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INSTAT
Republic of Albania
Institute of Statistics

ALBANIA

# POPULATION AND POPULATION DYNAMICS

## NEW DEMOGRAPHIC HORIZONS?

2011 CENSUS-AL

May, 2014

**POPULATION AND POPULATION DYNAMICS IN ALBANIA**
**NEW DEMOGRAPHIC HORIZONS?**
**MAY, 2014**

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# Preface and Acknowledgment

This publication on population and population dynamics is one of the thematic reports prepared by the EU Technical Assistance project team in collaboration with INSTAT staff. The report contains information about the composition and transformation of the Albanian population at a time when the country had already experienced two decades of fundamental changes. It elaborates on the demographic processes of fertility, mortality and migration, and places population change in a wider socio-economic perspective.

INSTAT wishes to offer its special thanks to the EU technical assistance team. Due to their expertise this valuable publication will help in understanding the demographic reality of Albania and the changes that produced the present state of affairs with regards to the population.

INSTAT also wishes to acknowledge the contribution of the staff of the INSTAT Department of Socio-Economic Characteristics, who showed high professionalism and dedication.

Special appreciation also goes to all other INSTAT staff involved in the census operation, and in the production and analysis of the data required for this report.

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Gjergji FILIPI, PhD

Director General of INSTAT

## Lista e publikimeve tematike të Censusit 2011, Maj 2014
## List of 2011 Census thematic publications, May 2014

- Censusi i Popullsisë dhe Banesave 2011: karakteristikat ekonomike
- 2011 Population and Housing Census: Economic Characteristics

- Dimensionet e cilësisë së Censusit 2011
- Quality Dimensions of the 2011 Population and Housing Census of Albania

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- Projeksionet e popullsisë, 2011-2031
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- Commuting from home to work

- Dinamikat e tregut të punës, 2001-2011
- Labour market dynamics, 2001-2011

- Aplikimi INSTATGIS – hartat në web (www.instatgis.gov.al)
- INSTATGIS – Atlas web application (www.instatgis.gov.al)

# ABSTRACT

The last inter-census decade 2001-11 has been a historic period from a demographic point of view. During this timeframe, Albania, as the last European country, has completed the First Demographic Transition, has lost an unprecedented number of its population and further reshaped its demographic composition.

The resident Albanian population decreased by 8.8 percent since the previous census in 2001and by as much as 12.0 percent since the 1989 census. In terms of population composition, the change since 1989 is particularly remarkable, involving both feminisation and rejuvenation trends. Whereas in 1989 the population consisted of 106 males per 100 females, the 2011 census indicated an almost exact balance. In the same period, the share of children under 15 decreased sharply, going from 33.4 to 20.7 percent. At the same time the share of the elderly (65 years and over) increased from 5.3 to 11.3 percent and the overall dependency ratio declined from 62 to 47 percent. This low dependency ratio locates Albania in the middle of a window of economic opportunity that will only last for about 10 more years. Whether or not the country takes full advantage of this demographic dividend depends on the extent to which effective policies are implemented to adequately prepare its labour force for the labour market and whether appropriate economic and social policies are in place to provide these people with productive jobs.

Compared to previous estimates, the 2011 census indicates further decline in infant and under-five mortality, estimated at 15.3 and 20.0 per thousand live births respectively. Despite significant progress in the reduction of infant mortality, Albania still has the second highest rate in Europe. The present census confirms previous estimates of a relatively high life expectancy at birth: 74.8 years for men and 79.4 years for women. Census-based analysis suggests, however, that death registration is not fully complete and the calculated life expectancy is probably somewhat too optimistic.

In 2001 fertility had declined to slightly above replacement level. By 2011, the TFR has declined to 1.66. A further decline is likely to occur, given that the present sub-replacement level is achieved with a very low rate of modern contraceptive use. The analysis also provides convincing evidence of son preference and sex-selective abortions.

Whereas the decline in fertility and mortality are processes spanning various decades, international migration only occurs since the early 1990s. Emigration has remained an unabated force in the population change of Albania in the years preceding the 2011 census. Analysis of census data and information from other sources indicate that 573 thousand more persons left the country than returned to it over the last inter-census period, with about equal numbers of males and females. This gender balance suggests that international migration has entered a new stage, in which family-related migration has gained importance besides work related migration, and women increasingly engaged in moving abroad.

Immigration is dominated by the return of the Albanians. Return migration has substantially increased in the three-year period prior to the census, during the economic crisis, and particularly involved men and people who lived in Greece, which was hardest hit by the economic downturn.

Whereas in the past marriage was virtually universal in Albania's population and re-marriage – especially of men – was very common, the present analyses indicate postponement of marriage, falling re-marriage rates and perhaps even the emergence of abandonment of marriage. The lower marriage rates are recently mirrored by increasing divorce rates. The reduction in household size has continued during the last inter-census decade to 3.9 members on average. This reduction can be attributed to fertility decline, but in addition also to the reduction in composite households with more than one family nucleus.

While Albania has completed the First Demographic Transition in the decade before the 2011 census, trends emerged during the same period that can be interpreted as first steps in the Second Demographic Transition (SDT): a decline to sub-replacement fertility, a rise in age at first marriage- and divorce rates, and a decline in re-marriage. Other SDT characteristics – e.g. the adoption of modern contraception and structural net immigration – are not (yet) forthcoming. For, again, other more specific data and analyses are required.

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## ABBREVIATIONS

ADHS - Albanian Demographic and Health Survey
ADIS - Albanian Demographic Information System
ASMR - Age-Specific Marriage Rate
CCFR - Cohort Completed Fertility Rates
CDR - Crude Divorce Rate
CEB - Children Ever Born
CFR - Cohort Fertility Rates
CMR - Crude Marriage Rate
CRR - Crude Remarriage Rate
DALYs - Disability Adjusted Life Years
EMN - European Migration Network
FDT - First Demographic Transition
GDR - General Divorce Rate
GMR - General Marriage Rate
GRR - Gross Reproduction Rate
HDI - Human Development Index
IMR - Infant Mortality Rate
INSTAT - Albanian Institute for Statistics
IUSSP - International Union for the Scientific Study of Population
LSMS - Living Standard Measurement Survey
MDR - Married Divorce Rate
MICS - Albanian Multiple Indicator Cluster Survey
GNI - Gross National Income
NORAD - Norwegian Agency for Development Cooperation
NRR - Net Reproduction Rate
NSI - National Statistical Institute
OLS - Ordinary Linear Regression
OSCE - Organization for Security and Co-operation in Europe
PPR - Parity Progression Ratios
RHS - Reproductive Health Survey
SDT - Second Demographic Transition
SMAM - Singulate Mean Age at Marriage
TFR - Total Fertility Rate
U5MR - Under-Five Mortality Rate
UNFPA - United Nations Population Fund
UNICEF - United Nations Children's Fund
USAID - United States Agency for International Development

# 1. INTRODUCTION

During the two decades preceding the 2011 Population and Housing Census, Albania witnessed vehement population transformation, resulting from the interplay of socio-economic change and the demographic forces of fertility, mortality and – especially – migration. One of the most striking results that came into light when census data were made available was the 8.8 percent population decline over the last inter-census period. This figure, however significant, conceals a wide range of underlying demographic processes and characteristics, which have far-reaching implications for society and policy.

This report takes stock of the demographic reality of Albania as per 1 October 2011 and testifies to the changes that produced this state of affairs. Its main focus is the national level, although it touches upon regional differentiations in specific cases of interest. The bulk of the information provided is based on the 2011 census, but a variety of other data sources – both national and international – are tapped to enrich the analyses.

The different chapters of the report provide a large number of demographic indicators and descriptions. Nevertheless, the purpose of the report is also to go beyond the mere production of indicators and statistics, and to offer explanations and interpretations of results. To this end, an interpretative framework is provided that – partially – helped to guide the analyses, to give meaning to findings, and to formulate expectations for the demographic future. In addition, regarding some topics, this report takes the analyses beyond descriptive statistics by applying more advanced analytical methods, in an attempt to conduct more causal analysis.

The report includes two background chapters, as a general setting for the actual analyses. Chapter 2 presents a conceptual background of demographic change. The framework of the Second Demographic Transition is introduced to identify and interpret new demographic trends in the Albanian society. Subsequently, chapter 3 briefly describes the various data sources that have been used in this report and explains their respective strengths and limitations.

The subject matter of the report is presented in chapters 4 to 9. The general population composition and its change over time are described in chapter 4. This is followed by an analysis of the key demographic processes of fertility, mortality and migration in, respectively, chapters 5, 6 and 7. Finally, chapter 8 describes the changes observed in marriage patterns and household composition.

## 2. THE GRAND VIEW ON DEMOGRAPHIC CHANGE

In terms of demographic change within the European context, Albania is a latecomer. Demographers have described the evolution from regimes of high fertility and high mortality to low fertility and mortality as the 'demographic transition'. The originators of the idea discovered in the course of the overall development a pattern of successive stages in the demographic history of European countries (Thompson 1929, Landry 1934, Notestein 1945). Starting from a Malthusian state of high birth and death rates, it was mortality that started to fall first, followed by a stage in which fertility would also inevitably decline. The difference in mortality and fertility levels in these stages resulted in a period of high population growth in the populations experiencing the transition. The end state was less well specified, but was usually considered to be one of more or less stationary population with around-replacement fertility.

Over time, the idea of a demographic transition in four consecutive stages was fleshed out and – depending on the authors – embedded in socio-structural, economic, cultural and institutional changes (e.g. de Bruijn 1999, Kirk 1996, Van de Kaa 1996). For some, the principle gained the status of a full-fledged theory, for others, it was merely an empirical generalisation that required contextualisation before attaining relevance in specific circumstances (Greenhalgh 1996, Szreter 1993). Although it has not been possible to identify key indicators to predict the onset and speed of fertility decline (Coale and Watkins 1986), the key propositions of the demographic transition 'theory' still stand: (a) mortality decline invariably precedes fertility decline; (b) fertility decline inevitably follows mortality decline; (c) this process is irreversible; and (d) the process is inescapable for societies experiencing modernisation. In this sense, the idea of the demographic transition is probably the most powerful 'law' in social sciences.

Today, all countries without exception have taken their first steps into the demographic transition path. By far, most of the developing countries have entered to at least the stage of declining fertility, and all developed countries have completed the transition. Albania was the last European country to enter the final transition stage. At the time of the 2001 Population and Housing Census, mortality was already low, as indicated by high – even suspiciously high – life expectancies at birth: 72.1 years for men and 78.6 for women (INSTAT 1994). At the same time, fertility was still the highest in Europe, but with an estimated Total Fertility Rate (TFR) of 2.31, down from over 6 in the 1960s, it neared the replacement level. The Albanian Demographic and Health Survey 2008-09 estimated the TFR at 1.6 (INSTAT 2010), which is indeed the formalisation of the fact that Albania completed its demographic transition.

The paradigm of the demographic transition has been of use to demographers and policy makers for a long time. In this perspective, the demographic end state was supposed to be an orderly new equilibrium between low fertility and mortality, as for instance is assumed in the United Nations population projections. However, over time it became clear that this was not to happen. Populations moved beyond what classic demographic transition theory had assumed, with fertility declining to below – and sometimes very much below – two children on average. At the same time, new demographic patterns in the area of longevity, marriage, childbearing and migration emerged, but there was no new paradigm capable of providing a comprehensive 'why' for these developments or an understanding of what the demographic future would entail (Vallin 2002).

It was in this theoretical void that Lesthaeghe and Van de Kaa (1986) planted the seed of a new line of reasoning in a rather unknown Dutch journal. The title of the article was devised in the form of a question: 'Two demographic transitions?'. The authors remarked a range of commonalities in a number of Western European countries that evoked the idea of a new pattern of demographic change. A year later and upon additional exploration, the question mark of this title could be turned into an exclamation mark when the Population Bulletin of the Population Reference Bureau published Van de Kaa's (1987) seminal statement on the Europe's Second Demographic Transition. Since then, the concept of the Second Demographic Transition (SDT) has initiated an entire new research agenda in demography and its establishment necessitated rephrasing the original transition as the First Demographic Transition (FDT).

The starting point of the SDT is that new social forces are at play, which distinguish the demographic change of the first transition from the second. According to Lesthaeghe and Van de Kaa, the emergence of affluent societies caused a shift in attention from material to non-material needs. In Maslowian terms (Maslow 1980), higher-order needs – freedom of expression, participation and emancipation, self-realisation and autonomy, recognition – came more to the forefront in people's considerations when taking life decisions, once material, lower-order needs were sufficiently satisfied. The intellectual origins of the SDT further extend to Ingelhart's similar distinction between materialist and post-materialist orientations (Inglehart 1977, 1990).

According to the conceptualisation of the SDT, this value shift underlies the individualisation and secularisation trends that were first observed in Western Europe, and that have a profound impact on a variety of behaviours, decisively including demographic behaviours, as these tend to be life-shaping. Individual expression, autonomy and self-actualisation are considered to be at the roots of new trends towards later marriage, alternative forms of living arrangements, higher divorce

rates, disconnection of marriage and procreation, different levels of sub-replacement fertility, women's emancipation and sexual freedom. In addition, further gains in longevity in combination with low fertility produce ageing effects in such societies. In later versions of the SDT, the occurrence of periods of immigration was incorporated in the concepts, as affluent countries with sustained economic growth will both require immigrants for their expanding labour markets and experience strong migration pressures from populations in less affluent countries (Van de Kaa 2002).

Lesthaeghe and colleagues (Lesthaeghe, Neidert Surkyn 2007, Lesthaeghe 2010) listed a number of relevant characteristics as follows:

A. Characteristics related to marriage:

- Fall in proportions of married persons, rise in age at first marriage;
- Rise in cohabitation (pre- and post-marital);
- Rise in divorce, earlier divorce;
- Decline of remarriage following both divorce and widowhood.

B. Characteristics related to fertility:

- Further decline in fertility via postponement, increasing mean age at first parenthood, structural sub-replacement fertility;
- Efficient contraception (exceptions in specific social groups);
- Rising extra-marital fertility consequent to parenthood within cohabitation;
- Rising definitive childlessness in unions.

C. Characteristics related to social backgrounds:

- Rise of "higher order" needs: individual autonomy, self-actualisation, expressive work and socialisation values, grass-roots democracy, recognition. "Post-Fordist" reaction. Tolerance prime value;
- Disengagement from civic and community oriented networks, social capital shifts to expressive and affective types. Weakening of social cohesion;
- Retreat of the state, second secularisation wave, sexual revolution, refusal of authority, emancipation, political "depillarization"[1];
- Rising symmetry in gender roles, female economic autonomy;
- Flexible life course organization, multiple lifestyles, open future.

Furthermore, achieving the status of a country of immigration could be added to this list.

Critics have raised doubts about different claims of the SDT. Among these worth mentioning was the disbelief relating to the universal validity of the theory and to the assertion that it is a true transition. Since the SDT does not formulate a new end-state and there is no necessary claim that trends cannot be reversed, adherents to the idea now often prefer the wording demographic 'shift' instead of 'transition'. As for the assertion of universality, the SDT, up to the late 1980s seemed to be particularly valid for Western European countries and satellite countries like Canada and Australia, with liberal value orientations. In the 1990s however, new demographic behaviour and underlying value shifts also started to appear in Mediterranean, Central and Eastern Europe (e.g. Rosina and Fraboni 2004, Sobotka, Zeman and Kantorová 2003, Surkyn and Lestheaghe 2004, Lesthaeghe and Neidert 2009) and beyond that, in Japan and other advanced Asian countries, and in Latin America (e.g. Esteve et al. 2012, Lesthaeghe 2010), although not – yet – with a full range of characteristics.

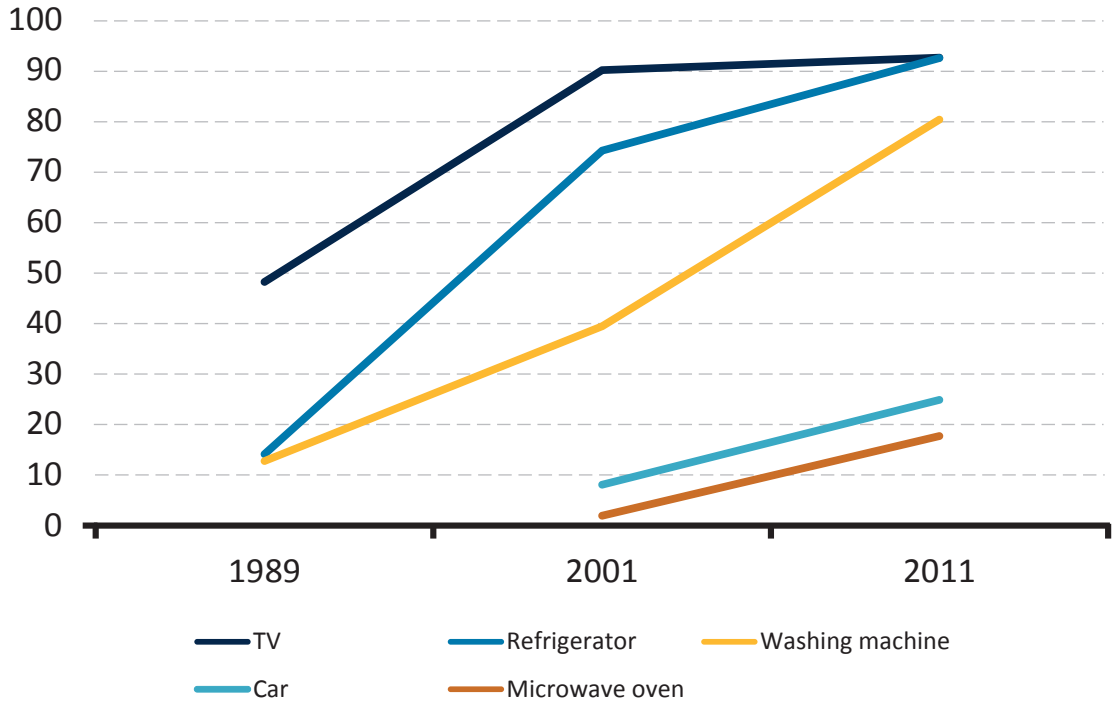
At present, the SDT provides an appropriate framework for the interpretation of new demographic patterns in Albania and for the anticipation of the country's demographic future. For Albania – as well as for other Balkan countries – the challenge arises to investigate to what extent the conditions for the second demographic transition are in place and to what extent the country complies with the developments formulated in the SDT.

[1] Pillarization refers to the vertical segregation of society into religious and ideological 'pillars': social institutions like education, trade unions, broadcast organisations, newspapers, banks, hospitals and sports clubs serviced population belonging to one specific political ideology or religion.

A full and in-depth investigation into this is beyond the scope of this report and would also require more information than the census data can provide. However, whenever possible, this report tries to go further than just presenting demographic indicators and tries to locate the position of Albania in the wider perspective of demographic change.

Since the SDT is associated with a post-materialist orientation that tends to be adopted when basic economic and security needs are being met, it is good to realise that Albania lagged far behind most of the other European countries in this respect. Census data on the possession of household amenities show significant increase since the 1989 census (Figure 2.1). This is also a clear indication that material wellbeing has improved. Even though this improvement does not necessarily provide an already sufficient level to produce the value shift that is associated with the SDT, it may indicate that the conditions for this shift are coming together or are becoming perceivable.

Fig. 2.1: Possession of selected household amenities by census year (in %)




Sources: Population and Housing Censuses 1989, 2001, 2011

# 3. DATA SOURCES

The 2011 Population and Housing Census is the main source of information for this report on population and population change in Albania. The 2011 census data and information from earlier censuses provide the core for the analyses contained in this report. However, whenever necessary, administrative data will be used, sometimes to compare findings on population issues with other sources, but more often to complement cross-sectional census data with information about demographic events and population dynamics. Furthermore, available results from surveys recently conducted by INSTAT were used to enable more in-depth analysis and also to provide comparative perspectives.

Each of these data sources have their strengths and weaknesses. The purpose of this chapter is to provide more information about these sources used, as a general background of the analyses in order to allow a better understanding of the results.

## 3.1 Population censuses

The census is an important source of information for economic and social planning of a country. It provides clear information about the size and structure of the population. Through the census, the statistical office is able to quantify the social position and living conditions of the people living in the country. Effective policy, planning and decision making in the fields of education, social development, labour and health, all depend heavily on the figures provided by the census. It is also possible, through the census, to locate and determine the size of vulnerable groups, such as people with disabilities, elderly people and children. Because of its universal nature, the census also provides information about small areas in the country and can be used as a sampling frame for household surveys. However, the census is not without disadvantages and limitations: the census can only contain a limited number of topics, which restricts its capability for real in-depth research. Given its sheer size and its enormous costs,in most countries it can only be conducted every 10 years.

Since the proclamation of Independence in November 1912, Albania has conducted 11 Population Censuses. The first census was conducted in September 1923 and was restricted to a mere population count, because knowledge about the age of the persons was missing at the time. Only the main population characteristics were collected. However, the censuses of 1923 and 1930 made up the basis for setting-up a kind of vital population register by age and sex.

From 1945 to 1960, the censuses followed more or less the same methodology. The most important goal of the 1945 census was to lay the basis for the civil population register, the so called Population Fundamentals Books. These early censuses were all conducted by using a "freezing day" methodology, i.e. no one was allowed to leave the house until the enumerator had completed the interview.

During the time period 1969-1989, the censuses continued to be conducted on the basis of the condition that everybody needed to be present during the interview. The 1923-1960 censuses all collected general information on population characteristics to build up and to consolidate the civil population register, while censuses conducted during the 1969-1989 period had more elaborated questionnaires with questions related to the socio-economic characteristics of the population. At that time, differences between the civil registration data and the population census were very slight due to the absence of migration.

Both recent Population and Housing Censuses were carried out in full compliance with international recommendations from Eurostat and the UNECE Statistical Division. Both censuses were based on the free declaration of individuals belonging to an already open population. Table 3.1 provides a short overview of the censuses conducted by the Albanian government since the country's independence, along with the major developments in census methodology.

Tab. 3.1: Albanian census history

| | |
|---|---|
| 1923 | The First Population Census of Albania |
| 1930 | Free declaration of age due to absence of identification documents |
| 1945 | Census conducted on one day ("freezing day'), Sunday 30 September |
| 1950 | Construction of the civil population register |
| 1955 | The questionnaire included new questions on internal migration |
| 1960 | Sunday 2 October, population and housing census on the same day |
| 1969 | Open census methodology, more questions regarding the socio-economic characteristics of the population |
| 1979 | For the first time questions on children ever-born and still alive were asked |
| 1989 | Census has partially followed the recommendations of the UN |
| 2001 | Introduction of a census based on free declaration and addition of international migration questions |
| 2011 | Full compliance with international recommendations. Information on ethnicity and religious affiliation based on free declaration was collected |

## 3.2 Administrative sources

Another data source that is used throughout this report to analyze fertility, mortality and nuptiality is vital registration. Administrative sources have several clear advantages: they are normally readily available and are relatively inexpensive. Many indicators can easily be computed over a long period of time from registration of vital events, because of its standardized manner of data collection. Often citizens may not have access to certain social services if they are not registered in the administrative systems, as legal status is often linked to being registered. Therefore, for many events administrative sources may be quite complete. However, there are also some disadvantages connected to the system. First of all, the registration is primarily set up for administrative purposes and not for obtaining statistical information. Some variables that are highly important for statisticians may carry low priority for the administration running the vital registration. Also, in many countries in the world, vital registration is incomplete or of poor quality: essential variables for statisticians are not filled in properly, either because of the immaturity of the system or because people's reluctance to provide complete and honest information.

Administrative information from the register is provided to INSTAT on a quarterly basis by the general Directorate of Civil Registration. Until 2009, the information of demographic events (live births, deaths and marriages) were sent in paper form. These forms were then digitalized by INSTAT to enable the production of statistics.

After 2009, the system of Civil Registration was modernised. All paper registers (population, live births, deaths and marriages acts) were computerised in a new electronic centralised system. Consequently, since 2010 all the vital information was sent to INSTAT in digital format. The manual data entry of information was thus avoided, enabling a more timely distribution of statistics on vital events.

However, the transition to digital information has had some impact on the completeness and coverage of the demographic information. Some important variables related to births and deaths are unfortunately not provided. This has somewhat restricted the scope of the work for the present report and some analyses planned to be included in this publication could not be done.

A special type of statistical source from which data for this publication were collected, was the Eurostat database. Eurostat is the EU statistical office and provides statistical information at a European level, which enables comparisons between countries and regions. Its statistical database is accessible on-line and allows easy extraction of information by year and country. Whenever there was need to compare the situation in Albania with that of other European countries, information was extracted from the Eurostat database.

## 3.3 Household surveys

Over the years a number of household surveys were conducted by INSTAT, from which valuable information can be drawn for the study of demographic processes in the country. Sample surveys have many advantages: they can easily cover a large set of topics for a relatively inexpensive price; surveys can be directed to study some phenomena in-depth; because of their relatively small size they can be monitored more closely than censuses; and as they are relatively cheap they can also be carried at shorter intervals. The disadvantages are that they do not provide small area data and that the results are always affected by a certain degree of uncertainty, as they are probabilistic in nature. The following sections introduce the different surveys – mostly conducted by INSTAT – that were used in this report.

### 3.3.1 Albanian Demographic and Health Survey (2008-09)

The first DHS survey in Albania was conducted in 2008. The Albania Demographic and Health Survey (ADHS) was carried out by the Institute of Statistics (INSTAT) in collaboration with the Institute of Public Health (IPH) of the Ministry of Health. This survey collected data on demographic patterns, fertility, maternal- and child health, HIV, nutrition, migration and women's empowerment. According to the ADHS, disparities in health and nutrition status, access to health services and levels of knowledge of family planning, HIV/AIDS and STIs are identified as areas for further improvement.

The ADHS survey was based on a nationally representative sample of about 8,000 households. It was designed to provide estimates for the whole country, for urban and rural areas, and for each of four regions (Coastal, Central, Mountainous and Urban Tirana).

Key findings of the 2008-09 ADHS explored the demographic and health indicator trends in Albania. According to the survey, fertility decreased and infant- and child mortality declined significantly over the five years preceding the survey. Married women reported a considerable drop in the use of traditional contraceptive methods. Almost all women received antenatal or obstetric care, but the nutritional status of children, despite an improving trend, remained a public health concern.

### 3.3.2 Albania Multiple Indicator Cluster Survey (2000 and 2005)

The Albania Multiple Indicator Survey (MICS) was a nationally representative sample survey of households, women and children. The surveys had as their primary objectives:

- To provide up-to-date information for assessing the situation of children and women in Albania;
- To furnish data needed for monitoring progress toward goals established by the Millennium Development Goals, those of A World Fit For Children (WFFC), and other internationally agreed upon goals, as a basis for future action;
- To contribute to the improvement of data and monitoring systems in Albania and to strengthen technical expertise in the design, implementation, and analysis of such systems.

The sample for the 2000 MICS was selected in two stages. First, 376 primary Sampling Units (PSU) were systematically selected from 1665 PSUs. Then, households were selected systematically within each Primary Sampling Unit (PSU). The total sample selection of households was 5,182.

For the 2005 survey, at the first stage 387 Primary Sampling Units (PSUs) were systematically selected from a total of 8,974 PSUs. At the second stage, households were selected systematically within each PSU. The total sample had 5,418 households: 2,800 of them in urban and 2,618 in rural areas. Interviews were conducted with 5,091 women aged 15-19 years and the mothers or caretakers of 1,093 children under the age of five.

INSTAT was in charge of implementing MICS 2005 in Albania with the financial and methodological help of the United Nations Children's Fund (UNICEF).

The main findings of the 2005 study included, among others, a decline in under-five mortality from a rate close to 50 per thousand to a rate of 19 per thousand around 2002. Although birth control was used by about 60 percent, few women used modern contraceptives and most of them still relied on traditional methods.

### 3.3.3 Living Standard Measurement Survey (2002, 2005, 2008 and 2012)

The Living Standard Measurement Survey (LSMS) is a multi-purpose household survey and one of the main sources of information to measure living conditions and poverty situation. The survey serves as a valuable tool to help policy makers in monitoring and developing social programs.

The main objective of the LSMS is to collect information for measuring the Albanian households' welfare and to identify

factors that determine it. Welfare has been measured by the consumption aggregate, providing information on the level and distribution of poverty in the country. The LSMS is also a powerful tool for assessing and determining social costs. It provides a baseline for monitoring progress in reducing poverty and achieving the Millennium Development Goals (MDGs).[2]

The first LSMS was conducted in 2002, followed by two other surveys, three years apart from one another, respectively in 2005 and in 2008. The last survey was conducted in 2012, one year after the latest Population and Housing Census.

Data from the migration module were used for this report. In 2005 and 2008, as compared to 2002, the migration module was extended and covered more information on internal and international migration. The idea was to prepare a separate analysis of the Albanian emigrants. The number of questions related to the absent head of household were increased and included:

1. Children that previously were members of the household, although they currently live elsewhere within or outside of Albania;
2. Brothers and sisters of the head of household that do not live in the household anymore;
3. Three most recent migration histories of all the persons that have changed their usual place of residence.

The methodology of the 2012 LSMS remained identical to that of the surveys conducted in the previous years. However, the geographic coverage was expanded to include all the 12 prefectures of Albania by urban and rural strata, compared to only four geographic regions (Central, Coastal, Mountainous and Tirana) by urban and rural strata defined as domains in the earlier surveys. This required a considerable increase in the sample size from 3,600 to 6,671 households. This allowed to calculate indicators of living standards for 24 strata and for the four main areas of the country, with the purpose of comparing the regional results for 2012 to those from the 2002, 2005 and 2008 surveys, and to study regional trends for various indicators.

As for the migration module, differences were as follows:

1. The migration questionnaire was smaller compared to the previous version (2008);
2. Only the last migration history was asked to be told;
3. Questions about household leavers were only asked about the children of head of household and no longer concerned his brothers and sisters.

### 3.3.4 Reproductive Health Survey (2002)

The Albania Reproductive Health Survey (RHS) 2002 was conducted by the Institute of Public Health, with the support of the United States Agency for International Development (USAID), the United Nations Population Fund (UNFPA) and United Nations Children's Fund (UNICEF), and with the technical assistance of the Division of Reproductive Health (DRH) of the Centers for Disease Control and Prevention (CDC) in the USA. INSTAT provided information from the 2001 census to serve as the sampling frame for the national sample and was also responsible for data processing.

A principal objective of the study was to examine the reproductive health status of the population and needs that can be used to help direct or modify program interventions. The RHS examined patterns and levels of fertility, contraceptive use and method selection, health behaviours, knowledge of HIV/AIDS, attitudes toward specific contraceptive methods, domestic violence and sexual abuse, as well as sex education and sexual behaviour of young adults. These data are particularly useful in assisting policy makers and program officials in the evaluation of health service needs and identification of reproductive health behaviours associated with poor health outcomes.

The collection of data and the subsequent results were concentrated in the following areas:

- Fertility trends and levels;
- Maternal and child health;
- Awareness and use of contraception;
- Need for contraceptive services;

[2] http://www.instat.gov.al/en/themes/living-standard.aspx

- Reproductive health knowledge and attitudes;
- Health behaviours;
- Young adults Knowledge of HIV/AIDS transmission and prevention;
- Violence against women.

Results of the Albania RHS are based on face-to-face interviews with 5,697 women and 1,740 men in their dwellings. The household-based survey was designed to collect information from a representative sample of men (15-49 years of age) and also women in reproductive age (15-44 years of age). Male and female samples were selected independently. For analysis purposes, three strata were constructed for the sample design: Metropolitan Tirana, other urban areas and rural areas.

# 4. POPULATION STRUCTURE AND POPULATION CHANGE

## 4.1 Population size: two decades on the decrease

One of the most surprising results of the Albania 2011 Population and Housing Census was the large population decline in the preceding inter-census period. The recorded number of 2.8 million[3] residents in Albania at the census moment – 1 October 2011 – consisted of 269 thousand people (8.8 percent) less than in the 2001 census and as much as 380 thousand (12.0 percent) less than in the 1989 census. Table 4.1 gives an overview of the change in total population size since the 1979 census.

Tab. 4.1: Population size and net population change, by census year

| Population size and net change indicators | 1979 | 1989 | 2001 | 2011 |
|---|---|---|---|---|
| Population size (in thousands) | 2,590 | 3,180 | 3,069 | 2,800 |
| Inter-census change (in thousands) | | 590 | -111 | -269 |
| Inter-census change (in percentages) | | 22.8 | -3.5 | -8.8 |
| Average annual inter-census change (in thousands) | | 58 | -11 | -26 |
| Average annual inter-census change (in percentages) | | 2.0 | -0.3 | -0.9 |

Source: Population and Housing Censuses

The political turnover in Albania in the early 1990s also marked a breaking point in the evolution of the demographic build-up of the country, particularly due to the opening up of borders for emigration. Since the Second World War, high fertility spurred rapid population growth in a country where international migration was largely absent. Although fertility started to decline from a peak in the early 1960s (e.g. Gjonca et al. 2008), the decade before the 1989 census showed an annual population growth of more than 2 percent (INSTAT 1994), which can entirely be attributed to natural increase. Civil registration and results of the 2011 census and various recent surveys indicate that the downward trend in fertility has continued during the last inter-census period, to a rate well below replacement level (e.g. INSTAT 2010; see also chapter 5 of this report).

The abolition of barriers to emigration at the demise of the regime in the early 1990s, produced a shockwave in the population development of Albania. Several hundreds of thousands Albanians left the country in successive waves in the decade before the 2001 census (e.g. Carletto et al. 2006), a loss that was not offset by immigration and natural increase. This massive emigration was the main cause for the complete reversal from a high annual population growth in the 1979-1989 inter-census period of 2.0 percent, to a negative growth (-0.3 percent annually) in the subsequent 1989-2001 inter-census period (Table 4.1). In absolute terms, the population increase of almost 600 thousand persons that was observed in the former inter-census period, turned into a decrease of more than 100 thousand in the latter.

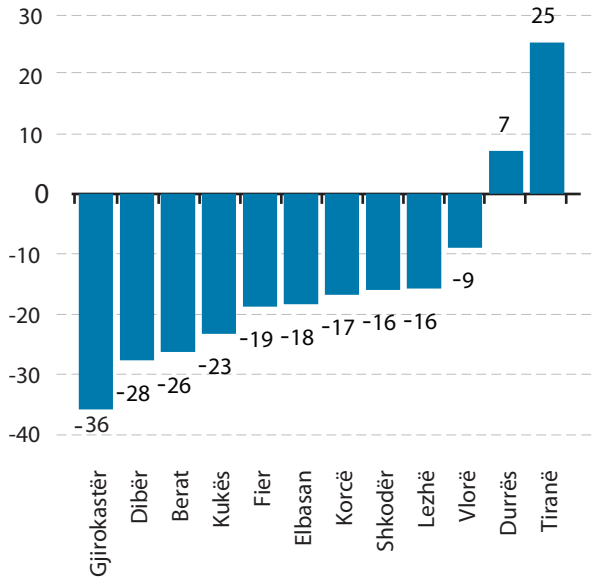
Whereas in the immediate aftermath of the 2001 census emigration was expected to strongly diminish (INSTAT 2004a), the 2011 census conclusively showed that emigration continued to occur on a massive scale (see section 7.2 of this report). Again, emigration was the most important factor in the net population loss of 269 thousand persons in the 2001-2011 inter-census period, accounting for 8.8 percent of the 2001 population (Table 4.1). On an annual basis this corresponds to an average decrease of 26 thousand persons, or 0.9 percent per year.

The change in population size at prefecture level is very unevenly distributed. No less than 10 out of the 12 prefectures showed a population decrease between the 2001 and 2011 censuses, the exceptions being Tirana and Durrës (Figure 4.1). Even more so, with the exception of Vlorë, all prefectures with negative growth showed a decrease that was at least around twice as large as the national population decrease of 8.8 percent. The largest relative population decline was reported for more remote prefectures, ranging from 23 percent in Kukës to 36 percent in Girokastër (Figure 4.1a and Figure 4.2). The pattern of population change at the prefecture level largely coincides with the pattern of internal migration (see INSTAT 2014a), indicating that, besides emigration and differential natural increase, internal migration is a process of major significance in regional population changes in Albania.

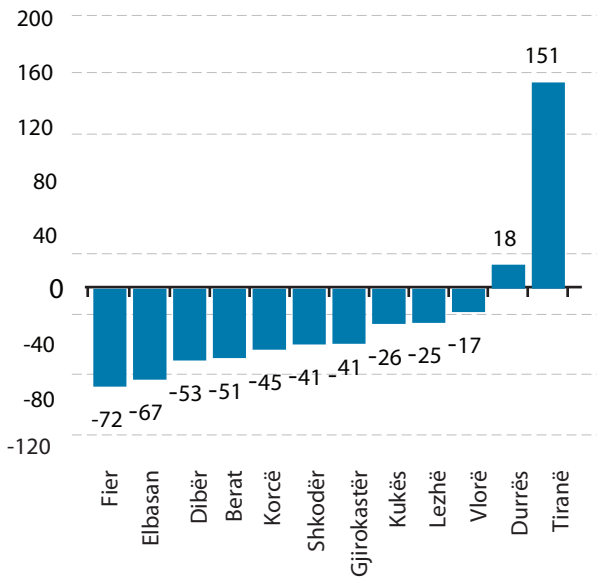
[3] According to the UN Population Division the window of opportunity is the period when the proportion of children under 15 years of age falls below 30 percent and the proportion of people 65 years of age and older is still below 15 percent.

Fig. 4.1: Population change 2001-2011, by prefecture

a. In percentages



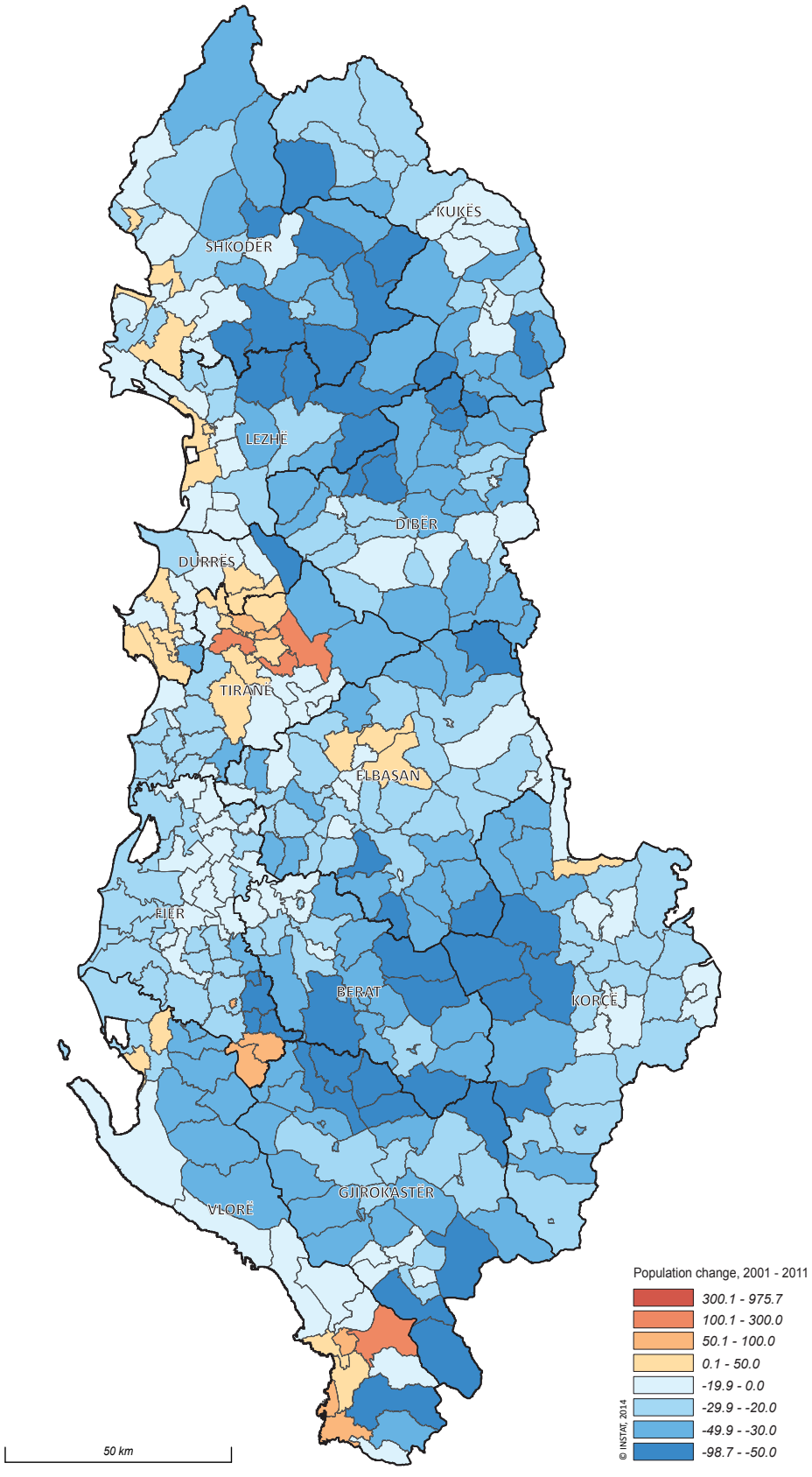

b. In thousands




Source: Population and Housing Census 2011

In absolute terms, Fier and Elbasan were the prefectures with the largest population loss (72 and 67 thousand, respectively), whereas Tirana is the only prefecture with a substantial increase in the population (151 thousand).

Fig. 4.2: Population change 2001-2011, by commune/municipality



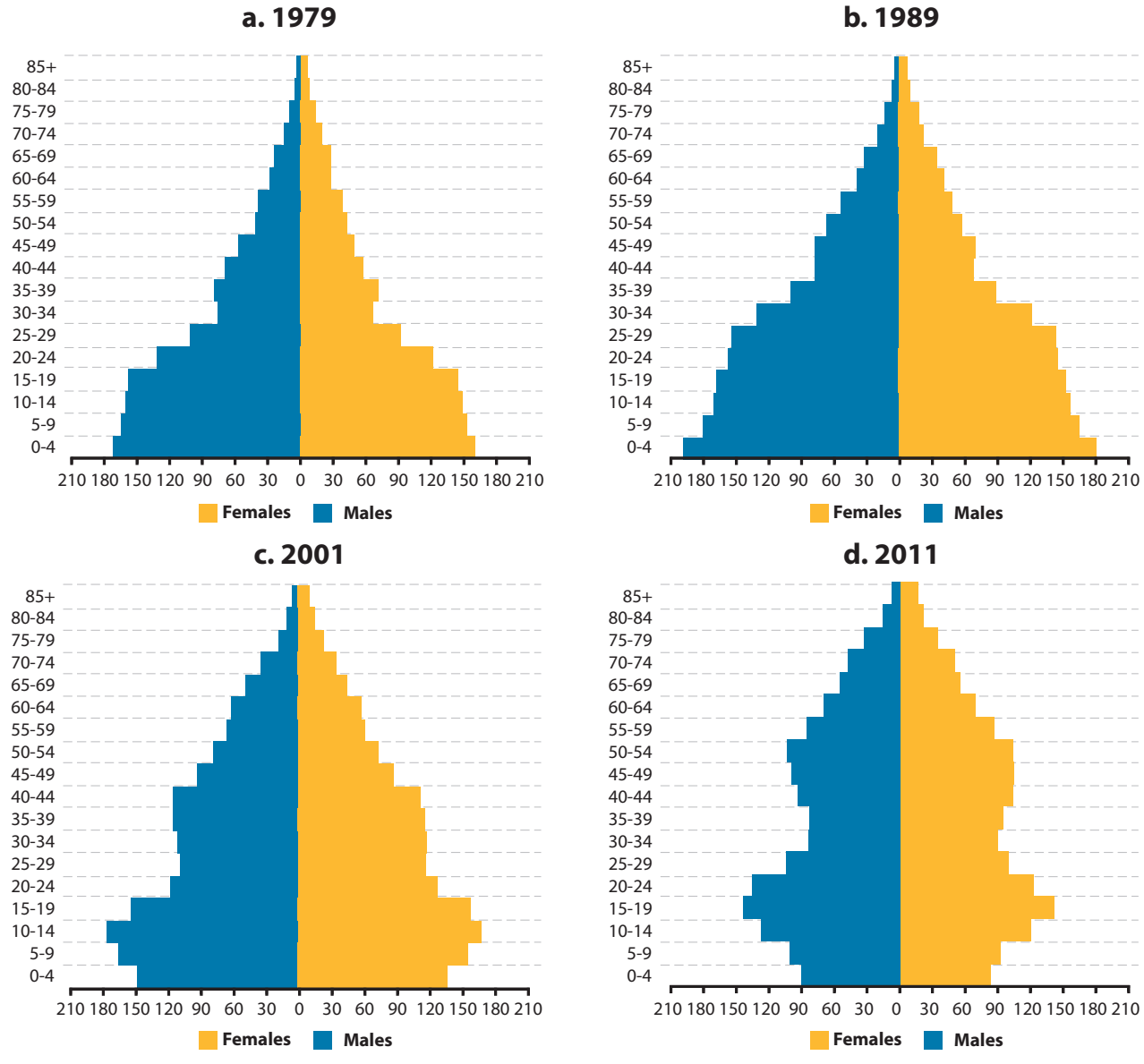

Source: Population and Housing Census 2011

## 4.2 Population structure: an ageing society

The composite processes of continuous large-scale emigration (section 7.2 of this report) and the declining fertility and mortality (chapter 6) have enormously affected the population structure of Albania. A visual inspection of the distribution by age and sex (Figure 4.3) clearly shows the transition from a classic population pyramid in 1979 and 1989 to a constrictive pyramid in 2011.

Whereas up to 1989 the age distribution was characterised by age groups that persistently decreased with age, a notable dent is visible in 2011 for the young and middle-aged adult population due to age-selective emigration. In addition, an even more pronounced size reduction is evident for the young age groups – the youngest five-year-age cohort being even the smallest in the under-55 population – due to the combined effect of fertility decline (from a TFR of over 3. (Gjonca, Aassve and Mencarini 2008). to less than 1.7 in 2011. (chapter 5 of this report) and age-selective emigration of the population in the reproductive ages (chapter 7). On the other hand, elderly cohorts have become noticeably larger.

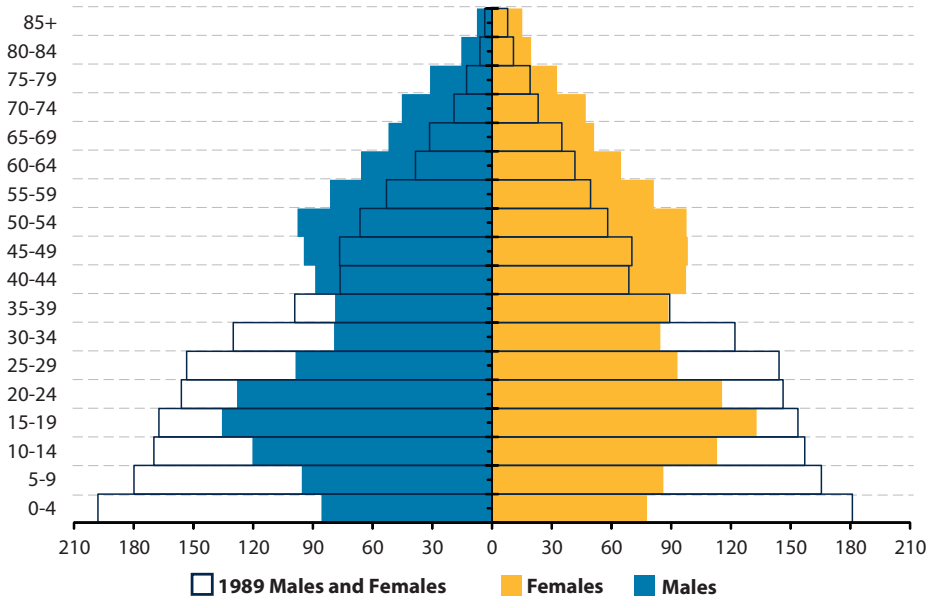
Fig. 4.3: Population for different census years by age and sex (in thousands)




Source: Population and Housing Census 2011

The large demographic change between 1989 and 2011 is summarised in Figure 4.4 and clearly shows the age groups that have gained and lost numbers of their members in the period between the two censuses.

Fig. 4.4: Population in 1989 and 2011 by age and sex (in thousands)




Source: Population and Housing Census 2011

Table 4.2 further specifies the changes in the build-up of Albania's population, both in absolute and relative terms. The number of persons in the age group of 15-64 has remained fairly stable over the last two inter-census periods, decreasing from 1,96 million in 1989 to 1,90 in 2011. The number of children under 15 years of age, however, sharply declined from 1,05 million in 1989 to only 579 thousand in 2011. On the other hand, in an overall decreasing population, a sharp increase is observed in the number of elderly people of 65 years and over, from 169 thousand to 318 thousand in the same period. These changes show a complete transformation of the society in just 22 years of time. The homes, streets and institutions in Albania are now populated by around half the 1989 number of children and by almost twice as many elderly as in 1989. In turn, these shifts involve important implications regarding development issues such as the number of schools and teachers needed, the requirements for pensions, old-age care and health facilities – significantly utilised by the elderly – and the number of persons expected to enter the labour market and tertiary education in the near future.

In relative terms, the increase in the number of elderly is even more significant. The share of the population of 65 years and over increased from 5 to 11 percent between 1989 and 2011. The share of the very old – persons aged 80 and over – is still small, but has also grown rapidly from 0.9 percent in 1989 to 2.1 percent in 2011 (data not shown). On the other hand, the percentage of the under-15 in the total population has declined to less than 21 percent, from 33 percent in 1989 and even 37 percent in 1979. The shifts in these relative shares in the population illustrate the composite processes of an ageing population: on the one hand 'ageing from the bottom' by increasingly smaller birth cohorts due to reduced fertility and emigration of women in the reproductive ages, and on the other hand 'ageing at the top' by an increasingly larger elderly population, as the combined effect of past high fertility and increasing longevity (Eurostat 2012).

Tab. 4.2: Population distribution indicators, by census year, sex

| Population distribution indicators | 1979 | | | 1989 | | | 2001 | | | 2011 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | MF | M | F | MF | M | F | MF | M | F | MF | M | F |
| **Age group (in thousands)** | | | | | | | | | | | | |
| **0-14** | 958,2 | 496,4 | 461,8 | 1.051,2 | 547,7 | 503,5 | 898,8 | 461,4 | 437,5 | 578,6 | 301,7 | 276,9 |
| **15-64** | 1.496,1 | 781,3 | 714,8 | 1.960,3 | 1.017,0 | 943,3 | 1.939,1 | 961,0 | 978,1 | 1.904,0 | 949,7 | 954,3 |
| **65+** | 136,1 | 59,7 | 76,5 | 168,8 | 73,0 | 95,8 | 231,4 | 108,1 | 123,3 | 317,6 | 151,7 | 165,9 |
| **Total** | 2.590,5 | 1.337,4 | 1.253,1 | 3.180,4 | 1.637,8 | 1.542,6 | 3.069,3 | 1.530,4 | 1.538,8 | 2.800,1 | 1.403,1 | 1.397,1 |
| **Age group (in percentages)** | | | | | | | | | | | | |
| **0-14** | 37,0 | 37,1 | 36,9 | 33,1 | 33,4 | 32,6 | 29,3 | 30,1 | 28,4 | 20,7 | 21,5 | 19,8 |
| **15-64** | 57,8 | 58,4 | 57,0 | 61,6 | 62,1 | 61,2 | 63,2 | 62,8 | 63,6 | 68,0 | 67,7 | 68,3 |
| **65+** | 5,3 | 4,5 | 6,1 | 5,3 | 4,5 | 6,2 | 7,5 | 7,1 | 8,0 | 11,3 | 10,8 | 11,9 |
| **Total** | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |
| **Dependency ratios** | | | | | | | | | | | | |
| **Total dependency ratio[a]** | 73,1 | 71,2 | 75,3 | 62,2 | 61,0 | 63,5 | 58,3 | 59,3 | 57,3 | 47,1 | 47,7 | 46,4 |
| **Young-age dependency ratio[b]** | 64,0 | 63,5 | 64,6 | 53,6 | 53,9 | 53,4 | 46,4 | 48,0 | 44,7 | 30,4 | 31,8 | 29,0 |
| **Old-age dependency ratio[c]** | 9,1 | 7,6 | 10,7 | 8,6 | 7,2 | 10,2 | 11,9 | 11,2 | 12,6 | 16,7 | 16,0 | 17,4 |
| **Age means** | | | | | | | | | | | | |
| **Median** | 20 | 20 | 20 | 23 | 23 | 23 | 27,1 | 26,9 | 27,4 | 33,5 | 32,3 | 34,7 |
| **Mean** | 25,2 | 24,8 | 25,6 | 26,7 | 26,1 | 27,1 | 30,2 | 29,9 | 30,5 | 35,2 | 34,6 | 35,9 |
| **Sex ratios[d]** | | | | | | | | | | | | |
| **0-14** | 107 | | | 109 | | | 105 | | | 109 | | |
| **15-64** | 109 | | | 108 | | | 98 | | | 100 | | |
| **65+** | 78 | | | 76 | | | 88 | | | 91 | | |
| **Total** | 107 | | | 106 | | | 99 | | | 100 | | |

a The total dependency ratio is the ratio of the population aged 0-14 and 65 and over to the population aged 15-64, expressed as a percentage.
b The young-age dependency ratio is the ratio of the population aged 0-14 to the population aged 15-64, expressed as a percentage.
c The old-age dependency ratio is the ratio of the population aged 65 and over to the population aged 15-64, expressed as a percentage.
d The sex ratio is the number of males per 100 females.

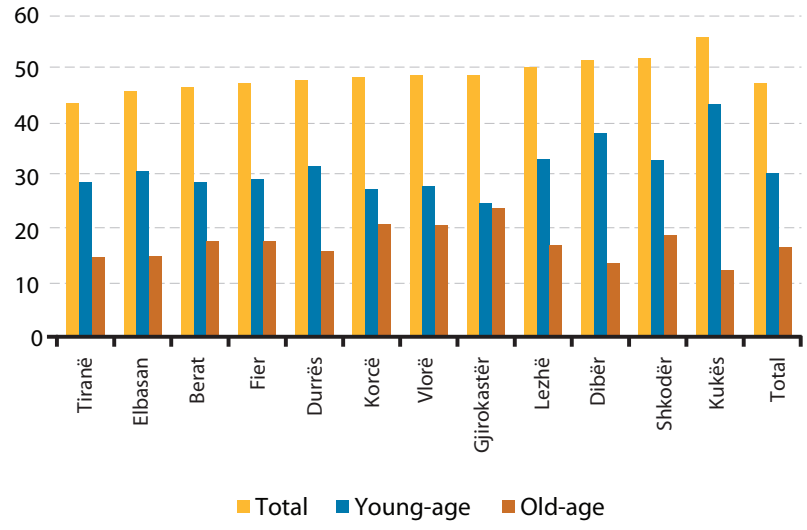
Table 4.2 shows that the share of the population in the age group of 15-64 years has steadily increased from around 58 percent in 1979 to 68 percent in 2011. This implies that the dependency ratio (the ratio of the number of persons in the age groups 0-14 and 65 and over to the number of persons in the economically most productive ages of 15-64, expressed as a percentage) has correspondingly decreased. Whereas in 1979, there were 73 persons in the less-productive young and old ages per 100 persons in the more productive ages, in 2011 this figure was only 47. This figure implies a significant reduction in the burden of dependent persons within households and the economy at large.

With its low dependency ratio of 47 percent, Albania is situated in the middle of a window of economic opportunity that roughly coincides with the period between the 2001 and prospective 2021 censuses[4]. This episode of 'demographic dividend' results from a large potentially economically productive population, relative to a small number of young and old people (e.g. Bloom, Canning and Sevilla 2003). From 2021 onwards, the window will start to close again because of the ongoing increase of the elderly and stabilising numbers of children (see INSTAT 2014b). Whether or not Albania takes full advantage of this demographic dividend depends on the extent to which the labour force is adequately educated, skilled and healthy, and whether proper economic and social policies are in place to employ these people in productive jobs.

The total dependency ratio can be broken down into the young-age and old-age dependency ratio, which represents the ratio of, respectively, the population of 0-14 and 65 and over to the population in the age range of 15-64. This breakdown again echoes the effect of an ageing population, as the decreasing young-age dependency ratio, declining from 64 percent in 1979 to 30 percent in 2011, is gradually compensated by an increasing old-age dependency ratio, from 9 to around 17 percent in the same period.

In a regional perspective, the total dependency ratio varies moderately between prefectures, ranging from 43.3 in Tirana with a relatively large population in the working age, to 55.6 in Kukës (Figure 4.5). However, differences in the composite age-specific dependency ratios are much more pronounced. Gjirokastër (24.8 percent) and Korçë (27.4) stand out with low young-age dependency ratios, and Dibër (37.8) and Kukës (43.2) with high ones. Especially regarding these outlier prefectures, the old-age dependency ratios present the reverse situation: the highest values for Gjirokastër (23.8 percent) and Korcë (20.8), and the lowest for Dibër (13.6) and Kukës (12.4). This means that for these typical cases, the dependents of the productive-age population in the latter group (Dibër and Kukës) consist for the large majority of children; and for the former group (Korcë and especially Gjirokastër) to a much larger extent of elderly.

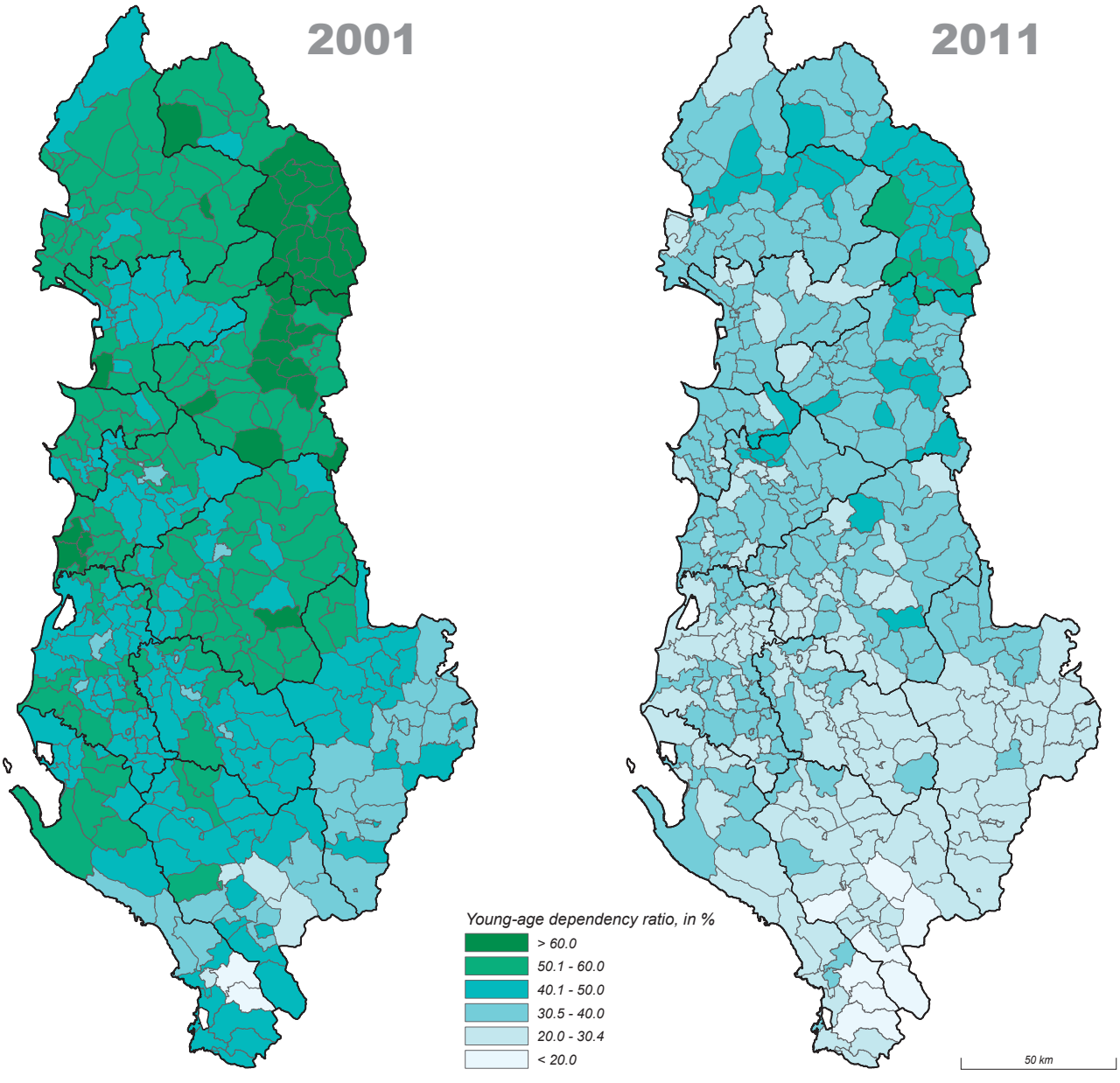
Fig. 4.5: Age dependency ratios, by prefecture




Figures 4.6 and 4.7 indicate the young and old-age dependency ratios at the lowest administrative level of for the last two censuses. They show the effects of dejuvination and greying virtually in every commune and municipality, especially spreading from periphery. By 2011 there are no more areas with high concentration of youth as was the case in North-East Albania in 2001; and whereas in 2001 few majority communes and municipalities in the extreme South had young-age dependency ratios below the 2011 national average of around 30, by 2011 this low level has swept over the entire Southern half of the country.

[4] The 2011 census figures used in this report do not include estimates of under-coverage and refusals in order to allow comparability with previous censuses. If these would be included – resulting in the estimated population on 1 October 2011 – the population figure would be 2.9 million.

Fig. 4.6: Young-age dependency ratio for 2001 and 2011, by commune/municipality

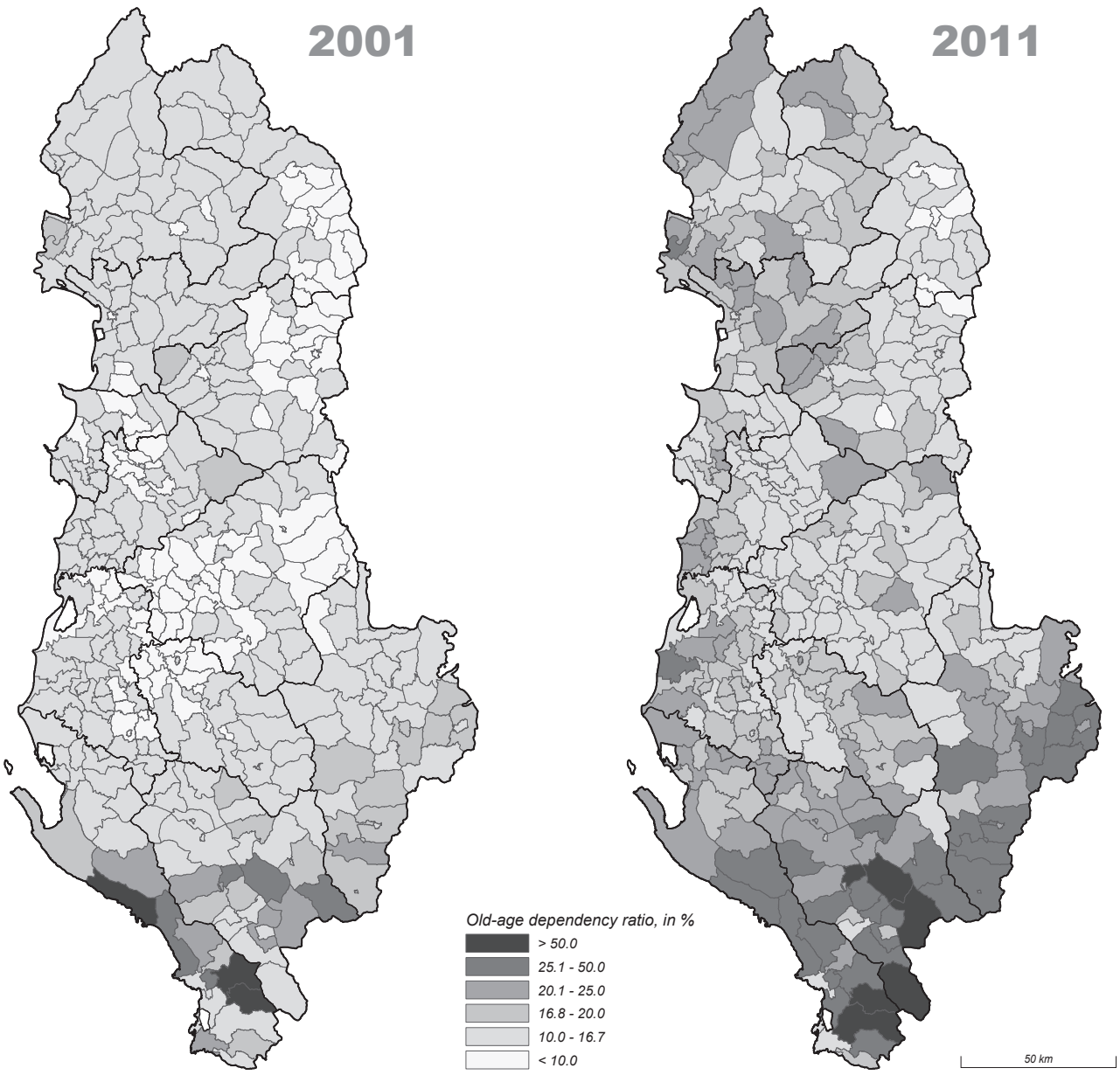



Source: Population and Housing Census 2011

As for the old-age dependency ratio, the spread of ratios largely follows the same geographic pattern, but then by expanding the range of high-level dependency (Figure 4.7). The highest ratios increase especially from the South and also from the North, although more from the North-West than the North-East, as is the case with low youth-age dependency ratios.

The ageing effect is also reflected in the strong upward trend of the median age, the exact age that divides the population into numerically equal halves. The median age at the national level rose with 13 years, from 20 in 1979 to 33 in 2011 (Table 4.2). The mean age of Albania's population reveals a similar rise of 10 years, from 25.2 to 35.2, over the 1979-2011 period.

Fig. 4.7: Old-age dependency ratio for 2001 and 2011, by commune/municipality




Source: Population and Housing Census 2011

In the wider European context, Albania takes a middle position in terms of the total dependency ratio, with other countries ranging from 38.9 for Slovakia to 54.5 for France (Table 4.3). However, due to its present stage in population development, it has the fourth-largest young-age dependency ratio and the third-smallest old-age dependency ratio. It even has the second-youngest population after Turkey in terms of median age.

Tab. 4.3: Age indicators for selected European countries (2011)

| Country | Dependency ratios | | | Median age |
|---|---|---|---|---|
| | Total | Young-age | Old-age | |
| **Albania** | **47.1** | **30.4** | **16.7** | **33.5** |
| Austria | 47.7 | 21.7 | 26.0 | 42.0 |
| Belgium | 51.7 | 25.8 | 26.0 | 40.9 |
| Bulgaria | 46.4 | 19.4 | 27.0 | 42.5 |
| Croatia | 44.7 | 22.4 | 22.4 | 41.5 |
| Cyprus | 41.9 | 23.9 | 18.0 | 35.7 |
| Czech Republic | 43.1 | 20.8 | 22.3 | 39.8 |
| Denmark | 53.1 | 27.4 | 25.7 | 40.6 |
| Estonia | 47.9 | 22.7 | 25.2 | 39.7 |
| Finland | 51.6 | 25.0 | 26.5 | 42.1 |
| France | 54.5 | 28.6 | 25.9 | 40.0 |
| FYR of Macedonia | 41.2 | 24.6 | 16.5 | 36.1 |
| Germany | 51.5 | 20.3 | 31.2 | 44.6 |
| Greece | 50.7 | 21.7 | 29.0 | 42.1 |
| Hungary | 45.6 | 21.3 | 24.4 | 40.1 |
| Iceland | 49.7 | 31.3 | 18.4 | 35.0 |
| Ireland | 48.8 | 31.7 | 17.2 | 34.5 |
| Italy | 52.3 | 21.4 | 30.9 | 43.5 |
| Latvia | 48.3 | 21.1 | 27.2 | 41.4 |
| Liechtenstein | 42.6 | 22.8 | 19.8 | 41.2 |
| Lithuania | 48.7 | 22.1 | 26.6 | 41.1 |
| Luxembourg | 45.9 | 25.7 | 20.3 | 39.0 |
| Malta | 44.5 | 22.1 | 22.4 | 39.5 |
| Montenegro | 46.9 | 28.3 | 18.6 | 36.5 |
| Netherlands | 49.3 | 26.1 | 23.3 | 41.0 |
| Norway | 51.1 | 28.3 | 22.8 | 38.7 |
| Poland | 40.2 | 21.3 | 18.9 | 38.0 |
| Portugal | 51.4 | 22.6 | 28.9 | 41.9 |
| Romania | 42.9 | 21.6 | 21.3 | 38.6 |
| Slovakia | 38.9 | 21.4 | 17.5 | 37.4 |
| Slovenia | 44.3 | 20.5 | 23.9 | 41.7 |
| Spain | 47.4 | 22.2 | 25.2 | 40.3 |
| Sweden | 54.0 | 25.6 | 28.4 | 40.8 |
| Switzerland | 47.1 | 22.3 | 24.9 | 41.6 |
| Turkey | 48.9 | 38.1 | 10.8 | 29.3 |
| United Kingdom | 51.8 | 26.5 | 25.3 | 39.7 |

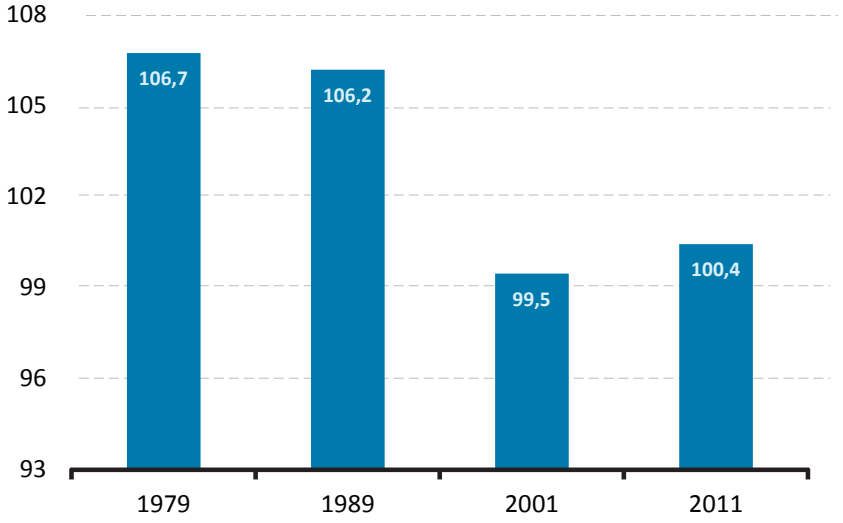
Sources: for Albania: Population and Housing Census 2011; for other countries: Eurostat database.

## 4.3 Population structure: feminisation and masculinisation trends

In 2011, the overall number of men and women in Albania was very close, as indicated by the total sex ratio (the number of males per 100 females) of 100.4. This is a slight increase from the 2001 census, when the sex ratio even indicated a small shortage of men (99.5 per 100 women). The latest two census figures indicate a significant departure from the time when Albania virtually had a closed population. At that time the sex ratios were over 106, which is a regular level for societies without migration and extraordinary sex-specific mortality.

Figure 4.8 shows the evolution of the sex ratio since the census of 1979. The sharp decrease observed by 2001 is largely related to the pattern of international migration that emerged in the 1990s. As migration is a highly gendered process, it usually affects men and women differently. During the decade preceding 2001, international migration was largely emigration-focused and male-dominated leading to a lower sex ratio. Although migration from Albania started off as a typical male-led phenomenon, it has evolved into a more gender-balanced process during the last decade (King and Vullnetari 2009, section 7.3 of this report), resulting in the slightly increased 2011 sex ratio.

Fig. 4.8 Total sex ratio by census year



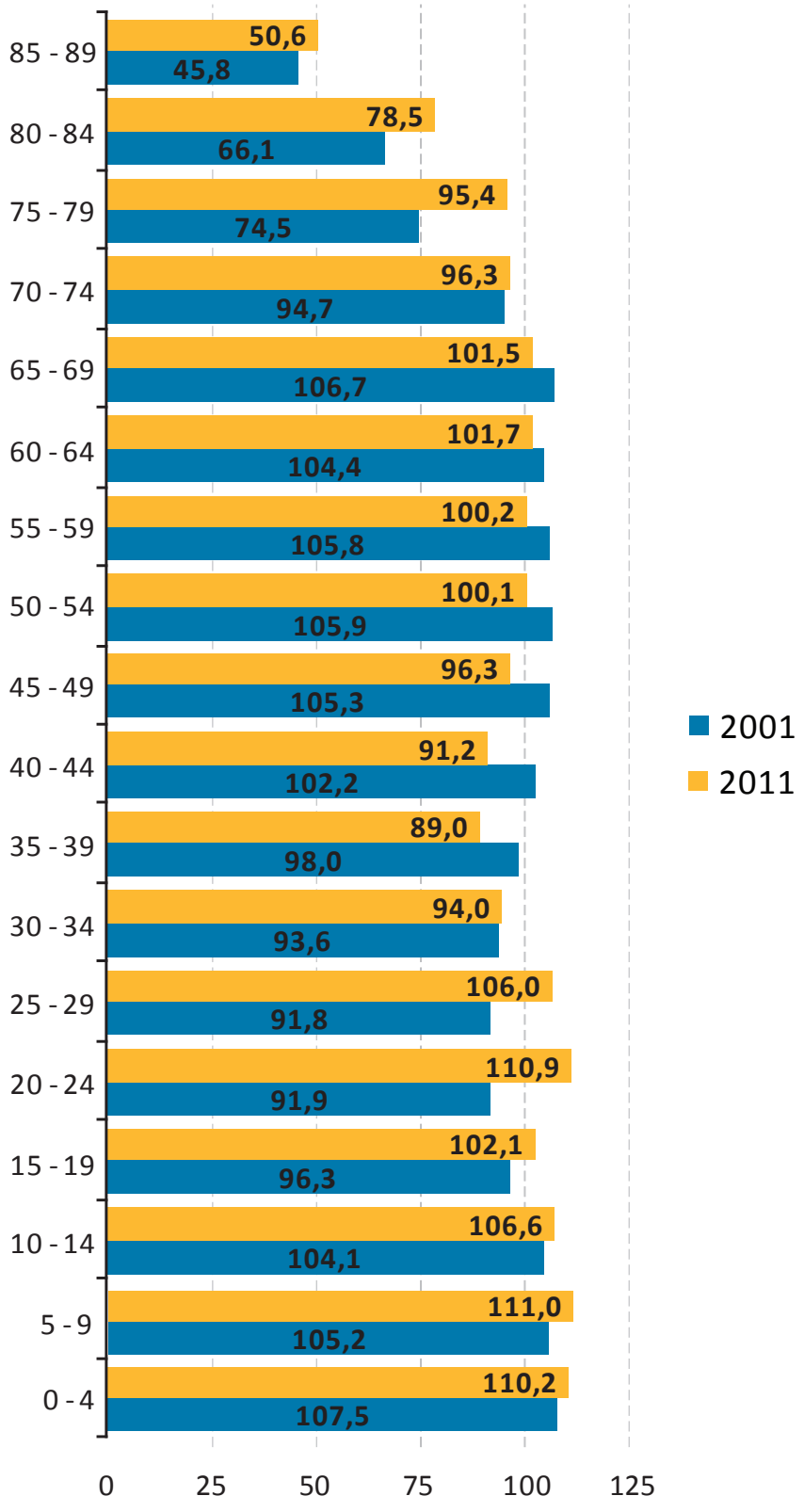

Source: Population and Housing Census 2011

After the early 1990s, the international mass migration in Albania was so strong, and so selective by age and sex, that it had a notable impact on the population structure. Because of the very high emigration rates, the Albanian population had a large shortage of young adult men in the decade preceding 2001. Figure 4.9 shows a clear shortage among the 15-39 age group for men in 2001, a sign that emigration concerned more men than women of that age group. Subsequently, this depleted male cohort resulted again in a small male cohort in 2011, the sex ratio among the 30-49 year-olds is under 100.

Although men initially dominated the outflows, resulting in a gender balance in Albania in 2001, the patterns of emigration in the last decade have been more gender balanced. In recent years, primarily due to family reunification, but also for study and employment purposes, many more women have migrated abroad, explaining the male surplus among the 20-29 age group. On the other hand among the returnees in the last inter-census period, there were twice as many males than females coming back to Albania (INSTAT 2014a).

When looking at older ages of 70 and over, the sex ratio decreases with age, resulting from a higher life expectancy among women. There seems to be a slight increase in this ratio in comparison to 2001, interpreted as the result of an increase in life expectancy that was more noticeable among men than women (INSTAT 2014b).

Fig. 4.9 Sex ratio by age group ( 2001 and 2011)




Sources: Population and Housing Censuses 2001 and 2011

In a regional perspective, both the overall sex ratio and the sex ratio at birth vary between prefectures. Tirana prefecture has the lowest sex ratio (97.8), closely followed by Shkodër (98.5), while, on the other hand, Dibër marks the highest (103.9) (Figure 4.10a). The analysis of internal migration (INSTAT 2014a) demonstrated that internal migration had considerable impact on gender differences between prefectures, the overall proportion of internal migrants is quite different for men and women. It was observed that women are more likely to migrate internally as opposed to men: the sex ratio of internal migrants is 69 men per 100 women (ibid.). The high proportion of women among young internal migrants reflects the importance of family reasons, including women who migrate for the purpose of getting married and starting a family. The surplus of women in Tirana may be explained by the combination of this gender-specific internal migration, with Tirana as the most preferred destination for internal migrants, and the finding that men tend to migrate relatively more externally.

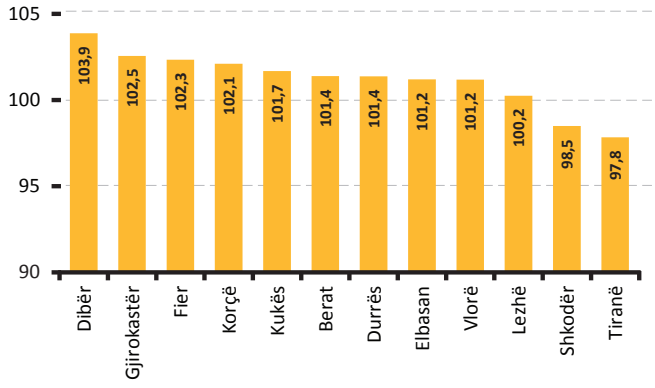
Since the most preferred destination for internal migrants is Tirana and the majority of internal migrants are females, since men tend to migrate more often externally, the sex ratio for Tirana prefecture marks a surplus among women, even though the sex ratio at birth is over the natural value (105). On the other hand, Dibër and Gjirokastër have the highest sex ratio, 103.9 and 102.5 respectively, supported by their quite high sex ratio at birth, 112.6 and 114.1 respectively.

The sex ratio at birth (the number of live-born boys per 100 live-born girls) in Figure 4.10b, indicates that only Durres shows a value close to the natural ratio of 105. All other prefectures, with the exception of Vlorë, have values that are higher to much higher, with Fier even indicating 117 baby boys per 100 baby girls, closely followed by Gjirokastër, Kukës and Dibër, with values over 110. Vlorë is an exceptional case, with a sex ratio as low as 99.7.

Boys' dominance at birth in most prefectures can be explained,at least partly, by the presence of sex-selective abortion in the Albanian society, as demonstrated in section 5.6 of this report (see also World Vision and UNFPA 2012). The fact that a realised preference for boys contrasts with the relative low total sex ratio in the country emphasizes even more the importance of gender-specific migration.

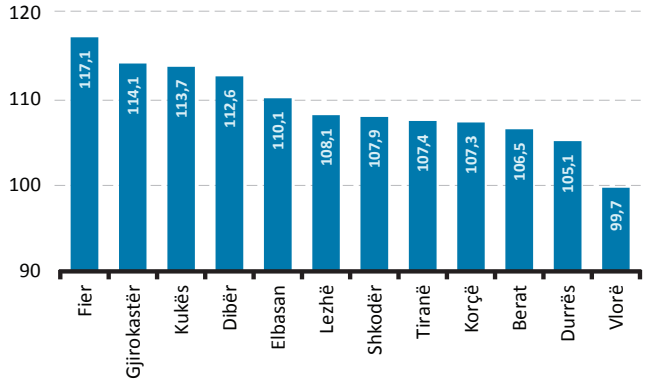
Fig. 4.10 Total sex ratio and sex ratio at birth by prefecture

a. Total sex ratio




Source: Population and Housing Census 2011

b. Sex ratio at birth




Source: Vital Statistics

# 5. ALBANIA'S FERTILITY TRANSITION

Information on fertility and mortality in the 2011 Albanian Population and Housing Census, can only be derived from two basic questions, asked to women of15 years of age and over: 1) 'Have you ever had any live-born children? If yes, write the number' and 2) 'How many of them are still alive?' These questions refer to life-time fertility and child survivorship. No questions were asked about recent fertility/mortality, sex of children, birth-histories, onset of fertility, nor about the age-pattern of both demographic events. This somewhat restricts the possibilities to study fertility and mortality on the basis of the census alone. Therefore, in this analysis information from the census will be combined with information from the vital registration and other sources. As much as possible, results will be compared with those obtained at other points in time and with information from other European countries.

## 5.1 Fertility transition

Albania is one of the few European countries where the fertility transition started at a very late stage. In the late 1940s - when many countries in Europe were long underway with their fertility transition - the country's Total Fertility Rate (TFR) was around 6, the highest among all European countries. During the 1950s, when most of Europe saw a further decline in fertility levels, Albania witnessed an increase in the average number of children per woman (Table 5.1). By 1960, the TFR reached a maximum of almost 7 children per woman. Between 1960 and 1965, a first decline in fertility took place, with a drop in TFR from 6.9 to 5.6. After 1970, TFR again came down rapidly. While the TFR was 5.2 in 1970, it decreased to 3.6 in 1980 and fell further to around 3 by 1990 (Falkingham and Gjonça 2001). Although fertility declined steadily during the period 1960-1990, it remained higher than the level in any other European country throughout the period.

The largest part of the fertility transition took place during the period 1960-1990, when the country was still under the rule of the former regime. In comparison to other countries, the Albanian government was very strict in its approach to economic, social and population policy. The population problem was considered to be an issue and completely unrelated to the society. Throughout its rule, the former government aimed for the full usage of all its labour sources and promoted the continuous growth of its population. A large set of practical measures were taken to promote large families. For instance, maternity leave was extended from six weeks to six months, free universal maternal and child health care was provided, children's clothes were subsidized etc. It is remarkable that despite this pro-natalist government policy and despite the high degree of government control over people's lives, fertility decreased by more than half during the period 1960-1990. Even more so, given that the reduction in fertility occurred in the complete absence of any family planning policy (Gjonça, Aassve and Mencarini 2008). Modern methods of contraception were unavailable and abortion was only allowed on strict medical grounds. Because of the absence of modern contraceptives, the fertility transition was solely brought about by the traditional contraceptive methods of abstinence and withdrawal. Although the government pursued a pro-natalist policy, it unwittingly supported the fertility transition as a side-effect of some other of its policies. Emancipation of women, promoted by the government, led to almost universal education of girls and an increase in the participation of women in agricultural and industrial production. Both factors are known to be closely related to a reduction in fertility.

Since 1990, fertility has further come down. In 2001, TFR measured 2.3 births per woman and by 2008, when the Demographic and Health Survey (DHS) was conducted (INSTAT, Institute of Public Health and ICF Macro 2010), fertility had already dropped below replacement level.

Tab. 5.1: Historical overview of age-specific fertility (1950-1990)

| Age | 1950 | 1955 | 1960 | 1965 | 1970 | 1975 | 1980 | 1985 | 1990 |
|---|---|---|---|---|---|---|---|---|---|
| 15–20 | 39.4 | 61.3 | 66.8 | 42.7 | 39.0 | 35.1 | 21.9 | 16.4 | 15.4 |
| 20–24 | 241.4 | 263.9 | 285.2 | 257.7 | 275.3 | 243.2 | 188.7 | 171.6 | 167.1 |
| 25–29 | 292.4 | 328.7 | 325.0 | 285.0 | 266.4 | 269.5 | 223.2 | 217.5 | 213.6 |
| 30–34 | 264.1 | 282.1 | 275.1 | 232.2 | 214.5 | 180.8 | 158.5 | 144.7 | 133.3 |
| 35–39 | 200.2 | 240.2 | 212.5 | 162.1 | 145.9 | 124.9 | 93.6 | 75.4 | 55.7 |
| 40–44 | 111.0 | 121.6 | 141.7 | 86.6 | 68.6 | 50.0 | 32.8 | 24.3 | 17.4 |
| 45–49 | 64.5 | 70.1 | 64.2 | 51.1 | 22.5 | 9.8 | 4.7 | 2.6 | 2.7 |
| **TFR** | **6.1** | **6.8** | **6.9** | **5.6** | **5.2** | **4.6** | **3.6** | **3.3** | **3.0** |

Source: Falkingham and Gjonça 2001

The reduction in fertility over the last decades is clearly illustrated by the Cohort Fertility Rates (CFR) of women, who had already terminated their fertility career by the time of the 2011 population census. The Cohort Fertility Rates or – as often called - Cohort Completed Fertility Rates (CCFR) are defined as the average number of children born by a cohort of women at the end of their reproductive careers. Table 5.2 shows the 2011 CFRs for women 45 years and above, by five year age-groups. Figure 5.1 illustrates the fertility reduction graphically.

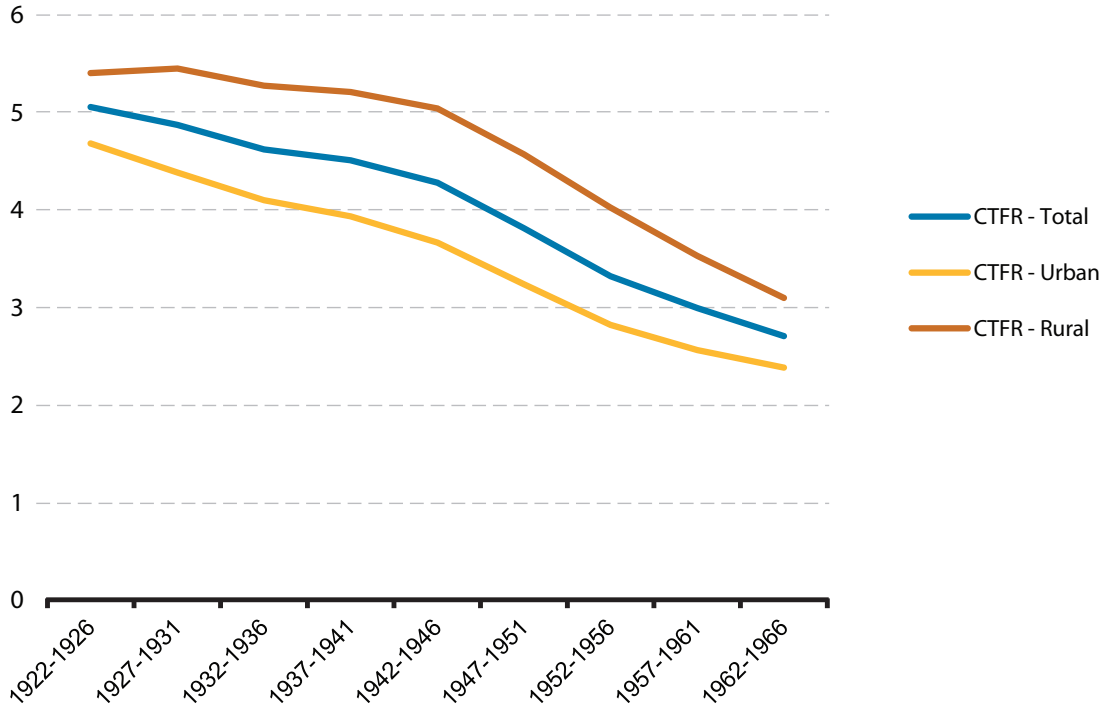
Tab. 5.2: Completed fertility rates, by urban-rural residence

| Age group | Birth cohort | Total | | | Urban | | | Rural | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Total number of women | Total number of children ever-born alive | CCFR | Total number of women | Total number of children ever-born alive | CCFR | Total number of women | Total number of children ever-born alive | CCFR |
| 45-49 | 1962-66 | 98,288 | 265,888 | 2.71 | 53,839 | 128,168 | 2.38 | 44,449 | 137,720 | 3.10 |
| 50-54 | 1957-61 | 97,700 | 292,444 | 2.99 | 54,000 | 138,326 | 2.56 | 43,700 | 154,118 | 3.53 |
| 55-59 | 1952-56 | 81,290 | 269,776 | 3.32 | 47,585 | 134,126 | 2.82 | 33,705 | 135,650 | 4.02 |
| 60-64 | 1947-51 | 64,770 | 246,937 | 3.81 | 36,808 | 119,127 | 3.24 | 27,962 | 127,810 | 4.57 |
| 65-69 | 1942-46 | 51,270 | 219,277 | 4.28 | 28,432 | 104,192 | 3.66 | 22,838 | 115,085 | 5.04 |
| 70-74 | 1937-41 | 47,128 | 212,485 | 4.51 | 25,873 | 101,747 | 3.93 | 21,255 | 110,738 | 5.21 |
| 75-79 | 1932-36 | 32,660 | 150,897 | 4.62 | 18,154 | 74,427 | 4.10 | 14,506 | 76,470 | 5.27 |
| 80-84 | 1927-31 | 19,659 | 95,736 | 4.87 | 10,678 | 46,785 | 4.38 | 8,981 | 48,951 | 5.45 |
| 85+ | 1922-26 | 15,176 | 76,707 | 5.05 | 7,323 | 34,282 | 4.68 | 7,853 | 42,425 | 5.40 |

Source: Population and Housing Census 2011; no correction factors for women and children were used in the table.

Table 5.2 shows that women, belonging to the older birth cohorts, have much higher life-time fertility than women who are members of more recent birth cohorts. Note however, that none of the birth cohorts have fertility rates that come even close to the very high period levels of the 1950s and 1960s. For instance, women who were born in 1922-1926 and who would have been around 30 in the 1950s, have an average completed fertility of 5 children, which is far below the TFR of 7 mentioned above. Although this may look as an inconsistency, it is not one, because the TFR is a period measure and a cross section of a number of birth cohorts. Therefore, temporary high levels of fertility will not necessarily show up to the same extent in cohort fertility as it does in period measures. Table 5.2 clearly shows that levels of fertility for each birth cohort are much higher in rural areas than in urban areas. For instance, urban women who were between 60 and 64 years of age at the time of the 2011 census and who belonged to birth cohorts 1942-1946, had a completed of 3.81 children, against 4.57 children for women in rural areas.

Fig. 5.1: Completed Total Fertility, by year and urban-rural residence




Source: Population and Housing Census 2011

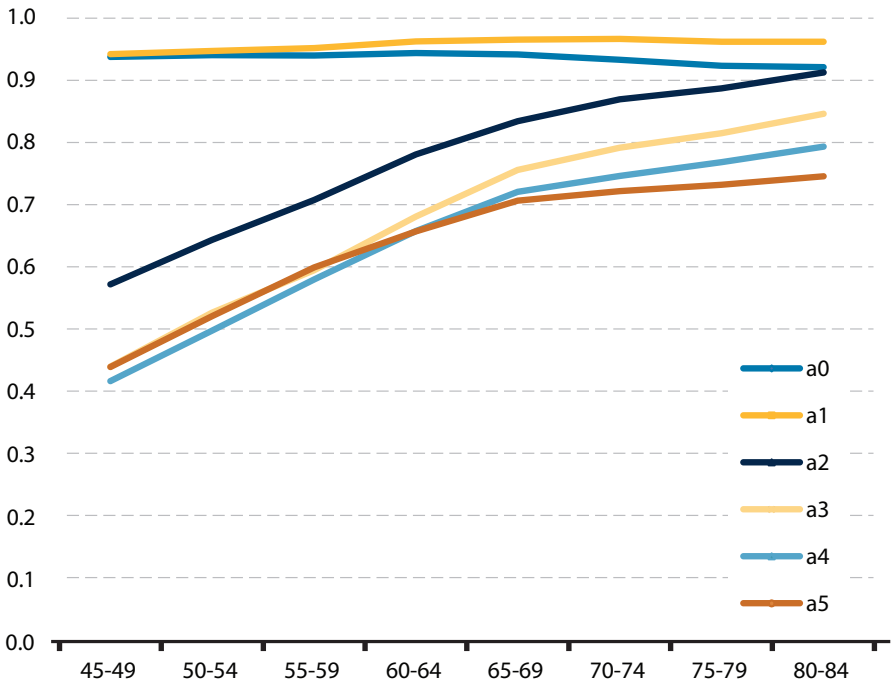
Another way to examine the past, on the basis of the reported number of children ever-born in the census, is through the use of parity progression ratios (PPR). The parity progression ratio indicates the proportion of women, who had a certain number of births (parity) and who go on to have another birth. Parity progression ratios are normally computed for women who have completed their childbearing. Table 5.3 shows PPRs for women in Albania aged 45 years and older, i.e. at the end of their fertility period; a0 stands for the proportion of women with 0 children, who go on to have at least one child; a1 for the proportion of women with parity 1, who go on to have a second child etc.. Figure 5.2 depicts the PPRs graphically.

Tab. 5.3: Parity progression ratios

| Age | a0 | a1 | a2 | a3 | a4 | a5 |
|---|---|---|---|---|---|---|
| 45-49 | 0.935 | 0.940 | 0.572 | 0.440 | 0.417 | 0.440 |
| 50-54 | 0.938 | 0.945 | 0.643 | 0.527 | 0.498 | 0.521 |
| 55-59 | 0.938 | 0.950 | 0.707 | 0.594 | 0.580 | 0.599 |
| 60-64 | 0.942 | 0.960 | 0.780 | 0.680 | 0.657 | 0.657 |
| 65-69 | 0.939 | 0.963 | 0.833 | 0.755 | 0.720 | 0.706 |
| 70-74 | 0.931 | 0.964 | 0.868 | 0.790 | 0.745 | 0.721 |
| 75-79 | 0.921 | 0.960 | 0.885 | 0.814 | 0.767 | 0.731 |
| 80-84 | 0.919 | 0.960 | 0.911 | 0.845 | 0.792 | 0.745 |

Source: Population and Housing Census 2011

Fig. 5.2: Parity progression ratios, women 45-85 years of age




Sources: Population and Housing Census 2011 and DHS 2008-09

Figure 5.2 clearly shows the reduction in fertility in the past among the somewhat younger women. The older the age of women at the moment of the 2011 census, the higher the PPRs for all levels, except for a0 and a1. Among women aged 45-49 years in the census, 93.5 percent would have had at least one live birth and 94.0 percent would go on to have a second child. Differences between the age-groups are most significant among the higher order PPRs. Among women, currently aged 45-49 years, 41.7 percent have gone on to have an extra child when they already had 4 children. Among the 80-84 year olds, this percentage was as high as 74.5.

## 5.2 Current level of fertility

The study of fertility and mortality is important as births and deaths have an imperative effect on population growth. The difference between fertility and mortality constitutes the natural growth of a population. According to the data from the Civil Registration, 34,285 babies were born and 20,226 persons died in Albania during the period 1 April 2011 – 31 March 2012[5], implying a net natural increase of 14,059 persons. With an estimated total population of 2,905,339, crude birth and death rates equated respectively to 11.8 per thousand and 6.96 per thousand. The rate of natural increase was therefore 4.84 per thousand. The crude birth rate in Albania is slightly higher than the overall mean for the European Union (10.7 births per thousand)[6], while the crude death rate was lower than the EU-average (9.6 deaths per thousand)[7]. As both rates are 'crude' measures (i.e. men and women outside childbearing ages, who are not at risk of giving birth, are also included in the denominator) they are inappropriate for distinguishing the effects of fertility/mortality and the population structure. Because of its high fertility regime in the recent past, Albania still has a relatively young age-structure. About 30 percent of its population is below age 20. Therefore, Albania's high birth and low death rate are more the result of its young age-structure, rather than its divergent fertility and mortality system.

The timing and intensity of a country's fertility regime are summarized in a fertility schedule, based on information about children born in a specific period, by the number of women belonging to specific age-groups. The number of mothers by five-year age-groups is taken directly from the census. The number of births born to women aged x, x+5 is provided by the civil registration. Age-specific fertility rates can then simply be calculated as the number of children born in a given year to mothers aged x, x+5, divided by the mid-year number of women aged x, x+5. Here, it is important to note that the census data do not refer to mid-year, but to October 1st 2011. To compensate for this, a small adaptation is made to the number of births born to women aged x, x+5. To place the population of women at the middle of the time interval, we calculated the age specific number of births by taking three quarters of the births born to women of age x, x+5 years from the year 2011 and added one quarter of the number born to women aged x, x+5 from the year 2012.

Table 5.4 shows the intensity and timing of recent fertility behaviour in Albania. Currently, the Total Fertility Rate (TFR) equals 1.67. TFR is a period measure of fertility and does not relate to a single birth cohort. It is therefore a synthetic measure that indicates the average number of children a woman would give birth to, if all women in the population would live to the end of their child-bearing years and bore children according to the current age pattern of fertility. The level of fertility in Albania is well below replacement level, i.e. the average number of children a woman would need to have to replace herself by giving birth to a daughter who survives to childbearing age. The value of the replacement level is more or less connected to a value of TFR of 2.1.

The TFR calculated on the basis of the censuses of 1989 and 2001 was respectively 2.9 and 2.3 (Table 5.5). The total fertility of the 2011 estimate of 1.67 comes very close to other estimates that were produced in recent time. In 2008-09, the Albanian Demographic Health Survey estimated the TFR to be 1.6 children per woman (INSTAT, Institute of Public Health and ICF Macro 2010, p.7). On the basis of registration data of women and births, the Albanian Institute for Statistics (INSTAT) estimated the TFR for 2011 to be 1.69. The age-specific fertility schedules for both studies are illustrated graphically in Figure 5.2.

Although the intensity of all the three estimates is very close, some small changes are present in the timing of births. When compared to the census and the civil registration, the fertility schedule based on the DHS data shows slightly higher rates between ages 25 and 29, but somewhat lower rates after age 30. It is unclear whether this is due to a real change that took place in the preceding 3 years, or whether small sampling variability, or perhaps some minor flaws in the data, play a role.

[5] The time period 1 April 2011 – 31 March 2012 was used and not the 2011 calendar year, because crude birth and death rates are computed as the number of events, divided by the mid-year population. As the census refers to October 1st, it is in the middle of the time period going from 1 April 2011 – 31 March 2012.
[6] http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tps00112
[7] http://epp.eurostat.ec.europa.eu/statistics_explained/index.php/Mortality_and_life_expectancy_statistics

Tab. 5.4: Fertility table

| Age group | Births | Female population | ASFR |
|---|---|---|---|
| 15-19 | 2,825 | 137,889 | 0.020 |
| 20-24 | 11,560 | 119,914 | 0.096 |
| 25-29 | 11,560 | 96,709 | 0.120 |
| 30-34 | 6,034 | 87,748 | 0.069 |
| 35-39 | 2,171 | 91,970 | 0.024 |
| 40-44 | 389 | 101,208 | 0.004 |
| 45-49 | 43 | 102,010 | 0.000 |
| **TFR** | | | **1.67** |

Source: Population and Housing Census 2011, Vital Statistics

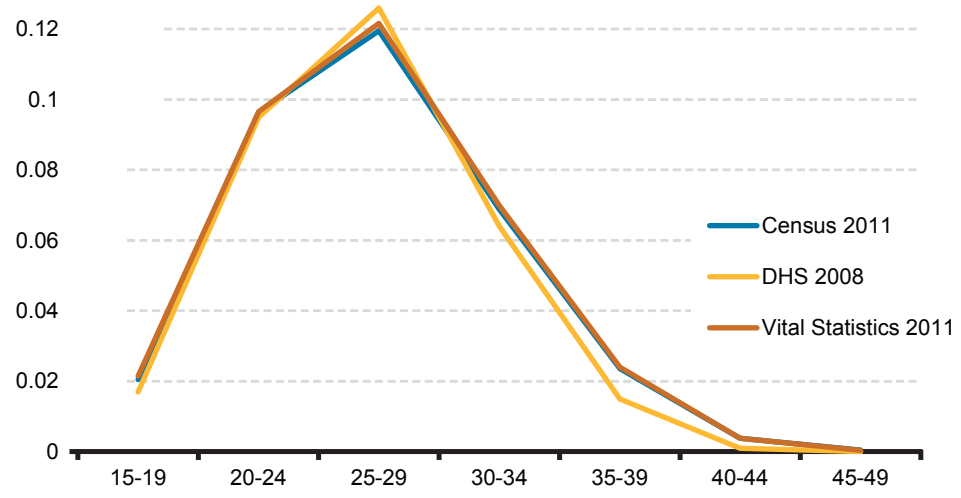
The mean age of the fertility schedule currently is 27.4 years. This fully matches the figure calculated by INSTAT on the basis of the registration data for 2011. In 2001, the mean age at childbearing was 27.1 years, with a TFR of 2.3. In the following two years the mean age jumped to 28 years, but has since then hovered around the current level. The fact that the fertility came down from a level of 2.3 to 1.66, without any change in the mean age at childbearing, is an indication that the reduction in fertility occurred at all age-groups in equal measure.

Tab. 5.5: Comparison of fertility by data source

| Age group | Census 1989 | Census 2001 | DHS 2008 | Civil register 2011 | Census 2011 |
|---|---|---|---|---|---|
| 15-19 | 0.0156 | 0.0910 | 0.0170 | 0.0215 | 0.0205 |
| 20-24 | 0.1594 | 0.6720 | 0.0950 | 0.0966 | 0.0964 |
| 25-29 | 0.2037 | 0.8340 | 0.1260 | 0.1216 | 0.1195 |
| 30-34 | 0.1278 | 0.4950 | 0.0640 | 0.0699 | 0.0688 |
| 35-39 | 0.0531 | 0.1720 | 0.0150 | 0.0241 | 0.0236 |
| 40-44 | 0.0174 | 0.0360 | 0.0010 | 0.0038 | 0.0038 |
| 45-49 | 0.0020 | 0.0040 | 0.0000 | 0.0004 | 0.0004 |
| **TFR** | **2.90** | **2.31** | **1.60** | **1.69** | **1.67** |

Sources: Population and Housing Censuses 1989, 2001, 2011, Vital Statistics, DHS 2008-09.

Fig. 5.3: Age-specific fertility rates by data source




Sources: Population and Housing Censuses 1989, 2001, 2011, Vital Statistics, DHS 2008-09.

A good indication to measure the growth of successive generations, is obtained by looking at the rate by which the average woman is 'replaced' by the number of her daughters. To do this, the Gross Reproduction Rate (GRR) was calculated, which is equivalent to the TFR, but restricted to female births (Table 5.6). Currently, the GRR stands at 0.80 female births per woman. This means that currently women fall about 20 percent short in 'replacing themselves' in number. However, the GRR does not take into account the fact that not all women will survive throughout their reproductive age span. To compensate for this, female mortality must be taken into account. The Net Reproduction Rate (NRR) is an extension of the GRR and gives the average number of daughters that women have at the end of their reproductive period if they are subject to the existing period fertility and mortality rates. Because mortality for women in the age-groups 15-50 years is very low, the NRR differs only slightly from the GRR. The NRR is currently 0.78.

Tab. 5.6: Gross and Net Reproduction Rates (2011)

| Age group | Female population | Total Births | Female Births | ASFR | ASGRR | L(n,x)F | ASNRR |
|---|---|---|---|---|---|---|---|
| 15-19 | 137,889 | 2,825 | 1,373 | 0.02 | 0.01 | 488,962 | 4,870 |
| 20-24 | 119,914 | 11,560 | 5,649 | 0.10 | 0.05 | 488,018 | 22,991 |
| 25-29 | 96,709 | 11,560 | 5,492 | 0.12 | 0.06 | 486,965 | 27,653 |
| 30-34 | 87,748 | 6,034 | 2,850 | 0.07 | 0.03 | 485,872 | 15,779 |
| 35-39 | 91,970 | 2,171 | 1,021 | 0.02 | 0.01 | 484,371 | 5,375 |
| 40-44 | 101,208 | 389 | 172 | 0.00 | 0.00 | 481,909 | 820 |
| 45-49 | 102,010 | 43 | 19 | 0.00 | 0.00 | 478,451 | 89 |
| **Fertility rates** | | | | **TFR** **1.67** | **GRR** **0.797** | | **NRR** **0.776** |

Sources: Population and Housing Census 2011 and Vital Statistics

## 5.3 Albanian fertility in the European context

In 2006, Aassve et al. published a working paper at the Institute for Social and Economic Research, University of Essex, using data from the Albanian Living Standard Measurement Survey of 2002 with the aim of looking at recent changes in fertility during the 1990s (Aassve, Gjonca and Mencarini 2006). As for many years Albania had been the country with the highest fertility regime in Europe, the title of their paper was a rhetoric question: 'The highest fertility in Europe – for how long?'

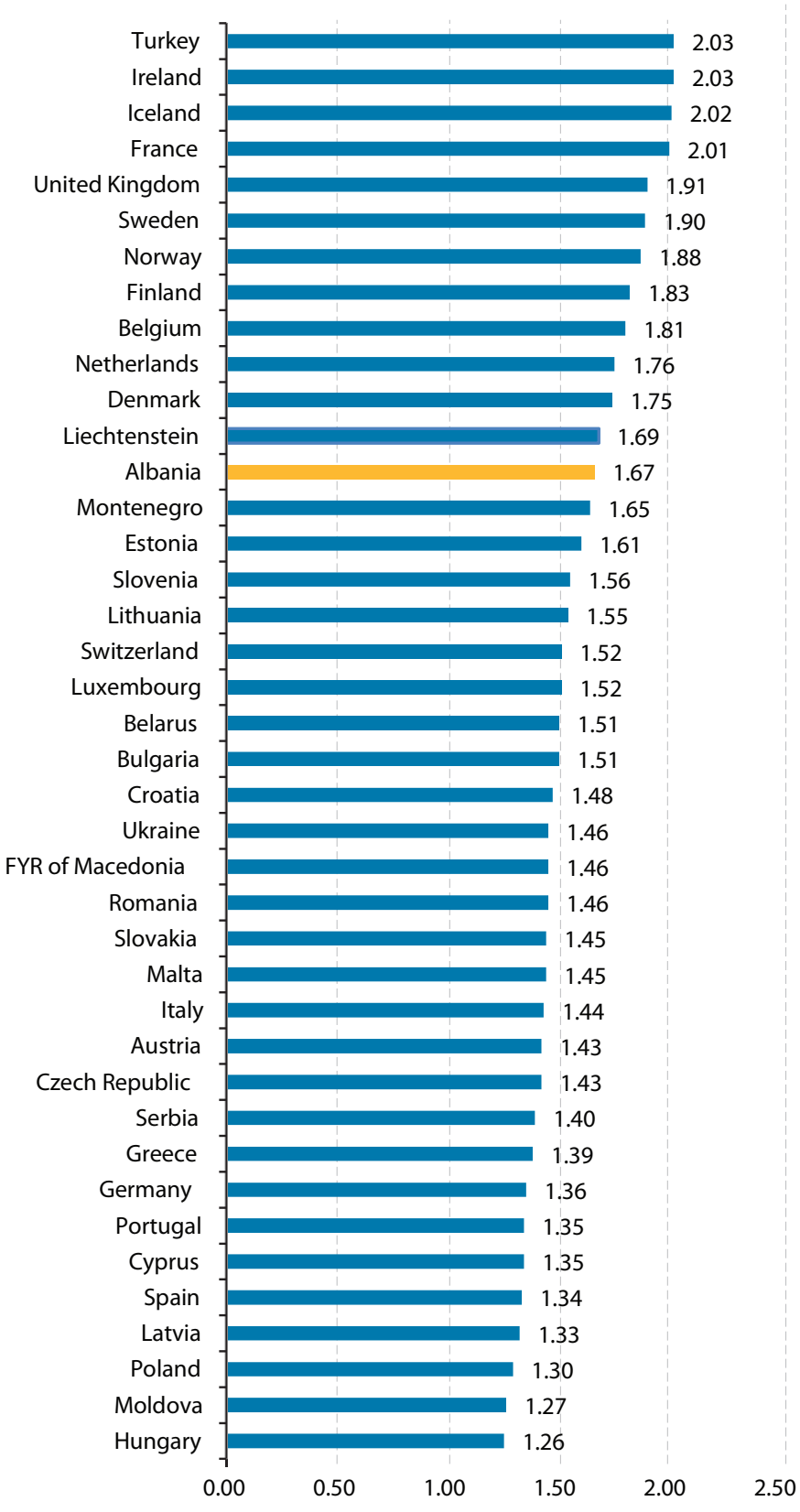
The data from the 2011 Population and Housing Census enable answering this question. In Figure 5.4, Albanian fertility is placed against the TFR from a number of other European countries. Fertility measures from the other European countries were taken from Eurostat's statistical database[8]. As showed before, the TFR in Albania was estimated at 1.67 children per woman. The bar chart clearly shows that Albania is no longer the country in Europe with the highest fertility. Actually, in recent years it even fell out of Europe's fertility top 10. Only four countries in Europe show fertility levels above 2 children per woman: Turkey, Ireland, Iceland and France. Albania now has lower fertility than some Western European countries such as Belgium, the Netherlands and the United Kingdom and some Northern countries such as Norway, Finland and Sweden.

Countries in Southern Europe have fertility levels that are still considerably lower than those observed in Albania. Compared to its neighbouring countries, Albania has higher fertility than Greece (1.39) and the Former Yugoslav Republic of Macedonia (1.46), and about the same fertility as Montenegro (1.65), but lower fertility than Kosovo (1.98) (Kosovo Agency of Statistics 2013).

The total fertility rate was 1.46 live births per woman in the 27 countries constituting the European Union in 2002. Most EU Member States saw a slight increase after 2002, which resulted in a TFR of 1.59 live births per woman in the Union by 2009. Albania's current level of fertility of 1.67 children per woman is rapidly approaching the European Union's average fertility. Given the rapid fertility transition that has taken place during the last decade, it will be interesting to see whether Albania will continue its path of fertility decline and converge to the fertility pattern of other Southern European countries or maintain its current level around the average of the EU-countries.

[8] http://epp.eurostat.ec.europa.eu/statistics_explained/index.php?title=File:Total_fertility_rate,_1960-2011_%28live_births_per_woman%29.png&filetimestamp=20130129121040

Fig. 5.4: Total Fertility Rate in selected European countries




Source: Eurostat database

## 5.4 Fertility characteristics related to the Second Demographic Transition

The previous paragraphs showed that Albania, compared to other countries in Europe had a late onset of its First Demographic Transition, but that currently both fertility and mortality (see chapter 6) have reached very low levels. It is interesting to see what the coming years will bring for Albania in terms of its fertility. It is clear that in the last 20 years important demographic changes have taken place, but the question remains whether Albania will follow the example of most countries in Europe and chose the path of the second demographic transition, or stay at its current level. This section tries to shed some light on where Albania currently stands and what direction the country may take in the future.

It was only quite recently that fertility in Albania dropped below replacement level. As such, it is way too early to predict whether sub-replacement fertility will be structural. It was also shown that the mean age of the fertility schedule in the last ten years remained around a level of 27 years. Later in this analysis we will show that never-married women have very low fertility, which means procreation is still very much bound to marriage.

Modern methods of contraceptives are widely known among Albanian women: 95 percent heard of at least one modern method (INSTAT, Institute of Public Health and ICF Macro 2010, p. 88). Although 91 percent of currently married women have ever used a contraceptive method, only 33 percent have ever used a modern method. Traditional methods were mostly used: 89 percent of currently married women used withdrawal at some stage in their lives. In terms of current use of contraception, about five times more currently married women still rely on traditional methods (59 percent) as opposed to those relying on modern methods (11 percent). Together with The Former Yugoslav Republic of Macedonia, Albania has the lowest use of modern contraception among all countries in the region. Given this low level of the use of modern contraception, it is well possible that levels of fertility will further decrease in the coming years.

Whereas the adoption of modern contraceptives may provide the means to further reduce the number of children women have, the reasons to do so can be found in the observation that new cohorts of women reaching working- and reproductive ages tend to be better educated than in the past, and even better educated than men. This may well result in higher labour-force participation and more gender equity on the labour market. If, at the same time, many social institutions would lag behind in gender emancipation and would continue to disproportionally charging women with domestic and family tasks – as it occurred in countries like Italy, Spain and Greece – then the combined burden of work and private responsibilities may lead to very low fertility, as presently experienced in these Mediterranean countries (MacDonald 2006).

## 5.5 Completeness of birth registration

As many of the fertility estimates for Albania are made on the basis of the reported number of births from the population registration, it is important to evaluate the quality of the registered data and to check the extent of registration of demographic events. In their description of the Albanian Demographic Information System (ADIS), Wanner et al. (2010) indicate that Albania faced difficulties in achieving exhaustiveness with the registration of demographic events. Some births, especially in rural areas, are not registered. A more serious problem arises by the fact that some deaths, especially at very young ages, remain unregistered. Since 1999, supportive activities by Statistics Norway (under auspices of NORAD) and the Organization for Security and Co-operation in Europe (OSCE) have provided technical assistance to improve the Albanian vital registration system.

Using a relational Gompertz model, it is possible to compare cohort parities from a census with vital birth registration, in order to evaluate the completeness of birth recording in a population registration system. This technique is explained in Moultrie et al. (2013). The model forms part of a large set of demographic estimation techniques brought together by a joint effort between the International Union for the Scientific Study of Population (IUSSP) and UNFPA.[9]

Table 5.7 presents the results of this cohort parity comparison with vital registration data. The first row in the table presents the mean number of children born to women in the five year age-groups, between ages 15 and 35. The second row presents the parity equivalents, i.e. the mean number of children ever-born per five-year age group that could be expected, given the reported number of births in preceding years by age of mother and given the number of women present in each five-year age group in the census. The third row is simply the quotient of the parities in row two, divided by parities in row one. These figures are an estimate of the degree of completeness of registration of births by age-group of the mother.

[9] Website to find Excel-programmes to apply the techniques:
http://demographicestimation.iussp.org/content/cohort-parity-comparison-vital-registration-data

The average completeness of registration (which is based on age groups 20-35) for the period 1992-2011 was estimated to be 80.2 percent. The programme also calculates the TFR on the basis of a relational Gompertz model. According to this estimation method the TFR for 2011 was estimated to be 1.78 children per woman. Actually, this estimate is not much higher than the TFR based on the combination of registered births and number of women in the census (1.67).

Tab. 5.7: Mean number of children ever-born, parity equivalents and estimated completeness of birth registration, 2011

| Indicators | 15-19 | 20-24 | 25-29 | 30-34 |
|---|---|---|---|---|
| Mean number of children ever-born from last census | 0.038 | 0.339 | 1.059 | 1.770 |
| Parity equivalents (applies to end year) | 0.012 | 0.275 | 0.848 | 1.423 |
| Completeness | 0.315 | 0.811 | 0.801 | 0.804 |
| Average completeness | | | 0.803 | |

Sources: Population and Housing Census 2011 and Vital Statistics

Given the results of the cohort parity comparison with vital registration, a couple of observations can be put forward. First, the model shows much lower completeness for women below age 20. The completeness of registration for this age group is estimated to be only 31.5 percent. Second, one should not forget that the estimated degree of completeness of birth registration is an average of the whole period under investigation, i.e. from 1992 till 2011. As mentioned before, serious efforts have been made since 1999 to improve the vital registration system in Albania. Therefore, it can be expected that completeness of registration is now higher than it was twenty years ago. This would imply that the TFR based on registration data would come even closer to the estimate of 1.67 children per woman. Third, the method assumes that mortality and migration events are not directly related to the fertility experience of women. In the case of Albania, this may be an assumption that does not fully hold ground. As mentioned in chapter 7 of this report, emigration has been considerable in Albania. Quite possibly, the level of migration for women without children is much higher than for women who have to take care of young children. If this is the case, the level of completeness of registration would be significantly higher than estimated by the indirect method.

Since the difference in TFR between the direct estimation measures on the basis of the civil registration data and the indirect estimation is relatively small, we can use the direct estimates with reasonable confidence, also because the direct measures come very close to the 2008-09 DHS results, which were based on reported survey data alone.

Completeness of death registration could not be estimated in the case of Albania. Although an indirect estimation technique exists to assess the completeness of death registration, it is only valid for countries with no or very limited migration (Hill 1987). With its high levels of international migration, the method is unfortunately of no use in Albania.

## 5.6 Distorted sex ratios

The sex ratio at birth indicates the number of boys born alive per 100 girls born alive. The natural level of sex ratio at birth is about 105 and quite consistent among countries. The sex ratio at birth in Europe is at the natural level of 105 boys for 100 girls. Generally speaking, only sex-selective abortion and sex-specific underreporting of births can have a real impact on the level of the sex ratio at birth.

Table 5.8 shows the number of births in Albania by sex and the corresponding sex ratios during the period 1990 - 2012. It is clear from this table that in Albania, throughout the period, sex ratios at birth are significantly higher than would be expected under natural circumstances. The sex ratio at birth shows some clear fluctuations over the period of 22 years, with a maximum of 114 baby boys per 100 baby girls during the period 2006-2007, but hovers around a mean level of 111 baby girls per 100 baby boys. It is interesting that Montenegro and Kosovo, two of Albania's neighbouring countries have similar sex ratios at birth during the period 2009 - 2011: Montenegro (109.7) and Kosovo (109.8).

Tab. 5.8: Live births by sex and calendar year (1990-2012)

| Year | Total | Male | Female | Sex Ratio | Missing girls |
|---|---|---|---|---|---|
| 1990 | 82,125 | 42,564 | 39,561 | 1.08 | 976 |
| 1991 | 77,361 | 40,748 | 36,613 | 1.11 | 2,195 |
| 1992 | 75,425 | 39,505 | 35,920 | 1.10 | 1,704 |
| 1993 | 67,730 | 35,570 | 32,160 | 1.11 | 1,716 |
| 1994 | 72,179 | 38,022 | 34,157 | 1.11 | 2,054 |
| 1995 | 72,081 | 38,085 | 33,996 | 1.12 | 2,275 |
| 1996 | 68,358 | 35,519 | 32,818 | 1.08 | 1,010 |
| 1997 | 61,739 | 32,178 | 29,561 | 1.09 | 1,085 |
| 1998 | 60,139 | 31,556 | 28,583 | 1.10 | 1,470 |
| 1999 | 57,948 | 30,367 | 27,581 | 1.10 | 1,340 |
| 2000 | 51,242 | 26,686 | 24,556 | 1.09 | 859 |
| 2001 | 53,205 | 27,986 | 25,219 | 1.11 | 1,434 |
| 2002 | 42,527 | 22,369 | 20,158 | 1.11 | 1,146 |
| 2003 | 45,313 | 23,834 | 21,479 | 1.11 | 1,221 |
| 2004 | 40,989 | 21,765 | 19,224 | 1.13 | 1,505 |
| 2005 | 38,898 | 20,616 | 18,282 | 1.13 | 1,353 |
| 2006 | 35,891 | 19,130 | 16,761 | 1.14 | 1,458 |
| 2007 | 34,448 | 18,327 | 16,121 | 1.14 | 1,333 |
| 2008 | 33,445 | 17,625 | 15,820 | 1.11 | 966 |
| 2009 | 34,114 | 18,080 | 16,034 | 1.13 | 1,185 |
| 2010 | 34,061 | 18,063 | 15,998 | 1.13 | 1,205 |
| 2011 | 34,285 | 17,849 | 16,436 | 1.09 | 563 |
| 2012 | 35,295 | 18,384 | 16,911 | 1.09 | 598 |

Source: Vital Statistics

It is important to know whether sex selective abortion in Albania is taking place on a relatively large scale. In fact, all components that could lead to elevated levels of sex-selective abortions are present in the country. First, the urge to limit the number of baby girls is still present. Traditionally, Albania had a strong patriarchal, male dominated social system in which male children were highly favoured over female children. Boys were vital for securing the status and position of the patriarch within society, while girls had to be married out and would join the family of the bridegroom. In his research on patriarchal influence on reproductive decision-making and the promotion of male fertility, Lerch (2011) shows that at the moment son preference is still strongly present. Second, women in Albania can easily use services to determine the sex of the child during pregnancy and have access to facilities to terminate their pregnancy if so wanted. Levels of antenatal care from a skilled provider, at least once during pregnancy, are high (97 percent). Among women who had a prenatal check-up, 95 percent had an ultrasound examination (INSTAT, Institute of Public Health and ICF Macro 2010). In 1991, the Albanian government regulated the activities of family planning clinics and since 1995, abortion was legalized during the first 22 weeks (health and social motives), and during the first 12 weeks for psychological reasons. Table 5.9 shows that the abortion ratio (number of abortions per thousand live births) is quite high in Albania. For every thousand live births in 2011, 205 abortions were performed. This figure was however much lower than that of 1994, when 434 abortions were performed for every thousand births, but the numbers remain quite substantial. Finally, sex selective pregnancy regulation operates within a system of fertility decline when the proportion of parents with no son increases, as overall fertility levels are very small.

The high sex ratio observed in the Albanian vital registration is reflected in the sex ratio from the census in the age-group 0-5 years (107.7). In the last column of table 5.9 presents the number of additional female births that would have taken place in Albania during the period 1990-2012, if a natural sex ratio at birth would have been present. A total of 30,650 additional girls would have been born in a period of 22 years, if 105 baby boys would have been born against 100 baby girls. This is equal to more than 1 percent of the current population of the country. The high sex ratios at birth have drawn the attention of the international community. Recently, under the auspices of World Vision and UNFPA, a study was conducted on sex imbalances at birth in Albania.. Reference is made to this publication to provide the reader with more in depth information about the matter (World Vision and UNFPA 2012).

Tab. 5.9 Births and abortions by calendar year (1994-2011)

| Year | Births | Abortions | Abortions / number of births x 1,000 |
|---|---|---|---|
| 1994 | 72,179 | 31,292 | 434 |
| 1995 | 72,081 | 32,268 | 448 |
| 1996 | 68,358 | 27,734 | 406 |
| 1997 | 61,739 | 22,133 | 358 |
| 1998 | 60,139 | 18,948 | 315 |
| 1999 | 57,948 | 16,360 | 282 |
| 2000 | 51,242 | 17,120 | 334 |
| 2001 | 53,205 | 15,700 | 295 |
| 2002 | 42,527 | 13,961 | 328 |
| 2003 | 45,313 | 12,087 | 267 |
| 2004 | 40,989 | 10,517 | 257 |
| 2005 | 38,898 | 9,403 | 242 |
| 2006 | 35,891 | 9,552 | 266 |
| 2007 | 34,448 | 9,030 | 262 |
| 2008 | 33,445 | 8,335 | 249 |
| 2009 | 34,114 | 8,139 | 239 |
| 2010 | 34,061 | 6,919 | 203 |
| 2011 | 34,285 | 7,042 | 205 |

Source: Vital Statistics

A powerful indicator to see if sex selective abortion is present in a country is obtained by looking at the sex ratio at birth by birth order of the child. The idea behind this indicator is that at first birth, people would not mind the sex of the child too much. However, at second birth, especially if the first child was a girl, people would strongly favour a boy, and perhaps couples would go for a pregnancy intervention if the ultra-sound would show the fetus to be a girl. With the third child, this inclination would be even stronger. If this phenomena is operational, then sex ratios at birth would be higher for higher birth orders than for lower birth orders. Table 5.10 presents the sex ratios at birth by birth order. Figures concern the year 2013 and constitute the most recent data from the civil registration. In 2013, sex ratios at birth were 109,3 boys per 100 girls.

Tab. 5.10: Sex ratio, by birth order, 2013

| Birth order | Female | Male | Total | Sex ratio at birth |
|---|---|---|---|---|
| 1 | 6,900 | 7,362 | 14,262 | 106.7 |
| 2 | 4,773 | 5,156 | 9,929 | 108.0 |
| 3 | 1,686 | 1,929 | 3,615 | 114.4 |
| 4 | 345 | 560 | 905 | 162.3 |
| 5+ | 158 | 190 | 348 | 120.3 |
| Missing | 2,177 | 2,327 | 4,504 | 106.9 |
| **Total** | **16,039** | **17,524** | **33,563** | **109.3** |

Source: Vital Statistics

We can gather from table 5.11 that the higher the birth order, the higher the sex ratio. Regarding first-order births, the sex ratio (106.7) is slightly higher than the expected level. Sex ratios for higher-order births are respectively 108.0 (2nd-order birth), 114 (3rd-order birth) and 162 (4th-order birth). Due to the low fertility level, only very few women in Albania continue to have four children. Only 345 fourth-order births were recorded in the country. Perhaps this is a selective group of women who have given birth to 2 or three baby girls in a row and now want to make sure that the next child is a boy. However, data to substantiate this supposition are unavailable. For women who give birth to 5 children or more, the sex ratio of their last child becomes lower again (120.3), but it is still much higher than the level of first-order births. Increasing sex ratios for higher birth orders are a strong indicator that sex selective pregnancy intervention is being practiced in Albania.

High sex ratios at birth have been present in Albania for a large number of years. The population projection report of 1999 mentions that after 1980 the sex ratio at birth suddenly increased to 109.5 (INSTAT 1999). The increase was first noted around 1975 in the urban areas and after 1980 it started to be observed in the rural areas. It is interesting to note that at the time the authors found no specific grounds to support the idea of sex-selective abortions. During this period, there were only 2 ultra sound scans in the country and sex ratios at birth by birth order were not significantly different between the first four birth orders. If any sex dependent pregnancy intervention was practiced during those days, it was certainly not practiced more frequently at higher birth orders than at lower birth orders. The authors of the projection report mention that indeed Albanians tried to control the sex of their offspring. It is interesting to note that traditionally two methods were used to increase the chances of having a baby boy. The first method involved adding up the month of conception of the child with the age of the mother. If the sum of both numbers was even, then the child would be a girl, if it was uneven, then it would be a boy. The second method involved calculating which one of the couple had the 'newest' blood. According to people's beliefs, the blood of a man renews every 4 years and the blood of a woman every 3 years. At conception, the sex of the child would be the same as the sex of the spouse with the newest blood (INSTAT 1999). We wonder whether both techniques are still used by some people, and seriously doubt its effectiveness. The fact remains that there is evidence that sex-selective pregnancy intervention is currently being practiced, as it was in the past. However, the phenomenon is currently not well understood and there is definitely need for specific research in this area. Unfortunately, the questions in the census on children ever-born and children surviving were not asked separately for boys and girls. This seriously limits the use of census as a source for studying sex imbalances at birth.

## 5.7 Differential fertility in Albania

The study on differential fertility captured the group differences that exist in terms of human fertility between various demographic, social, economic and cultural groups. This is important because it allows determining the factors that cause different levels of fertility among sub-groups in society. It also provides information to put together and monitor family planning and reproductive health programmes in a country.

The number of children ever-born reported by women can be used to study fertility differentials in Albania, as the dependent variable in a multiple regression and a set of characteristics of the mother as explanatory variables. In this analysis, it is opted for a limitation of the data to women aged 15-49, in order to measure differentials during more recent times. In the case of children ever-born, an ordinary linear regression (OLS) would not be suitable, as this would violate the assumption of homoscedasticity. A linear regression requires that the variance of the dependent variable is constant

for any value of the explanatory variables (homoscedasticity). As younger women have much lower maximum fertility than older ones, their variance for observed fertility is much smaller than for older women. As children ever-born are a count variable that cannot be negative, a log-linear Poisson regression model is most appropriate [10], as it does not require the assumption of homoscedasticity. However, a normal Poisson regression for counted data requires that the mean and variance are the same. As this is not the case with CEB, an extension to Poisson regression, based on the negative-binomial distribution, can take account of this limitation. In this analysis, therefore, a negative-binomial regression model was used.

Next to CEB as dependent variable, the following explanatory variables were included:

1. *Age-group:* age-group as an independent variable was included to capture the effect of duration of exposure on CEB.. Because the effect of age on CEB is not linear, 5 year age-groups were chosen instead of age as a continuous variable.
2. *Prefecture:* prefecture was included to study regional variability in the level of fertility.
3. *Female educational level:* the relationship between female educational level and fertility has been demonstrated in many studies. Higher education has been shown to have a diminishing effect on both the demand and supply side of children (Basu 2002). Educational level was introduced in the analysis to quantify the effects of higher educational levels on fertility in Albania, after controlling for other intervening factors.
4. *Urban/rural place of residence:* the dichotomy urban/rural was added in the analysis in order to look into the differences between fertility in urban and rural areas. In many countries accross the world, urban areas have played a key role in the fertility transition. This analysis will show whether this is also the case in Albania.
5. *Job status of women:* choices women make in terms of participation in the job market and fertility are closely related. Employment in the modern sector normally has a dampening impact on fertility.

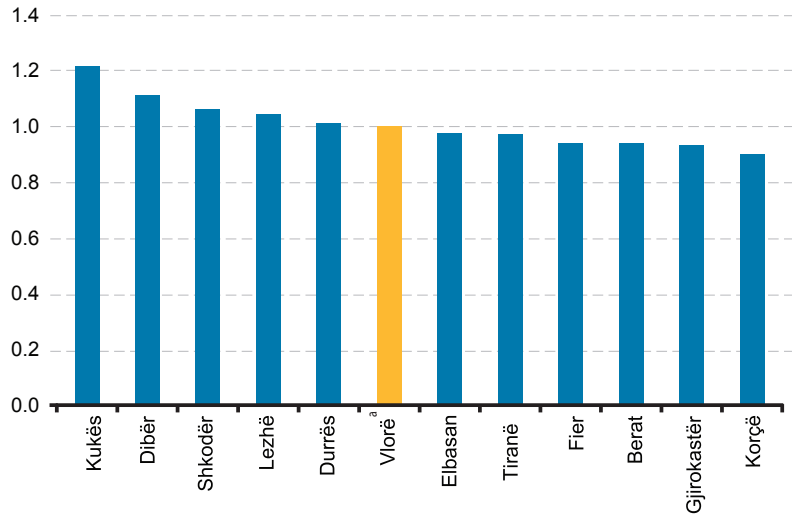
Table 5.11 shows the results of fitting the negative-binomial Poisson regression model to the number of CEB. Obviously, as the data relate to a census and not to a sample survey, no significance levels are presented. Poisson regression differs from OLS regression because the predicted scores are not the number of events (i.c. CEB), but the natural logarithm of the number of events. Therefore, next to the regression coefficients (B) the exponentials of these respective regression coefficients (exp(B)) are presented, which in a Poisson regression indicate the multiplicative changes in the predicted count. For instance, a value of 1.5 of exp(B) would mean that the predicted CEB is 1.5 times higher than in the reference category, while all other variables are kept constant.

The regression results clearly show a number of large discrepancies between various subgroups of Albanian women as far as the number of their offspring is concerned. It should come as no surprise that the higher the age of a woman, the higher the number of her children ever-born. The reference category for age-group are women of 45-49 years of age. Compared to this group, women who are currently aged 15 to 19, have only 13 percent of the fertility of these women. The relative higher percentages for older women is caused by the fact that these women had more exposure time for having children, but also that they belong to birth cohorts with higher overall fertility.

Even after control for urban/rural residence and other socio-demographic variables is carried out, significant differences exist between the number of children women have accross the different prefectures in the country. In Figure 5.5, we present the multiplicative changes in the number of children ever-born by prefecture, as compared to Vlorë, which served as reference category (value = 1). The prefecture with the highest mean number of children, after controlling for other intervening factors, is Kukës, which has a more than 20 percent higher count of CEB than Vlorë. The lowest number of children per woman can be found in Korçë, which has about a 10 percent lower number of CEB than Vlorë. After controlling for urban/rural residence, the number of CEB for Tirana is only a 2.7 percent lower than Vlorë. Other regions that have higher fertility than Vlorë are: Dibër (11 percent higher), Durrës (1 percent higher), Lezhë (4 percent higher) and Shkodër (6 percent higher).

[10] For an introduction into Poison regression models refer for instance to: http://ehs.sph.berkeley.edu/hubbard/longdata/webfiles/poissonmarch2005.pdf

Fig. 5.5: Multiplicative effect of prefecture on "Children Ever-Born"




Source: Population and Housing Census 2011

a. Vlora served as reference category (value = 1)

Large differences exists in the number of children ever-born by women of different educational background, after controlling for other factors (such as age: older women tend to have lower educational level than younger women). Women with the highest educational level were taken as reference group. The group with the highest number of children are women with primary education (83 percent higher), as opposed to women with a very high education level. One would expect women with no education to have the highest fertility, but their CEB is considerably lower than those with only primary education (53 percent higher compared to highest education level). Women with obligatory lower secondary education have about 50 percent more children, against 35 percent of women with lower secondary vocational training. Apparently, there is still quite a difference between women with higher secondary education and women with higher degrees. Levels for both groups of women with advanced secondary education are about 28 percent higher than among women in the highest educational category. Women with higher degrees tend to have fertility which is much closer to the highest group.

Women who are widowed (reference category) have about the same number of CEB as married women, but considerably higher fertility than separated women (25 percent higher) and divorced women (20 percent higher). The results for the never-married group clearly show that in Albania fertility is still very much confined to the institution of marriage. Even after statistically controlling age, never married women have, on average, still about 50 times less children ever-born than widowed (and married) women. The net rural-urban difference between fertility outcomes is rather small in Albania. Women in urban areas have only 6.3 percent less children than women residing in rural areas. Also, differences in job status are quite limited. Women who work on a farm have just a slightly higher fertility than women who do not work, while women in paid employment score somewhat lower, with a 6.3 percent lower count of CEB.

Tab. 5.11: Negative-binomial Poisson regression on Children Ever-Born

| Parameter | Parameter Estimates | B | $e^B$ |
|---|---|---|---|
| | Intercept | 0.7620 | 2.1425 |
| Age-group | 15 -19 | -2.0365 | 0.1305 |
| | 20 -24 | -1.1836 | 0.3062 |
| | 25 -29 | -0.6022 | 0.5476 |
| | 30 -34 | -0.2918 | 0.7469 |
| | 35 -39 | -0.1240 | 0.8834 |
| | 40 -44 | -0.0606 | 0.9412 |
| | 45 -49 | 0[a] | - |
| Prefecture | Berat | -0.0633 | 0.9387 |
| | Dibër | 0.1057 | 1.1115 |
| | Durrës | 0.0125 | 1.0126 |
| | Elbasan | -0.0226 | 0.9777 |
| | Fier | -0.0607 | 0.9411 |
| | Gjirokastër | -0.0691 | 0.9332 |
| | Korçë | -0.1055 | 0.8999 |
| | Kukës | 0.1948 | 1.2151 |
| | Lezhë | 0.0419 | 1.0428 |
| | Shkodër | 0.0619 | 1.0638 |
| | Tiranë | -0.0273 | 0.9731 |
| | Vlorë | 0[a] | - |
| Education | Without diploma | 0.4646 | 1.5913 |
| | Primary education | 0.6053 | 1.8318 |
| | Lower secondary (obligatory education) | 0.4059 | 1.5006 |
| | Lower secondary vocational (2-3 years) | 0.2983 | 1.3475 |
| | Upper secondary (general) | 0.2474 | 1.2807 |
| | Upper secondary technical (4-5 years) | 0.2480 | 1.2814 |
| | Tertiary (BA) | 0.0652 | 1.0674 |
| | Tertiary (BAMA) | -0.0208 | 0.9795 |
| | Tertiary (old system before Bologna) | 0.0792 | 1.0825 |
| | Post-graduate/Master | -0.0483 | 0.9528 |
| | Doctorate/PhD | 0[a] | - |
| Rural/urban | Urban | -0.0644 | 0.9377 |
| | Rural | 0[a] | - |
| Marital Status | Never married | -3.9179 | 0.0199 |
| | Married | -0.0095 | 0.9905 |
| | Separated, but still legally married | -0.2768 | 0.7582 |
| | Divorced | -0.3482 | 0.7059 |
| | Widow/widower | 0[a] | - |
| Job status | Paid employment | -0.0547 | 0.9468 |
| | Own business, freelancer or other independent | -0.0045 | 0.9955 |
| | Working on a farm for sale or self-consumption | 0.0166 | 1.0167 |
| | Casual paid/profit job | -0.0397 | 0.9611 |
| | Did not work, not even for one hour | 0[a] | - |
| | Scale | 1[b] | |
| | Negative binomial | 1.0000 | |

a Set to zero because this parameter is redundant.
b Fixed at displayed value

# 6. LEVELS AND TRENDS OF MORTALITY IN ALBANIA

## 6.1 Introduction

For a long period of time, Albania's levels of infant and child mortality and premature death were very high compared to other European countries. In 1969, the infant mortality was as high as 112 per thousand and life expectancy was 66.5 years. This was already a serious improvement compared to 1950, when life expectancy was a mere 51.9 years for women and 51.3 years for men. The period 1950-1961 saw an important rise in life expectancy. In ten years time, life expectancy jumped by more than 10 years to a level of 62 years in 1960. During the next decades the life expectancy at birth showed a more modest but steady increase. By 1970, Albanian men and women could expect to live 66.5 years. In 1980 and 1990 life expectancy climbed respectively to 68 and 70.7 years (INSTAT 2004b).

During the 1970s and 1980s, the reduction in fertility was accompanied by reductions in infant mortality. Although the country had the lowest living standards in Europe, it's socialist health care system covered the whole population and assured free of charge care for everyone. In 1990, at the twilight of the communist era, the average life expectancy had climbed to 67 years and infant mortality stood at 28 per thousand. However, at the time, life expectancy was still 10 years lower than in neighbouring Greece and the infant mortality was the highest among all former socialist countries (Smeets et al. 1997).

The collapse of the regime in 1991 had some serious consequences for the Albanian health system. Due to the economic stagnation at the beginning of the 1990s, the government was forced to make large cuts in its public health programmes. As a consequence, the number of physicians dropped from 171 per 100,000 persons in 1990 to 139 in 2000. Also the number of nurses and hospital beds diminished considerably. Especially in the rural areas, access to professional health care became hard to get (INSTAT 2004b). This reduction in public health services had its impact on the overall levels of infant and child mortality. By 1993, the infant mortality rate had jumped to 34 per thousand live-born children. Especially newborn babies were at risk. Whereas in 1990 28 percent of all infant mortality occurred during the first day of life, just three years later this percentage had increased to 41 percent (Smeets et al. 1997).

Since then, Albania has made significant progress, both in terms of the level of infant and child mortality and in its overall life expectancy. After the near collapse of the health system in the early 1990s, the government took action to reform its public health system, to reinforce private health care and to introduce a system of private health insurance. According to the Albania Demographic and Health Survey (ADHS), infant mortality dropped from 35 per thousand births in the period 1994-1998 to 20 per thousand in the period 1999-2003 and to 18 per thousand in 2004. During the same five-year periods, under-five mortality rates reduced from 39 to 22 per thousand and then stagnated at 22 per thousand (Institute of Statistics, Institute of Public Health [Albania] and ICF Macro. 2010, p. 118). The following sections will look into the current levels of mortality and explore whether further improvements were made in terms of infant- and child mortality and overall life expectancy.

## 6.2 Infant and child mortality

Two basic indicators to present the levels of infant and child mortality in a country are the infant mortality rate (IMR) and the under-five mortality rate (U5MR). In fact, both rates have been given a rather unfortunate name, as they are both probabilities and not rates. The infant mortality rate is the probability of dying between the moment of birth and exactly one year of age, mostly expressed per thousand live births, while the under-five mortality rate is the probability of dying between the moment of birth and exactly five years of age, again expressed per thousand live births.

To estimate the current level of infant and child mortality, it is possible to use census data on number of children ever-born and number of children surviving by age group of the mother. In 1975, William Brass developed an indirect estimation technique based on reports of mothers about the survivorship of their offspring (Brass 1975). The technique translates the mean number of children ever-born and the mean number of children surviving for specific five-year age groups of mothers into child mortality probabilities. At a later stage this technique was further refined, among others by Trussell (1975) and Feeney (1991).

In their analysis of infant and child mortality on the basis of the 2005 Albanian Multiple Indicator Cluster Survey (MICS), the National Institute of Statistics used the Brass technique to estimate levels of infant and child mortality. In the Brass model one has to define a model life table which best resembles the mortality regime in the country under study. Following the MICS, here the East model-life table was adopted in the analysis. The East model life tables were based on a set of life tables from Eastern Europe and are characterized by high infant mortality and elevated mortality over 50.

Table 6.1 presents the estimation of infant and child mortality based on the number of children ever-born and children surviving. In the table, the last two columns show the estimated levels of IMR and U5MR, based on the data of mean number of children ever-born and mean number of children surviving per age-group of mother. The third to last column presents the period to which the values of IMR and U5MR refer. It is typical for the Brass method that: 'child mortality estimates based on reports of women aged 15-19 and, to a lesser extent, on those of women aged 20-24 are generally unreliable, often being higher than estimates based on reports of older women' (UN Department of International Economic and Social Affairs1990). In Albania this is certainly the case. Estimates based on the experience of the two youngest age-categories are considerably higher. Therefore, the estimates of the IMR and U5MR are calculated by taking the averages of the mortality probabilities from age-groups of 25-29 years and 30-34 years. This implies that the estimates refer more or less to the year 2007. The estimates made by INSTAT on the basis of the MICS data followed the same procedure.

Tab. 6.1: Estimation of infant and child mortality, based on the number of children ever-born and children surviving

| Age of mother | Mean of children | | Proportion dead[c] | x[d] | q(x)[e] | alpha[f] | Time location[g] | Mortality (per 1,000) | |
|---|---|---|---|---|---|---|---|---|---|
| | ever-born[a] | surviving[b] | | | | | | q(1)[h] | q(5)[i] |
| 15-19 | 0.0379 | 0.0356 | 0.0621 | 1 | 0.0679 | -0.1304 | 2010.66 | 67.9 | 87.3 |
| 20-24 | 0.3388 | 0.3308 | 0.0237 | 2 | 0.0262 | -0.7030 | 2009.71 | 22.6 | 29.5 |
| 25-29 | 1.0591 | 1.0398 | 0.0182 | 3 | 0.0192 | -0.8915 | 2008.34 | 15.6 | 20.4 |
| 30-34 | 1.7703 | 1.7373 | 0.0186 | 5 | 0.0196 | -0.9127 | 2006.64 | 15.0 | 19.6 |
| 35-39 | 2.2289 | 2.1749 | 0.0242 | 10 | 0.0259 | -0.8091 | 2004.66 | 18.4 | 24.0 |
| 40-44 | 2.4751 | 2.3954 | 0.0322 | 15 | 0.0339 | -0.6951 | 2002.24 | 23.0 | 30.0 |
| 45-49 | 2.7052 | 2.5992 | 0.0392 | 20 | 0.0408 | -0.6368 | 1999.02 | 25.8 | 33.6 |

Sources: Population and Housing Census 2011; Vital Statistics

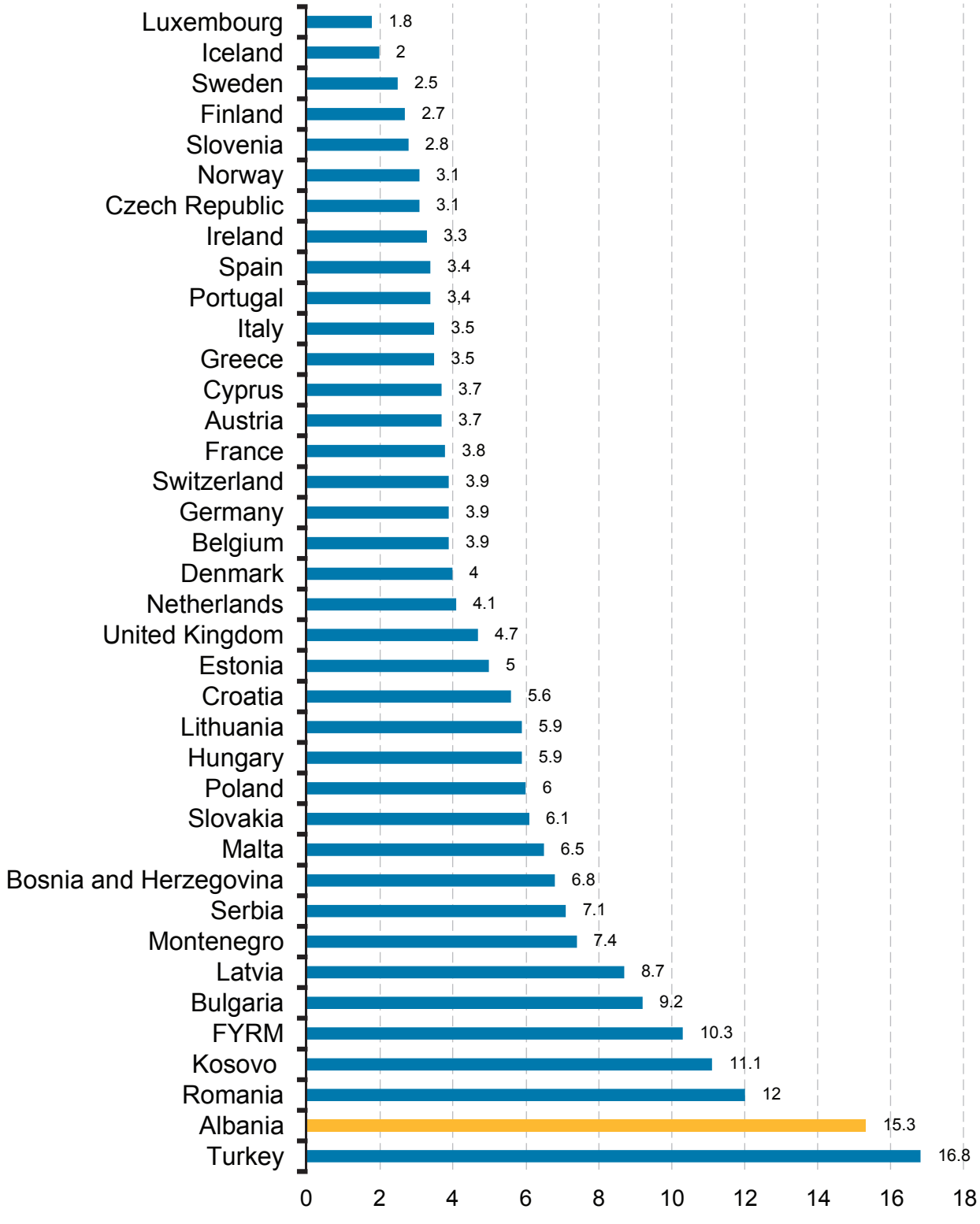
a. Average number of children ever born to women belonging to a specific age group.
b. Average number of children still alive to women belonging to a specific age group.
c. Is [1 - (Mean number of children surviving/Mean children ever born)]
d. Age x of children
e. The probability of the child to die before age x.
f. A technical factor the method uses to calculate the following columns
g. This is the moment in time to which the next two estimates (q(1) and q(5)) refer to.
The method calculates indeed years with figures behind the decimal point.
h. Indicates the probability to die before age 1 at the exact time location given in the previous column
i. Indicates the probability to die before age 5 at the exact time location given in the column

The infant mortality is estimated to be 15.3 per thousand for the year 2007, while the under-five mortality rate is equal to 20.0 per thousand. In 2002, the reference year for the MICS estimates, the IMR was estimated to be 18 per thousand and the U5MR 19 per thousand. This means that during the period 2002-2007 infant mortality further decreased, while under-five mortality remained more or less the same. The mortality estimates based on the 2011 census are in line with the estimates from the DHS-2008-09, where the IMR and U5MR where respectively 18 and 22 deaths per thousand births during calendar years 2004-2008. The estimates from the DHS are somewhat higher than ours, but are average values of a 5 year period, rather than an estimate for one particular year.

Although significant progress has been made to reduce the high mortality levels, Albania still has the second highest infant mortality in Europe. According to the Eurostat database, only in Turkey do newborns face a higher mortality risk during their first year of life. More than 20 countries in Europe have an IMR of less than 5 per thousand, which is less than a third of the current level in Albania (Figure 6.1).

It is well-known that in Albania there is under-registration of deaths among very young children. According to figures from the civil registration system, 20,226 persons passed away in the period 1 April 2011 – 31 March 2012, among whom 302 children below age one. As noticed before (Table 5.6), 34,583 children were born during this period, according to the civil registration. If the estimated IMR of 15.3 per thousand is applied to this figure, it implies that in 2011, 529 children would have died during their first year of life. Consequently, the completeness of death registration among young children would be only about 57 percent. In other words, about two out of five of all infant deaths go unregistered.

Fig. 6.1: Infant mortality rates for selected European countries




Source: Eurostat database [11]

[11] http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tps00027

## 6.3 Life table analysis

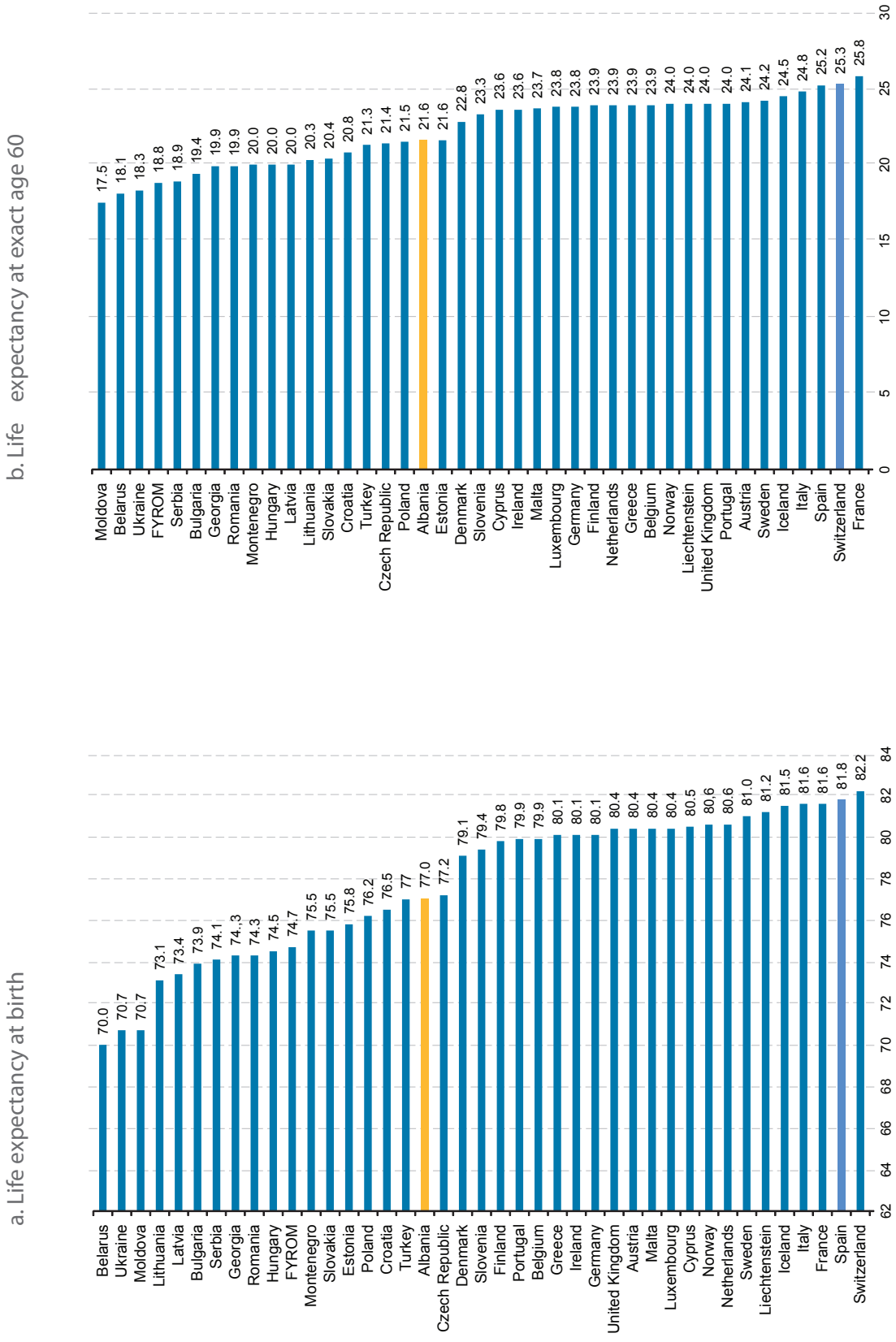
To correct for under-registration of infant deaths, INSTAT (2014b) used the 2008-09 DHS estimate of infant and child mortality in its life table, instead of the registered infant deaths, during its preparations for the population projections for Albania and its prefectures (2011-2031). To include a differential infant mortality estimate for both sexes, INSTAT redistributed the mortality levels by sex according to the sex-ratio of mortality observed from the civil registration. Also, the values of IMR en U5MR were used to calculate the probability of dying between exact ages 1 and 5.

In the life table analysis in this report, similar corrections in terms of infant- and child mortality are used. However, here use is made of the indirect infant- and child mortality estimates from the census and the most updated data in terms of number of deaths from the vital registration system and the population from the census. Table 6.2a shows the life table for Albania for the year 2011 for men and women combined. Despite its high levels of infant mortality, Albania has a life expectancy of 77.0 years. This life expectancy is almost exactly the same as the one currently used by the UN in its international statistics. For instance, in its brief on the Country Cooperation Strategy[12] of 2013, the World Health Organization uses a life expectancy of 77.04 for Albania. Since 2000, Albania has made further progress in its life expectancy. The expected number of years of life at birth for both sexes has increased from a level of 74.6 years by about 2.5 year.

Life expectancy at birth is significantly higher for females than for males. At birth, women can expect to live 79.4 years. This is 4.6 years longer than men, who have a life expectancy of 74.8 years. It is remarkable that Albania, with one of the lowest living standards in Europe and with the second highest infant mortality in Europe still manages to achieve a life expectancy of 77 years for both sexes and almost 80 years for women. Figure 6.2a shows – according to the estimate – how well Albania scores among European countries for which Eurostat had data available. None of the countries in the Balkan region have a life expectancy that is beyond Albania: Montenegro (75.5), the Former Yugoslavian Republic of Macedonia (74.7), Rumania (74.3), Serbia (74.1), Bulgaria (73.9). Turkey has higher infant mortality than Albania, but still has the same life expectancy at birth. Because of its higher levels of infant- and child mortality, Albania has to compensate with lower levels of mortality at older ages, to reach its more favourable position in terms of life expectancy at birth. Figure 6.3b compares the country's life expectancy at age 60 with that of other European countries. As can be seen, Albania scores relatively high among European countries with a live expectancy of 21.6 years at age 60.

[12] This brief of the Country Cooperation Strategy is online available at the WHO Country Focus web site http://www.who.int/countryfocus

Fig. 6.2: Life expectancy for selected European countries




Source: Eurostat, Data Explorer [13]

[13] Website EOROSTAT: http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do

Tab. 6.2a: Life table, **both sexes** (2011)

| Age | Deaths | Population 1/1/2000 | M(x,n) | q(x,n) | l(x) | D(x,n) | L(x,n) | S(x,n) | T(x) | e(x) |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | 34,644 | - | 0.01530 | 100,000 | 1,530 | 98,853 | 0.97933 | 7,703,083 | **77.03** |
| 1 | | 134,900 | - | 0.00477 | 98,470 | 470 | 392,940 | 0.99567 | 7,604,230 | 77.22 |
| 5 | 52 | 188,405 | 0.00027 | 0.00137 | 98,000 | 134 | 489,664 | 0.99859 | 7,211,290 | 73.58 |
| 10 | 70 | 241,939 | 0.00029 | 0.00145 | 97,866 | 142 | 488,973 | 0.99799 | 6,721,627 | 68.68 |
| 15 | 143 | 278,662 | 0.00051 | 0.00257 | 97,724 | 251 | 487,990 | 0.99723 | 6,232,654 | 63.78 |
| 20 | 150 | 252,792 | 0.00059 | 0.00297 | 97,473 | 289 | 486,640 | 0.99669 | 5,744,663 | 58.94 |
| 25 | 146 | 199,169 | 0.00073 | 0.00365 | 97,183 | 355 | 485,030 | 0.99607 | 5,258,023 | 54.10 |
| 30 | 144 | 170,178 | 0.00084 | 0.00421 | 96,828 | 407 | 483,124 | 0.99449 | 4,772,993 | 49.29 |
| 35 | 238 | 173,842 | 0.00137 | 0.00682 | 96,421 | 658 | 480,461 | 0.99223 | 4,289,870 | 44.49 |
| 40 | 339 | 193,509 | 0.00175 | 0.00873 | 95,763 | 836 | 476,727 | 0.98974 | 3,809,409 | 39.78 |
| 45 | 476 | 200,219 | 0.00237 | 0.01180 | 94,928 | 1,121 | 471,836 | 0.98539 | 3,332,681 | 35.11 |
| 50 | 714 | 202,910 | 0.00352 | 0.01745 | 93,807 | 1,637 | 464,943 | 0.97836 | 2,860,845 | 30.50 |
| 55 | 887 | 169,013 | 0.00525 | 0.02590 | 92,170 | 2,387 | 454,884 | 0.96698 | 2,395,902 | 25.99 |
| 60 | 1,117 | 135,609 | 0.00823 | 0.04034 | 89,783 | 3,621 | 439,862 | 0.94430 | 1,941,018 | 21.62 |
| 65 | 1,595 | 107,229 | 0.01488 | 0.07172 | 86,162 | 6,179 | 415,360 | 0.90204 | 1,501,156 | 17.42 |
| 70 | 2,587 | 95,989 | 0.02695 | 0.12624 | 79,982 | 10,097 | 374,670 | 0.82939 | 1,085,797 | 13.58 |
| 75 | 3,298 | 66,235 | 0.04979 | 0.22140 | 69,886 | 15,473 | 310,746 | 0.70255 | 711,127 | 10.18 |
| 80 | 3,585 | 36,404 | 0.09848 | 0.39512 | 54,413 | 21,499 | 218,315 | 0.54594 | 400,381 | 7.36 |
| 85 | 2,328 | 15,287 | 0.15230 | 0.55152 | 32,913 | 18,152 | 119,186 | 0.40234 | 182,066 | 5.53 |
| 90 | 1,400 | 6,491 | 0.21564 | 0.70055 | 14,761 | 10,341 | 47,953 | 0.31127 | 62,880 | 4.26 |
| 95 | 567 | 1,913 | 0.29613 | …. | 4,420 | 4,420 | 14,927 | | 14,927 | 3.38 |

Source: Population and Housing Census 2011, Vital Statistics of deaths

M(x,n) – age specific death rates
q(x,n) – probability of dying between ages x and x+n
l(x) – number of survivors at age x
D(x,n) – number of people dying between ages x and x+n
L(x,n) – persons-years lived between ages x and x+n
S(x,n) – proportion survivors n years later
T(x,n) – person-years lived above age x
e(x) – expectation of life at age x

Tab. 6.2b: Life table, **males** (2011)

| Age | Deaths | Population 1/1/2000 | M(x,n) | q(x,n) | l(x) | D(x,n) | L(x,n) | S(x,n) | T(x) | e(x) |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | 17,973 | | 0.01631 | 100,000 | 1,631 | 98,777 | 0.97780 | 7,480,323 | **74.80** |
| 1 | | 70,914 | | 0.00536 | 98,369 | 528 | 392,420 | 0.99533 | 7,381,546 | 75.04 |
| 5 | 25 | 99,124 | 0.00025 | 0.00125 | 97,841 | 122 | 488,900 | 0.99860 | 6,989,127 | 71.43 |
| 10 | 39 | 124,827 | 0.00031 | 0.00156 | 97,719 | 153 | 488,214 | 0.99757 | 6,500,226 | 66.52 |
| 15 | 93 | 140,773 | 0.00066 | 0.00330 | 97,567 | 322 | 487,028 | 0.99645 | 6,012,012 | 61.62 |
| 20 | 101 | 132,878 | 0.00076 | 0.00380 | 97,245 | 370 | 485,299 | 0.99562 | 5,524,984 | 56.82 |
| 25 | 102 | 102,460 | 0.00099 | 0.00495 | 96,875 | 480 | 483,175 | 0.99437 | 5,039,685 | 52.02 |
| 30 | 105 | 82,430 | 0.00127 | 0.00632 | 96,395 | 609 | 480,453 | 0.99183 | 4,556,510 | 47.27 |
| 35 | 165 | 81,872 | 0.00202 | 0.01003 | 95,786 | 960 | 476,529 | 0.98925 | 4,076,057 | 42.55 |
| 40 | 213 | 92,301 | 0.00231 | 0.01149 | 94,826 | 1,089 | 471,406 | 0.98648 | 3,599,527 | 37.96 |
| 45 | 309 | 98,209 | 0.00314 | 0.01558 | 93,737 | 1,461 | 465,031 | 0.98089 | 3,128,122 | 33.37 |
| 50 | 466 | 101,500 | 0.00459 | 0.02270 | 92,276 | 2,094 | 456,143 | 0.97082 | 2,663,091 | 28.86 |
| 55 | 617 | 84,578 | 0.00730 | 0.03582 | 90,182 | 3,230 | 442,832 | 0.95589 | 2,206,948 | 24.47 |
| 60 | 740 | 68,357 | 0.01083 | 0.05270 | 86,951 | 4,582 | 423,299 | 0.92768 | 1,764,116 | 20.29 |
| 65 | 1,054 | 54,009 | 0.01952 | 0.09304 | 82,369 | 7,663 | 392,685 | 0.87931 | 1,340,817 | 16.28 |
| 70 | 1,540 | 47,076 | 0.03271 | 0.15118 | 74,705 | 11,294 | 345,292 | 0.80200 | 948,132 | 12.69 |
| 75 | 1,874 | 32,330 | 0.05797 | 0.25317 | 63,412 | 16,054 | 276,923 | 0.66685 | 602,839 | 9.51 |
| 80 | 1,807 | 16,003 | 0.11290 | 0.44024 | 47,358 | 20,849 | 184,666 | 0.50899 | 325,916 | 6.88 |
| 85 | 897 | 5,466 | 0.16406 | 0.58171 | 26,509 | 15,420 | 93,993 | 0.38306 | 141,250 | 5.33 |
| 90 | 452 | 2,092 | 0.21594 | 0.70118 | 11,088 | 7,775 | 36,004 | 0.31255 | 47,258 | 4.26 |
| 95 | 119 | 405 | 0.29444 | …. | 3,313 | 3,313 | 11,253 | | 11,253 | 3.40 |

Source: Population and Housing Census 2011, Vital Statistics of deaths

Tab. 6.2c: Life table, **females** (2011)

| Age | Deaths | Population 1/1/2000 | M(x,n) | q(x,n) | l(x) | D(x,n) | L(x,n) | S(x,n) | T(x) | e(x) |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | | 16,671 | | 0.01421 | 100,000 | 1,421 | 98,934 | 0.98086 | 7,940,045 | **79.40** |
| 1 | | 63,986 | | 0.00425 | 98,579 | 419 | 393,479 | 0.99598 | 7,841,111 | 79.54 |
| 5 | 27 | 89,281 | 0.00030 | 0.00151 | 98,160 | 148 | 490,431 | 0.99858 | 7,447,632 | 75.87 |
| 10 | 31 | 117,112 | 0.00027 | 0.00133 | 98,012 | 131 | 489,734 | 0.99842 | 6,957,200 | 70.98 |
| 15 | 50 | 137,889 | 0.00036 | 0.00182 | 97,881 | 178 | 488,962 | 0.99807 | 6,467,466 | 66.07 |
| 20 | 49 | 119,914 | 0.00041 | 0.00204 | 97,703 | 199 | 488,018 | 0.99784 | 5,978,505 | 61.19 |
| 25 | 44 | 96,709 | 0.00045 | 0.00227 | 97,504 | 222 | 486,965 | 0.99775 | 5,490,487 | 56.31 |
| 30 | 39 | 87,748 | 0.00044 | 0.00222 | 97,282 | 216 | 485,872 | 0.99691 | 5,003,522 | 51.43 |
| 35 | 73 | 91,970 | 0.00079 | 0.00396 | 97,066 | 384 | 484,371 | 0.99492 | 4,517,650 | 46.54 |
| 40 | 126 | 101,208 | 0.00124 | 0.00621 | 96,682 | 600 | 481,909 | 0.99282 | 4,033,279 | 41.72 |
| 45 | 167 | 102,010 | 0.00164 | 0.00815 | 96,082 | 783 | 478,451 | 0.98985 | 3,551,370 | 36.96 |
| 50 | 248 | 101,410 | 0.00245 | 0.01217 | 95,299 | 1,159 | 473,595 | 0.98600 | 3,072,919 | 32.25 |
| 55 | 270 | 84,435 | 0.00320 | 0.01586 | 94,139 | 1,493 | 466,963 | 0.97831 | 2,599,324 | 27.61 |
| 60 | 377 | 67,252 | 0.00560 | 0.02761 | 92,646 | 2,558 | 456,837 | 0.96156 | 2,132,360 | 23.02 |
| 65 | 541 | 53,220 | 0.01017 | 0.04959 | 90,089 | 4,467 | 439,274 | 0.92507 | 1,675,524 | 18.60 |
| 70 | 1,047 | 48,913 | 0.02141 | 0.10159 | 85,621 | 8,698 | 406,360 | 0.85656 | 1,236,250 | 14.44 |
| 75 | 1,424 | 33,905 | 0.04199 | 0.19001 | 76,923 | 14,616 | 348,073 | 0.73488 | 829,890 | 10.79 |
| 80 | 1,778 | 20,401 | 0.08716 | 0.35785 | 62,306 | 22,296 | 255,792 | 0.57321 | 481,817 | 7.73 |
| 85 | 1,432 | 9,821 | 0.14576 | 0.53415 | 40,010 | 21,372 | 146,623 | 0.41306 | 226,025 | 5.65 |
| 90 | 948 | 4,399 | 0.21550 | 0.70025 | 18,639 | 13,052 | 60,564 | 0.31103 | 79,402 | 4.26 |
| 95 | 447 | 1,508 | 0.29658 | …. | 5,587 | 5,587 | 18,838 | | 18,838 | 3.37 |

Source: Population and Housing Census 2011, Vital Statistics of deaths

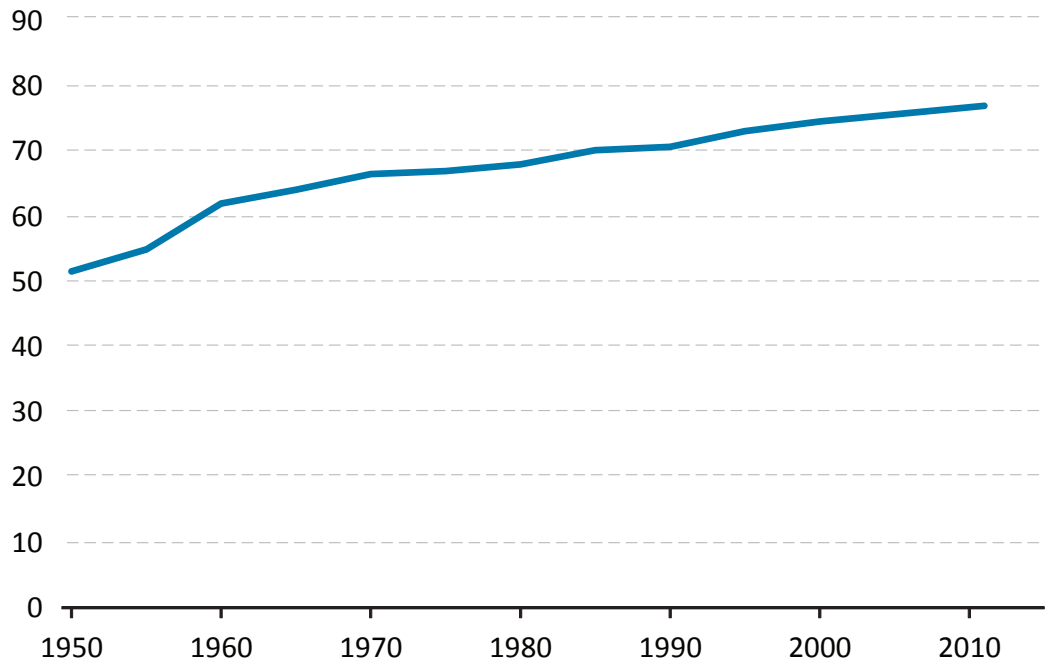
Table 6.3 summarizes the mortality experience of the population of Albania during the last sixty years. Both life expectancy at birth and the infant mortality rate are presented. At birth Albanians can now look forward to more than 25 extra more years of life than in 1950. Figure 6.3 shows that the rise in life expectancy at birth was rather constant, with just two periods of more limited progress: during the second half of the 1970s and the end of the 1980s. The increase in life expectancy was carried by significant improvements in the probabilities for newly born children to survive the first year of life. In 1950, no less than 1 in 7 children died during the first year of life. In 2007, this was reduced to 1 child in every 65.

Tab. 6.3: Life expectancy and Infant Mortality Rate (1950-2011)

| Year | Life expectancy | IMR |
|---|---|---|
| 1950 | 51.6 | 143.1 |
| 1955 | 55.0 | 103.9 |
| 1960 | 62.0 | 96.6 |
| 1965 | 64.1 | 92.9 |
| 1970 | 66.5 | 89.1 |
| 1975 | 67.0 | 84.8 |
| 1980 | 68.0 | 74.1 |
| 1985 | 70.2 | 46.4 |
| 1990 | 70.7 | 45.4 |
| 1995 | 73.1 | 26.4 |
| 2000 | 74.6 | 22.8 |
| 2002 | - | 18.0 |
| 2004 | - | 18.0 |
| 2007 | - | 15.3 |
| 2011 | 77.0 | - |

Source: INSTAT (2002), Population and Housing Census 2011, MICS 2005, DHS 2008-09

Fig. 6.3: Life expectancy (1950-2011)




Sources: Population and Housing Census 2011, MICS 2005, DHS 2008

Various authors have stated that Albania has a higher life expectancy than could be anticipated on the basis of its general living standard. For instance INSTAT (2004b), in the assessment of living conditions and poverty conclude: "Albanians, known for their high life expectancy at a 'very low cost' continue to have good health even after the collapse of Communism. Life expectancy has increased and they report a good overall health". A test was set up to check whether this is indeed the case and if so, by how much Albania's life expectancy is higher compared to other similar countries.

Each year, UNDP produces a Human Development Report, in which countries are classified according to an estimated human development index (HDI)[14]. According to the 2011 HDI, Albania occupied the 70th position in the world. The HDI is based on a few parameters, including life expectancy, years of schooling and National Gross Income per capita (NGI). To determine Albania's 'normal' level of life expectancy, first all available European countries were selected, except Albania. Then, life expectancy, years of schooling and NGI for these countries were entered into the statistical package SPSS, and a linear regression was run, in which expectancy of life was the dependent variable and years of schooling and NGI were explanatory variables. The model showed a reasonable predictive power, with a coefficient of determination (R2) of 0.456. The values for Albania for years of education (10.4) and NGI per capita (7,822 US$), were then imputed in the regression model. In this way, the number of years that Albanians could expect to live, given their level of national income per capita and years of schooling, was estimated to be 74.5 years. In other words, the life expectancy in Albania estimated on the basis of the census and vital registration data is indeed higher (2.5 years) than would be anticipated on the basis of their general living standard (and education). Obviously, this is just a rough estimate and is surely debatable, but it indicates than indeed the mortality regime in the country seems more favourable to its people than would be expected.

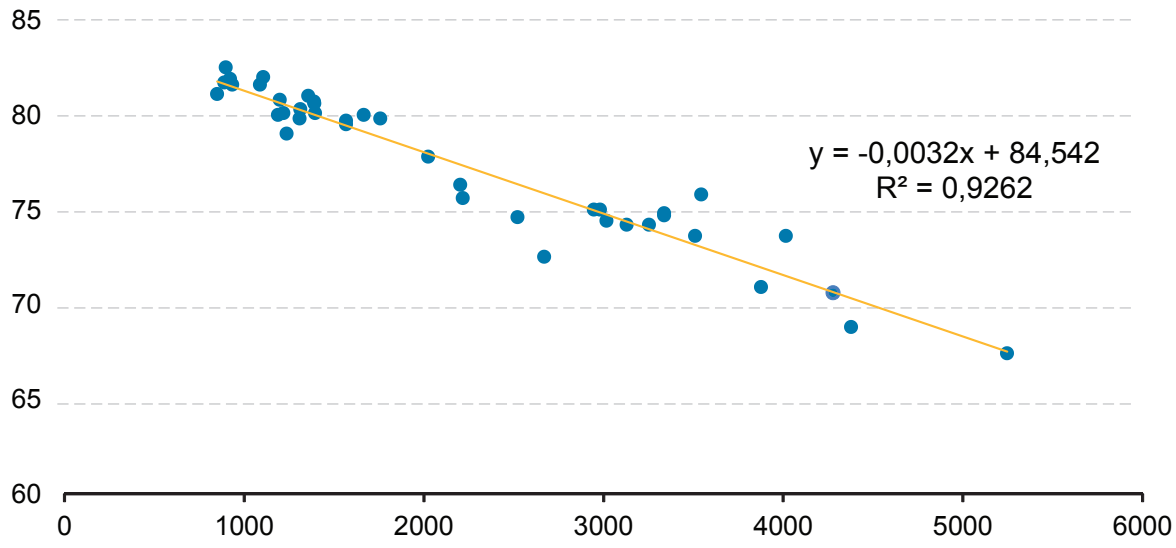
It has been suggested that Albanians enjoy higher life expectancies than expected, because of their healthy Mediterranean diet, which among others prevents heart disease. In 1997, Gjonça and Bobak dedicated an article in The Lancet on the Albanian paradox in life expectancy. They suggested diet was the most plausible explanation for the paradox between low standard of living and high life expectancy. They also indicated that 'Although coding of causes of death is not entirely reliable, registration of the event of death has been found to be accurate, and the small under-reporting has been corrected. Compared with death-registration problems in most developing countries, this under-registration is trivial and cannot distort the overall mortality picture'.

[14] http://hdr.undp.org/en/2013-report

The data on which their analysis was based were from 1990, a time when Albania had a completely different political, economic and administrative set-up than it has at present. In 2009, Ginter et al., in a review of several 'medical paradoxes' (2009) used the diet argument again to explain the relatively low mortality in Albania. They argued that the main reason for high life expectancy was the low premature cardiovascular mortality among Albanian men.

Again, a test was done to examine whether Albania's high observed life expectancy is presently indeed related to the low prevalence of premature cardiovascular mortality. Firstly, from the 2008 Edition of the 'European Cardiovascular Disease Statistics' the sum of the presented values for the age standardized Disability Adjusted Life Years[15](DALYs) per 100,000 citizens was taken for each included European country for Coronary Heart Disease and Stroke. Then, this information was linked to life expectancy for each country. Figure 6.4 indicates that there is a very close linear relationship between both variables. A linear regression was fitted to the data in which life expectancy was the dependent variable and the DALYs the explanatory variable. The value of R-square is very high (.93), which indicates that the variance in life expectancy at birth in Europe is largely determined by the incidence of cardiovascular diseases. Finally, in line with the regression coefficients, the fitted life expectancy for Albania was calculated on the basis of the country's DALY presented by the 'European Cardiovascular Disease Statistics'. The total DALYs per 100,000 Albanians for Coronary Heart Disease, Stroke and other Cardiovascular diseases was estimated to be 2,997 years. On the basis of the linear model, the fitted life expectancy for Albania came to 74.95 years. This value is much closer to the fitted life expectancy on the basis of NGI and years of education (74.5 years), then to the value calculated on the basis of the census and the vital registration of deaths (77 years).

Fig. 6.4: Relationship between DALY for Cardiovascular diseases and life expectancy in European countries




In this respect it is also worth mentioning that important changes have taken place in the recent past. Death rates from cardiovascular diseases for men in Albania increased between 1994 and 2004 by 54 percent. As for women below 65, these death rates rose by 46 percent; at the same time they saw mortality from stroke increase by 19 percent. Although the method presented here is indicative, again, and perhaps debatable, it indicates that within the European context, life expectancy is not only higher compared to the country's living standard, but apparently also compared to its position in terms of cardiovascular diseases.

If life expectancy is indeed as high as the vital registration data indicate, then – at least for the present and not necessarily for the past – there is some evidence that there should be another reason other than the diet hypothesis, explaining why life expectancy is so high compared to other countries. It was always assumed to this day, that vital registration of adult mortality was quite complete. The results here suggests that this is perhaps not true. As shown before, there is a problem of under-registration of infant deaths. Probably the problem may not concern only infants; registration of adult deaths may also be incomplete. Therefore, to the authors' vue, an evaluation of the completeness of the vital registration system would be advisable.

[15] The WHO-definition of DALY is: 'One DALY can be thought of as one lost year of "healthy" life. The sum of these DALYs across the population, or the burden of disease, can be thought of as a measurement of the gap between current health status and an ideal health situation where the entire population lives to an advanced age, free of disease and disability'. http://www.who.int/healthinfo/global_burden_disease/metrics_daly/en/

## 6.4 Child mortality differentials

The information provided in the census about children ever-born and children surviving enables the calculation of the number of children a woman has lost during her lifetime. This information can be used to set up a multiple regression model to measure mortality differentials within the country. Because no information was asked about the age the child died, the group of children that died consists of infants, as well as adults, up to more than 50 years of age. To narrow the analysis down to infants and children of young age, the bereavement experience of mothers less than 35 years old was investigated. This caused the study population to be limited to mothers with children born during the last twenty years. According to the calculated life table, almost 80 percent of children dead before they reach the exact age of 20, die within their first five years of life. So, in the present analysis, most of the children who die do so at a very young age, but the event of death took place somewhere between the census and a moment up to some 20 years back.

It has been suggested to use Poisson-regression to estimate differential mortality, with the number of children dead for each mother as the dependent variable (Rutaremwa 1999). This model would be similar to the model used to measure differential fertility. However, the only methodological difference would be that there is need to include the natural logarithm of the number of children ever-born as an offset variable to control for the number of children exposed to the risk of dying. A number of Poisson models were tested with the Albanian census data, but the results were rather disappointing, because of some data quality issues. Therefore, a decision was made to transform the number of bereavements a woman had experienced into a dichotomy, simply whether she had ever experienced losing a child or not. This dichotomy was then used as a dependent variable in a logit regression. Four models were used. An extra explanatory variable was included in each model: 1) prefecture, 2) Age-group of mother, 3) Rural/urban residency and 4) Educational level of the mother.

Column 'B' of table 6.3 contains the regression coefficients. These are the natural logarithms of the odds for women in the age-group 15-35 to ever have lost a child by the time of census. The larger the B-coefficient, the larger the effect of the variable on the logit. Obviously, this measure is hard to interpret. Therefore, the exponential function of the regression coefficients (Exp(B)) was calculated. This measure gives the odds ratio, i.e. the ratio of having lost at least one child to never having lost one. For each variable, a reference category had to be chosen. Reference categories are: 'Berat', '15-19 year olds', 'Urban' and 'Without Diploma'.

It is interesting to see how some of the odds ratios change after introducing other explanatory variables. For instance, Tirana and Vlorë had lower bereavement than Berat in model 1, but this effect turned positive after introducing Urban/Rural and later Education. Kukes is the prefecture with the highest child mortality. The odds for women to lose a child there are twice as high as in Berat. Generally, other prefectures in the North of the country (Dibër, Shkodër) have higher child mortality than prefectures in the South (Fier, Berat, Korçë, Vlorë)., Estimates are controlled for exposure time through mothers' age-group. Older women had their children a long time back in the past, so it should come as no surprise that their chances of bereavement are considerably higher than among younger women. Levels of bereavement for them are also high because they form part of cohorts that had their children during times when levels of infant and child mortality were much higher. The results show that women aged 20-24, have 4.5 higher odds to lose a child than women aged 15-19. This is even much higher for women in the two older five year age groups (10.7 and 18.3).

Rural women have a significantly higher chance of experiencing the death of a child. They have odds that are 30 percent higher than urban women. Note that the odds ratio is even higher (1.71) in model 3, but that the effect drops after controlling for education. This makes sense, because in general urban women have higher education levels than rural women. Finally, education remains a very strong discriminating factor in terms of bereavement. Although mortality among children from women with only primary education is considerably higher than among children from women with no education (odds ratio = 1.36), for each subsequent age-group, the chance of women to lose a child becomes much lower. Especially the chances of bereavement for women with tertiary education are much smaller than among women with no education (odds ratio 0.2 or less).

Tab. 6.4: Logit regression experience of mother losing one or more of her children

| Parameter | Category | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
|---|---|---|---|---|---|---|---|---|---|
| | | B | Exp(B) | B | Exp(B) | B | Exp(B) | B | Exp(B) |
| | Intercept | -4.885 | .008 | -6.710 | .001 | **-7.591** | **.001** | **-6.514** | **.001** |
| Prefecture | Berat | - | - | - | - | - | - | - | - |
| | Dibër | 0.546 | 1.727 | 0.604 | 1.830 | 0.511 | 1.667 | 0.524 | 1.689 |
| | Durrës | 0.182 | 1.199 | 0.189 | 1.208 | 0.357 | 1.429 | 0.343 | 1.410 |
| | Elbasan | 0.452 | 1.571 | 0.481 | 1.617 | 0.457 | 1.580 | 0.501 | 1.650 |
| | Fier | 0.221 | 1.248 | 0.228 | 1.256 | 0.207 | 1.230 | 0.248 | 1.281 |
| | Gjirokastër | 0.166 | 1.181 | 0.158 | 1.171 | 0.226 | 1.254 | 0.447 | 1.564 |
| | Korçë | 0.156 | 1.169 | 0.136 | 1.146 | 0.114 | 1.121 | 0.201 | 1.223 |
| | Kukës | 0.733 | 2.081 | 0.757 | 2.132 | 0.702 | 2.017 | 0.733 | 2.081 |
| | Lezhë | 0.237 | 1.268 | 0.294 | 1.342 | 0.349 | 1.417 | 0.366 | 1.442 |
| | Shkodër | 0.346 | 1.414 | 0.404 | 1.498 | 0.408 | 1.504 | 0.485 | 1.625 |
| | Tiranë | -0.130 | 0.878 | -0.163 | 0.850 | -0.020 | 0.980 | 0.185 | 1.203 |
| | Vlorë | -0.018 | 0.982 | -0.019 | 0.982 | 0.114 | 1.121 | 0.217 | 1.242 |
| Age-group | 15 -19 | | | - | - | - | - | - | - |
| | 20 -24 | | | 1.210 | 3.353 | 1.223 | 3.397 | 1.511 | 4.530 |
| | 25 -29 | | | 2.143 | 8.523 | 2.162 | 8.692 | 2.330 | 10.275 |
| | 30 -34 | | | 2.763 | 15.845 | 2.780 | 16.112 | 2.908 | 18.320 |
| Rural / urban | Urban | | | | | - | - | - | - |
| | Rural | | | | | 0.536 | 1.709 | 0.262 | 1.300 |
| Education | Without diploma | | | | | | | - | - |
| | Primary education | | | | | | | 0.304 | 1.355 |
| | Lower secondary (obligatory education) | | | | | | | -0.401 | 0.670 |
| | Lower secondary vocational (2-3 years) | | | | | | | -0.554 | 0.575 |
| | Upper secondary (general) | | | | | | | -0.975 | 0.377 |
| | Upper secondary technical (4-5 years) | | | | | | | -0.881 | 0.414 |
| | Tertiary (BA) | | | | | | | -1.598 | 0.202 |
| | Tertiary (BAMA) | | | | | | | -1.872 | 0.154 |
| | Tertiary (old system before Bologna) | | | | | | | -1.601 | 0.202 |
| | Post-graduate/Master | | | | | | | -2.015 | 0.133 |
| | Doctorate/PhD | | | | | | | -2.825 | 0.059 |

Source: Population and Housing Census 2011

# 7. INTERNATIONAL MIGRATION

## 7.1 Introduction

In the past two decades, Albania has experienced enormous economic and social change. In order to cope with the changes and to improve their standard of living, many Albanians have migrated, either within Albania, to Tirana or other urban areas, or to other countries. For those who ventured abroad, neighbouring Italy and Greece were the main destinations. According to a World Bank study, by 2005 at least one in three households had a member who had left the country (World Bank 2007). And a few years later, around two in five households have at least one former member abroad. The real impact of migration is probably higher as these data do not include entire households that have left the country (INSTAT, Institute of Public Health and ICF Macro 2010).

The present chapter describes the international migration of Albanians, estimating the volume of migration and describing its characteristics. Data from both the 2011 Census and other sources form the basis for the analyses.

## 7.2 Emigration

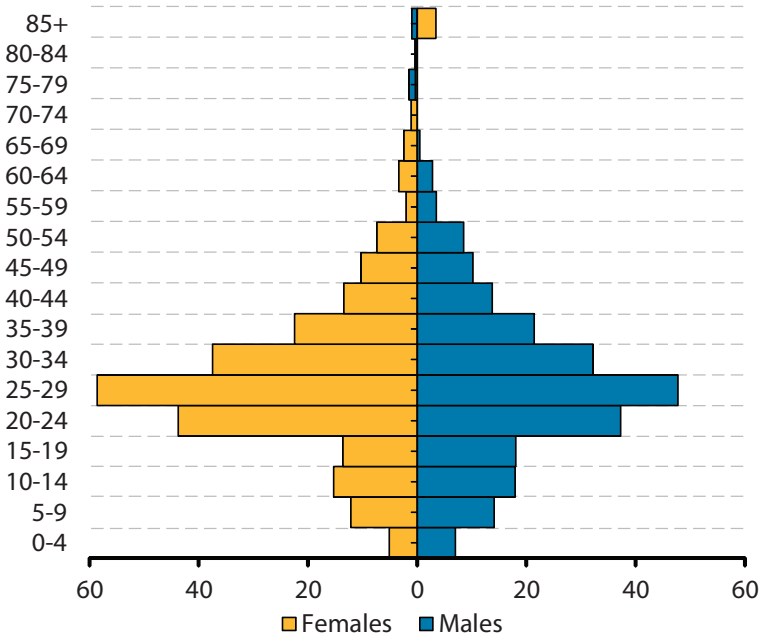
Although censuses are not the best suited means to measure emigration, given the importance of migration for population change in Albania, the 2011 census questionnaire tried to capture emigration by asking households whether someone from the household had moved abroad[16]. If so, information was collected on age, sex, country of destination and reason for departure. Neighbouring households were sometimes asked to provide information on households who had emigrated as a whole. Compared to figures from earlier studies (World Bank 2007; INSTAT, Institute of Public Health and ICF Macro 2010), the census figures seem to suffer from considerable under-enumeration: only 18 percent (131 thousand households) reported a former household member now living abroad. Nevertheless, as we will see later on in this chapter, the distribution of the data collected on the characteristics of emigrants is probably more reliable.

### 7.2.1 Net inter-census migration 2001-2011

The impact of emigration on the population of Albania can also be derived indirectly, by comparing data from both the 2001 and the 2011 Censuses. Over that decade, the population of Albania decreased with 8.8 percent, from 3.1 million to 2.8 million. In order to estimate to what extent external migration was responsible for this decline, the population was projected forward from the 2001 census, using revised figures on deaths and births from the civil register, and assuming no external migration happened (see INSTAT 2014a for a detailed explanation of the procedure; also Schoorl 2012; De Bruijn and Schoorl 2012). Figure 7.1 shows the age-sex distribution of the population that is projected on the basis of the age-specific mortality and fertility patterns, but not encountered in the 2011 Census. In all age groups, except the oldest, and for both men and women, the population has decreased more than can be explained on the basis of mortality and fertility alone. However, the loss is strongly concentrated in the young adult ages (20-39). The pattern found is typical of (net) emigration. The loss of young persons (under age 20, and particularly under age 15) can be reasonably explained by the net emigration of children dependent on their emigrating parents in the age groups 20-49. The anomaly found at the highest age group (85 and older) is due not to migration but most likely to mortality misreporting.

[16] The question asked in the 2011 Census was: "Is any previous member of this household living abroad for 12 months or more?"

Fig. 7.1: Estimated inter-census population loss, by age and sex (in thousands)




Sources: Population and Housing Censuses 2001 and 2011; Vital statistics

The analysis arrives at a net loss of the population in the last inter-census period of 477 thousand people, on average 45 thousand persons per year (see Table 7.1). In the typical migrant age groups (20-39), the net loss of women is larger than that of men: 162 against 139 thousand. Overall, the net sex-specific losses are fairly similar (245 thousand for females and 231 thousand for males).

Tab. 7.1: Estimated inter-census population loss by age group and sex (in thousands)

| Age group | Both sexes | Male | Female |
|---|---|---|---|
| Total | -477 | -231 | -245 |
| 0-4 | -12 | -7 | -5 |
| 5-9 | -26 | -14 | -12 |
| 10-14 | -33 | -18 | -15 |
| 15-19 | -32 | -18 | -14 |
| 20-24 | -81 | -37 | -44 |
| 25-29 | -106 | -48 | -59 |
| 30-34 | -70 | -32 | -37 |
| 35-39 | -44 | -21 | -22 |
| 40-44 | -27 | -14 | -13 |
| 45-49 | -20 | -10 | -10 |
| 50-54 | -16 | -8 | -7 |
| 55-59 | -6 | -4 | -2 |
| 60-64 | -6 | -3 | -3 |
| 65-69 | -3 | 0 | -2 |
| 70-74 | 0 | 1 | -1 |
| 75-79 | 1 | 1 | 0 |
| 80-84 | 0 | 0 | 0 |
| 85+ | 4 | 1 | 3 |

Sources: Population and Housing Censuses 2001 and 2011; Vital Statistics

As the 2011 Census captured (net) immigration information of the resident population, an estimate of the number of emigrants can be made, assuming that the population loss is due to net migration and not to under-enumeration. Thus, compensating for the net immigration of 57 thousand males and 39 thousand females in the period between the latest two censuses, the net number of emigrants over these years has been 573 thousand persons, 288 thousand males and 285 thousand females, that is, an annual average of about 54.5 thousand persons, and an average annual emigration rate of 2 percent.

In principle, inter-census population loss can (partly) be attributed to differential coverages in the two censuses. A post-enumeration survey was carried out after the 2011 Census, but as no data are available regarding under-reporting in the 2001 Census, it is not possible to estimate its effect reliably. If we were to incorporate the under-coverage of the 2011 Census, the age structure of Figure 7.1 would remain essentially the same. Net population loss due to migration would decrease by 105 thousand to 468 thousand (45 thousand per year). However, this lower estimate would only be valid in the absence of under-coverage in the census of 2001, which is highly unlikely.

### 7.2.2 Emigration: other data sources

As census data provide only limited information on emigration, data from other sources are used to provide more insight into the migration of Albanians. Statistics from Eurostat and National Statistical Institutes (NSIs) for European countries indicate a population of about 988 thousand Albanian citizens living abroad in 2011, the sixth foreign population in the EU by size (Eurostat, 2011 and data from NSIs and Eurostat database), and the third largest population of non-EU citizens (after Turks and Moroccans). If we add estimations of Albanians born in Canada and Australia (another 10 thousand), and in the United States (about 77 thousand), the estimate reaches one million (Annex I), which would imply that about one in four Albanians lives abroad.

It should be noted that citizenship is a changeable characteristic, as people may acquire the citizenship of their foreign country of residence. During the years 2008-2009, 22.8 thousand Albanians acquired Greek citizenship; in Italy 14 thousand acquired Italian citizenship. Thus, together with an unknown number of unregistered Albanian migrants, the population of Albanians abroad would be even larger than the estimated one million. On the other hand, the population with Albanian citizenship abroad includes a so-called second generation of children born outside Albania, who should not be considered emigrants. In Italy almost one quarter of the Albanian population consists of children under 15; in Greece about 20 percent and in Germany about 12 percent, a total of about 200 thousand.

Italy and Greece host by far the largest shares of Albanian citizens living abroad (well over 80 percent), and numbers have steadily increased over the past decade (Annex I). At a distance follow the USA, Germany, the United Kingdom, Canada, Belgium, France, Australia, Spain and Austria (Table 7.2). This distribution of destinations is supported by data from the 2011 Albania census that suggest that around 80 percent of Albanians currently living abroad live in Greece or Italy. Additional support is provided by (net) immigration figures from the census, in which Greece and Italy are the countries of previous residence for 64 percent of Albanian citizens returned from residence abroad since the 2001 census[17].

The roughly one million Albanian citizens living abroad are the accumulated net result of two decennia of emigration[18]. Eurostat and NSI data show that total immigration flows from Albania into other European countries are considerable (see Table 7.3 and Annex II). In line with the population stock data, Italy and Greece are the most important destinations. Italy reports an inflow of about 29 thousand Albanians per year over the period 2001-2011. Greece has data available for only two years: 2006 (37 thousand) and 2007 (100 thousand). The last figure is unusually high and does perhaps include (partial) results of a regularisation in 2005 (Brick 2011).

Tab. 7.2: Population with Albanian citizenship in selected countries (in thousands)

| | Year | Number |
|---|---|---|
| Albanian citizenship | | |
| Greece | 2011 | 480.8 |
| Italy[a] | 2011 | 482.6 |
| Germany | 2011 | 10.5 |
| United Kingdom | 2005 | 10.5 |
| Belgium | 2011 | 5.2 |
| France | 2005 | 5.0 |
| Spain | 2011 | 1.6 |
| Austria | 2009 | 1.5 |
| Born in Albania | | |
| USA | 2010 | 77.4 |
| Canada | 2006 | 7.5 |
| Australia | 2006 | 2.0 |

[a] The number of Albanian citizens enumerated in the 2011 census of Italy is somewhat lower: 451.4 thousand
Sources: Eurostat and NSIs

[17] Excluding return migrants, for whom information on previous country of residence is missing.
[18] Not counting probably smaller numbers of Albanians who emigrated before 1989. It is likely that a majority will have acquired foreign citizenship by now.

Tab. 7.3: Emigration flows of Albanian citizens into EU countries and male percentage (annual average 2001-2010)

| Country of emigration | Annual average | Average male percent |
|---|---|---|
| All countries | 101,632 | .. |
| Greece[a] | 68,404 | 56 |
| Italy | 30,348 | 51 |
| Germany | 1,342 | 56 |
| Belgium | 430 | 51 |
| United Kingdom | 260 | .. |
| Spain | 240 | 61 |
| Austria | 227 | 52 |
| Sweden | 99 | 61 |
| Other EU countries | 283 | .. |

[a] Figure possibly including results of regularization
Sources: Eurostat and NSIs

First-time residence permits issued to Albanians in Greece show an average of 40 thousand per year for the period 2003-2005 and 2007-2009. Discounting for the high 2007 figure for Greece, total annual migration would perhaps be in the order of 70-80 thousand. In any case, migration into other European countries is limited, about 4 thousand per year. With 1,300 Albanians per year, Germany is the most important European destination after Greece and Italy.

Turning to some non-European destinations of Albanians indicate continued immigration during the past decade for both Australia and Canada. Out of 2,394 persons born in Albania and enumerated in the 2011 Australia census, half had arrived in the past decade. And in Canada, as much as 70 percent of 15 thousand Albanian citizens admitted since 1991 for permanent or temporary residence (including students) arrived during the past decade.

From the analysis presented above, it seems quite plausible that emigration has remained high during the past decade. The estimate of net inter-census migration (573 thousand[19]) based on the 2011 Census does not seem to be unrealistic considering about one million Albanian citizens currently residing abroad and immigration flows into other countries in the order of 70-80 thousand per year. During the inter-census period 1989-2001, external migration was estimated to have reached an average of 50 thousand per year (INSTAT 2004), and migration levels during the past decade 2001-2011 are at least equal if not surpass that level.

The above analysis is based on the internationally accepted definition of an international migrant as someone who stays abroad for at least one year. It is likely, however, that Albanian migration, in particular to the important neighbouring destinations of Italy and Greece is circular, whereby people work and reside for part of the year in Albania and for another part in Italy or Greece, moving back and forth for work and family reasons. If so, the total impact of migration is even larger than our estimates indicate.

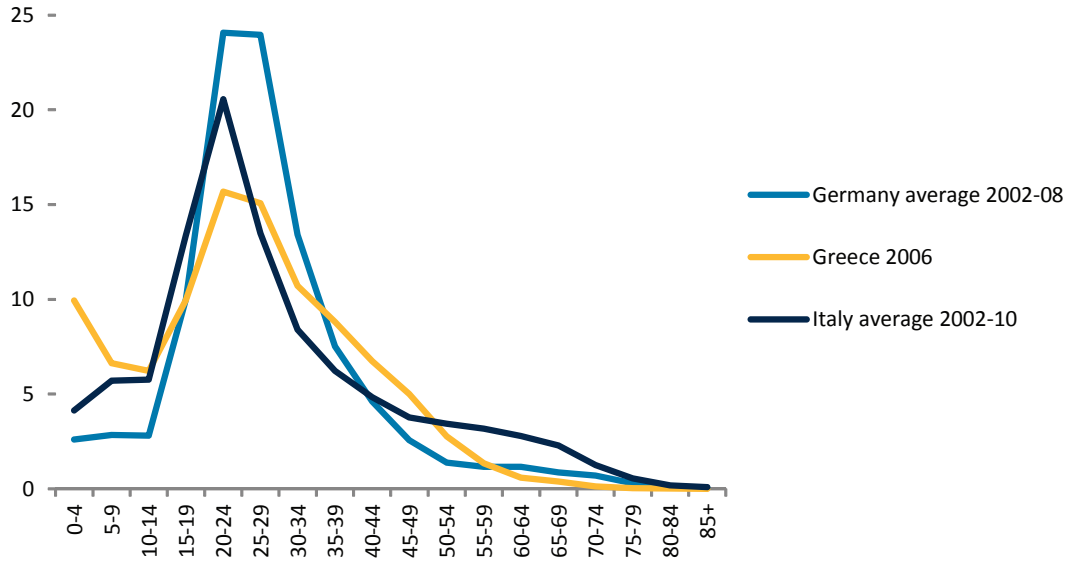
### 7.2.3 Characteristics of emigration

Part of the explanation of the continuation of emigration may be sought in the changing characteristics of Albanian emigration. It is thought that during the 1990s migration was dominated by young single men looking for work abroad in a time when Albania was in turmoil. In the first decade of this millennium migration seems to have diversified: migration is still dominated by young adults, but in addition to men, women increasingly go abroad as well. The share of children has somewhat increased too, and this is a clear indication of the process of family reunification and marriage migration that often follows the earlier 'pioneering' migration of a first male-dominated wave. Such a process of family reunification and marriage migration tends to enable continued high migration levels at least for some years after the first wave of migration.

[19] Excluding a correction for under-coverage.

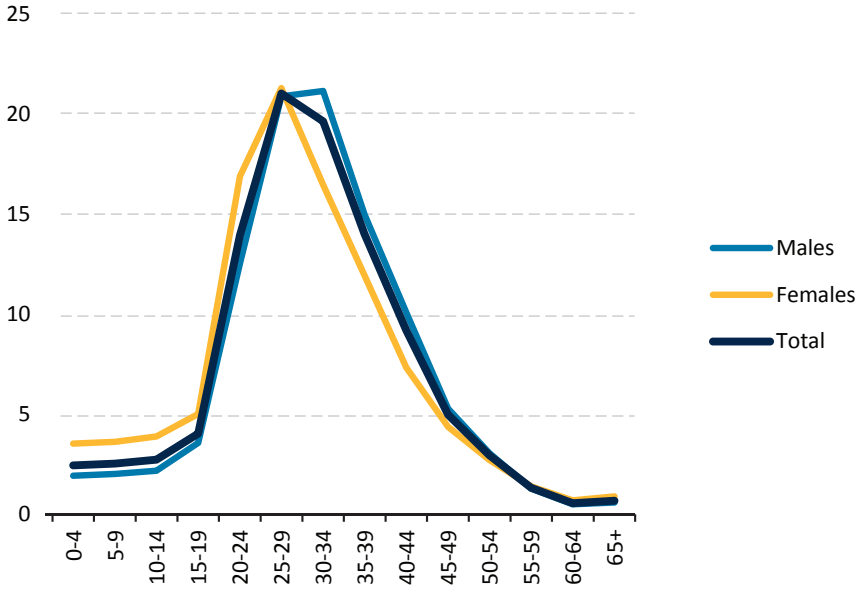
Data from Eurostat and NSIs help to illustrate this with regards to the more important European destinations. Immigration in the past decade to Germany and Greece consisted of 56 percent males, and that to Italy of 51 percent males (see Table 7.3). Migration to Germany is probably still strongly work (and study) oriented, as indicated by the low share of children. In comparison, Italy and especially Greece have a broader age distribution, indicative of family-oriented migration (see Figure 7.2). These age-sex distributions of immigration are reflected in the data on the population structure of Albanians currently residing abroad, as reported in the 2011 Census (Figure 7.3).

Fig. 7.2: Emigration of Albanian citizens to Germany, Greece and Italy by age group (in %)




Sources: Eurostat and NSIs

Fig. 7.3: Albanians currently living abroad, by sex and age group (2011) (in %)

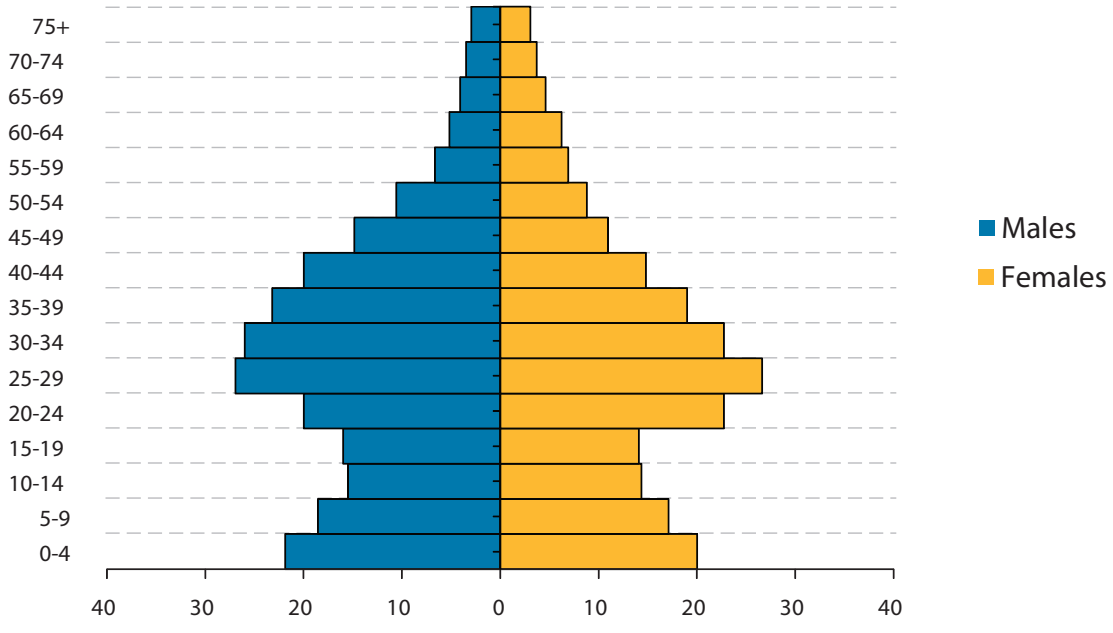



Source: Population and Housing Census 2011

The age structure of Albanian citizens enumerated in the Italian Census 2011 also clearly shows the effects of family reunification as well as of the presence of a second generation: the children of Albanian migrants born in Italy (Figure 7.4).

Data from first-time residence permits issued in Italy and Greece confirm the changing nature of migration: just over half of all permits in Greece were for family reunification. In Italy family-related permits were fewer: 35 percent, while another 22 percent were categorized as 'for other reasons' (not being study) (See Table 7.4). Besides family-related migration, migration for work or study has continued as well, probably for both men and women. Still four in ten permits issued in Italy and Greece in 2008-2009 were for working purposes. Further evidence is found in the 2011 census of Albania. For 77 percent of people currently living abroad but previously member of a household enumerated in the census, work was mentioned as the main reason for their leaving Albania. Study was the reason for 7 percent of them, and family-related reasons for 13 percent. The latter is lower than expected, but this may be due to underreporting on households from which all members have migrated. Another reason may be that 'work' may have been reported as a reason for dependants migrating with or joining someone who migrated for work. Furthermore, official permits do not necessarily reflect the personal purpose of migration: a spouse may receive a permit for family reunification while his/her personal motive may be to seek work.

Fig. 7.4: Albanian citizens residing in Italy (2011)




Source: Census Italy 2011

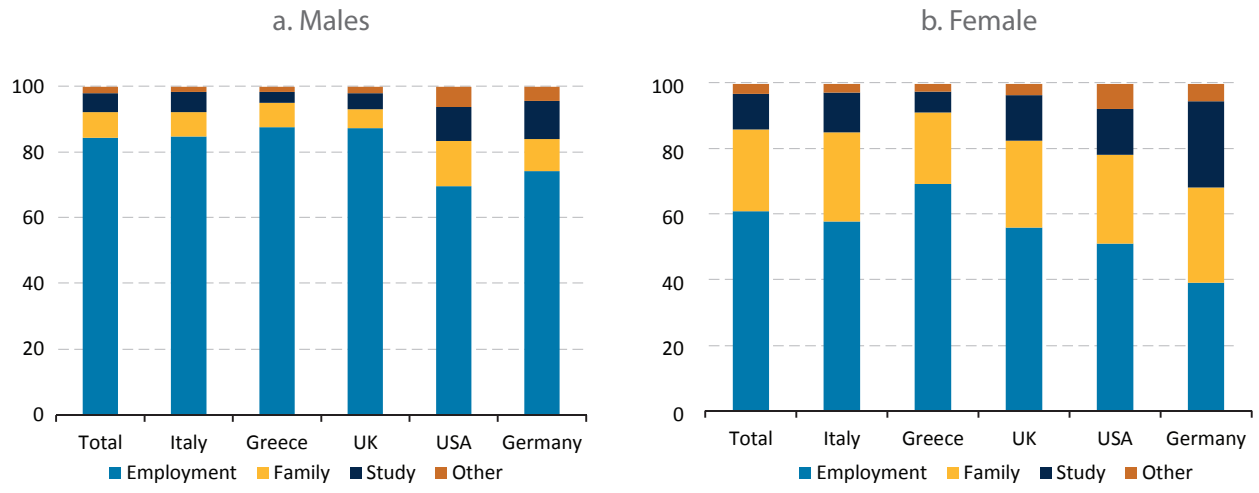
Tab. 7.4: First-time residence permits issued to Albanian citizens in Greece and Italy, by reason for permit, average for 2008-2009

| Reason for permit | Greece | | Italy | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Total | 32,149 | 100.0 | 39,767 | 100.0 |
| Work | 13,509 | 42.0 | 16,200 | 40.7 |
| Family | 16,689 | 51.9 | 13,941 | 35.1 |
| Education | 140 | 0.4 | 951 | 2.4 |
| Other | 1,812 | 5.6 | 8,675 | 21.8 |

Source: EMN

The reasons for emigration as reported in the 2011 Census for previous household members are different for men and women (Figure 7.5). For 84 percent of male migrants work is indicated as the main purpose of the move; this is lower for women - 61 percent. Conversely, family reasons play a role for one in four women as opposed to a mere eight percent of the men. Study appears in general to be a relatively minor reason for migration abroad, although more important for women (11 percent) than for men (only 6 percent). But students clearly favour some destinations over others: Germany, France and the USA are popular, Greece scores well below average in this respect.

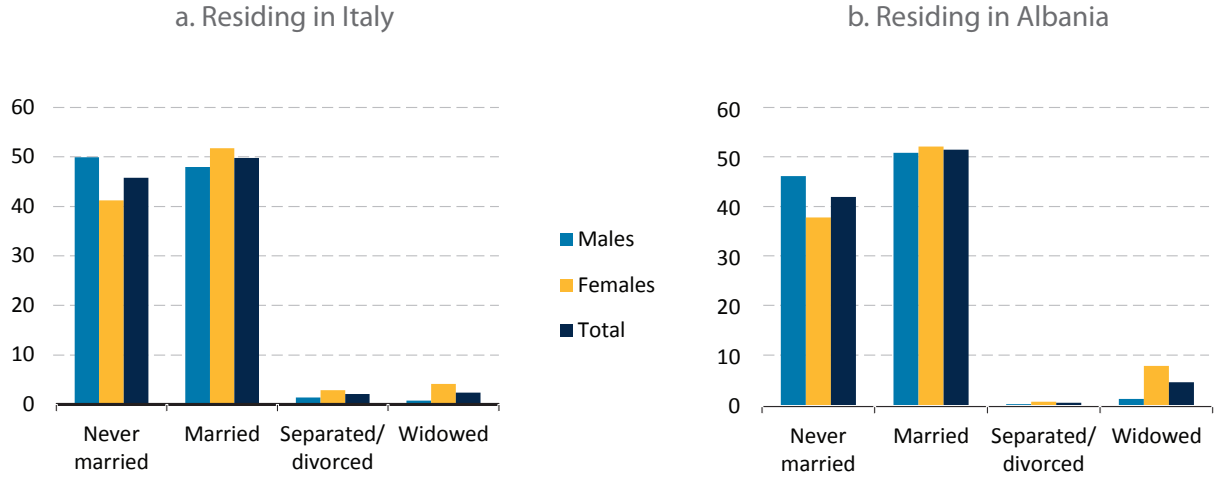
Fig. 7.5: Albanians currently living abroad by sex and reason for departure (in %)




Source: Population and Housing Census 2011

Only limited information on Albanians is available so far from the Italian Census of 2011. The distribution of Albanian citizens in Italy according to their marital status is presented in Figures 7.6a and 7.6b. The young age structure of the migrant population is reflected in the fact that the proportion of widowed people is small, but otherwise the distribution does not differ much from that of Albanian citizens in Albania. Obviously, the quite different age structure of both populations does have an impact, but at present no data are available for a more detailed investigation.

Fig. 7.6: Albanian citizens residing in Italy or Albania by sex and marital status (in %)




Sources: Census Italy 2011, Census Albania 2011

Summing up, Albanian emigration is not an occurrence for young men only. It is still strongly work-oriented, but over the past decade the share of family-related migration has increased substantially and women increasingly participate in migration, both for work and to join husbands who migrated before them. Migration for study purposes is relatively limited and students have a preference for Germany, France and the USA more than for Italy or Greece.

## 7.3 Immigration

It is not possible to arrive at a reliable estimate of annual return migration from external data sources: Albania does not register immigration flows, and emigration data from most other relevant countries are either non-existent (e.g., Greece) or severely underestimated (e.g. Italy). Therefore, data from the Albanian census are used to provide insight into the volume and the impact of immigration into Albania.

### 7.3.1 Foreign citizens and population born abroad

Immigration into Albania consist of two components: first-time immigrants, mostly foreign citizens, who come to live for either a shorter or longer time in Albania, for instance to work or because of marriage to an Albanian; and Albanians who return home after a period of work or study abroad, sometimes with the children born in the foreign country of residence. The first group – the foreign residents in Albania – is relatively small. The vast majority of the population of Albania has Albanian citizenship: 98.3 percent. Just one percent holds another citizenship in addition to the Albanian one and even fewer residents (47 thousand, 0.7 percent) have a foreign citizenship or are stateless (Table 7.5). The close linkages with Greece and Italy show up in these data: almost half the population holding double citizenship has Greek citizenship in addition to Albanian one. A further 11 percent has both Italian and Albanian citizenship. Of residents with foreign citizenship only, more than one in three is Greek and 9 percent Italian. The other communities of residents with double or foreign-only citizenship originate from Macedonia (4.7 thousand), the USA (3.8 thousand), Turkey (3.1 thousand) and Kosovo (2.8 thousand).

Despite the massive migration of the past two decades, less than two percent of the population of Albania (just over 51 thousand people) was born abroad (Table 7.5). As expected, Greece (61 percent) and Italy (17 percent) are the two main foreign countries of birth reported in the census.

Tab. 7.5: Population by citizenship and country of birth

| Citizenship | Total | | | of which born abroad: | | All countries | of which: | | |
|---|---|---|---|---|---|---|---|---|---|
| | Number | Percent | Percent | Number | Percent | | Greece | Italy | Other |
| Total | 2,800,138 | 100.0 | | 51,345 | 1.8 | 100.0 | 60.7 | 17.1 | 22.2 |
| Albanian | 2,753,174 | 98.3 | | 37,268 | 1.4 | 100.0 | 65.6 | 16.7 | 17.7 |
| Albanian and other | 28,309 | 1.0 | 100.0 | 3,238 | 11.4 | 100.0 | 44.0 | 15.6 | 40.4 |
| Greek | 13,049 | | 46.1 | 1,555 | | | | | |
| Italian | 3,093 | | 10.9 | 522 | | | | | |
| Other citizenship | 11,212 | 0.4 | 100.0 | 7,996 | 71.3 | 100.0 | 44.4 | 13.7 | 41.9 |
| Greek | 4,226 | | 37.7 | 2,255 | | | | | |
| Italian | 1,038 | | 9.3 | 941 | | | | | |
| Stateless | 7,443 | 0.3 | | 4,600 | 38.2 | 100.0 | 62.3 | 33.5 | 4.2 |

Source: Population and Housing Census 2011

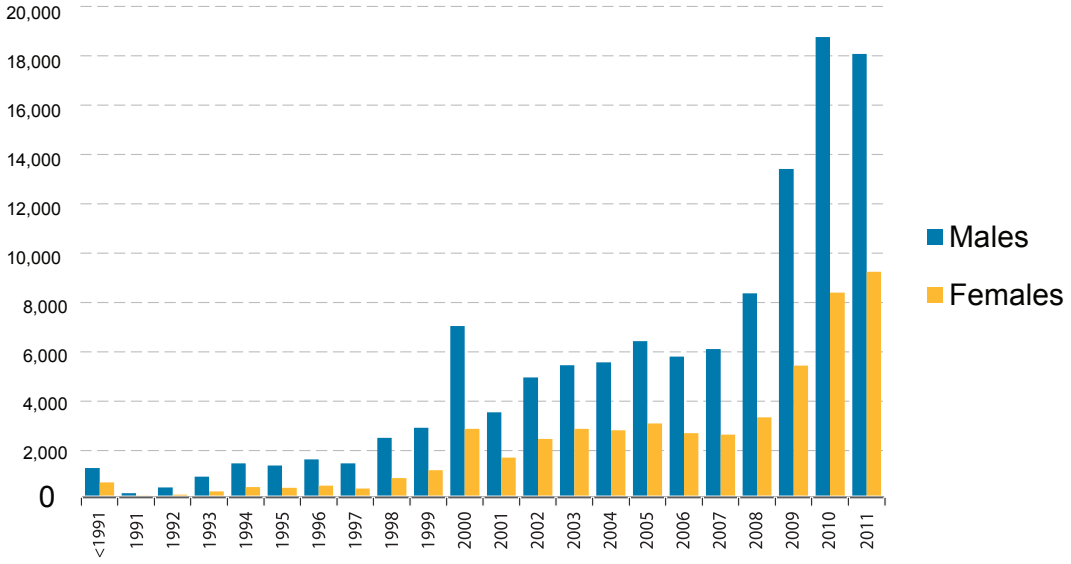
### 7.3.2 Return migration

Given the strong increase in the number of Albanians residing abroad over the decade, return migration cannot have been very substantial. Nevertheless, in the 2011 Census a total of 96.4 thousand people reported that they had returned from residence abroad since 2001. Overall, in 15 percent of the households in Albania lives someone who has never lived abroad. This amounts to about six percent of the total population (172 thousand persons), 97 percent of them with Albanian or double citizenship.

Immigration information from the Albanian census 2011 is derived from questions about the place of birth, place of previous usual residence and year of arrival in Albania, and place of usual residence at the time of the 2001 Census. In combination with the information on current place of residence, various measures of migration may be constructed. Data about the country of citizenship and country of birth provide basic information on the extent to which a country attracts foreign immigrants. But in Albania, return migration of Albanians is the most important type of immigration. Therefore, in this section focus is shifted to Albanian citizens (including those with double citizenship) who ever resided abroad. For analysis purposes, this group is divided into a category of 'recent migrants', who arrived after the 2001 Census, and another of 'non-recent migrants', that is those who returned to Albania before the Census of 2001.

About half of Albanian citizens who at some time in their life lived abroad, have returned in the the course of the past few years – since 2008 – with peaks in 2010 and 2011. The economic crisis may have caused the return of many Albanians who were working abroad but lost their job and were unable to find another one (Figure 7.7). Note that Figure 7.7 does not represent annual immigration flows. It reflects the net effect of immigration as it includes only Albanian citizens who returned and have never left ever since. Therefore, all other things being equal, one would expect the time series to increase towards the most recent years, given that recent returnees have had less time for a renewed emigration. But the increase is strong enough to clearly show the effect of the economic crisis, which after all hit Greece the hardest, which is the main destination of Albanian migrants. The recent increase in return migration has been stronger for men, another indication that work-related problems played a role in decisions to return.

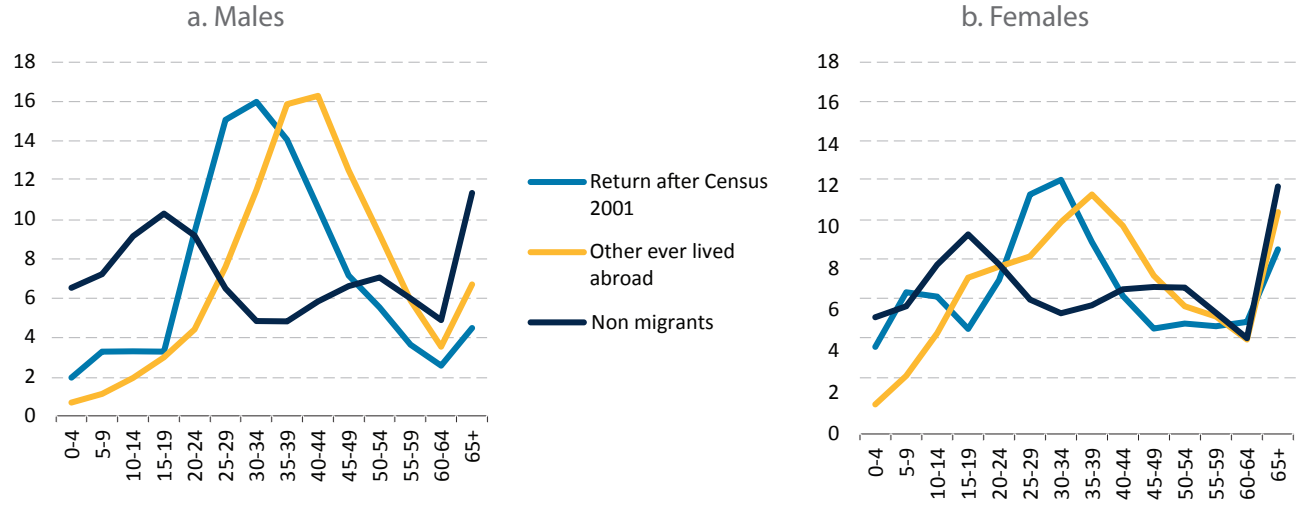
Fig. 7.7: Albanian citizens ever residing abroad, by sex and year of return to Albania




Source: Population and Housing Census 2011

What are the main characteristics of the Albanian citizens who returned to Albania, whether recently or not? The census provides a wealth of information. First of all, similarly to emigrants, men are overrepresented among the return migrants (70 percent against 49 percent in the general population). Furthermore, as clearly gathered by Figure 7.8, return migrants are overrepresented in the young adult ages, especially regarding men. This simply reflects the fact that younger people are more likely to venture abroad, and the same holds true for return migrants. Those who had already returned prior to the 2001 Census have had an additional decade to 'age' and this shows in their slightly older age structure. The underrepresentation of children among the migrant groups is caused by the fact that children born abroad are not counted as return migrants.

Fig. 7.8: Albanian citizens aged 15 years and older by sex, age group and migration status (in %)

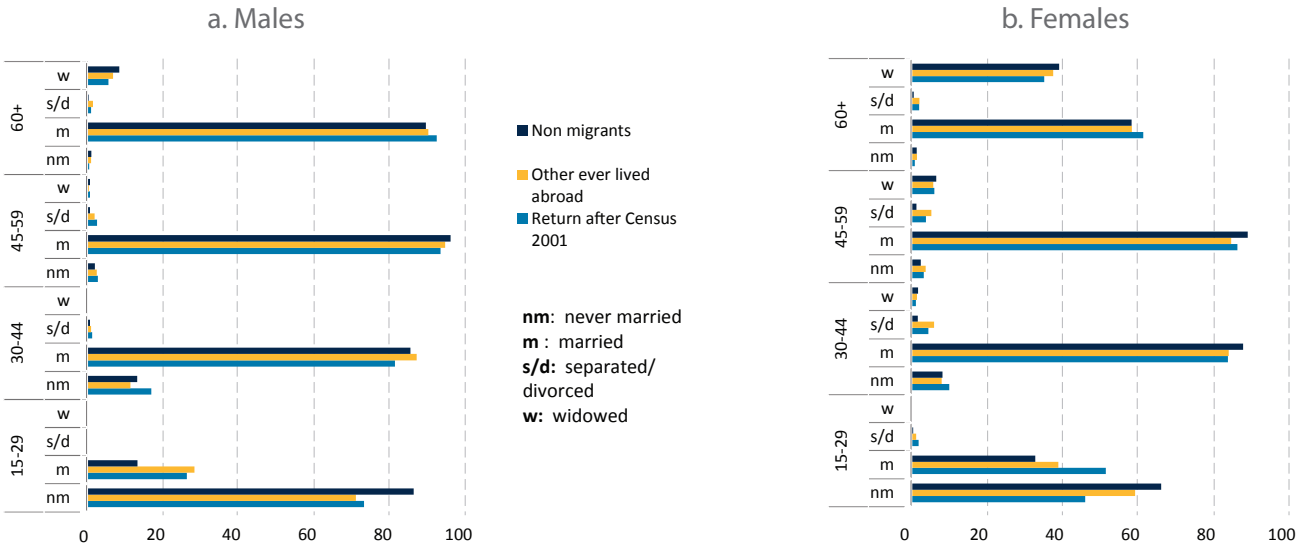



Source: Population and Housing Census 2011

Overall, return migrants are more likely to be currently married than non-migrants. But this is partly an effect of the younger age structure observed above: when controlled for the difference in age structure, only migrants in the younger age groups (15-29) are more likely to be married than non-migrants (Figure 7.9). Return migrant women are more likely to be married than women who never lived abroad. Although the population who is divorced or separated is relatively small, many more migrants than non-migrants have divorced or separated, in most age groups. The process of migration tends to have a profound effect on couples, such as a prolonged separation of spouses when only one partner has migrated, the strain of living abroad in an unfamiliar society, or increased financial independence of women.

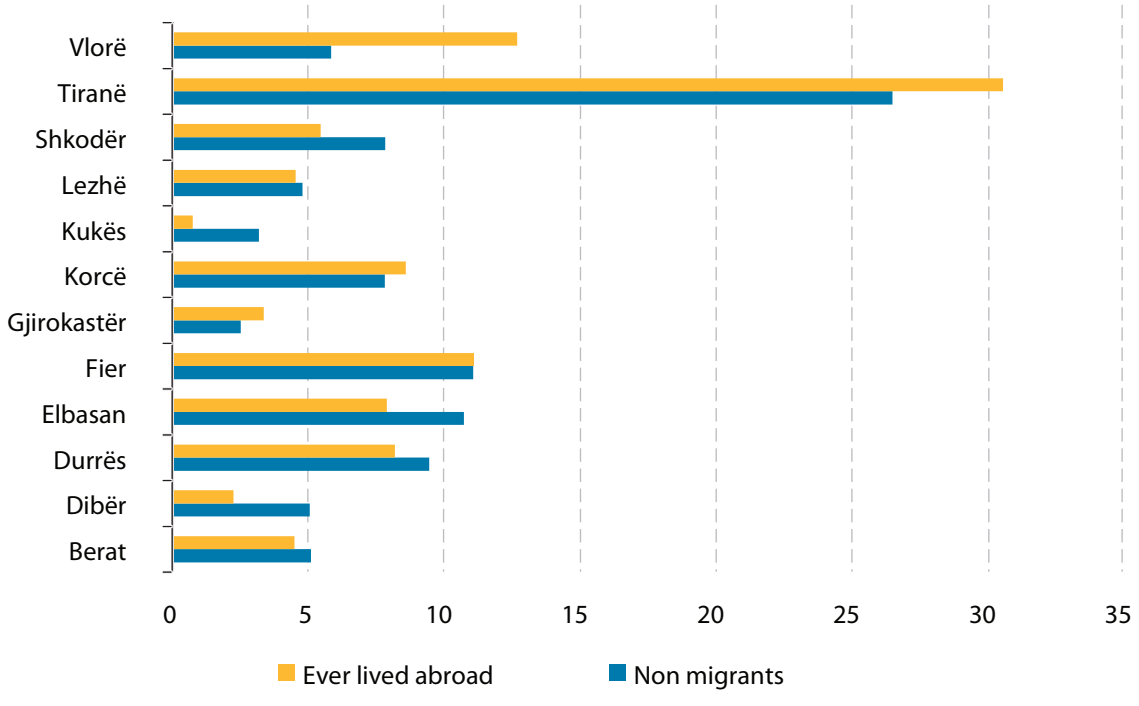
Return migration is not distributed equally across the country. In addition to Tirana, the southern prefectures of Vlorë, Korçë and Gjirokastër particularly receive an above average number of return migrants relative to their population shares (Figure 7.10). This is probably to a large extent influenced by the economic crisis which caused Albanians to return from neighbouring Greece, awaiting better times. Some additional evidence of this is provided by data on return migration among the main ethnic population groups of Albania where recent return is prevalent especially among the Greek population in Albania: almost one in four persons in that group has returned to Albania since the 2001 census.

Fig. 7.9: Albanian citizens aged 15 years and older by sex, age group, marital status and migration status (in %)




Source: Population and Housing Census 2011

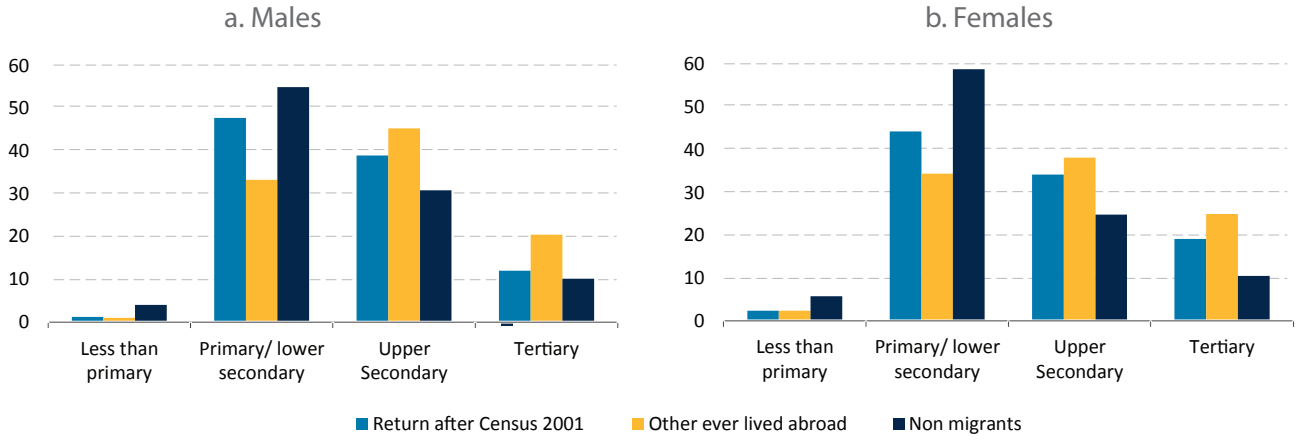
Fig. 7.10: Population ever lived abroad and non migrants, by prefecture (in %)




Source: Population and Housing Census 2011

As we have seen, return migrants are not representative of the entire population. They tend to be younger, more often male, and live relatively more often in the southern part of the country. They are also on average higher educated people than non-migrants, among both men and, even more so, women. But among the returnees, those who returned in the past decade attained lower levels than those who had already returned before 2001 (Figure 7.11). This is the case with most age groups. Only among those in the ages 15-24 (women) and 15-19 (men) recent returnees and non-migrants have quite similar educational levels.

Fig. 7.11: Albanian citizens aged 10 years and older by sex, educational level attained and migration status (in %)



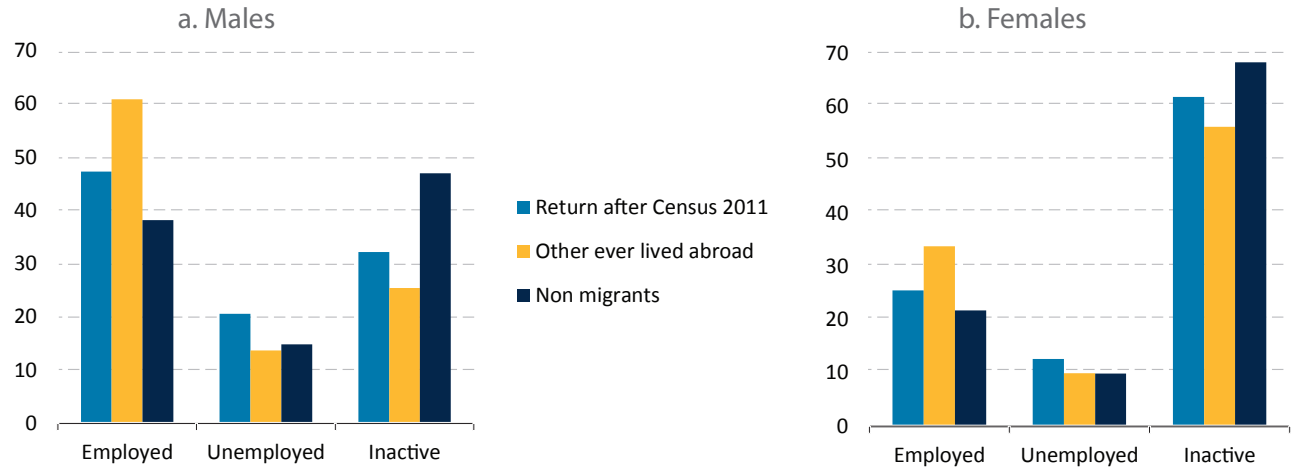

Source: Population and Housing Census 2011

Two things should be taken into account when interpreting this result. The first is that in the initial stages of a migration process, the 'pioneering' migrants tend to be strongly selective of the resident population. Quite likely those with higher education were more inclined to migrate (and at a later stage, return), assuming they had more financial and personal resources (knowledge of a foreign language for instance) to facilitate migration. Once migration has turned into a mass movement, the cost of migration becomes less, as new migrants may receive assistance from those who migrated before them. Recent migrants therefore, tend to be more similar to the non-migrant population. Secondly, possibly recent return has been selective due to the economic crisis: migrants with less education may have been more affected and lost their jobs sooner than migrants established in higher-level jobs, forcing them to return to Albania.

But are migrants better off once they have returned to Albania? Both men and women are indeed more often employed than non-migrants, but the non-recent migrants (those who returned prior to 2001), have a job more often than the recent returnees (Figure 7.12). A tell-tale sign that recent migrants have felt the negative effects of the economic crisis is that recent migrants are also more often unemployed than earlier returnees. The overall comparative picture is also more or less true if controlled for the effects of differential age structures. Without including the economically inactive, unemployment rates are high but not very different for recent returnees and non-migrants: 30 and 28 percent respectively among men, 33 and 31 percent among women. Only non-recent migrants have substantially lower unemployment rates – although decidedly not negligible: 18 percent for men and 23 percent for women.

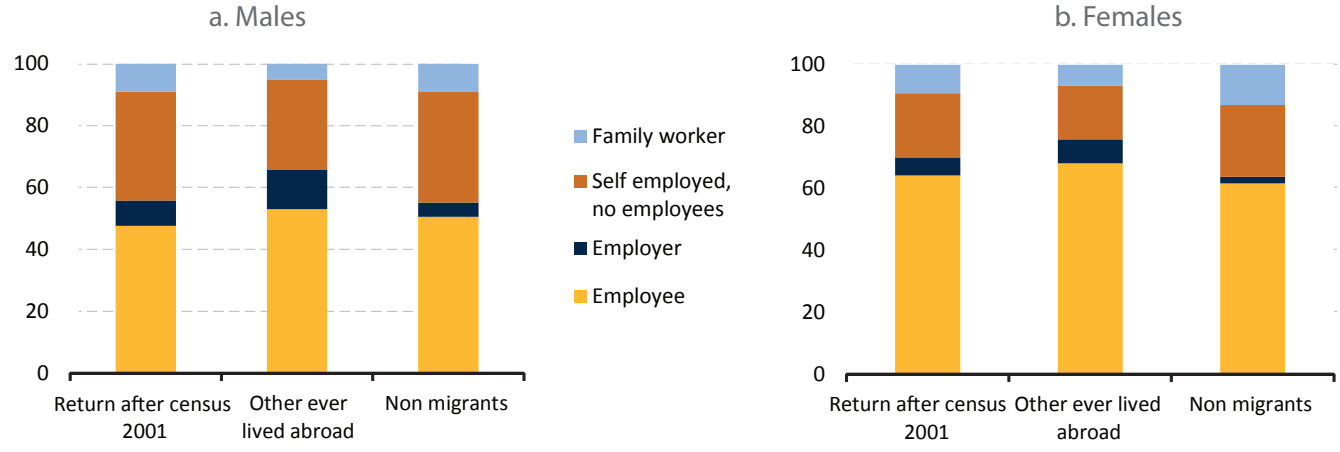
Finally, regarding the men who do have a job, there is little difference between recent returnees and non-migrants as far as the type of job is concerned: close to half of them work as an employee and just over one third is self-employed without employees. But recent migrants work as employers almost twice as much as non-migrants (8 versus less than 5 percent). Non-recent migrants are even more likely to be employers (13 percent). Returned migrant women too have a stronger tendency to be employers and are less often found doing work as contributing family workers (Figure 7.13). Possibly, successful migrants may have accumulated sufficient funds to start their own businesses, but this deserves more detailed investigation, which is beyond the scope of this chapter.

Fig. 7.12: Albanian citizens aged 15-64 by sex, economic activity status and migration status (in %)




Source: Population and Housing Census 2011

Fig. 7.13: Albanian citizens aged 15-64 by sex, type of job and migration status (in %)




Source: Population and Housing Census 2011

Summing up, foreign citizens form only a very small minority in the total population and the same is the case for those who were born abroad. It is obvious that Albania has not attained a position of being a magnet for foreign immigrants in the way countries are supposed to become when progressing in the Second Demographic Transition (Van de Kaa 2002). Immigration into Albania consists mostly of Albanians returning home after either a longer or shorter stay abroad. Return increased in the years of economic crisis and peaked in the three years prior to the census. During times of economic hardship migrant workers are likely to be the first to lose their jobs and be forced to return home and apparently this affected many Albanians, particularly men and mainly from Greece, which was hardest hit by the economic downturn. This is also reflected in the southern prefectures receiving relatively many return migrants.

Return migrants are on average better educated than the non-migrant population, but the recent migrants (those who returned after 2001) are less highly educated than the earlier returnees. Perhaps the crisis has affected the less educated disproportionally. It is also possible that the earlier returnees are a more selective group of higher educated people who pioneered emigration.

The returnees have a job more often than non-migrants and again, the early returnees do better than the more recent ones. But unemployment rates among the recent returnees are even slightly higher than among non-migrants, which may well be due to problems encountered in finding a job for those who returned recently from countries affected (also) by the economic crisis. On the positive side: return migrants who work are more likely than non-migrants to be employers. Possibly, migration has enabled the more successful among the returnees, both men and women, to start their own businesses.

# 8. MARRIAGE AND HOUSEHOLDS

## 8.1 Marital status distribution

Trends that are observed in countries that comply with the idea of a Second Demographic Transition suggest increasing shares of people remaining single, or being divorced or separated, and decreasing shares of married individuals. The information on the marital status distribution provided by successive censuses does not indicate that these trends had any significance in Albania since 1989. The contrary even seems to be the case, as the percentage of the married population increased from around 42.8 to 51.9 percent, and the proportion of singles decreased from 53.5 to 42.5 percent. The proportion of the divorced or separated has also remained at a very low level.

The share of widowed persons did increase in the period between the 1989 and 2011 censuses. This is an expected effect of an ageing population, but could also be an indication of reduced propensity to re-marry after widowhood. The cross-sectional data of Table 8.1 cannot make a distinction between these possible effects. The reporting of consistently higher figures for widows than for widowers is caused by the combined effect of higher female life expectancy (see section 6.3) and on average younger age at marriage for women (see section 8.2.1).

Tab. 8.1: Population by census year, sex and marital status (in %)

| Marital status | 1989 | | | 2001 | | | 2011 | | |
|---|---|---|---|---|---|---|---|---|---|
| | MF | M | F | MF | M | F | MF | M | F |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Never married | 53.5 | 58.1 | 48.5 | 47.6 | 50.9 | 44.2 | 42.5 | 46.7 | 38.4 |
| Married | 42.8 | 40.7 | 44.9 | 48.2 | 47.6 | 48.7 | 51.9 | 51.3 | 52.5 |
| Divorced/separated | 0.5 | 0.3 | 0.7 | 0.4 | 0.2 | 0.5 | 0.7 | 0.5 | 1.0 |
| Widowed | 3.2 | 0.8 | 5.8 | 3.9 | 1.2 | 6.5 | 4.9 | 1.6 | 8.2 |

Source: Population and Housing Censuses

Since a marital-status distribution depends on the age structure of a population and Albania's age structure has radically changed since 1989 (see section 4.2), the figures in Table 8.1 may not properly reflect changes in the underlying marriage dynamics in the country. Figure 8.1 – presenting the age-specific distribution of marital statuses – provides evidence that marital patterns have changed since 1989.

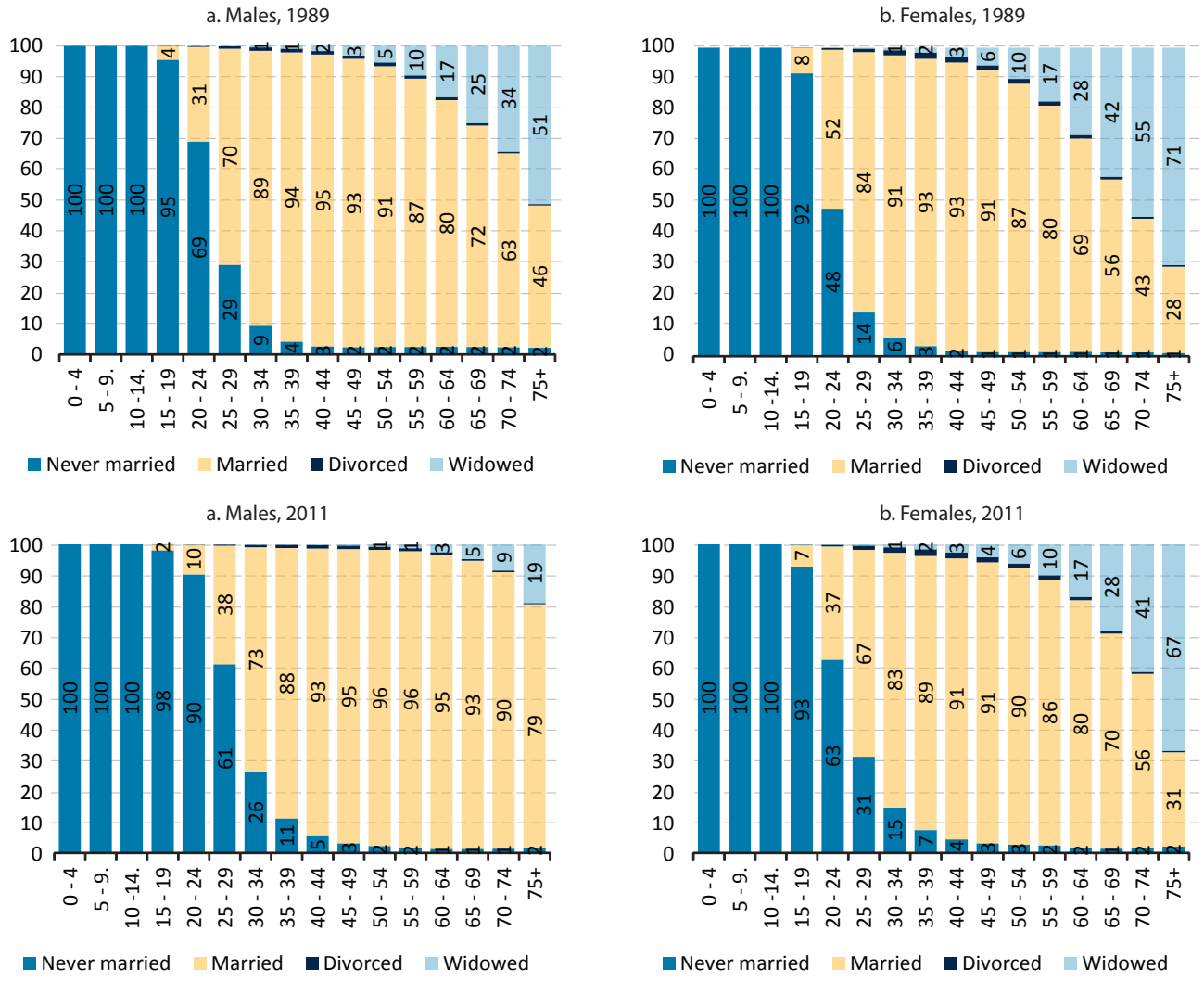
One evident change that can be observed from Figure 8.1 is that the proportions married at a young adult age have declined, and more so for men than for women. Whereas in 1989 31 percent of men aged 20-24 and 70 percent in the age group of 25-29 were married, the respective shares for 2011 were only 10 and 38 percent. The corresponding percentage for women showed a decline going from 52 and 84 percent in 1989 to 37 and 67 percent respectively in 2011.

A second remarkable finding from Figure 8.1 relates to the significantly lower shares of widowers at older ages in 2011 compared to 1989. Different reasons for this change can be considered:

- Life expectancy of men has risen less than that of women, reducing the probability that husbands outlive their wives;
- The age difference between spouses has increased, again reducing the probability that husbands outlive their wives;
- The rate of male re-marriage has increased, depleting even more the stock of widowers.

More in-depth analysis into this matter will be required, as only partial and as of yet insufficient clarification has been found for this strong trend.

Fig. 8.1: Male and female populations in 1989 and 2011 by marital status and age group (in %)




Source: Population and Housing Censuses

Figure 8.1 also shows different gender-specific patterns for the distribution across marital statuses. Men marry considerably later in life than women: 37 percent of 20-24 year-old women in the 2011 census were married, compared to only 10 percent of men in this age group. As for the 25-29 year age group the shares were 67 and only 38 percent for women and men respectively. Very large gender differences also exist in the shares of widowed persons, with female shares outnumbering by far male shares. The concurring causes of this difference are higher female life expectancy (see section 6.3), younger age at marriage for women and higher male re-marriage rates (see below).

Although in the young adult age groups below 30 years of age the shares of married men are considerably below that of women, in subsequent ages these shares catch up. The shares ever-married (including married, divorced/separated and widowed persons) converge and eventually reach a level close to universal marriage for men and women alike. The small share of never-married people at higher ages is typically below 2 percent for both sexes and is likely related to persons who are unable to marry because of mental or physical disability.

The results of Figure 8.1 give some modest support to the idea that Albania experiences changes in line with the Second Demographic Transition. Although shares of divorced or separated persons have remained at very low levels since 1989 (age-specific percentages suppressed in Figure 8.1), the observed postponement of marriage between 1989 and 2011, may also partially involve final abandonment of marriage in favour of other modes of living, including cohabitation and remaining single. Among the scant information about cohabitation in Albania, the 2008-09 Demographic and Health Survey indicated that this form of relation has been adopted by minorities in the early stages of the marital career. As with marriage, occurrence is observed for women at younger ages than for men: highest shares of around 3 percent for women in the age group 20-24 and around 4 percent for men in the age group 25-29 (INSTAT et al. 2010).

## 8.2 Marriage and divorce

Whereas censuses and surveys provide adequate data about marital status distribution, administrative registration of marital events is more suitable for discovering the dynamics underlying these distributions. Unfortunately, digitalised registration data about marriages and divorces are only available for recent years and sometimes suffer from incompleteness[20].

### 8.2.1 Marriage: later

Table 8.2 lists several indicators of the intensity of marriage and divorce in the population. The Crude Marriage Rate (CMR) and the General Marriage Rate (GMR) are gross rates that relate annual numbers of marriages in a population to, respectively, the total population in the corresponding years and the population aged 15 years and over in those years. Both figures suffer from the fact that they do not, or only to a limited extent, take the age-structure of a population into account. This may lead to spurious and inconsistent results, as is the case for Albania. Whereas the CMR does not show any trend over time, the figures for the GMR suggest a clear – although modest – downward trend in the successive censuses: from 13.3 marriages per thousand of the population aged 15 and over in 1989 to 11.5 per thousand in 2011. Since the GMR is only based on the population that is exposed to the 'risk of marriage' the suggested reduction in the occurrence of marriage seems to be the more plausible scenario.

Tab. 8.2: Marriage indicators by census year and sex

| Marriage indicator | 1989 | | | 2001 | | | 2011 | | |
|---|---|---|---|---|---|---|---|---|---|
| | MF | M | F | MF | M | F | MF | M | F |
| Crude Marriage Rate[a] | 8.9 | - | - | 8.4 | - | - | 9.1 | - | - |
| General Marriage Rate[a] | 13.3 | 26.1 | 27.3 | 11.8 | 24.1 | 23.3 | 11.5 | 23.2 | 22.8 |
| Crude Remarriage Rate[a] | - | 95.9 | 11.7 | - | 62.4 | 6.9 | - | 60.2 | 8.3 |
| Median age at marriage[b] | - | - | - | - | - | - | - | 28.2 | 22.3 |
| Mean age at marriage [a,b] | - | 27.3 | 23.0 | - | 29.3 | 24.1 | - | 29.3 | 23.6 |
| Singulate Mean Age at Marriage | 25.0 | 27.0 | 22.9 | 25.3 | 27.3 | 23.3 | 27.2 | 29.2 | 25.1 |

Sources: Median and mean age at marriage: Vital Statistics;
CMR, GMR and CRR: Population and Housing Censuses and Vital Statistics;
SMAM: Population and Housing Censuses and Vital Statistics.

- Data not available

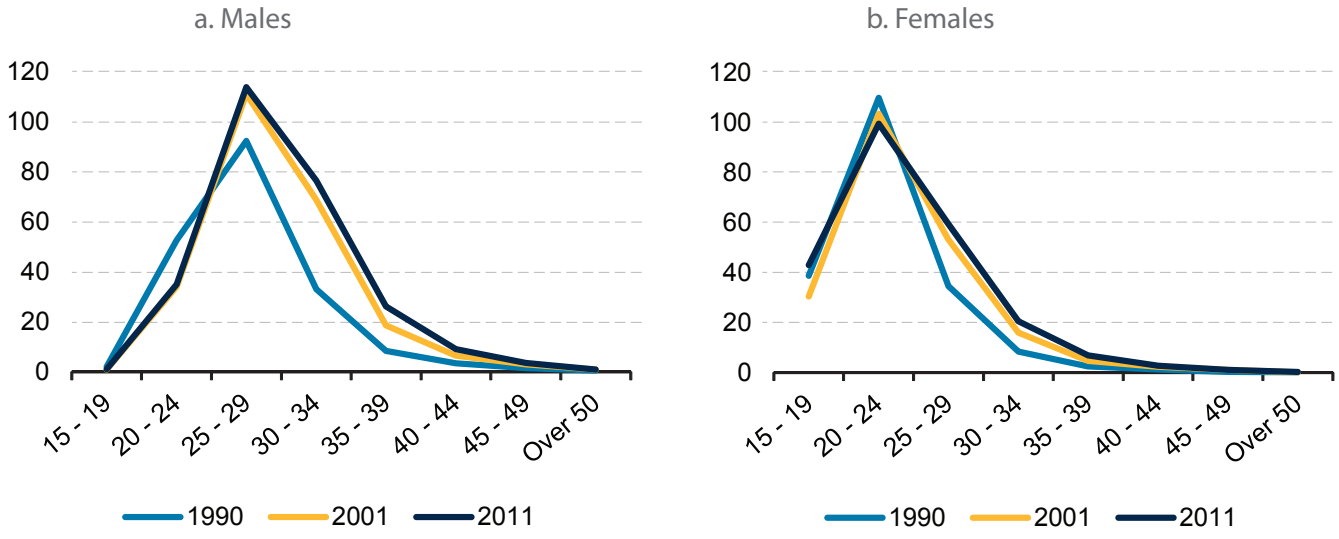
[a] The figures in the 1989 panel refer to 1990

[b] Including remarriages

Figure 8.2 shows the Age-Specific Marriage Rates (ASMR) for selected years. It indicates shifts towards older age at marriage for both men and women, especially between 1990 and 1989. Thus, for 20-24 year-old men the marriage rate dropped from 53 to 35 per thousand in this period and increased from 92 to 114, from 33 to 76, and from 8 to 26 respectively in the subsequent age groups. A similar change over time, although less pronounced, can be observed for women. Moreover, the figure shows that, overall, the shape of the age pattern for marriage is roughly the same for both sexes, but located five years earlier for women, with marriage peaks for men in the age group 25-29 and for women among the 20-24 year olds.

[20] In addition, population estimates for inter-census years are only available for the period 2001-2011 and not for earlier inter-census periods. Furthermore, available estimates assume a constant rate of change, which most probably does not reflect actual population dynamics, especially with regard to possibly strong variation in migration flows.

Fig. 8.2: Age-specific marriage rates for males and females, by year[a]




Source: Population and Housing Censuses and Vital Statistics
[a] The figures in the 1989 panel refer to 1990

The shift toward older age at marriage as suggested by the GMR and ASMRs is confirmed by calculations of marriage-age means (Table 8.2). The register-based information for mean age at marriage similarly shows a modest rise, again more so for men than for women and particularly occurring in the 1989-2001 period. The census-based Singulate Mean Age at Marriage (SMAM), applying an indirect method to cross-sectional census data, can be understood as the number of years lived in the single state by those who ever marry by age 50. This indicator suggests a somewhat larger increase of 2.2 years for both sexes from 1989 to 2011.

Both SMAM and the mean age at first marriage indicate a relatively large average age difference between spouses in 2011: 4.1 years for the calculated SMAM and as much as 5.7 years for the mean. The register-based median age at first marriage is close to the mean with an age gap of 5.9 years. The series of age-at-marriage means furthermore suggest that the spousal age difference has increased by 1.3 years from the 4.7 of 1989. This effect is not found in the SMAM figures.

### 8.2.2 Remarriage: fewer

Further evidence regarding changes in marriage patterns is found in the occurrence of remarriage. Unfortunately no information is available for higher-order marriages by age, but the Crude Remarriage Rate (CRR) suggest a significant drop in the share of men that re-marry after experiencing divorce or widowhood. In 1990 the rate of re-marrying was 95.9 per thousand divorcees/widowers in the population and this figure decreased to 60.2 in 2010 (Table 8.2). Again, the largest drop – to 62.4 – is observed before 2001.

The CRR for women also decreased in the 1989-2010, but was much less pronounced. Moreover, the female remarriage rate is significantly lower than that of men. This is likely related to the much smaller pool of potential marriage candidates for women. For every 100 divorced or widowed women aged 50-54, only 42 husbands are potentially available in the typical target group of non-married men that are five years older; and this imbalance further increases with age. On the other hand, for every 100 divorced or widowed men aged 50-54 the 'supply' of potential wives in the five-year younger age group consists of 487 marriageable women.

### 8.2.3 Divorce: more

Whereas remarriage rates seem to fall, data suggest that divorce rates are on the rise, especially since 2001. The absolute number of divorces in Albania was 3.6 thousand in 2011, compared to around 2.5 thousand in 1990 and 2001 (Table 8.3). These absolute numbers are not related to the population at risk for divorce and, therefore, principally do not reveal anything about the probability of divorce. However, the magnitude of the increase suggests that larger shares of the

population end their marriage by divorce.

Several indicators are computed to relate these annual numbers of divorces to successively more specific base populations in the same year. The Crude Divorce Rate (CDR) takes the total population as the basis, the General Divorce Rate (GDR) the population aged 15 and over, and the Married Divorce Rate (MDR) the married population. The MDR is the most relevant indicator, since it relates to the population that actually can divorce.

Table 8.3 shows that the incidence of divorce in Albania for each of the divorce rates is still fairly low; but also it provides evidence that divorce is increasing, particularly from 2001 to 2011. The present rate of 1.3 break-ups per thousand people is close to the level of the EU-27 around 1980 (Eurostat 2012b).

Another measure of divorce is the divorce-to-marriage ratio, which is calculated as the number of divorces in a year divided by the number of marriages in the same year, expressed as a percentage. For Albania, this indicator reveals a similar pattern as the divorce rates. The meaning of this indicator is more difficult to grasp as it relates to different populations: those who are at risk of marrying and those at risk of divorce.

Tab. 8.3: Divorce indicators, by year

| Indicator | 1990 | 2001 | 2011 |
|---|---|---|---|
| Crude Divorce Rate | 0.8 | 0.8 | 1.3 |
| General Divorce Rate | 1.2 | 1.1 | 1.6 |
| Married Divorce Rate | 1.9 | 1.7 | 2.5 |
| | | | |
| Divorces | 2,675 | 2,462 | 3,642 |
| Divorce-to-marriage ratio | 9.2 | 9.6 | 14.3 |

Sources: Population and Housing Censuses and Vital Statistics

### 8.2.4 Conclusions

As expected for an ageing population, the share of widowed people in Albania is increasing. In 2011 this was around 5 percent, and this will increase in the decades to come. Due to higher female life expectancy and lower age at marriage, the share of widowed in the female population is much higher than that in the male population. The share of married persons in the Albanian population has increased in the two inter-census periods since 1989, but the underlying dynamics point to a different direction. This is partly concealed by the drastically altered age structure over the same time span. Age-specific marital status distributions and General Marriage Rates indicate postponement of marriage, falling re-marriage rates and perhaps even the emergence of abandonment of marriage.

Data show that these changes in marriage patterns especially involved men in the 1990s. Further investigation may reveal to what extent the increased reluctance to (re-)enter marriage was due to the role of men in the family and a period of uncertainty, massive emigration and a collapsing economy.

Lower marriage rates are now mirrored by increasing divorce rates, even though this increase is a more recent phenomenon, occurring in the decade following 2001 and not before that year. In combination with decreasing remarriage rates this justifies the expectation that almost-universal marriage will not be achieved in Albania anymore and that the share of the adult population outside marriage will rapidly increase. It also suggests that as far as marriage and divorce are concerned, Albania has made a cautious entry into the Second Demographic Transition.

## 8.3 Household characteristics

### 8.3.1 Household size

Changes in demographic processes, like dropping fertility and remarriage rates, rising life expectancy and divorce rates, postponement and abandonment of marriage, and fluctuating sex and age-specific migration, may have large impact on the composition of households in a society. They are both the cause and consequence of wider economic, social and institutional change that encompasses such processes as individualisation, change in the labour market and gender roles.

The successive censuses showed that such changes had a large impact on the size of households: whereas in 1969 and 1979 the average household size was 5.6 persons, it had fallen to 3.9 persons with a steady decline since the 1979 census[21]. At the same time, the number of households increased, with the exception of the inter-census period 2001-2011. This is an indication that households not only become smaller because of lowering fertility since the 1960s (see chapter 5), but also due to the decrease of composite households (see section 8.2.2 below).

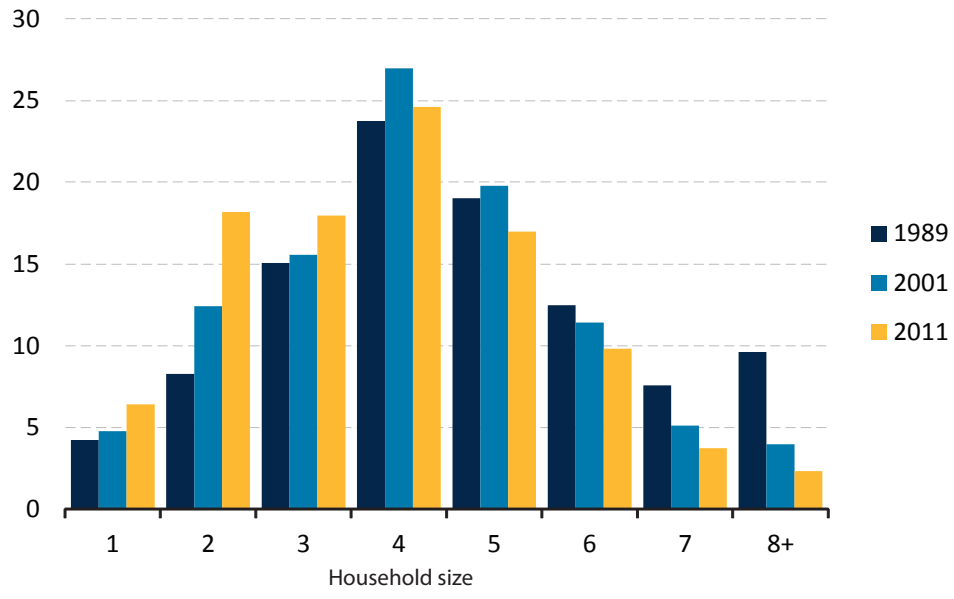
Tab. 8.4: Number of households and average household size, by census year

| Year | Households[a] (in thousands) | Average household size |
|---|---|---|
| 1969 | 346.6 | 5.6 |
| 1979 | 463.3 | 5.6 |
| 1989 | 675.5 | 4.7 |
| 2001 | 726.9 | 4.2 |
| 2011 | 722.3 | 3.9 |

Sources: Population and Housing Censuses
a For 1969, 1979 and 1989, the data refer to families.

Figure 8.3 visualises the changes since 1989. The shares of larger-sized households (5 members or more) all decreased, and the larger the households, the larger the decrease. Thus, in 1989 households of 8 or more people represented a significant proportion of Albanian households, with almost 10 percent. In 2011 households of this size are almost non-existent (just over 2 percent). On the other hand, the shares of small households of 1 to 3 members increased. The proportion of one-person households, although still small, increased with more than 50 percent since 1989 and particular increase is observed for 2-person households. This is the second-most common type of household in 2011.

Fig. 8.3: Households by census year and household size (in %)




Sources: Population and Housing Censuses

Looking at the shift in household size from the perspective of persons instead of that from households, the change is even more prominent. In 1989, almost two-thirds (65.8 percent) of the population lived in households with five or more people; in 2011 this dropped to less than half (49.7). The share of persons living in one- or two-person households increased in the same period from 5.3 to 12.7 percent.

[21] In 1979 and 1989 the unit of measurement in the census was the family: a group of people living together in the same dwelling and who are connected by blood, marriage or adoption. The 2001 and 2011 censuses applied a more comprehensive household concept: a group of people living together in the same dwelling, forming an economic unit and eating from the same pot. Applying the household concept to the earlier censuses would increase the average number of group members, but only to a very limited extent: in 2001 and 2011, persons included in the household who were not related by blood, marriage or adoption constituted less than one percent of the total.

### 8.3.2 Household structure

Decreasing fertility is the most important factor of the reduced household size in the period between the censuses of 1989 and 2001. This decline has also considerably changed the age composition of households. In 1979, a household had on average 2.5 children under the age of 18. In 2011 this has decreased to an average of only 1.0 child per household. These figures correspond to, respectively, 44 and 26 percent of the total household members in these census years. The number of adult household members decreased slightly over the same period: from 3.1 in 1979 to 2.9 in 2011, thereby making up the complementary 56 and 74 percent of the households, respectively.

Independent of the shift towards a more adult household composition, the occurrence of composite households also changed, which further contributed to the reduction of the household size. In Table 8.5, households are differentiated by the number of constituting family nuclei. A family nucleus can either be a couple with or without children or a single parent with one or more children. Households without family nuclei are either one-person households, or households with two or more unrelated persons.

Relatively, the largest changes occurred to households with no family nuclei and to those with two or more nuclei, whereas the proportion of households with one nucleus – the large bulk – remained relatively stable. The share of households with two or more family nuclei almost halved in the 1989-2011 period, from close to 20 percent to around 10 percent. On the other hand, the share of households without a family nucleus – mostly one-person households – doubled from 4 to 8 percent. It is interesting to see that for these two groups the largest changes took place in different time periods. The largest drop in composite-family households occurred before the 2001 census and is likely the effect of the renouncement of government regulations on residence and the opening of the housing market, so that people could more freely decide where to live and in what constellation. To an important degree, this might have caused the relative large increase of one-family households in the same pre-2001 period compared to the 2001-11 period. For non-family households, on the other hand, the period 2001-11 saw the largest increase.

Another interesting observation is that the share of households with one family nucleus remained stable between 2001 and 2011 – at around 82 percent of all households – but that the underlying distribution between couples with and without children shifts towards the latter. This shift can be related to more couples deciding not to have children at all or to couples that spend a shorter time in the company of children. The latter, in turn, may be related to having fewer children, having them later in time after the start of marriage or cohabitation, or to children leaving the parental home earlier, or to any combination of the above. Additional research will be required to pinpoint the specific processes at work.

Tab. 8.5: Households by census year and family nucleus composition

| Household structure | a. In thousands | | | b. In percentages | | |
|---|---|---|---|---|---|---|
| | 1989 | 2001 | 2011 | 1989 | 2001 | 2011 |
| Total | 675.5 | 726.9 | 722.3 | 100.0 | 100.0 | 100.0 |
| **Households with no family nucleus, of which** | **28.6** | **40.3** | **60.4** | **4.2** | **5.5** | **8.4** |
| Households with one person | 28.6 | 34.6 | 46.7 | 4.2 | 4.8 | 6.5 |
| Household with only unrelated people | - | 5.7 | 13.7 | - | 0.8 | 1.9 |
| **Households with one family nucleus, of which** | **514.8** | **598.2** | **589.1** | **76.2** | **82.3** | **81.6** |
| Households with one couple | - | 598.2 | 543.7 | - | 82.3 | 75.3 |
| *Couples with children* | - | 516.5 | 418.3 | - | 71.1 | 57.9 |
| *Couples without children* | - | 81.7 | 125.4 | - | 11.2 | 17.4 |
| Households with one single-parent | - | 41.6 | 45.4 | - | 5.7 | 6.3 |
| *Households with a lone father* | - | 6.2 | 7.1 | - | 0.9 | 1.0 |
| *Households with a lone mother* | - | 35.4 | 38.3 | - | 4.9 | 5.3 |
| **Households with two or more family nuclei, of which** | **132.1** | **88.4** | **72.7** | **19.6** | **12.2** | **10.1** |
| Households with two family nuclei | - | 84.5 | - | - | 11.6 | - |
| Households with more than two family nuclei | - | 3.9 | - | - | 0.5 | - |

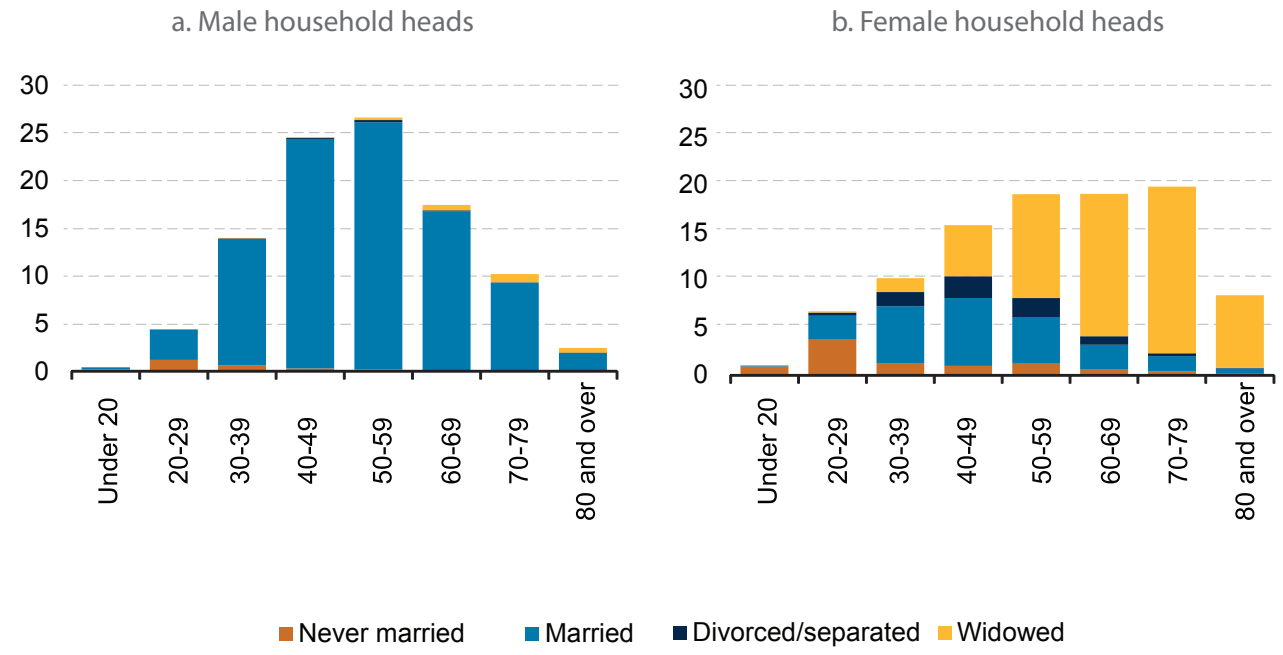
Sources: Population and Housing Censuses
a For 1989, the data refer to families.

### 8.3.3 Characteristics of the head of household

A minority of Albanian households are female-headed. This has changed only little in the last inter-census decade: from 13.4 percent in 2001 to 14.2 percent in 2011, corresponding to an increase from 94 to 103 thousand households. It is interesting to see that the age- and marital-status profile of male and female household heads are entirely different. Male household heads consist almost exclusively (for 94.5 percent) of married men. This implies that never-married, divorced or separated and widowed men almost always remain or become part of another household, either by linking up with an existing household or by forming a new household through remarriage. Consequently, the age profile of male household heads closely resembles the age distribution of married males, with a peak in the 40-69 year age category (Figure 8.4).

The marital status distribution of female heads of households is much more varied. On the whole, widows make up the largest share (58 percent) of female household heads, followed by married women (25.4) and smaller, but still sizeable shares of never-married and divorced or separated women (9.3 and 7.4 percent, respectively). With regard to the age distribution, overall the largest numbers of female heads of household are concentrated in older ages, especially from age 50 onwards. The large majority of these elderly female heads are women who outlived their husbands. In younger age groups the largest shares consist of married women (30-49 year of age) or never-married women (under age 30). In absolute figures, widowed and divorced or separated women outnumber the corresponding male numbers among head of households. This implies that – either by choice or by lack of opportunity – compared to men, fewer women attach themselves to other households or engage in new marital relations upon dissolution of marriage.

Fig. 8.4: Male and female household heads, by marital status and age group (in %)




Source: Population and Housing Census 2011

### 8.3.4 Institutional households

A small part of Albania's population lives together as unrelated persons in institutional households for purposes as schooling, health, criminal conviction, welfare or religious reflection. According to the 2011 census, this concerned some 16 thousand people[22]. The largest numbers concerned persons in boarding schools (5.6 thousand) and penal institutions (4.6 thousand). Together, these collective households accommodate around two-thirds (65.4 percent) of the total institutional population. Other collective households with substantial shares are religious institutions (8.7 percent) and health and care-related institutions, such as hospitals and homes for the old and disabled (7.3 percent).

Many collective household populations have distinct gender- and age profiles. Thus, boarding schools consist for 82 percent of female students and the penal institution population consists for 98 percent of males. Also religious institutions have a large over-representation of women (68 percent). With regard to age, the highest numbers of persons are concentrated in the age bracket of 15-24 years. For women, the share in this age group is as high as 85 percent and predominantly concerns students. The corresponding share for men is 40 percent, with a further high representation of 22 percent in the adjacent age group 25-34. These largely involve prison inmates.

[22] The 2001 census also collected information about population in institutions. However, the number, which is far smaller – 1.5 thousand only – suggests this is an incomplete count.

# 9. CONCLUSIONS AND POLICY IMPLICATIONS

The 2011 Albania Population and Housing Census showed that the country has witnessed radical demographic changes. Over the time period of 10 years preceding the census it has lost close to 9 percent of its population and since the 1989 census, the absolute number of children under 15 decreased from over one million to less than 580 thousand. At the same time, the number of elderly more than doubled, going from below 170 thousand to around 318 thousand, and the median age of the population increased from 23 to over 33 years. These are trends that have an enormous impact on the demand for and supply of age-specific services such as education, health and other facilities. Because expectations are that these trends will continue, policy makers need to reconsider the balance between supply and demand for schools, teachers, pensions, retirement homes, health facilities, medical personnel and many more.

At the same time, the present demographic state of Albania implies that it is in the middle of a window of economic opportunity that will only last for about 10 more years, due to the ratio of working-age to dependent population groups. Whether or not the country takes full advantage of this demographic dividend depends on the extent to which effective policies are implemented to adequately prepare its labour force for the labour market and whether appropriate economic and social policies are in place to provide these people with productive jobs.

Migration, and more specifically emigration, has remained an unabated force in the population change of Albania in the years preceding the 2011 census. Analysis of census data and information from other sources indicate that 573 thousand more persons left the country than returned to it over the last inter-census period, with about equal numbers of males and females. This gender balance suggests that international migration has entered a new stage, in which family-related migration has gained importance besides work related migration, and women increasingly engaged in moving abroad. Immigration is dominated by the return of the Albanians. It has substantially increased in the three years prior to the census, during the economic crisis, and particularly involved men and people who lived in Greece, which was hardest hit by the economic downturn.

As migration involves mainly young adults, the age structure of the population will be affected, particularly in regions with massive outmigration (internationally as well as internally). While the economically active leave, the elderly most often stay behind, and this is likely to change regional social and economic structures: public services are more expensive to keep up in thinner populated areas, there will be shifts in the demand for health care, and schools will receive fewer pupils, to name just a few examples.

In countries experiencing mass outmigration, such as Albania, brain drain is a potential negative outcome. The country spends money on educating its young people, who then leave in search for a job elsewhere. Brain drain is a serious problem if job vacancies at home cannot be filled and if emigration creates shortages in much needed personnel in, for instance, technical and medical sectors. This is not yet the case in Albania; on the contrary, with unemployment rates around 30 percent, emigration seems to be a good strategy from an individual perspective.

In countries experiencing massive emigration, return migration is also likely to be substantial. While many returnees will find their way upon arrival back in the country, some may experience problems in finding a job and re-integrating into society. As indicated by the analyses, unemployment is high among non-migrants, but even somewhat higher among recent returnees. It is this high unemployment that induces people to emigrate or re-emigrate, trying their luck elsewhere. Nevertheless, it also appears from the census data that return migrants do have their own businesses, and employ personnel more often than non-migrants. In this way – and more broadly through successful investment of the profits from migration in Albania – (return) migrants may contribute to the economic growth in Albania, helping to create employment. In the long run, only a viable economy and sufficient employment for future generations will be able to reduce emigration flows.

With regard to fertility, the 2011 census clearly shows a continuing rapid decline in overall levels of reproduction. Currently, with a TFR of 1.67, Albania is no longer the country with the highest fertility in Europe, but has dropped out of the top ten countries with the highest level. It is remarkable that this decline largely took place in the absence of high levels of modern contraception. Survey figures show that only a little bit more than 10 percent of the married female population between ages 15 and 49 used a form of modern contraception. Given the high motivation of couples to limit their offspring and the low efficiency of traditional contraception, there is a need to broaden the choice of family planning options for Albanian couples and to increase the supply of modern contraceptive means. The current contraceptive behaviour also gives rise to the expectation that fertility can easily decline below the present level, if more couples adopt effective modern contraception.

Another aspect of fertility that may need special attention from policy makers is the high sex ratio at birth. This high sex ratio is a clear indicator that sex-selective abortions are performed on a relatively large scale. Much attention is paid within the international community to reduce the preference for boys and to curtail the practice of sex-selective abortions. In the case of Albania, policy makers could use the quantitative information from the census on sex selective abortion and the more qualitative information provided by the UNFPA study, to streamline their population policies for providing boys and girls, even before they are born, with equal right to life and happiness.

Over the years, Albania has made significant progress to improve the health situation of its population. The population census provides valuable information on the current situation of mortality in the country. Although significantly reduced over the years, Albania still has the second-highest level of infant mortality in Europe. The present analysis of child mortality differentials clearly shows high discrepancies in the level of child mortality between the various prefectures in the country and between age group and educational background of the mother. This information can be used to focus health programs on those groups of young mothers, who are most vulnerable and prone to experience the loss of a child.

The population in Albania has a much higher life expectancy than would be expected if we are to judge based on the country's living standards. Various authors have suggested that the high life expectancy of Albanians is linked to a healthy Mediterranean diet and, consequently, their low levels of cardiovascular diseases. The present analysis could not find evidence that low levels of cardiovascular diseases are indeed linked to high life expectancy. There is a chance that underreporting of deaths is still present and that life expectancy is in fact lower than estimated and generally believed. The indicated anomaly and the possibility of incomplete death registration need to be researched further.

Demographic and social change has also affected the size and composition of households. The share of households with more than one family nucleus has almost halved since 1989, and average household size reduced from 4.7 persons in 1989 to 3.9 in 2014. These trends are partly due to fertility decline and fewer children in the household, but can most probably be also attributed to higher divorce rates, postponement of marriage, lower remarriage rates and other expressions of individualisation and search for independence. The record of demographic change in other countries suggests that these trends will continue in the future. Consequently, adequate housing policies should take into account the fact that dwellings need to accommodate fewer people and fewer composite households.

Annex I: Population with Albanian citizenship in European countries, and population born in Albania in selected other countries, 1989-2013[a]

| Country of residence | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Albanian citizenship** | | | | | | | | | | | | | | | | |
| Austria | NA | NA | NA | 1,648 | 1,594 | 1,616 | 1,540 | 1,482 | 1,523 | 1,464 | 1,503 | 1,501 | NA | NA | 1,564 | 1,691 |
| Belgium | NA | 0 | 0 | 744 | 1,042 | 1,421 | NA | NA | NA | NA | 2,941 | 3,207 | 3,893 | 5,251 | 6,640 | 6,750 |
| Bulgaria | NA | NA | NA | 141 | NA | NA | NA | NA | NA | NA | 247 | 251 | 263 | 275 | 286 | 293 |
| Czech Republic | NA | NA | 134 | 113 | 108 | 130 | 138 | 148 | 175 | 210 | 224 | 230 | 250 | 265 | 258 | 252 |
| Denmark | 62 | 76 | 85 | 99 | 122 | 139 | 147 | 185 | 194 | 201 | 216 | 215 | 215 | 230 | 227 | 233 |
| Finland | 26 | 30 | 34 | 42 | 54 | 62 | 73 | 92 | 91 | 104 | 117 | 138 | 144 | 141 | 159 | 183 |
| France | NA | 2,495 | NA | NA | NA | 2,495 | NA | 5,031 | NA | NA | NA | NA | NA | NA | NA | NA |
| Germany | 11,343 | 11,619 | 12,107 | 11,787 | 11,702 | 11,630 | 11,513 | 10,449 | 10,362 | 10,829 | 10,713 | 10,591 | 10,663 | 10,518 | 11,027 | 12,097 |
| Greece[b] | 6,128 | NA | NA | 438,036 | NA | NA | 434,810 | 448,152 | 361,766 | 429,261 | 409,104 | NA | NA | 480,824 | NA | NA |
| Hungary | 74 | 108 | 114 | 85 | 95 | 82 | 74 | 66 | 71 | 78 | 89 | NA | 101 | 102 | 86 | 100 |
| Iceland | 6 | 10 | 12 | 19 | 28 | 30 | NA | NA | NA | NA | 27 | NA | 9 | 10 | 13 | 11 |
| Ireland | NA | NA | NA | NA | NA | NA | NA | NA | NA | 673 | 716 | 769 | 779 | 776 | 776 | 786 |
| Italy | 71,866 | 93,601 | 127,136 | NA | NA | 216,582 | 270,383 | 316,659 | 348,813 | 375,947 | 401,949 | 441,396 | 466,684 | 482,627 | 495,667 | 437,527 |
| Netherlands | 445 | 445 | 345 | 330 | 358 | 380 | 389 | 409 | 401 | 384 | 372 | 411 | 492 | 502 | 512 | 548 |
| Norway | 101 | NA | 133 | 132 | 138 | 160 | 167 | 208 | 232 | 261 | 269 | 288 | 292 | 296 | 319 | 363 |
| Poland | NA | NA | NA | NA | 26 | NA | NA | NA | NA | 26 | 24 | 31 | 42 | 40 | 147 | 152 |
| Portugal | 8 | 8 | 11 | 18 | 22 | 24 | NA | NA | NA | 54 | 60 | 53 | 42 | 37 | 36 | 36 |
| Romania | NA | NA | NA | NA | 332 | NA | 332 | 349 | 348 | 349 | 350 | 365 | NA | NA | 409 | 764 |
| Slovakia | NA | NA | NA | NA | NA | NA | 16 | 11 | 19 | 24 | 28 | 35 | 58 | 66 | 98 | 97 |
| Slovenia | 59 | 36 | 67 | 46 | 54 | 46 | 44 | 33 | 35 | 33 | 32 | 36 | 59 | 59 | 53 | 67 |
| Spain | 110 | 208 | 263 | 374 | 493 | 638 | 845 | 1,043 | 1,298 | 1,382 | 1,539 | 1,701 | 1,697 | 1,634 | 1,679 | 1,741 |
| Sweden | 133 | 145 | 160 | 212 | 228 | 257 | 296 | 334 | 371 | 469 | 496 | 533 | 596 | 689 | 685 | 822 |
| Switzerland | 772 | 859 | 1,014 | 1,093 | 1,144 | 1,205 | 1,236 | 1,227 | 1,218 | 1,209 | 1,162 | 1,149 | 1,160 | 1,308 | 1,289 | 1,302 |
| Turkey | NA | NA | 1,732 | NA | NA | NA | NA | NA | NA | NA | 1,040 | 1,091 | NA | 1,003 | 1,062 | 1,120 |
| United Kingdom | NA | NA | NA | 11,467 | NA | 7,883 | 9,184 | 10,481 | NA | NA | NA | NA | NA | NA | NA | NA |
| Born in Albania[c] | | | | | | | | | | | | | | | | |
| Australia[c] | | | | 1,451 | | | | | 2,015 | | | | | 2,396 | | |
| Canada[c] | | | | 5,205 | | | | | 7,495 | | | | | | | |
| New Zealand[c] | | | | 63 | | | | | 108 | | | | | | | |
| USA[d] | | | | | | | | | | | | | 77,407 | | | |
| **Total estimate** | | | | | | | **731,189** | **796,363** | **736,537** | | **833,273** | | | **990,222** | | |

[a] Jan. 1, except: Greece, 2001 Census (March); 2011 Census (May)
[c] Census
[d] American Community Survey, single-year estimate, ± 7,567
Source: Eurostat, NSIs, EMN

Annex II: Emigration flows of Albanian citizens into European countries, 1998-2012

| Country of emigration | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Austria | 223 | 279 | 208 | 279 | 226 | 231 | 253 | 258 | 207 | 142 | 120 | NA | NA | 139 | 182 |
| Belgium | NA | NA | NA | NA | NA | NA | NA | NA | NA | 253 | NA | NA | 623 | 620 | 1,451 |
| Bulgaria | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 2 | NA | NA | NA | 47 |
| Czech Republic | NA | 12 | 4 | NA | 35 | 39 | 28 | 40 | 59 | 48 | 30 | 41 | 25 | 16 | 24 |
| Denmark | 28 | 22 | 25 | 35 | 26 | 14 | 48 | 22 | 27 | 23 | 23 | 20 | 26 | 17 | 12 |
| Estonia | 0 | 0 | NA | NA | NA | NA | 0 | 0 | 0 | 0 | 2 | 3 | 0 | 1 | 3 |
| Finland | 4 | 13 | 9 | 12 | 8 | 15 | 24 | 17 | 15 | 14 | 31 | 14 | 9 | 21 | 38 |
| Former Yug. Rep. Macedonia | NA | NA | NA | NA | 254 | NA | 163 | 322 | 424 | 283 | 229 | NA | NA | 186 | 237 |
| France | 130 | 120 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Germany | 1,760 | 2,122 | NA | 1,490 | 1,667 | 1,670 | 1,355 | 1,261 | 1,139 | 1,106 | 1,046 | NA | NA | NA | NA |
| Greece | 806 | NA | NA | NA | NA | NA | NA | NA | 36,841 | 99,967 | NA | NA | NA | NA | NA |
| Hungary | 15 | 15 | 14 | 9 | 7 | 5 | 7 | 11 | 26 | 12 | 28 | 19 | 15 | 18 | 30 |
| Italy | 19,813 | 28,668 | 31,992 | NA | 24,478 | 49,296 | 38,807 | 28,358 | 23,099 | 23,292 | 35,715 | 27,493 | 22,591 | 16,613 | 14,118 |
| Luxembourg | 42 | 60 | 37 | 39 | 46 | 63 | 40 | 33 | 22 | 31 | 35 | 40 | 51 | 40 | 123 |
| Netherlands | 77 | 59 | 71 | 74 | 77 | 58 | 58 | 41 | 51 | 53 | 97 | 125 | 85 | 86 | 106 |
| Norway | 19 | 65 | 39 | 42 | 41 | 31 | 57 | 55 | 49 | 35 | 51 | 34 | 30 | 46 | 56 |
| Romania | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 10 | 14 | 19 | 63 | 126 |
| Slovenia | 3 | 12 | 4 | 20 | 23 | 26 | 12 | 18 | 21 | 16 | 17 | 34 | 10 | 7 | 19 |
| Slovakia | NA | NA | NA | 3 | 0 | 3 | 10 | 13 | 8 | 9 | 10 | 21 | 11 | 4 | NA |
| Spain | 48 | 16 | 85 | 94 | 131 | 213 | 218 | 330 | 310 | 324 | 246 | 188 | 148 | 254 | 235 |
| Sweden | 21 | 34 | 62 | 46 | 58 | 66 | 68 | 96 | 180 | 96 | 98 | 122 | 164 | 137 | 226 |
| Switzerland | 140 | 190 | 131 | 147 | 139 | 122 | 97 | 101 | 122 | 105 | 107 | 109 | 126 | 100 | 112 |
| Turkey | NA | NA | NA | NA | NA | NA | NA | 1,297 | NA | 144 | 127 | 115 | 132 | 97 | NA |
| United Kingdom | 0 | 755 | 0 | 0 | 351 | 0 | 247 | 182 | NA | NA | NA | NA | NA | NA | NA |

Source: Eurostat, NSIs

# 10. GLOSSARY

**Age-Specific Marriage Rate (ASMR).**

The number of married persons per thousand non-married persons of the mid-year population in that age group.

**Age-Specific Fertility Rate (ASFR).**

Measures the annual number of births to women of a specified age or age group (per thousand women in that age group).

**Cohort Fertility Rate (CFR) or Cohort Completed Fertility Rates (CCFR).**

The average number of children born by a cohort of women at the end of their reproductive career.

**Crude Birth Rate (CBR).**

The number of live births occurring among the population of a given geographical area during a given year, per thousand mid-year total population of the given geographical area during the same year.

**Crude Death Rate (CDR).**

The number of deaths occurring among the population of a given geographical area during a given year, per thousand mid-year total population of the given geographical area during the same year.

**Crude Divorce Rate (CDR).**

The number of divorces in a year per thousand of population in that year.

**Crude Marriage Rate (CMR).**

The number of marriages occurring in a year per thousand of population in that year.

**Crude Remarriage Rate (CRR).**

The ratio between the number of remarriages occurring in a year per thousand of population in that year.

Dependency ratio (total). The ratio of the population aged 0-14 and 65 and over to the population aged 15-64, expressed as a percentage.

**General Divorce Rate (GDR).**

The number of divorces per thousand persons aged 15 and more.

**General Marriage Rate (GMR).**

The number of marriages occurring in a year per thousand of population aged 15 and over in that year.

**Gross Reproduction Rate (GRR).**

The average number of daughters that would be born to a woman during her lifetime if she passed through her child-bearing years conforming to the age-specific fertility rates of a given year.

**Infant Mortality Rate (IMR).**

The number of deaths under one year of age occurring among all live births in a geographical area during a given year, per thousand live births occurring among the population of the geographical area during the same year.

**Life expectancy ($e_o$).**

Life expectancy at birth is the average number of years that a person at that age can be expected to live, assuming that age-specific mortality levels remain constant.

**Married Divorce Rate (MDR).**

The number of divorces per thousand married persons.

**Net Reproduction Rate (NRR).** The average number of daughters women have at the end of their reproductive period if they are subject to the existing period fertility and mortality rates.

**Natural increase.** The difference between the number of live births and the number of deaths.

**Old-age dependency ratio.** The ratio of the population aged 65 and over to the population aged 15-64, expressed as a percentage.

**Net Reproduction Rate (NRR).** The average number of daughters that would be born to a woman during her lifetime if she passed through her lifetime from birth to the end of her reproductive years conforming to the age-specific fertility rates and mortality rates of a given year.

**Parity Progression Ratio (PPR).** The proportion of women, who had a certain number of births (parity) and who go on to have another birth.

**Rate of natural increase.** The difference between the number of live births and the number of deaths occurring in a year, divided by the mid-year population of that year, multiplied by a factor (usually 1,000).

**Sex ratio.** The number of males per 100 females in a population.

**Sex ratio at birth.** The number of boys born alive per 100 girls born alive.

**Total Fertility Rate (TFR).** The number of children that would be born per woman, assuming no female mortality at child bearing ages and the age-specific fertility rates of a specified country and reference period.

**Under-Five Mortality Rate (U5MR).** The number of deaths under five year of age occurring among all live births in a geographical area during a given year, per thousand live births occurring among the population of the geographical area during the same year.

**Young-age dependency ratio.** The ratio of the population aged 0-14 to the population aged 15-64, expressed as a percentage.

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