	2.57	2.63	2.79	2.25	3.20	2.71	2.04	2.35	2.48	2.31
2004	1.59	1.54	1.58	1.55	1.66	1.68	1.35	1.28	1.74	1.75	1.57	1.58
2005	1.62	1.47	1.61	1.55	1.68	1.75	1.38	1.36	1.63	1.81	1.53	1.59
2006	1.68	1.46	1.59	1.59	1.72	1.61	1.38	1.43	1.60	1.81	1.51	1.62
2007	1.73	1.54	1.66	1.66	1.80	1.88	1.41	1.47	1.74	1.85	1.55	1.69
2008	1.86	1.77	1.82	1.81	1.91	2.07	1.61	1.58	1.88	1.98	1.82	1.84
2009	1.95	2.02	2.13	2.05	2.08	2.35	1.88	1.79	1.93	2.15	2.08	2.01
2010	1.91	1.96	2.11	2.12	2.06	2.32	2.05	1.80	1.88	2.12	2.07	2.00
2011	1.77	1.81	2.11	2.03	1.98	2.22	2.12	1.71	1.88	2.01	1.96	1.89
2012	1.69	1.81	2.00	2.04	2.07	2.03	1.97	1.78	1.85	1.94	1.89	1.85
2013	1.65	1.87	2.03	2.04	2.15	2.04	2.06	1.88	1.90	1.97	1.96	1.87
2014	1.73	2.00	2.13	2.17	2.32	2.07	2.27	2.08	1.96	2.10	2.10	1.98

Source: backprojection model

3. On the other hand, when based on the back-projection of children aged 0, 1, 2, etc. from the census to the date of their birth (again, maintaining the same age structure of fertility), the TFR decreases substantially, to 1.98.

An even lower estimate (1.81 children per woman) was used by the UN Population Division in its 2015 Revision, but this estimate was admittedly too low and has recently been updated to 2.00. On the other hand, the Demographic Yearbook of Georgia 2015 (UNFPA, 2016) published a TFR of 2.328 for 2015. It is slightly disconcerting, therefore, to have to acknowledge that, despite the realization of a good population census in 2014 and considerable improvement in the procedures for birth registration since 2010, there is still a wide margin of uncertainty (1.81-2.33) regarding the Georgian birth rate. The conclusion for the purposes of the present monograph is that the birth rate is most likely in the order of 2.0. This would make the Georgian TFR one of the higher ones in Europe and even the neighbouring countries, higher than the Republic of Moldova (1.27), Ukraine (1.49), Romania (1.48), Bulgaria (1.51), Armenia (1.65), and the Russian Federation (1.70), although lower than Turkey (2.12) and Azerbaijan (2.10) (all according to the UNPD). This again demonstrates that the fears about extremely low fertility in Georgia are somewhat exaggerated.

Table 5.2 shows fertility trends at the national level and by region since 2004, according to the Birth Registry and according to the backprojection model which uses the implicit fertility rates derived from the census. According to both criteria, there are substantial differences in fertility levels, with the lowest TFRs found in Tbilisi and considerably higher rates in Racha-Lechkhumi & Kvemo Svaneti, Kakheti, Samegrelo & Zemo Svaneti, and Imereti. Overall, there is a trend of increasing fertility, although 2011, 2012 and 2013 show lower rates than 2009, 2010 and 2014.

Not shown in *Table 5.2* are the fertility patterns by age of the mother. These show regional differences similar to those of the TFRs. The percentage of births occurring to mothers of less than 25 years is lowest in Tbilisi (29.6 percent in 2014), but considerably higher in Kvemo Kartli (53.6 percent),

Samtskhe & Javakheti (51.6 percent), Kakheti (50.8 percent), Guria (48.4 percent) and Samegrelo & Zemo Svaneti (47.0 percent).

Unfortunately, neither the census nor vital statistics allow the computation of current TFRs for other population groups, such as ethnic groups or educational strata. In the case of the census, this is because it only contains a question on the number of children ever born, but no question on current fertility. Using the question on children ever born, it is possible, however, to compute a cruder indicator of fertility, which is the average number of children ever born to women aged 40-44. This is not strictly a TFR, but it does give an indication of fertility differences by social groups.¹⁵

Table 5.3: Average number of children ever born to women aged 40-44, broken down by ethnicity and area of residence

Ethnic Group	Total	Urban	Rural
Georgians	1.87	1.74	2.09
Ossetians	1.70	1.55	1.89
Russians	1.76	1.70	2.16
Abkhazians	1.97	2.07	16
Azeris	2.24	2.05	2.28
Armenians	2.04	1.78	2.33
Others	2.00	1.82	2.57
All Groups	1.86	1.76	2.03

Source: the 2014 General Population Census

As *Table 5.4* shows, the highest fertility corresponds to women with only basic or secondary education and it is low among women with Doctorates or equivalent degrees. As was mentioned above, there has been uncertainty in the country about the increasing fertility trend since 2008. For some time, the possibility that this was due purely to improving birth statistics could not be discarded. The census, despite suggesting a lower number of births than the Birth Registry, put an end to this

¹⁵ Another technique, which can be applied with the data of the Georgian census of 2014, is the so-called Own Children Method, which matches surviving children to their mothers (Moultrie et al., 2013:35). This technique has not been applied in the present analysis

¹⁶ Too few cases to obtain a reliable value.

Table 5.4: Average number of children ever born to women aged 40-44, broken down by level of education and area of residence

Level of Education	Urban	Rural
Doctorate or equivalent	1.36	1.21
Masters/certified doctor's/veterinarian's/dentist's program	1.66	1.54
Bachelor's or equivalent higher educational program	1.76	1.59
Professional education based on secondary level of general education	1.94	1.72
Professional education based on basic level of general education	1.90	1.71
Professional education based on primary or basic level of general education	1.95	1.74
Complete general education (secondary education)	2.16	1.85
Basic level of general education	2.26	1.94
Primary level of general education	1.99	1.52
Has no primary education, but can read and write	1.74	1.35
Illiterate	*	*

Source: the 2014 General Population Census

controversy at least to the extent that it shows an increasing trend. The more difficult question to answer, however, is what may have been behind this trend. In principle, there are three categories of possible reasons:

- 1. Greater confidence in the future, sustained by positive economic growth rates in recent years;
- 2. The conflict effect: In some of the interviews during the mission it was pointed out that the crisis that accompanied the 2008 conflict may have stimulated marriage and family formation, not only to formalize existing relationships in order to ensure certain benefits, but also as a deeper psychological reaction to the uncertainties of the times.¹⁷
- 3. The Patriarch effect: At the end of 2007, Patriarch Ilia II sparked what was then widely advertised as a baby boom, by promising to personally baptize any baby whose parents already had two or more children. It is often assumed and has even stated officially Patriarch deserves much of the credit for the rising birth rate, which was 35 percent higher in 2009 than in 2005. As

In theory, there is also a fourth possibility, namely that the recent increase of fertility is a tempo effect resulting from the postponement of fertility by women who did not have children in their twenties, but now have them in their thirties. In some countries of the region, such as Albania, Moldova and Turkey, this tempo effect is having a significant effect on fertility trends. But in Georgia, it is not particularly relevant because the mean age at childbearing of women has not changed a great deal: from 25.7 years in 1997 to 27.1 years in 2014. The proportion of births to women under age 25 diminished from 48.3 percent in 2004 to 42.2 percent in 2014. This is still quite young. In fact, it is the third youngest fertility pattern in the region, after Azerbaijan and Armenia (see Table 5.5), and indeed one of the youngest in the world. Consequently, Vobecká et al. (2013) make only a minimal adjustment to the Georgian TFR to account for fertility postponement effects.

^{*} Too few cases to obtain a reliable value.

of November 2016, the Patriarch already had about 29,000 god-children.¹⁸

¹⁷ This is somewhat speculative because, depending on their precise nature, uncertainties can also discourage childbearing. This is a hypothesis that would need to be confirmed empirically.

¹⁸ According to Baby boom continues in republic of Georgia; 600 baptized at Orthodox cathedral; Nov 23, 2016 Retrieved from: https://www.lifesitenews.com/news/baby-boom-continues-in-republic-of-georgia-600-baptized-at-orthodox-cathedr. Last accessed August 15, 20107

Table 5.5: Mean age at childbearing for Georgia and neighbouring countries in 2010-2014

Country	Mean
Armenia	26.26
Azerbaijan	25.85
Bulgaria	27.18
Georgia	26.44
Rep. of Moldova	26.83
Romania	27.34
Russian Federation	27.88
Turkey	28.16
Ukraine	27.13

Source: UN Population Division, World Population Prospects, 2017 Revision

Attributing the trend to greater economic prosperity is equally unconvincing, given that 2009 was actually a year of economic recession. 19 The "conflict effect" is a possible explanation, although one may ask why a similar effect was not observed during the earlier conflict in the early 1990s. The "baptism effect", while appealing to traditionalists, does not hold up to the facts. UNFPA Georgia (2014) and Lanchava (2014) point out, firstly, that first- and second-order births increased more than third- and higher-order births and, secondly, that the increase occurred not only among the Georgian Orthodox population but as much among other ethnic and religious groups that are unlikely to have responded to the Patriarchal incentive. Most of the increase in numbers of births in 2008-2010 is accounted for by first order (63.8 percent of the increase between 2002 and 2008, 52.4 percent of the increase between 2002 and 2009 and 38.2 percent of the increase between 2002 and 2010) or second order births (32.8 percent, 36.6 percent and 46.4 percent, respectively). There is no telling if some of the additional first and second births

19 It may be significant, however, that in the 2008 Caucasus Barometer Survey (CRRC, 2008) 66 percent of the respondents aged 18-35 declared that they expected their children to be financially better off than they themselves were by the time their children would reach the same age. This percentage has since then been more or less maintained, with a slight dip in 2009. The percentage of people in this age group who declared that they would consider leaving Georgia permanently was 12 percent in 2008 and has mostly declined in subsequent years. Unfortunately, the 2008 survey was the first of its kind, so the results cannot be compared to earlier

that occurred during the period were stimulated by the prospect of eventually having a third child eligible for the Patriarchal baptism, but it seems rather far-fetched.

Also, the increase is not uniform by birth orders. First births in 2013 almost returned to their 2002 numbers, but second and third births continued as high as or even higher than during the previous period. Of the increase of numbers of births between 2002 and 2013, 63.5 percent corresponded to second order births and 25.2 percent to third or higher birth orders. In fact, the number of officially registered third or higher order births in 2013 was the highest since 1992 and about 13 percent higher than what it was in 2008-2010 when the upsurge in birth rates was more clearly linked to an incentive for third and higher order births. Another fact that may need to be pointed out is that, despite the upsurge in third and higher order births in recent years, the percentage of women aged 15-44 with three or more children is still not back at the level where it was in 2005 (14.9 percent according to the 2005 GERHS). The 2010 GERHS found it to be 12.0 percent and projections to January of 2014, using birth registration data, suggest that it continues to be 12.0 percent, as older women with larger numbers of children are leaving the reproductive ages and younger age cohorts do not quite attain the same numbers of higher order births.

Another factor that needs to be considered has to do with the smaller cohorts of women ahead. In the opinion of one demographer "...the present demographic boom has reached its peak and in coming years it may reverse. The situation may exacerbate from 2016 to 2018 as fewer enter the age of marriage, born after 1992" (Akhali Taoba, 28 December 2009, cited in Badurashvili, et al., 2011: 51). This will affect the number of births, though not necessarily the TFR. Based on the Age Specific Fertility Rates of 2014 and the number of women currently aged between 0 and 54 years, as enumerated in the census, the expected number of births for coming years shows a slight increase until 2017, but a decline after that, with a total number that by 2029 may be about 15 percent lower than it was in 2014, even in the absence of any emigration of women of fertile age.

Table 5.6: Percentage distribution of women by number of children ever borne and mean number according to age group and area of residence

Total					Nun	nber of	Childre	n		
Age Group	0	1	2	3	4	5	6	7+	No data	Mean**
15-19	72.78	4.70	0.78	0.02	0.00	0.00	0.00	0.00	21.72	0.08
20-24	50.74	23.06	12.48	1.30	0.09	0.02	0.00	0.00	12.31	0.60
25-29	24.95	26.60	32.14	6.09	0.65	0.11	0.02	0.01	9.44	1.24
30-34	15.24	20.89	41.92	12.37	1.85	0.37	0.09	0.05	7.22	1.64
35-39	11.63	17.61	44.80	15.98	2.99	0.68	0.21	0.13	5.96	1.84
40-44	10.33	17.48	45.80	16.22	3.43	0.89	0.26	0.21	5.37	1.89
45-49	9.50	17.29	45.45	17.44	4.03	1.05	0.30	0.19	4.74	1.94
50-54*	8.49	16.22	43.68	20.20	5.07	1.31	0.41	0.23	4.40	2.04
55-59*	8.15	16.22	41.16	21.56	5.85	1.83	0.54	0.33	4.37	2.11
Urban	Number of Children									
Age Group	0	1	2	3	4	5	6	7+	No data	Mean**
15-19	78.73	3.33	0.44	0.01	0.00	0.00	0.00	0.00	17.48	0.05
20-24	58.15	21.73	8.64	0.70	0.04	0.01	0.00	0.00	10.73	0.46
25-29	28.36	29.70	28.37	4.34	0.38	0.06	0.01	0.00	8.76	1.11
30-34	17.00	24.30	40.53	9.82	1.28	0.26	0.05	0.04	6.70	1.52
35-39	13.08	20.76	44.21	13.40	2.18	0.48	0.14	0.10	5.66	1.72
40-44	11.71	21.05	45.74	13.00	2.32	0.56	0.17	0.14	5.30	1.75
45-49	10.97	21.36	46.54	13.22	2.37	0.56	0.17	0.11	4.70	1.77
50-54*	9.95	20.08	46.14	15.38	3.02	0.67	0.20	0.13	4.43	1.84
55-59*	9.56	19.87	44.50	16.92	3.43	0.89	0.23	0.15	4.43	1.89
Rural					Nun	nber of	Childre	n		
Age Group	0	1	2	3	4	5	6	7+	No data	Mean**
15-19	64.12	6.68	1.27	0.04	0.00	0.00	0.00	0.00	27.90	0.13
20-24	37.78	25.39	19.20	2.36	0.17	0.02	0.00	0.00	15.09	0.84
25-29	19.02	21.22	38.67	9.13	1.10	0.21	0.03	0.01	10.62	1.47

Rural		Number of Children										
Age Group	0	1	2	3	4	5	6	7+	No data	Mean**		
15-19	64.12	6.68	1.27	0.04	0.00	0.00	0.00	0.00	27.90	0.13		
20-24	37.78	25.39	19.20	2.36	0.17	0.02	0.00	0.00	15.09	0.84		
25-29	19.02	21.22	38.67	9.13	1.10	0.21	0.03	0.01	10.62	1.47		
30-34	12.13	14.86	44.38	16.87	2.84	0.57	0.15	0.08	8.13	1.85		
35-39	9.20	12.30	45.79	20.34	4.37	1.02	0.33	0.19	6.48	2.04		
40-44	8.14	11.85	45.87	21.31	5.18	1.42	0.42	0.32	5.49	2.12		
45-49	7.44	11.58	43.93	23.37	6.36	1.74	0.50	0.30	4.79	2.20		
50-54*	6.51	11.00	40.36	26.71	7.83	2.17	0.69	0.37	4.35	2.31		
55-59*	6.31	11.48	36.82	27.57	8.98	3.04	0.94	0.57	4.28	2.39		

Source: the 2014 General Population Census

^{*} The numbers may suggest that childbearing continues among women in their 50s, but of course it should be taken into consideration that these are women belonging to older birth cohorts which were characterized by much higher fertility than women belonging to younger birth cohorts.

^{**} The mean is based on women who declared their number of children. This may bias the results because it is likely that most women who did not answer the question were women who, due to their marital status, were not expected to have any children.

Table 5.6 shows the distribution of women by number of children ever borne, together with the averages by area of residence. Although the interpretation of Table 5.6 is hindered somewhat by the large percentages of missing data, it confirms that for women born between 1964 and 1973 the completed fertility has remained below 2 children, whereas for women born between 1954 and 1963 it is only just above 2. Completed fertility among rural women is 20-25 percent higher than among urban women. Only 10.3 percent of women aged 40-44, including never married women, were declared childless. This is lower than the 13.4 percent found for the 1961-67 birth cohort of women in the Generations and Gender Survey of Georgia. Just under 50 percent of women end up with 2 children. About 22 percent of urban women and 12 percent of rural women end up having only one child, whereas about 15 percent of urban women and 25-30 percent of rural women end up having three children. Less than 10 percent of Georgian women go on to have 4 or more children.

To some extent, the oscillations in fertility levels in Georgia in recent years are linked to marriage behavior. Marriage trends show a similar pattern to fertility, but the decline in the late 1990s and early 2000s was much more pronounced. Whereas the total number of births declined by just over 50 percent between 1990 and 2003, and the number of first births declined by 40 percent between 1990 and 2002, the annual number of registered civil marriages in the period from 2000 until 2003 was only 35 percent of what it had been in 1990. A gradual recovery of civil marriages started in 2004 and by 2010 it was more or less back to the 1991 level. After two years of a slight decline, the number of marriages in 2013 again came close to the 2010 maximum. The trend is represented in Figure 5.1. The increase in 2008 may be linked to the 2008 conflict as young couples may have married to ensure certain social benefits or even to evade military service. This does not explain the fact that marriage rates continued high in subsequent years, even exceeding the 2008 level in 2010 and 2013.

A remarkable feature of Figure 5.1 is that until 2008 first births significantly exceeded the number of marriages, even if second and later marriages are included. In theory, one would expect the two to be about the same in a country like Georgia, where the first birth normally occurs one or two years after marriage. Associated with this trend is a major increase in illegitimacy. According to the official civil registration data (which only consider registered marriages), births out of wedlock have always been higher in Georgia than one would expect, given the high value on marriage as a precondition for family formation. At the time of Independence, illegitimacy was close to 20 percent. But it was in the period from 2001 to 2007 that it reached levels as high as 47 percent: about the same incidence as in Denmark! Since 2008, illegitimacy has declined, but about one third of all births (32.4 percent in 2015) continue to occur in unions that are not officially sanctioned, with slightly higher percentages among women under 20 and over 45. According to the 2014 census, of all the enumerated never married women over the aged 40-44, only 3.7 percent had ever had a child. This suggests that the illegitimate births eventually become legitimate as couples apparently do marry eventually.

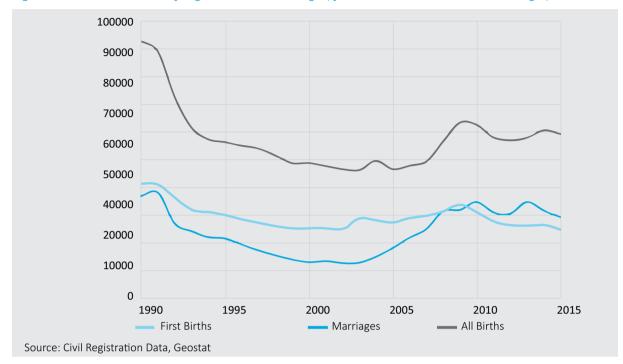


Figure 5.1: Annual number of registered civil marriages, first births and total births in Georgia, 1990-2015

6. Nuptiality

Of course, unlike what happens in countries like Denmark, some portion of the children born out of civil unions are born in unions sanctioned by the Church. The Concordat, the constitutional agreement between state and Georgian Orthodox Church postulates that the state recognizes a wedding ceremony held by Church, but such marriages are not automatically accounted for in the official marriage statistics. However, if one is to believe the numbers from Caucasus Barometer (CRRC, 2013), the number of unions exclusively sanctioned by the Church is insufficient to explain the large numbers of illegitimate births observed. In the 2013 round of the survey, only 11.9 percent

on first births was apparently of better quality. One would normally expect the opposite, given that marriage is a legal act that must, by definition, be registered, whereas the registration of births depends on the initiative of the parents. Another possible explanation is that the same overregistration of births that has been noted for births in general also applies to first births. But this is still unexpected because it would mean that some couples marry outside of Georgia but still register the birth of their first child in the country.

Table 6.1 shows a percentage distribution of men and women over age 15 in Georgia by marital status, according to the 2014 census.

Table 6.1: Marital status of men and women over age 15 (percentages)

	Never Married	Married	Widowed	Divorced	Not stated	Total
Men	24.7	64.6	3.4	2.3	5.0	100
Women	16.5	57.4	18.3	4.3	3.5	100

Source: Geostat, the 2014 General Population Census

of the respondents in the 25-34 year age group in any kind of union declared being married by religious ceremony, without a state marriage license. The 2010 GERHS found that 2 percent of women aged 15-44 were living in religious unions without legal recognition, whereas the 2013 Integrated Household Survey shows that only 3.7 percent of the female respondents aged 15-44 years had not registered their unions. It would be helpful if future censuses in Georgia followed the practice of other countries with large numbers of de facto marriages, distinguishing between marriages that are not formally registered with the civil authorities, but that are recognized by the Church, and those that are not registered at all.

All of this suggests that the number of marriages registered by the civil registration system between the mid-1990s and 2008 must have been substantially under-counted. This is rather unexpected, considering that the registration data

Table 6.2: Percentage of men and women aged 40-44 who never married

10 11 11110 110101 11			
Country	Men	Women	Year
Armenia	10.5	9.2	2011
Azerbaijan	5.1	8.2	2014
Bulgaria	33.5	18.5	2014
Georgia ²⁰	9.1	8.9	2002
Rep. of Moldova	5.2	1.3	2012
Romania	15.6	9.7	2011
Russian Federation	8.2	6.6	2010
Turkey	5.4	6.7	2013
Ukraine	4.4	3.0	2012

Source: UN Population Division. World Marriage Data Base 2015.

20 The most recent data available from this data source, at least for men. Some more recent data exist for women. The percentages for the 2014 census are 9.0 percent for men and 13.8 percent for women.

NUPTIALITY

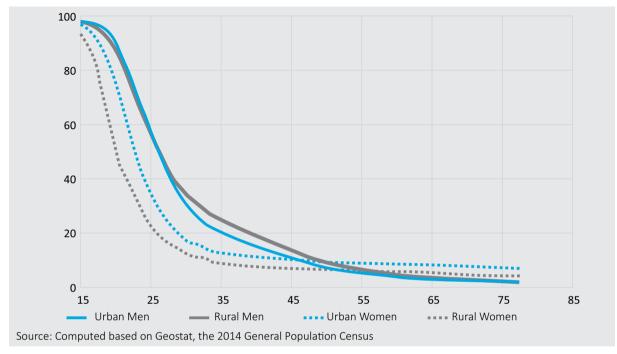


Figure 6.1: Percentage of never married men and women by age and area of residence

Counting only women legally eligible for marriage, i.e. 18 years and older, 14.3 percent of women were never married. Although the median age at marriage (see below) for women is just over 22.0 years, there is a significant percentage of women under age 18 who were declared as married in the census. In the country as a whole, 3,598 or 7.5 percent of females aged 15-17 with declared marital status were or had been married. As one would expect, the percentage of married women aged 15-17 was higher (10.9 percent) in rural areas than in urban areas (4.4 percent). Many of these marriages were unregistered, but still 3.8 percent of women aged 15-17 in rural areas and 1.5 percent in urban areas were enumerated as being in formal (registered) marriages. Because the issue of under-age marriages is important from a gender perspective, more information on its variations by regions, ethnicity and religion is being provided in the gender monograph.

As is shown by the international comparisons in *Table 6.2*, the percentage of men and women still

single at age 40-44 is similar or slightly higher than what it is in other countries in the region, namely about 5-10 percent. The one country that shows a different pattern is Bulgaria (and to a lesser extent Romania), where the percentage of women and particularly men who never marry is substantially higher, as it is in several countries in Western Europe.

It is customary in demographic analysis to pay special attention to the non-married category which can be used to compute Hajnal's Singulate Mean Age at Marriage (SMAM).²¹ However, the

21 The Singulate Mean Age at Marriage (SMAM) is defined as 15 plus the average (mean) number of years that a person who was single at age 15 but married at least once by age 50 has spent as a single person between those ages. By interpreting the percentage of never married persons at any age between 15 and 50 as the chance that any given person will still be single by that age, it provides a measure of the typical age at first marriage that can be computed in situations where no direct information on ages at marriage is available. In the case of Georgia, direct information is available from the Civil Registry, but only on formal marriages and this information cannot be broken down by socioeconomic characteristics. Note that the SMAM does not provide any information on second or later marriages.

Table 6.3a: Singulate Mean Ages at Marriage (SMAMs) for women according to type of union, by region and area of residence

	Url	oan	Ru	ıral	Total		
Region	All Marriages	Registered	All Marriages	Registered	All Marriages	Registered	
Tbilisi	24.6	27.5	23.4	27.5	24.6	27.5	
Adjara	22.6	24.3	22.2	23.5	22.4	24.0	
Guria	20.6	22.3	21.8	23.7	21.5	23.3	
Imereti	22.1	24.3	22.3	24.8	22.2	24.5	
Kakheti	21.7	26.6	21.0	26.0	21.1	26.2	
Mtskheta-Mtianeti	23.1	27.3	23.0	28.7	23.0	28.4	
Racha-Lechkhumi & Kvemo Svaneti	22.2	24.5	23.3	24.9	23.0	24.8	
Samegrelo & Zemo Svaneti	22.1	24.0	22.3	24.2	22.2	24.1	
Samtskhe-Javakheti	22.6	24.6	21.6	23.7	21.9	24.0	
Kvemo-Kartli	22.6	26.8	19.9	25.2	21.2	25.9	
Shida-Kartli	22.2	25.2	22.0	26.2	22.1	25.7	
Georgia	23.6	26.4	21.6	25.0	22.9	25.9	

Source: Computed based on Geostat, the 2014 General Population Census

Table 6.3b: Singulate Mean Ages at Marriage for men according to type of union, by region and area of residence

	Url	oan	Ru	ral	Total		
Region	All Marriages	Registered	All Marriages	Registered	All Marriages	Registered	
Tbilisi	27.6	29.7	27.0	29.8	27.6	29.7	
Adjara	26.9	27.9	27.3	28.2	27.1	28.1	
Guria	26.7	27.9	28.0	29.1	27.6	28.7	
Imereti	27.0	28.3	29.3	30.7	28.1	29.5	
Kakheti	26.9	30.1	27.2	30.3	27.2	30.2	
Mtskheta-Mtianeti	28.3	30.9	28.2	31.6	28.2	31.5	
Racha-Lechkhumi & Kvemo S	29.9	30.6	32.0	32.7	31.4	32.1	
Samegrelo & Zemo Svaneti	28.0	29.0	29.5	30.7	28.9	30.0	
Samtskhe-Javakheti	27.2	28.4	26.6	28.1	26.8	28.2	
Kvemo-Kartli	26.8	29.5	25.9	29.3	26.3	29.4	
Shida-Kartli	27.2	28.8	28.0	30.2	27.7	29.6	
Georgia	27.4	29.2	27.7	29.8	27.5	29.5	

Source: Computed based on Geostat, the 2014 General Population Census

curve of the percentage of non-married persons by age also shows other interesting features. For example, even though they marry almost 4 years later (25.9 years compared to 22.0), ultimately a smaller proportion of men than women remain single and this proportion varies very little between urban and rural areas. Rural women marry 2-3 years earlier than urban women. *Figure 6.1* shows the profiles for urban (blue) and rural (grey) men (continuous line) and women (interrupted line). A few characteristics stand out from *Figure 6.1*.

Table 6.3a gives an idea about how the SMAM, in the case of women, varies among the rural and urban areas of the various regions. A distinction is made between formal (registered) marriages and informal marriages (all others). The latter measure is computed assuming that all women in marriages not classified as registered actually continue to be single. Note that the numbers in Table 6.3a are slightly biased downward due to the high incidence in the census of undeclared marital status among younger women, most of whom are probably single.

The equivalent SMAMs for men are shown in *Table 6.3b.*

Tables 6.3a and 6.3b show a significant difference between ages at marriage in general and registered marriages. Because the civil registration system can obviously only provide information on registered marriages, it significantly overestimates the effective age at marriage in Georgia, in some cases by as much as 4 or 5 years, as in rural Kvemo-Kartli where the official mean age at marriage for women is 25.2 years, but where the effective age at first union is 19.9 years.

The SMAM for registered marriages (25.9 for women and 29.5 for men) can be compared to the average age of spouses in the registered unions of the Birth Registry. In 2015, this average age was 28.2 years for women and 31.5 years for men. At first sight, this looks like a large discrepancy, but two factors should be taken into account:

- 1. The SMAM only considers first unions, whereas the Birth Registry also considers second and later marriages. The average age of single women marrying in 2015, according to the Birth Registry, was 27.1 years and that of single men 30.4 years. The rise of second marriages in recent years is one of the factors responsible for the increase of the average ages of spouses between 2002 and 2015 (from 25.3 to 28.2 for women and 29.1 to 31.5 for men), but there has also been a real increase in the age at first marriage.
- 2. The SMAM does not refer only to the year of the census, but it is a weighted average of the typical ages during a period of 15-20 years before it. Because the typical age at first marriage has been increasing, it is to be expected that the SMAM will be lower than the average age at first marriage in 2015 but higher than in 2002, and this is indeed the case.

An advantage of the SMAM is that it can be computed by several socio-economic characteristics that are not recorded in the Birth Registry. *Table 6.4*, for example, breaks it down by completed education.

Table 6.4 suggests that the age at first marriage varies relatively little for men, but that it varies a lot more in the case of women, from 26.3 years in the case of women with a Doctorate degree or equivalent and 24.9 years for those with a Master's degree to 18.7 years in the case of women who have only the primary level of general education. The smaller variation in the case of men most likely has to do with their traditional role as breadwinners which, regardless of their educational level, requires them to have a certain level of economic security.

Similar comparisons can be made by ethnic groups and religions (not shown here). This reveals that the variation between ethnic groups is generally small, with the exception of the Azeris who marry early (SMAM of 24.7 years for men and 18.6 years for women). Georgian and Russian men have the highest SMAMs (27.8 and 28.0 years, respectively) and Georgian women have the highest female SMAM (23.3 years). These differences are mirrored in the variations by religion, where Muslims have the lowest SMAMs (25.2 for men and 19.9 for

²² By definition the SMAM is based on the percentage of persons who declare themselves as never married in each age group. The difference between the SMAM for all marriages and registered marriages is achieved by considering only persons declaring themselves as single (SMAM for all marriages) or alternatively all persons declaring themselves as single or living in unregistered unions (SMAM for registered marriages).

Table 6.4: Singulate Mean Age at Marriage (SMAM for all marriages) by education and sex

Level of Education	Men	Women
Doctorate or equivalent	29.9	26.3
Masters or equivalent	28.3	24.9
Bachelor's or equivalent	28.0	24.4
Professional based on secondary	27.8	23.3
Professional based on basic	27.7	23.0
Professional based on primary	28.0	22.2
Complete general education	27.2	21.8
Basic general education	27.0	20.4
Primary level of general education	26.5	18.7
Less than primary	27.0	21.5
Total	27.5	22.9

Source: Computed based on Geostat, the 2014 General Population Census

women). The people who marry the latest are those without religion (SMAM for men 29.8 years and for women 24.9 years).

Another way to look at the difference between registered and other unions is in terms of the proportion of men and women married officially and unofficially by age. *Figure 6.2* shows this for men and women at the national level. The denominator in each case is the number of persons declared as being in some form of marriage,

either registered or not. As *Figure 6.2* shows, the incidence of informal unions is considerable, especially during the childbearing ages (over 20 percent) and it does not vary greatly between the sexes or between urban and rural areas. It is only after age 40 that a lot of these unions end up being formalized.

Figure 6.3 shows the percentage of men and women in urban and rural areas declared as being widows or widowers. There is clearly a large

Figure 6.2: Percentage of formalized unions for men and women, by area of residence

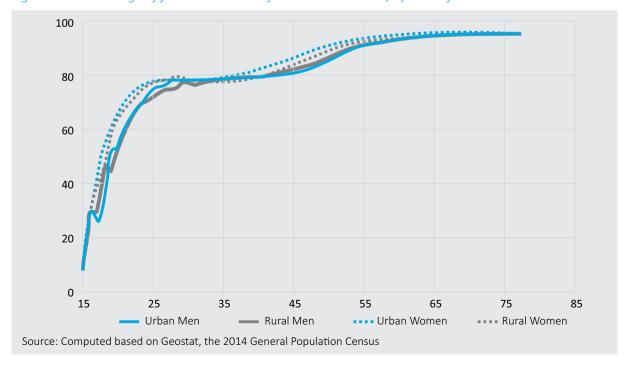
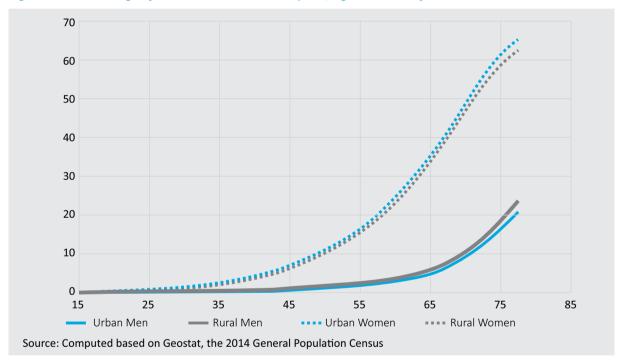


Table 6.5: Unions by type of registration (percentages)

Age group	Official Registration	Religious Registration Only	Cohabiting	N
18-24	76.8	13.0	10.2	69
25-34	79.6	11.9	8.5	235
35-44	82.7	7.5	9.8	254
45-54	92.2	3.3	4.5	271
55-64	97.3	2.2	0.5	224
65+	95.5	2.0	2.5	201
Total	88.5	5.9	5.6	1,254

Source: Calculated from database of Caucasus Barometer (CRRC, 2013)

Figure 6.3: Percentage of widows and widowers by sex, age and area of residence



difference between the percentage of men and women in this situation, even if controlled by age, which differs very little between urban and rural areas. This finding is not unusual in analyses of this kind and is basically explained by three factors:

- 1. Mortality of women, especially at higher ages, is lower than that of men, so that it is more likely that a wife will lose a husband than the other way around. Apart from affecting the numbers of widows and widowers, this also means that widows tend to be slightly younger (average of 68.7 years) than widowers (72.2 years).
- 2. Because of the difference in age at first marriage, female spouses are generally a few years

younger than their husbands, thereby reinforcing the effect mentioned in 1.

3. The attractiveness of women as marriage partners is more age-dependent than that of men. Men are fertile during most of their whole life cycle, whereas women's fertility ends up at about 45 years of age (Miller, 2015; Feingold, 1992). Also, an important reason for women not easily remarrying is that many of those who are still in fertile years have dependent children, which inhibits their marriage prospects.

The difference between the two curves on *Figure 6.3* seems large compared to what is typically found in other countries, but this may be due mostly

to the rather large difference in life expectancy (8.5 years) between men and women in Georgia. Unfortunately, the Georgian census does not have a question about whether the current marriage is the first one or a remarriage, which might help to clarify the third alternative.

The percentage of divorced persons in principle might be expected to behave similarly to the percentage of widows and widowers. Nevertheless, *Figure 6.4* looks guite different, due to:

Unlike widowhood, which happens to women more than men, the number of divorced men and women should initially be the same, diverging only after the divorce, so the curves for men and women should be expected to be more similar. However, even more so than in the case of widowhood.

rates. In the *Figure 6.4*, this is particularly evident for women. Percentages of divorced men are also higher in urban areas, but the difference is smaller, possibly due to a higher propensity of urban men to remarry.

The percentage of divorced persons is much higher in Tbilisi (6.8 percent of women and 4.0 percent of men) than in any other place, both among men and women. It is difficult to explain the high percentage of divorced women of the Kvemo Kartli region (4.2 percent) and the higher percentage among men (2.1 percent) compared to women (1.5 percent) observed in Racha-Lechkhumi & Kvemo-Svaneti. The number of divorces has increased over time. The non-registration of marriages characteristic for the period of the end of XX and beginning of

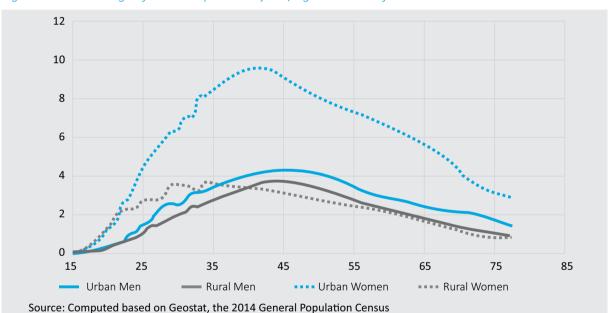


Figure 6.4: Percentage of divorced persons by sex, age and area of residence

divorced men do tend to remarry more often than divorced women.

Overall, divorce in Georgia is much less common than widowhood, especially female widowhood. Moreover, it is only in recent years that it has become somewhat more common. Hence the peak in the percentage of divorced persons around the age of 45. In the generation over the age of 60, divorce was still exceptional.

Even in the younger generations, urban divorce rates are significantly higher than rural divorce

XXI century may be seen as a contributing factor.

Remarriage in Georgia for both men and women until recently was very rare. Until 2009, more than 96 percent of official (registered) marriages of both men and women were their first. Since then, however, there has been a significant increase of second marriages, to the point where in 2015 9.9 percent of brides and 11.7 percent of grooms had been married at least once before. This increase of remarriages is intimately linked to the increase in the number of divorces (see below) as the vast majority of remarriages are of divorced persons

and not of widows or widowers. In 2015, only 1.0 percent of brides and 0.8 percent of grooms were widowed. Note that the percentage is slightly higher for brides than for grooms, but this is due to the fact that there are many more widows than widowers, so the probability of remarrying for a widower, though small, is still about 5 times as large as for a widow, despite the fact that widows are, on average, 3.5 years younger than widowers (see above). It should be noted, however, that there has been some increase in the rate of remarriage among widows, both absolutely and compared to widowers. In 2002, for example, only 0.35 percent of brides and 0.75 percent of grooms were widowed.

Table 6.6 shows how crude divorce rates (per 1,000 population, regardless of age or marital status) in Georgia compare to neighbouring countries. The increasing trend in Georgia is stronger than in other countries, but otherwise the levels are similar to those found in Armenia, Azerbaijan or Turkey, though lower than in the Russian Federation, Ukraine or the Republic of Moldova.

In terms of the inter-ethnicity of marriages, Georgian society appears to be relatively closed, with 96.9 percent of the couples living together

Table 6.6: Crude divorce rates per 1,000 population in Georgia and neighbouring countries 2010-2013

Country	2010	2011	2012	2013
Armenia	3.2	1.0		
Azerbaijan	1.0	1.2	1.2	1.2
Bulgaria	1.5	1.4	1.6	1.5
Georgia ²³	1.1	1.3	1.6	
Republic of Moldova	3.2	3.1	3.0	
Romania	1.6	1.8	1.6	1.4
Russian Federation	4.5	4.7	4.5	
Turkey	1.6	1.6	1.6	1.6
Ukraine	2.7	4.0	3.7	3.6

Source: UN Statistics Division. Demographic Yearbook 2014

belonging to the same ethnic group (between Georgians, Azeris, Armenians, and others). Among the couples where one of the partners is Georgian, in 97.5 percent of the cases the other partner is Georgian too (96.7 percent in urban areas, 98.5 percent in rural areas). Of course, this is to be expected, as Georgians make up the overwhelming majority of the population. But similar figures are also found for Azeris: 97.6 percent overall, 90.8 percent in urban areas and 99.1 percent in rural areas. The Armenian population is somewhat more mixed, with 20.5 percent of the couples with one Armenian partner consisting of mixed marriages. In urban areas, a third of these marriages are mixed, but in rural areas only 7 percent. The group with the largest incidence of mixed marriages (67.1 percent) is that of "other" ethnicities, including Russians and Ukrainians. It is probably significant that, among the 17,793 couples in which one belongs to an "other" ethnic group and one does not, the largest sub-group is Georgian men living with women belonging to an "other" group (10,317). A likely explanation is that emigrants (most of whom are male) have brought foreign partners to live with them in Georgia. The second most important category is that of Georgian women living with men from "other" groups (5,113).

Table 6.7: Percentages of ethnically homogeneous marriages (both partners belonging to the same ethnicity) among couples where one partner belongs to a given ethnic group, by area of residence

Ethnic Group	Total	Urban	Rural
Georgians	97.5	96.7	98.5
Azeris	97.6	90.8	99.1
Armenians	79.5	66.1	93.0
Other Groups	32.9	31.0	37.6
All Groups	96.9	95.7	98.4

Source: the 2014 General Population Census

²³ The rates for Georgia are too low because they are still based on inflated population estimates. According to the adjusted population figures calculated from the 2014 census they would be 1.3 in 2010, 1.6 in 2011, 1.9 in 2012, 2.2 in 2013 and 2.5 in 2014.

7. Mortality

There is disagreement about the correctness of mortality as well as fertility statistics in Georgia. In particular, Tsuladze et al. (2013) apply a major correction to the mortality data from the vital statistics system for the period from 2004 to 2011. The resulting life expectancies for the period from 1990 until 2012 show a nearly flat pattern, around an average of 67 years for men and 75 years for women. Geostat, which takes the Civil Registration data as essentially correct, ends up with an increasing trend, in which male life expectancy in 2012 is just over 70 years and female life expectancy about 79 years.

Unlike the estimates by Tsuladze et al. (2013; Ilia

State University, 2016), the present backprojection model did not make use of model life tables such as those developed by Coale and Demeny (Coale, Demeny & Vaughan, 1983) or the United Nations. Rather, the backprojection as such was carried out based on numbers of deaths by age (single years) and sex and the results were used to construct empirical life tables for the country. *Tables 7.1a and 7.1b* show the results for the 2010-2014 period.

These life tables (*Tables 7.1a* and *7.1b*) show a relatively large difference between male (67.72 years) and female (76.53) life expectancies. Life expectancies were also computed for 2002-

Table 7.1a: Male life table for Georgia, 2010-2014 based on the numbers of deaths by age and the population denominators obtained in the backprojection model

Males	"m _x	_n q _x	_n d _x	l _x	_n L _x	T _x	e _x
0	15.32	15.14	1,514	100,000	98,789	6,772,296	67.72
1	0.56	2.23	219	98,486	393,409	6,673,507	67.76
5	0.30	1.49	146	98,267	490,987	6,280,097	63.91
10	0.37	1.86	182	98,121	490,174	5,789,110	59.00
15	0.79	3.96	388	97,938	488,850	5,298,936	54.10
20	1.47	7.32	714	97,550	486,099	4,810,086	49.31
25	1.75	8.73	845	96,837	482,189	4,323,987	44.65
30	2.58	12.81	1,230	95,991	477,083	3,841,799	40.02
35	3.67	18.17	1,722	94,761	469,718	3,364,716	35.51
40	5.50	27.13	2,524	93,040	459,130	2,894,998	31.12
45	8.90	43.58	3,945	90,516	443,311	2,435,867	26.91
50	12.89	62.55	5,415	86,571	419,915	1,992,556	23.02
55	18.74	89.64	7,275	81,156	388,293	1,572,641	19.38
60	26.70	125.35	9,261	73,881	346,812	1,184,348	16.03
65	37.49	171.83	11,104	64,620	296,199	837,536	12.96
70	57.77	252.93	13,536	53,516	234,314	541,337	10.12
75	88.56	362.73	14,502	39,980	163,761	307,023	7.68
80	142.38	520.18	13,253	25,478	93,085	143,262	5.62
85	243.64	1000.00	12,225	12,225	50,177	50,177	4.10

Source: Backprojection statistics

Table 7.1b: Female life table for Georgia, 2010-2014 based on the numbers of deaths by age and the population denominators obtained in the backprojection model

Females	"m _x	_n q _x	_n d _x	l _x	_n L _x	T _x	e _x
0	11.91	11.80	1,180	100,000	99,056	7,652,568	76.53
1	0.47	1.89	187	98,820	394,799	7,553,513	76.44
5	0.24	1.20	119	98,633	492,841	7,158,714	72.58
10	0.21	1.05	103	98,515	492,337	6,665,873	67.66
15	0.30	1.49	147	98,411	491,709	6,173,536	62.73
20	0.35	1.73	170	98,265	490,885	5,681,826	57.82
25	0.49	2.46	241	98,095	489,876	5,190,941	52.92
30	0.75	3.76	368	97,854	488,453	4,701,065	48.04
35	1.05	5.26	513	97,487	486,222	4,212,612	43.21
40	1.66	8.26	801	96,974	483,006	3,726,390	38.43
45	2.67	13.27	1,276	96,173	477,864	3,243,384	33.72
50	4.20	20.82	1,976	94,897	469,950	2,765,520	29.14
55	6.62	32.60	3,029	92,921	457,650	2,295,570	24.70
60	10.49	51.18	4,601	89,892	438,647	1,837,919	20.45
65	17.14	82.46	7,033	85,291	410,278	1,399,273	16.41
70	31.54	146.98	11,503	78,257	364,659	988,995	12.64
75	59.41	260.30	17,376	66,755	292,468	624,336	9.35
80	108.07	426.00	21,035	49,379	194,642	331,868	6.72
85	206.55	1000.00	28,344	28,344	137,226	137,226	4.84

Source: Backprojection statistics

2004 and 2005-2009. The former shows a male life expectancy of 66.62 years and female life expectancy of 73.67 years; the values for the latter are 65.86 and 74.64 years, respectively. This indicates that mortality conditions have improved between both censuses, with a life expectancy increase of 1.10 years for men and 2.86 years for women, thereby widening the life expectancy gap, which was already substantial in 2002. This is not unusual in the Eastern European region. An unusual feature is the apparent decrease in male life expectancy between 2002-2004 and 2005-2009. To some extent, this is related to the 2008 conflict, when male life expectancy dropped to 64.95 years, but even in 2005-2007 it appears to have declined, to 66.20. A similar trend was also

found by Tsuladze.

To place these findings in perspective, *Table 7.2* compares Georgia with neighbouring countries.

As *Table 7.2* demonstrates, the estimates for Georgia of the UN Population Division are slightly higher than those based on the backprojection model. This may be due to the fact that mortality in the backprojection model was adjusted slightly upward. It is worth noting that in the Population Division's 2015 Revision the difference with the backprojection was much larger, but in the 2017 Revision the life expectancy estimates have been lowered by about 2.5 years in the case of females and about half as much in the case of females.

Table 7.2: Male and female life expectancies for Georgia and neighbouring countries, 2010-2014¹

Country	Male	Female
Armenia	70.64	77.03
Azerbaijan	68.58	74.55
Bulgaria	70.83	77.78
Georgia ²⁴	68.47	76.97
Rep. of Moldova	66.74	75.21
Romania	71.35	78.37
Russian Federation	64.66	75.92
Turkey	71.53	78.12
Ukraine	66.07	76.02

Source: UN Population Division, World Population Prospects, 2017 Revision

According to the UN Population Division, Georgia's mortality level is better than those of the Eastern European countries (Republic of Moldova, Russian Federation, Ukraine). The mortality gap between the sexes (8.50 years) is large, but not as large as in the Russian Federation or Ukraine. The gap estimates in this monograph (8.82 years) is slightly larger, but still smaller than the UNPD estimates for the Russian Federation and Ukraine. Tsuladze et al. (2013) claim an even larger difference, of 9.6 years, between male and female life expectancies.

Another point of reference for life expectancy estimates is the article of Duthé et al. (2010) who, unlike the analysis above, used model life tables, namely Princeton model West for males and North for females (Coale, Demeny & Vaughan, 1983). Their estimates unfortunately only go up to 2006 and do not cover the "dip" around 2008 found in the analysis above. For 2002-2004, they find an average life expectancy of 68.2 years for males and 75.3 for females, i.e. slightly higher than what was found above. Figure 7.1 displays the male and female trends according to this study together with the annual estimates derived from the retroprojection for 2002-2014. The latter clearly show a "dip" of the male life expectancy in 2008 and a smaller one of the female life expectancy in 2009.

Over the past decade substantial progress has

been made in reducing under-five mortality from 45.8 per 1,000, according to the GERHS, in 2000 to 16.4 in 2010. There has also been a substantial decrease in the infant mortality rate, from 41.6 per 1,000 to 14.1.^{25 26} There are some regional differences, with the lowest infant mortality being reported in Racha-Lechkhumi and Kvemo Svaneti, Tbilisi and Imereti, while the highest rates were reported in Samegrelo and Mtskheta-Mtianeti. Kakheti and Shida Kartli also had relatively high under-five mortality.

These findings from the GERHS can be compared with *Table 7.3*, which shows the infant mortality rates by region derived from the census and the resident births from the backprojection model. If all births captured by the Birth Registry are taken as a denominator, rather than just the backprojected resident births, the infant mortality rates would come out about 10-15 percent lower, but as was explained earlier, it is believed that not all registered births correspond to children actually residing in the country, hence using this denominator might not be appropriate.

The most remarkable feature of *Table 7.3* is the steep drop of infant mortality since 2010. It is true that the backprojection model applies correction factors to the 2005-09 mortality data, but in no year is the correction factor more than 20 percent, whereas the figures for 2005-2009 in *Table 7.3* are about double the figures after 2009.

Although male infant and child mortality is higher than female infant and child mortality, the difference falls in the normal range of 10-20 percent. The large difference between male and female life expectancy, on the other hand, rather suggests considerable male excess mortality in the adult ages, in accordance with what is found in many of the EECA countries, where the probability of dying between the ages of 15 and 60 ($_{45}$ q $_{15}$) is often more than twice as large for men as for women. This is also the case in Georgia, as can be seen from the following numbers:

²⁴ The UN figures include Abkhazia, Georgia and Tskhinvali region/South Ossetia, Georgia and were obtained with a different methodology from the one used here.

²⁵ Georgia Reproductive Health Surveys 1999 and 2010.

²⁶ According to UNICEF (2001, 2011 b), infant mortality rates have fallen steadily, from 65 per 1,000 live births in 1990 to 62 per 1,000 and 42 in 2009. Concomitantly, under-five mortality has fallen from 95 per 1,000 live births in 1990 to 84 in 2000 and 60 in 2009.

Figure 7.1: Trend of male and female life expectancies 1990-2006 in Georgia according to Duthé et al. (2010) and 2002-2014 according to the retro-projection

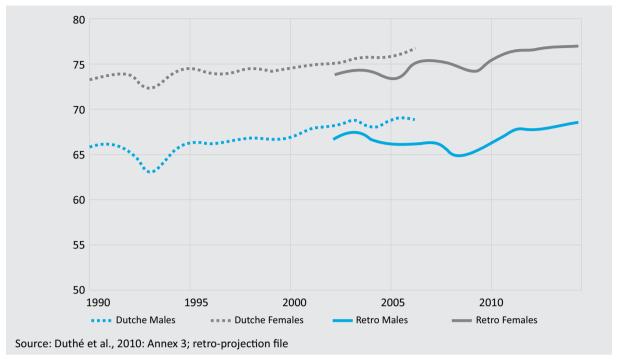


Table 7.3: Infant mortality rates per 1,000 by region derived from the backprojection model with corrected death statistics

	TBL	ADJ	GUR	IMR	ккн	MTS	RLKS	SZS	SJV	KKV	SHK	Georgia
2002	38.4	40.0	25.7	42.5	25.7	21.2	18.5	17.8	18.9	16.6	28.6	30.9
2003	41.1	40.9	25.2	39.9	23.9	22.2	19.1	20.2	21.6	15.8	29.7	31.8
2004	38.5	47.8	26.6	45.4	27.4	24.7	23.3	15.2	20.8	15.5	31.2	32.6
2005	37.2	62.1	17.0	41.3	14.8	12.4	5.9	15.0	20.0	1.4	37.4	29.6
2006	30.7	33.1	11.6	32.3	19.0	16.3	28.7	15.2	12.3	8.9	17.0	23.6
2007	24.7	30.5	17.9	34.1	12.7	11.6	6.0	11.9	6.1	10.3	12.8	20.5
2008	31.0	37.0	23.9	31.0	26.0	19.5	16.5	13.7	15.8	21.0	18.9	26.5
2009	25.8	26.3	18.4	19.1	20.3	31.5	22.6	16.1	17.3	19.8	24.8	22.5
2010	11.3	18.2	22.3	24.0	18.6	17.8	38.8	22.6	9.8	13.8	23.1	16.9
2011	10.1	16.7	14.1	14.5	13.5	11.5	6.8	19.7	12.0	16.9	14.6	13.7
2012	11.5	14.1	22.9	18.0	14.9	8.4	43.9	17.0	13.0	15.7	11.5	14.4
2013	10.5	13.7	17.0	15.1	14.1	11.7	22.1	18.1	10.8	13.0	10.7	12.9
2014	9.0	13.8	11.5	11.6	11.7	13.8	10.0	10.3	9.1	15.4	9.7	11.2

Source: backprojection model

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2002-2004:	Men: 234.8 per thousand	Women: 100.3 per thousand
2005-2009:	Men: 265.4 per thousand	Women: 97.2 per thousand
2010-2014:	Men: 245.6 per thousand	Women: 86.6 per thousand

Source: backprojection

These numbers also show that whereas the probability of death in this age range for women has fallen by almost 14 percent, the same has not happened with male probabilities of death which in 2010-2014 continued slightly higher than in 2002-2004. This, of course, is the main component of the increase in the difference between male and female life expectancies that was mentioned earlier.

Cause-specific mortality data in Georgia have notorious deficiencies. However, the data that do exist, such as those in the WHO Disease and Injury Country Data Base for the Burden of Disease Studies (2011 version) suggest particularly high male-female differences in some age-standardized causes of death, such as tuberculosis (a 5.8 ratio, not uncommon in the region, but considerably higher than in Armenia, Azerbaijan or Turkey), alcohol and drug use and other neuropsychiatric conditions (4.6, very high, even in comparison with neighbouring countries), and intentional or unintentional injuries (5.2, also higher than in neighbouring countries). Georgia also has a particularly high standardized male-female ratio (3.7) of digestive diseases as causes of death. All of this is in line with the notion of recklessness, abusive behaviour and lack of self-care that has become a common depiction of the living conditions of many adult males in much of the EECA region. Other categories such as malignant neoplasms (1.5 ratio) and cardiovascular diseases (1.7 ratio) show a more balanced prevalence by sex.

8. Urbanization



According to the published results of the 2002 and 2014 censuses, the degree of urbanization in Georgia apparently grew from 52.3 percent to 57.2 percent. However, as was noted earlier in this monograph, the former number was considered a deviation from the historical trend and hence different correction factors were used for urban and rural populations, in order to reach a more realistic figure of 56.3 percent. This is the result obtained in the backprojection model (Table 8.1). Growth was unequal as the urban network is quite polarized, with the capital, Tbilisi, accounting for over half of the urban population and over a quarter of the entire national population. According to the backprojection, the region of Tbilisi grew from 1,062,157 inhabitants in 2002 to 1,108,717 in 2014, while the national population decreased by 7 percent. However, it should be noted that Tbilisi received about 37 thousand inhabitants from Mtskheta-Mtianeti and Kvemo-Kartli in 2007, due to a border change. Without this additional population brought into the region, Tbilisi gained less than ten thousand inhabitants during the period.

After Tbilisi, the next step in the urban hierarchy are the cities of Batumi, Kutaisi and Rustavi, all with 125-175 thousand inhabitants. Batumi and Rustavi (a dormitory town that owns much of its growth to its proximity to Tbilisi), increased their share of the national population during the period,²⁷ but Kutaisi grew at a rate below the national average. The next step are 8 towns with populations of 20-50,000 thousand: Gori, Zugdidi, Poti, Khashuri, Samtredia, Senaki, Zestaponi and Marneuli. Most of these grew at about the national average during the period, except Gori, which registered a relative increase, and Zugdidi, which lost population. In addition, there are 81 small towns with less than 20,000 inhabitants which together represent just

27 The growth of Batumi is indeed almost entirely due to the fact that in a 2012 border change the city absorbed 6,060 urban and 27,231 previously rural inhabitants of the municipality of Khelvachauri into its urban area.

Table 8.1: Percentage of urban population according to the backprojected regional data

	TBL	ADJ	GUR	IMR	ККН	MTS	RLKS	SZS	SJV	KVK	SHK	Georgia
2002	100.0	48.8	29.4	50.3	23.6	28.8	21.4	42.8	35.1	41.3	40.0	56.3
2003	100.0	48.9	29.4	50.2	23.6	28.6	21.4	42.5	35.1	41.3	40.1	56.3
2004	100.0	48.9	29.3	50.1	23.5	28.4	21.5	42.2	35.1	41.3	40.1	56.3
2005	100.0	49.0	29.2	50.0	23.4	28.2	21.6	41.9	35.0	41.3	40.1	56.5
2006	100.0	49.0	29.2	49.8	23.3	28.0	21.6	41.6	35.0	41.3	40.1	56.5
2007	97.4	49.1	29.1	49.6	23.2	27.0	21.5	41.3	34.9	42.6	40.1	56.5
2008	97.4	49.1	28.9	49.5	23.1	26.7	21.5	40.9	34.7	42.6	40.0	56.5
2009	97.4	49.2	28.8	49.3	23.1	23.9	21.5	40.8	34.6	42.6	40.0	56.5
2010	97.4	49.2	28.7	49.1	23.0	23.6	21.5	40.5	34.5	42.6	39.9	56.5
2011	97.3	49.2	28.6	48.9	22.9	23.4	21.6	40.2	34.4	42.5	39.9	56.5
2012	97.3	55.2	28.5	48.8	22.7	23.2	21.6	39.9	34.2	42.5	39.9	56.9
2013	97.3	55.2	28.4	48.6	22.6	22.9	21.7	39.6	34.2	42.5	39.9	57.0
2014	97.3	55.3	28.2	48.5	22.5	22.7	21.8	39.3	34.1	42.5	39.9	57.1
2014c	97.3	55.3	28.1	48.4	22.5	22.5	21.7	39.1	34.1	42.5	39.9	57.2

Source: Backprojected from 2014 General Population Census

over 10 percent of the national population. The rural population can be divided into larger rural settlements, of more than 1,000 people, which number 414 and represent 22.2 percent of the national population, and 3,219 scattered rural settlements of up to 1,000 people, which taken together account for 20.7 percent.

Table 8.3 shows the urban and rural populations by age and sex. A difference between these populations is that the median age in Georgia is higher in the countryside (40.07 years) than in the urban areas (35.19 years). This is most likely because of strong rural-to-urban migration in the peak economically active ages which tends to leave older people behind. Because older populations tend to be mostly female, this would, in theory, predispose the countryside to a lower sex ratio. But the opposite is true. Georgia displays a rather extreme difference in rural and urban sex ratios, with a much lower urban sex ratio (85.9) than the rural equivalent (99.1). Barring the possibility of

under-enumeration of women in rural areas, the only explanations for this are an excess migration of women to urban areas or selective emigration of men from urban areas or women from rural areas. This last hypothesis, about differential emigration, is not supported by the data of the international Migrant Forms, which show about equal numbers of male and female emigrants from rural areas and a predominance of female migrants from urban areas.

Also remarkable is that the difference is present even in the population under 20, where one would not expect strong sex differences in migration. Note, for example, the sex ratio of 109.5 for urban children aged 5-14, compared to a rural sex ratio of 116.4.

Large differences in urban and rural sex ratios are not uncommon in the region. They seem to occur in several of the former socialist countries, but not in Turkey and to a much lesser extent in Azerbaijan or Ukraine, as *Table 8.4* demonstrates.

Table 8.2: Population distribution of Georgia in 2002 and 2014 by type of settlement

Time of Cottlement	Census	2014	200228
Type of Settlement	Population	Percentage	Percentage
Total Urban Settlements	2,122,623	57.15	52.27
City of Tbilisi	1,062,282 ²⁹	28.60	24.74
City of Batumi	152,839	4.12	2.81
City of Kutaisi	147,635	3.98	4.25
City of Rustavi	125,103	3.37	2.66
City of Gori	48,143	1.30	1.13
City of Zugdidi	42,998	1.16	1.58
City of Poti	41,465	1.12	1.08
City of Khashuri	33,627	0.91	0.88
City of Samtredia	27,020	0.73	0.73
City of Senaki	21,596	0.58	0.64
City of Zestaponi	20,814	0.56	0.59
City of Marneuli	20,211	0.54	0.54
81 Smaller Urban Settlements	378,890	10.20	10.64
Total Rural Settlements	1,591,181	42.85	47.73
414 Rural Settlements>1000	822,548	22.15	
3219 Small Rural Settlements	768,633	20.70	

Source: the 2002 and 2014 General Population Censuses

²⁸ Official 2002 General Population Census data, without correction

²⁹ This number refers to the City of Tbilisi in the strict sense. The urban population of Tbilisi in the wider sense is 1,078,297.

Table 8.3: Male and female populations in urban and rural areas by age group, with age-specific sex ratios

Ago		Urban			Rural	
Age	Male	Female	Sex Ratio	Male	Female	Sex Ratio
0-4	78,799	73,967	106.5	53,901	48,422	111.3
5-9	72,526	66,775	108.6	48,719	42,004	116.0
10-14	62,645	56,642	110.6	46,836	40,093	116.8
15-19	66,924	63,522	105.4	51,953	43,623	119.1
20-24	79,100	83,236	95.0	56,205	47,584	118.1
25-29	80,608	87,993	91.6	59,337	50,724	117.0
30-34	76,264	84,358	90.4	53,657	47,781	112.3
35-39	71,177	79,530	89.5	50,766	47,076	107.8
40-44	67,326	76,520	88.0	50,992	48,443	105.3
45-49	60,443	73,227	82.5	53,593	52,144	102.8
50-54	66,843	83,171	80.4	59,867	61,505	97.3
55-59	57,828	75,520	76.6	53,813	58,230	92.4
60-64	47,738	67,170	71.1	44,674	51,803	86.2
65-69	33,489	50,944	65.7	31,400	39,869	78.8
70-74	22,399	38,858	57.6	26,084	36,264	71.9
75-79	21,828	43,165	50.6	28,067	42,704	65.7
80-84	10,106	22,013	45.9	14,994	24,562	61.0
85-89	4,154	11,803	35.2	6,012	12,539	47.9
90-94	712	2,761	25.8	908	3,114	29.2
95-99	69	387	17.8	94	621	15.1
100+		76			197	
Total	980,985	1,141,638	85.9	791,879	799,302	99.1

Source: Geostat, the 2014 General Population Census

Table 8.4: Urban and rural sex ratios (total population) for Georgia and neighbouring countries

Country	Urban	Rural
Armenia	88.1	99.6
Azerbaijan	97.5	100.4
Bulgaria	93.5	98.5
Georgia	85.9	99.1
Rep. of Moldova	88.7	95.6
Romania	91.8	100.1
Russian Federation	84.2	91.9
Turkey	100.6	101.7
Ukraine	84.6	88.8

Source: UN Statistics Division. Demographic Yearbook 2015

The 13.2 point difference in Georgia is by far the largest in the region, followed by the 11.5 point difference in Armenia.

9. Internal Migration and IDPs

At the national level, 19.93 percent of the population in the 2014 census was declared as having lived in a different place of residence for 12 months or more, including 1.26 percent from abroad. As expected, the percentage is considerably higher (24.95 percent) in urban than in rural areas (13.24 percent), but, remarkably, both in urban and in rural areas it is higher for women (28.63 percent and 20.60 percent, respectively) than for men (20.67 percent and 5.81 percent). This sex difference applies to both internal and international migration. Recent migration figures (during the past 5 years) are considerably lower. A total of 3.49 percent of urban men, 4.56 percent of urban women, 1.01 percent of rural men and 2.81 percent of rural women had lived elsewhere and moved to their present residence during the past 5 years, almost four times less than those who moved more than 15 years ago. This suggests that the rate of internal movement in the country has slowed down in recent years. Women predominate among recent internal migrants, possibly due to the fact that many women move away from their parental homes when they marry, but this is not true for international migration. Overall, 0.29 percent of men and 0.28 percent of women were declared as having moved in from abroad during the past 5 years.

After conversion to entire numbers by age and an additional correction for mortality, this translates into the following net internal migration balances for the inter-census period:

Tbilisi	69,224
Adjara	- 9,274
Guria	- 5,002
Imereti	- 28,258
Kakheti	- 9,440
Mtskheta-Mtianeti	- 1,648
Racha Lechkhumi & Kvemo Svaneti	- 3,244
Samegrelo & Zemo Svaneti	- 17,644
Samtskhe & Javakheti	- 4,068
Kvemo Kartli	19,664
Shida Kartli	- 10,310

Source: Bckprojection statists

Table 9.1: Numbers of individual migrants by region between the 2002 and 2014 censuses, corrected for last move censoring³⁰ (origins on the left, destinations in the top row)

	TBL	ADJ	GUR	IMR	ККН	MTS	RLKS	SVS	SJV	KVK	SHK
TBL	308	2,243	2,739	9,559	10,444	4,825	1,459	5,876	1,838	9,806	5,560
AJ	6,759	20,279	2,830	1,496	953	170	34	780	947	4,992	468
GUR	6,319	2,814	2,913	1,071	207	108	40	488	138	1,168	279
IMR	33,863	2,123	940	28,755	813	596	1,028	2,255	813	3,566	1,758
KKH	19,614	436	168	522	14,857	505	23	175	195	4,362	500
MTS	6,804	75	51	228	571	7,936	14	78	116	1,133	878
RLKS	2,796	26	53	1,774	110	57	936	69	18	927	151
SVS	19,137	1,074	464	2,724	602	298	68	14,145	186	2,716	444
SJV	4,673	576	140	644	293	142	13	129	7,367	1,895	899
KVK	7,978	612	265	1,061	2,350	590	260	502	442	6,434	1,165
SHK	13,849	459	156	1,185	866	1,205	35	238	723	3,551	11,164

Source: Backprojection file

³⁰ Because of the censoring correction, these are not entire numbers, but for the purpose of this presentation they have been rounded.



Table 9.2: IDPs by region of current residence and place of residence before acquiring IDP status

		Residence	Before Acquiring	Acquiring IDP Status		
Place of Current Residence	Total	Abkhazia, Georgia	Mtskheta- Mtianeti	Tskhinvali Region/South Ossetia, Geo		
Tbilisi	81,488	75,874	896	4,718		
Adjara	3,414	3,345	*	60		
Guria	744	719	*	20		
Imereti	18,687	18,476	12	199		
Kakheti	1,586	1,250	11	325		
Mtskheta-Mtianeti	9,564	984	5,634	2,946		
Racha-Lechkhumi & Kvemo Svaneti	734	716	*	17		
Samegrelo-Zemo Svaneti	47,298	47,251	*	37		
Samtskhe-Javakheti	1,267	1,138	*	120		
Kvemo Kartli	11,314	8,236	168	2,910		
Shida Kartli	13,543	1,765	289	11,489		
Georgia	189,639	159,754	7,044	22,841		

Source: Geostat, the 2014 General Population Census

By this account, Tbilisi and Kvemo Kartli were the only regions with positive internal migration balances between 2002 and 2014.

After Independence, conflicts in Abkhazia, Georgia and the Tskhinvali region/South Ossetia, Georgia, forced the majority of the Georgian population in those regions to flee. The conflict in Chechnya, in 1999, resulted in a sudden influx of Chechens seeking refuge in Georgia. Since then, the number of refugees has declined due to repatriation, resettlement in third countries, and some have been granted Georgian Citizenship: from 9,000 refugees in 1999 – from the Chechen Republic of the Russian Federation – to around 345 by the year 2012, mostly from the Russian Federation. Yet military aggression in Tskinvali Region/South Ossetia, Georgia in 2008 resulted once again in relocation of large population groups and the

number of IDPs increased by 26,000 people.³¹ According to the statistics provided by the Ministry of Internally Displaced Persons from the Occupied Territories, Accommodation and Refugees, the total number of IDPs registered as of September 2014 amounts to approximately 260,000.

Table 9.3 from the 2014 census shows the number of IDPs by age and sex.

Women are a clear majority among the displaced from Abkhazia, Georgia who account for the largest number of IDPs in the country, and they are a narrow majority among the smaller group of the displaced from Tskhinvali Region/South Ossetia, Georgia. According to the census, the age profile of IDPs is also different for men and women. Male

^{*} The symbol ... indicates that there are 10 or fewer cases.

³¹ IDP Issues - General Information; Ministry of Internally Displaced Persons from the Occupied Territories, Accommodation and Refugees of Georgia; (n.d.) Retrieved from: http://mra.gov.ge/eng/static/47 Last accessed August 15, 2017

Table 9.3: IDPs declared in the 2014 census by age, sex and area of residence

A ===	Total			Urban			Rural		
Age Group	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Total	189,639	86,774	102,865	140,070	63,835	76,235	49,569	22,939	26,630
0-4	13,340	6,854	6,486	10,151	5,173	4,978	3,189	1,681	1,508
5-9	14,159	7,410	6,749	10,650	5,532	5,118	3,509	1,878	1,631
10-14	12,971	6,847	6,124	9,346	4,881	4,465	3,625	1,966	1,659
15-19	13,033	6,670	6,363	9,033	4,569	4,464	4,000	2,101	1,899
20-24	13,018	6,341	6,677	9,757	4,683	5,074	3,261	1,658	1,603
25-29	13,979	6,617	7,362	10,602	5,055	5,547	3,377	1,562	1,815
30-34	13,569	6,213	7,356	10,270	4,810	5,460	3,299	1,403	1,896
35-39	13,156	5,888	7,268	9,884	4,600	5,284	3,272	1,288	1,984
40-44	12,053	5,195	6,858	8,933	3,963	4,970	3,120	1,232	1,888
45-49	11,672	4,904	6,768	8,592	3,588	5,004	3,080	1,316	1,764
50-54	12,869	5,478	7,391	9,405	3,959	5,446	3,464	1,519	1,945
55-59	12,207	5,192	7,015	9,055	3,768	5,287	3,152	1,424	1,728
60-64	10,791	4,632	6,159	7,996	3,333	4,663	2,795	1,299	1,496
65-69	7,066	3,044	4,022	5,144	2,174	2,970	1,922	870	1,052
70-74	5,449	2,148	3,301	3,867	1,502	2,365	1,582	646	936
75-79	5,473	1,818	3,655	3,903	1,235	2,668	1,570	583	987
80-84	3,100	1,105	1,995	2,196	723	1,473	904	382	522
85+	1,734	418	1,316	1,286	287	999	448	131	317

Source: Geostat, the 2014 General Population Census

IDPs predominate in the youngest age groups, under age 20. But as the ages increase, the percentage of female IDPs increases, especially in urban areas; 47.0 percent of female urban IDPs are over age 40, compared to 38.4 percent of male urban IDPs.

Recognizing a lack of current data on IDPs, the Ministry of Internally Displaced Persons from the Occupied Territories, Accommodation and Refugees has conducted a census of all IDPs which aims to provide better insight into their numbers, distribution, level of integration into the Georgian society, and an assessment of their needs. The census is registration-based (IDPs are requested to re-register as IDPs). The process of registration started in July and finished in December 2013.

A special category of IDPs are the so-called "ecomigrants". Georgia's legislation does not include natural disasters among the admissible grounds

for IDP status (Lyle, 2013) which leaves ecological migrants with no legal protection. But this group has not been ignored. The relevant state ministry (MRA) collected assessment data on housing conditions in the mountain regions, and from 2004 the government initiated programmes providing houses to eco-migrants. Somewhat more substantive measures were undertaken from 2006 onwards, with a programme to create an official database of families affected by natural disasters and in need of immediate resettlement. By 2011. merely 1,000 families had been resettled with government assistance. The region most affected by eco-migration is Adjara, where the situation is exacerbated by rapid population growth and land shortage. The increasing needs of large families in Adjara have led to deforestation and agricultural use of higher hillside land, which increases the risk of natural disasters.

INTERNATIONAL MIGRATION

10. International Migration

All sources agree that international migration statistics for Georgia are highly problematic. For many years, the country had an open border policy with visa-free travel for citizens of over 80 countries. Georgian citizens need to obtain an emigration permit to emigrate, but many don't. Some improvements in migration data may result from the Law on the Legal Status of Foreign and Stateless Individuals, which came into force in 2014. The Ministry of Internal Affairs, based on the new law, now maintains a comprehensive database of information on border crossings, visas, and residence permits issued; extradition decisions; foreign businesses registered in Georgia, etc.

When the Soviet Union collapsed, migration was driven by three factors – massive departure of ethnic minorities to their homelands (i.e. repatriation), emigration due to economic hardships, and emigration due to wars, conflict, political unrest or corruption. Despite its probable over-count, the 2002 census³² showed about one million people less than the previous one in 1989.³³ By the early 2000s, most people who could and wanted to leave had done so and consequently emigration slowed down (Jones, 2013: 193, 204-205), possibly under the influence of improved economic prospects in Georgia and reduced opportunities for migration abroad.

The data base on Global Flow of People (by Sander, Abel and Bauer at the Wittgenstein Centre) suggests a steady decrease in migration from Georgia to Soviet Union countries (primarily the Russian Federation), from around 400,000 in 1990-95 to just under 150,000 in 2005-10. Emigration from Georgia to the Russian Federation dropped from around 300,000 over the period 1990-95 to less than 60,000 for 2005-10. Nevertheless, the Global Migrant Data Base maintained by the Centre for Development Research (CDR) at the University of Sussex, which computes migrant stocks, rather than flows, in its 2013 edition (version 4) estimates that there were still just over a million Georgian nationals living abroad, primarily in the following countries:

Russian Federation	628,973
Ukraine	95,680
Greece	71,692
Armenia	70,138
Germany	30,177
Israel	17,512
Azerbaijan	12,630
Pakistan	12,553
USA	11,974
Latvia	7,064
Hong Kong	7,064
Turkey	6,511
Kuwait	5,895
Jordan	5,073

Source: the Global Migrant Data Base, the University of Sussex

While some of these numbers are based on actual census counts in the respective countries, others are statistical imputations. Despite the many uncertainties in this area, definitely the international migration dynamics of Georgia are dominated by emigration, not only in the sense that the number of emigrants significantly exceeds the number of immigrants, but also that immigration is dominated by the return of native Georgians, sometimes accompanied

³² RESIDENT POPULATION BY SEX (n.d); Retrieved from: http://www.Geostat.ge/cms/site_images/ files/english/census/2002/01 percent20Population percent20By percent20Municipalities percent20and percent20sex.pdf. Last accessed: August 15, 2017

³³ It is not clear how the territories in provinces affected by the territorial conflict are reflected in these data. Some of the reduction in numbers may be related to that. Всесоюзная перепись населения 1989 года. Национальный состав населения по республикам СССР; (in Russian); Retrieved from: http://demoscope.ru/weekly/ssp/sng_nac_89.php?reg=6; Last accessed: August 15, 2017.

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by spouses from the destination countries. The few autonomous immigration flows are mostly restricted to relatively small numbers of migrants from Azerbaijan, Armenia and the Russian Federation.

As was shown in the section on population growth and its components, this monograph, based on the international migration statistics collected by the Ministry of Internal Affairs between 2012 and 2014 and on the regional population trends between 2002 and 2014, estimates that between 2002 and 2014 as many as 1.15 million people emigrated from Georgia, whereas almost 875 thousand immigrated, including foreign nationals, but mostly Georgians returning from abroad.

IM

11. Immigration

IMMIGRATION

The 2014 census counted 66,230 people residing in Georgia (1.8 percent of the population) who declared a foreign country of birth, in addition to 30,693 who did not declare in which country they were born. Of the 66,230 who are known to have been born abroad, nearly half (30,341) were born in the Russian Federation. Other major countries of birth outside Georgia are Armenia (9.158). Ukraine (6,879), and Azerbaijan (6,604), with smaller numbers from Greece, Turkey, Germany and others. In the case of the Azeris and the Armenians, those born abroad actually represent a relatively small number among their ethnic groups as a whole, as most members of the Azeri (total of 233,024) and Armenian (total of 168,102) communities were born in Georgia.

Most of the immigrants enumerated in the 2014 census were returning natives (79,630 men and 57,657 women). A smaller number (15,736 men and 30,881 women) were foreign-born. As shown in *Table 11.1*, by far the greatest group of natives were returnees from the Russian Federation. Smaller numbers were returning from Ukraine,

Greece and Turkey. Among the returnees from the latter two, women predominate, whereas a majority of the returnees from the Russian Federation or Ukraine were men. The distribution by country of origin of the non-natives was broadly similar, with a predominance of immigrants from the Russian Federation, but a larger percentage from Azerbaijan and Armenia and fewer from Greece. Women predominate among the nonnative immigrants while men predominate among the native Georgians. This is explained by the labour migration of Georgian men to the Russia Federation and Ukraine and the fact that many of these men marry local women in those countries who accompany them when they return to Georgia.

The numbers in the census differ considerably from those of the Ministry of Internal Affairs. The total number of immigrants in 2012-2014 in the census was 17,449 men and 16,008 women. The Ministry of Interior, on the other hand, counted 147,265 men and 96,417 women. This difference is partially accounted for by the fact that the

Table 11.1: Percentage distributions of male and female immigrants 2002-2014 to Georgia by country of origin and country of birth

Origin	Born in	Georgia	Not Born in Georgia		
Origin	Men Women		Men	Women	
Russian Federation	55.6	49.9	43.6	48.9	
Azerbaijan	1.7	2.1	9.4	9.0	
Ukraine	8.1	5.8	7.5	12.8	
Armenia	0.9	1.6	7.9	13.2	
Turkey	2.7	4.1	5.5	0.7	
Greece	7.8	13.3	4.4	2.2	
Iraq	0.2	0.1	2.2	0.3	
USA	1.9	2.5	1.2	0.5	
Israel	1.0	1.4	0.6	0.3	
India	0.0	0.1	1.2	0.4	
Other	20.2	19.1	16.5	11.7	

Source: Geostat, the 2014 General Population Census

Ministry of Internal Affairs uses a criterion of 6 months stay to characterize immigration, whereas the census uses a 1 year limit, and by the fact that the Ministry of Internal Affairs statistics for 2014 include November and December, whereas the census only goes up to November 5.

The backprojection used the numbers of the Ministry of Internal Affairs for 2012-2014 but tried to bring the pre-2012 numbers more in line with the latter in previous years. As *Table 11.2* shows, this implies a major difference between the backprojection and the census figures.

Table 11.2: Immigrants (native and non-native) by sex and year of entry according to the 2014 census and as estimated in the backprojection

Voca	Cer	isus	Backprojection			
Year	Men	Women	Men	Women		
2002	1,999	1,781	29,473	18,138		
2003	2,083	1,944	29,930	18,407		
2004	3,169	2,773	38,001	23,347		
2005	3,007	2,760	35,643	21,878		
2006	3,834	3,172	46,441	28,482		
2007	3,590	3,263	41,906	25,634		
2008	3,882	3,148	46,087	28,277		
2009	3,820	3,095	39,431	24,202		
2010	4,622	3,873	45,153	27,619		
2011	4,475	3,996	44,233	26,988		
2012	5,546	4,972	42,753	26,310		
2013	5,287	4,803	55,574	36,884		
2014	6,616	6,233	39,493	26,811		

Source: Geostat, the 2014 General Population Census and backprojection

12. Emigration

EMIGRATION

The 2002 census enumerated 114 thousand individuals, through the Migrant Questionnaire, which collected information on (former) household members living abroad. However, given that an estimated one million Georgians left the country between 1990 and 2002, the actual number of expatriates counted in the 2002 census must be larger, as many were enumerated as current household members, rather than through the Migrant Questionnaire. In the 2014 census, the same procedure was adopted, subject to the same potential errors, which resulted in a total of 88,541 Migrant Questionnaires. As in the case of the 2002 census, this number is probably considerably under-stated, among other reasons because it does not include cases where entire families left the country, so that there is nobody left to report the move. Due to doubts about the validity of this information, it was not used in the international migration estimates in this monograph, but the composition by areas of origin (relative numbers) was used in the back-projections as it is the only information available on this subject. The overwhelming majority of Migrant Forms concerns natives of Georgia (36,220 men and 43,363 women). Table 12.1 lists the percentage distribution of countries of destination:

Table 12.1 shows clearly that men migrate more to the Russian Federation and Ukraine, whereas women are the clear majority among migrants to Turkey and Greece. In terms of the regions of origin within Georgia, Tbilisi, Imereti, Kvemo Kartli, Kakheti and Samegrelo & Zemo Svaneti, in that order are the principal sending areas, as shown by Table 12.2.

It should be pointed out that in the backprojection model the regional distribution of emigrants between 2002 and 2014 was changed. The last two columns of *Table 12.2* describe the distribution according to the backprojection, which does not depend on the recollection of family members, but instead assesses the migration streams based

Table 12.1: Main destination countries among emigrants from Georgia, according to the Migrant Forms of the census (percentages)

Destination	Men	Women		
Russian Federation	33.9	10.7		
Azerbaijan	2.7	1.4		
Ukraine	6.6	1.2		
Armenia	1.7	1.6		
Turkey	8.4	14.2		
Greece	6.0	24.8		
Iraq	0.5	0.4		
USA	6.2	5.3		
Israel	1.5	1.6		
Other	32.0	38.3		

Source: Geostat, the 2014 General Population Census

on the comparison of regional population sizes in 2002 and 2014. Clearly the backprojection suggests much larger numbers of emigrants. This shows the limited usefulness of the Migrant Form, which only documents the situation of emigrants who have relatives in Georgia reporting them. As was noted before, the actual number of people who have left the country is probably many times larger. Although the percentage distribution of both series is similar, the backprojection does suggest a larger percentage of emigrants from Tbilisi and Samegrelo & Zemo Svaneti and lower percentages leaving from Imereti and Kvemo Kartli.

The differences between the Migrant Forms and the backprojection become even more evident when presented by year of departure, as in *Table 12.3*. In the backprojection men are consistently in the majority, with very little variation by calendar year. This is based on the assumptions of the backprojection model, which assumes that emigration changed linearly (except for minor adjustments) and the age-sex distribution was constant. The distribution of years of departure in the Migrant Forms, on the other hand, shows

Table 12.2: Distribution of regions of origin among emigrants born in Georgia, according to the Migrant Forms of the census and according to the backprojection model

Pagion	Migran	t Forms	Backprojection		
Region	Emigrants	Percent	Emigrants	Percent	
Tbilisi	27,956	31.6	537,620	46.9	
Adjara	3,994	4.5	43,180	3.8	
Guria	1,408	1.6	7,080	0.6	
Imereti	20,298	22.9	162,620	14.2	
Kakheti	7,271	8.2	49,676	4.3	
Mtskheta-Mtianeti	2,243	2.5	15,754	1.4	
Racha-Lechkhumi & Kvemo Svaneti	489	0.6	5,032	0.4	
Samegrelo & Zemo Svaneti	6,897	7.8	156,210	13.6	
Samtskhe-Javakheti	2,769	3.1	31,176	2.7	
Kvemo Kartli	11,099	12.5	116,550	10.2	
Shida Kartli	4,117	4.6	20,814	1.8	

Source: Geostat, the 2014 General Population Census and backprojection

a strong decline going back into time. This is not a reflection of actual emigration trends as of the data collection, based on reports of remaining family members who are less likely to report former household members as time goes by. Interestingly, women are a minority of the more recent migration data, but a majority among the older emigrants reported in the Migrant Forms. This trend may be real, but it may also be related to other factors such as the degree to which migrants of either sex maintain contact with their families in Georgia or the typical length of stay of migrants of either sex abroad. Neither the Migrant Forms nor the backprojected data seem to support the idea that emigration is becoming more female in nature, although this may be the case in certain specific areas of the country (Zurabishvili & Zurabishvili, n.d.).

According to the data on completed education in *Table 12.4*, the percentage of emigrants with higher education (at least Bachelor's degree) is slightly higher than in the general population, although more so among men than among women. In the general population over age 10, the percentage of women with higher education is higher than that of men (29.9 percent against 26.9 percent), but in the case of emigrants the relation is inverted (35.2 percent for men, compared to 32.7 percent

for women). Among the return migrants, the percentages with higher education are even higher and in this case the proportion again is higher for women (44.8 percent, against 38.6 percent). The high level of education among return migrants may be either because they acquired advanced education abroad or because emigrants with higher levels of education are more likely to return to the country. Relatively few emigrants or return migrants have less than complete general (secondary) education.

Non-native immigrants to Georgia have a lower percentage of university-educated individuals and a much higher percentage of individuals with only primary education or less than the native population.

Table 12.4 confirms that, contrary to what happens with emigrants from developing countries, who acquire skills abroad to apply on return to their countries, most emigrants from Georgia possess relatively high levels of qualification before leaving. Because they work mostly in unqualified jobs abroad, they learn few new skills that they may contribute after returning to the country. In a study on socio-economic problems of returning migrants in Georgia, only 4.7 percent responded that they had worked in their areas of specialty. Even then, their job levels were typically low,

causing degradation of their skills. Most others were engaged in low-skilled jobs such as, caregiving, construction or cleaning. Therefore, returning migrants have difficulty reintegrating

into the labour market and 46.1 percent of the respondents were unemployed (Tukhashvili, 2012: 29, 75).

Table 12.3: Emigrants from Georgia by year of departure according to the Migrant Forms of the census and according to the backprojection model

Year	Migrant	t Forms	Backprojection			
	Men	Women	Men	Women		
2002	959	1,058	41,230	29,516		
2003	1,385	1,610	43,544	31,170		
2004	1,629	2,322	45,586	32,528		
2005	1,082	1,784	48,344	34,690		
2006	1,210	2,065	50,660	36,344		
2007	1,363	2,554	52,958	38,000		
2008	1,641	2,727	55,262	39,652		
2009	1,664	3,115	57,438	41,142		
2010	1,972	3,195	60,058	43,156		
2011	2,467	3,308	62,376	44,826		
2012	3,887	3,732	52,084	38,500		
2013	5,268	4,532	55,582	39,482		
2014	7,527	6,820	41,846	29,738		

Source: the 2014 General Population Census and backprojection

Table 12.4: Completed education by sex of the resident population of Georgia over age 10, emigrants (according to the Migrant Form), return migrants and immigrants (non-native)

	Population 10+		Emigrants		Return Migrants		Immigrants	
	Male	Female	Male	Female	Male	Female	Male	Female
Doctorate or equivalent	0.5	0.5	0.6	0.6	1.1	1.0	0.7	0.6
Master's or equivalent	12.0	14.1	14.1	12.4	18.6	22.0	9.1	11.6
Bachelor's or equivalent	14.4	15.3	20.5	19.7	18.9	21.8	11.4	14.4
Professional education	16.9	20.1	18.9	15.0	16.3	19.5	6.6	10.9
Complete general (secondary)	42.2	36.6	38.2	43.2	37.4	27.8	27.3	30.1
Basic general education	9.6	8.5	3.5	4.4	4.2	4.1	11.4	10.5
Primary level of general educ.	2.1	2.4	1.3	1.7	1.9	2.2	15.1	11.0
No schooling but literate	0.4	0.6	0.9	1.0	0.9	1.0	13.2	9.4
Illiterate	0.3	0.5	0.0	0.0	0.1	0.1	0.2	0.2
Not stated	1.5	1.4	2.0	2.0	0.6	0.5	5.1	1.3

Source: the 2014 General Population Census

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