

2023
NATIONAL INSTITUTE OF
STATISTICS

Social
trends



ROMANIA



editia
2024
edition

syntheses

NATIONAL INSTITUTE OF STATISTICS

Coordinator of publication:

Tudorel ANDREI - President

Coordinators of edition:

Silvia PISICĂ - General Director *Directorate-General of Demography and Social Statistics*

Lavinia Elena BĂLTEANU

- Director *Directorate of Indicators on Population and International Migration*

Andoria IONIȚĂ

- Director *Directorate of Demographic Studies, Projections and Population Census*

Steluța RĂDOÎ

- Director *Directorate of Social Statistics*

Authors:

Florina RĂDOÎ

- Chief of Office *Directorate of Demographic Studies, Projections and Population Census*

Dragoș MONDIRU

- Expert

Georgiana LOGOFĂTU

- Counsellor

Silvia CHIOREAN

- Expert

Anca MILITARU

- Counsellor

Georgiana HAINAGIU

- Expert

Beatrice IOȚA

- Expert

Mihaela ANGHEL

- Chief of Office *Directorate of Indicators on Population and International Migration*

Doru-Alin COTÎRȚĂ

- Expert

Cristina Maria BURAVIC

- Expert

Andreea-Irina RĂCĂȘANU

- Counsellor

Cristina-Andreea MĂNESCU

- Expert

Diana Elena POPESCU

- Counsellor

Gabriela Asimina DEACU

- Counsellor

Antoaneta-Tamara CÎRLIG

- Counsellor

Irina NECȘESCU

- Expert

Elena Sultana STAN

- Expert

Laura ICHIM

- Chief of Office

Manuela VLAICU

- Expert

Daniela SIMIOANĂ

- Expert

Ruxandra MOLDOVEANU

- Deputy Director

Monica APOSTOL

- Counsellor

Mirela IONIȚĂ

- Expert

Ramona GRIGORE

- Expert

Bogdan GREABU

- Expert

Anca FOTA

- Expert *Directorate of Social Statistics*

Alice GHEORGHE

- Expert

Corina GHEORGHE

- Counsellor

Simona TOMA

- Counsellor

Making-up :

Bogdan GREABU - Expert *Directorate of Indicators on Population and International Migration*

GIS: Maria STRECHE

- Counsellor *Compartment GIS*

Eduard LUCA

- Expert

Pre-press and printing:

Coordinators:

Radu-Mugur OPREA

- General Director *Directorate-General of IT and Statistical Infrastructure*

Vitty-Cristian CHIRAN

- Director *Directorate of Statistical Publications Editing*

Mihaela-Elena ȘTEFAN

- Chief of Office

Pre-press:

Laurențiu MUNTEANU

- Counsellor

Electronic publication editing:

Daniela DANTE

- Counsellor

Cover : Alexandru POPESCU

- Counsellor

National Institute of Statistics
16 Libertății BVD, Bucharest 5
Phones: +40 021 3177770
Fax: +40 021 3124875
e-mail: romstat@insse.ro
http: // www.insse.ro



© NIS 2024

Reproducing the content of this publication, completely or partly, in original or modified, as well as its **storage** in a retrieval system, or **transmitted**, in any form and by any means **are forbidden** without the written permission of the **National Institute of Statistics**.

Using the content of this publication with explanatory or justifying title, in articles, studies, books is allowed **only clearly and precisely indicating the source**.

ISSN 3008 – 6949

ISSN-L 2360 – 042X

Publishing Printed the National Institute of Statistics

SOCIAL TRENDS

FOREWORD

"Statistics is the only safe ground on which a far-sighted government must base the rationale for its reforms..."

Dionisie Pop Marțian

"Social Trends" aims to present the evolution over time of the main phenomena in the social life of the Romanian population, expressed in the dynamics of demography, employment, education and health of the population, but also in the evolution of household income and expenditure, and the risks of poverty and social exclusion. It also describes the international context in which social phenomena develop.

An important consequence of social change is the change in the demographic profile of the Romanian population in the context of international migration and demographic decline over the last two decades.

Another effect of social change is the deepening of social inequalities and the creation of imbalances based on residential background or other geo-demographic criteria, especially in communities and local groups whose members have a low capacity to adapt and innovate.

In the field of education, the rapid adoption of educational technologies, the changing habits of spending "screen time", the accelerating diversification of the types of digital platforms used by students are among the main trends of the "new education". However, the digitalisation of education must be seen as an opportunity for change, in terms of adapting school curricula to prepare students for innovation, transformation and adaptation to an unpredictable socio-economic environment. Moreover, national education systems, including our own, have already adopted the notion of 'hybrid' teaching. In this context, the European Union calls on Member States to ensure that digital education is never a permanent substitute for face-to-face learning, especially where access to technology is limited, and should only be used in times of great difficulty, such as pandemics, or as a complement to face-to-face learning. On the basis of official statistical data, the European Union will make an in-depth assessment of the impact of the crisis on the right to education and propose recommendations to Member States based on the results of this analysis.

We are therefore in the midst of a transformation in service delivery and the emergence of new industries. Digital platforms are increasingly being used and the data provided by official statistics is growing at an unprecedented rate, becoming an integral part of the daily lives of

most people everywhere. The growing role of data in economic, social and political spheres will lead governments to place increasing value on official statistics. This edition of "Social Trends" confirms once again the important role and necessity of statistical data in analysing the dynamics of society and the impact of socio-demographic and economic factors on it. In order to provide you with as many arguments and answers as possible to the questions and challenges related to the evolution of society in Romania over time, we invite you to read "Social Trends", a tool for information and reflection on social phenomena and their impact on the economic environment and beyond.

Tudorel ANDREI


A handwritten signature in blue ink, appearing to read 'Andrei T.', is positioned below the printed name.

*President
National Institute of Statistics*

CONTENT

1. POPULATION	9
1.1. Survey objectives.....	9
1.2. Trends of world population development.....	9
1.3. Romania's population	11
1.3.1. Legal population	12
1.3.2. Usually resident population.....	15
1.3.3. Demographic ageing	16
1.4. International migration.....	19
1.5. Demographic projections	24
1.6. Vital events	27
1.6.1. Live birth rate.....	27
1.6.2. Mortality rate and infant mortality rate.....	31
1.6.3. Natural change	36
1.6.4. Life expectancy at birth and fertility rate.....	37
2. HEALTH	41
2.1. Survey objectives.....	41
2.2. Population health - vital prerequisite for social development	41
2.2.1. Healthy Life Expectancy	41
2.3. Access to healthcare services.....	45
2.3.1. Outpatient medical services.....	45
2.3.2. Healthcare services provided in hospitals.....	47
2.3.3. Disparities in accessing healthcare services.....	50
2.4. Resources and expenditure of the national healthcare system.....	52
2.4.1. Infrastructure of the national healthcare system	52
2.4.2. Healthcare staff	53
2.4.3. Expenditure of the healthcare system.....	54
2.5. Health - approach in the international context	57
3. EDUCATION	61
3.1. Survey objectives.....	61
3.2. School population trends.....	61
3.3. Educational system quality.....	63
3.3.1. Enrollment in formal education	64
3.3.2. Assessment of the educational process quality	72
3.4. Resources of the system.....	75

3.4.1. Teaching staff.....	75
3.4.2. Infrastructure of the national educational system.....	77
3.5. Education in international context	79
4. EMPLOYMENT	83
4.1. Survey objectives.....	83
4.2. Trends in employment on the labour market	83
4.2.1. Economically active population.....	83
4.2.2. Employment	85
4.3. Unemployment.....	87
4.3.1. ILO unemployment	87
4.3.2. Registered unemployment.....	91
4.4. Economic inactivity	91
4.4.1. Economically inactive population	91
4.4.2. Young people neither in employment nor in education and training (NEET)	92
4.4.3. Potential additional labour force.....	93
4.5. Job vacancies	94
4.6. Trends in employment patterns.....	97
4.7. Information and Communication Technology	99
4.8. Employment and information technology in the international context	102
4.8.1. Employment in the international context	102
4.8.2. ICT in the international context	105
5. POPULATION INCOME AND EXPENDITURE.....	107
5.1. Survey objectives.....	107
5.2. Households income	107
5.2.1. Total households income.....	107
5.2.2. Household disposable income.....	110
5.3. Earnings and income from social insurance pensions	114
5.3.1. Earnings	114
5.3.2. Income from social insurance pensions	119
5.4. Population expenditure	120
5.5. Population consumption.....	125
6. THE RISKS OF POVERTY AND SOCIAL EXCLUSION.....	129
6.1. Survey objectives.....	129
6.2. Income inequality, poverty and material deprivation	130
6.2.1. Disposable income and the possibilities of satisfying the consumption needs of households.....	130
6.2.2. Poverty indicators.....	133
6.2.3. Inequality indicators.....	140

6.3. Social protection	141
6.4. Poverty incidence and social protection in the international context	147
7. CULTURE	151
7.1. Survey objectives.....	151
7.2. Libraries network and activity	152
7.3. Museums network and activity - cultural heritage.....	154
7.4. Institutions and companies for performing arts or concerts	156
7.5. Cinemas network and activity.....	157
7.6. ICT use for cultural purposes	158
7.7. Culture in the European context.....	161
DATA SOURCES.....	167
Data sources for Chapter 1	167
Data sources for Chapter 2.....	175
Data sources for Chapter 3.....	178
Data sources for Chapter 4.....	182
Data sources for Chapter 5.....	198
Data sources for Chapter 6.....	202
Data sources for Chapter 7	207
GLOSSARY	211
Glossary for Chapter 1	211
Glossary for Chapter 2.....	214
Glossary for Chapter 3.....	220
Glossary for Chapter 4.....	224
Glossary for Chapter 5.....	228
Glossary for Chapter 6.....	236
Glossary for Chapter 7	243
List of figures (into text)	247
List of tables (into text)	253
Annexes  - tables included only on the CD-ROM	

ABBREVIATIONS AND ACRONYMS

HBS	Household Budget Survey
LFS	Household Labour Force Survey
NEA	National Agency for Employment
ARACIP	Romanian Agency for Quality Assurance in Secondary Education
ARACIS	Romanian Agency for Quality Assurance in Higher Education
AROPE	At risk of poverty or social exclusion
ILO	International Labour Office
CANE	Classification of Activities in National Economy
COR	Classification of Occupations in Romania
ESSPROS	European System of Integrated Social Protection Statistics
ISCED	International Standard Classification of Education
NIS	National Institute of Statistics
NUTS	Nomenclature of Territorial Units for Statistics
UN	United Nations
GDP	Gross Domestic Product
ICT	Information and Communication Technology
EU	European Union
UOE	UNESCO/OECD/Eurostat

1. POPULATION

1.1. Survey objectives

The knowledge of data on the level and the dynamics of the population, whether living inside the borders of the country, or living in other countries but having their permanent residence in Romania, is of great importance in a number of respects, accounting for a major milestone in the political, economic, social and cultural context. The size of the population influences the intensity of its socio-economic processes and the population dynamics, i.e. the number of persons and the demographic structure, defines the demographic behaviour of a country.

In this context, demographic phenomena such as population aging and international migration, birth rates, mortality and natural population growth, life expectancy at birth and fertility are presented. Managing long-term demographic change has an impact on the health of the population, on public budgets, but also on how issues such as loneliness, community care and access to vital services are addressed.

The chapter also presents a wide range of demographic data on populations at European and international level, as well as various characteristics that reflect their size, structure and specificities.

The beneficiaries of information on the population and demographic phenomena are primarily the policy makers, the academic and business environments, as well as the general public.

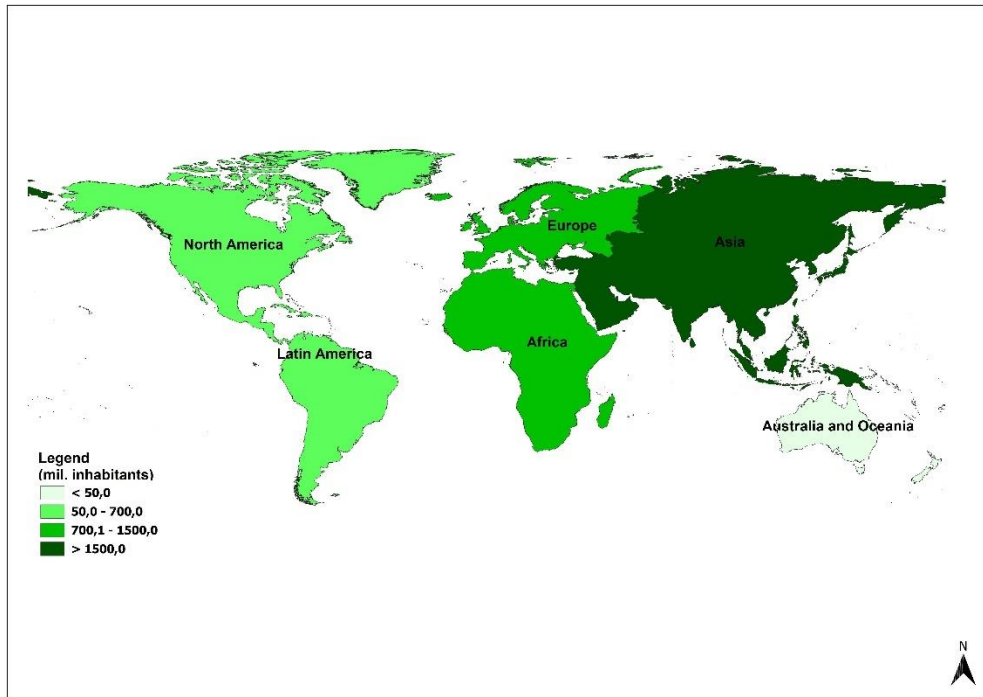
1.2. Trends of world population development

The rapid growth of the world population over the last three decades, because of the dramatic economic and social long-term transformations, entailed an increased interest in understanding demographic processes and events. According to the United Nations¹ estimations, the world's population on 1 July 2021 was 7.9 billion inhabitants that is an increase

¹ World Population Prospects: <https://population.un.org/wpp/Download/Standard/Population/>

of 0.8 billion compared to 2012 and of 1.8 billion compared to 2000. Asia has the highest share in total world population (59.6%), with 4.7 billion inhabitants, while Africa was the next most populous continent with 1.4 billion inhabitants (17.7%). Europe occupies third place with a share of 9.5%.

Figure 1.1. World population, by continent, July 1st, 2021



Source: NIS calculations, based on United Nations data

Recent demographic developments show that the EU's population is increasing, while the age structure shows an increasingly sharp ageing. In 2022, the UN² estimates projected the population of the whole European continent for 2022, to 743,6 million inhabitants.

According to Eurostat data, on January 1st, 2022, the usually resident population of the European Union (consisting of 27 countries³) reached 446.7 million inhabitants. With the exit of the United Kingdom from European structures, the EU population has lost over 67 million inhabitants.

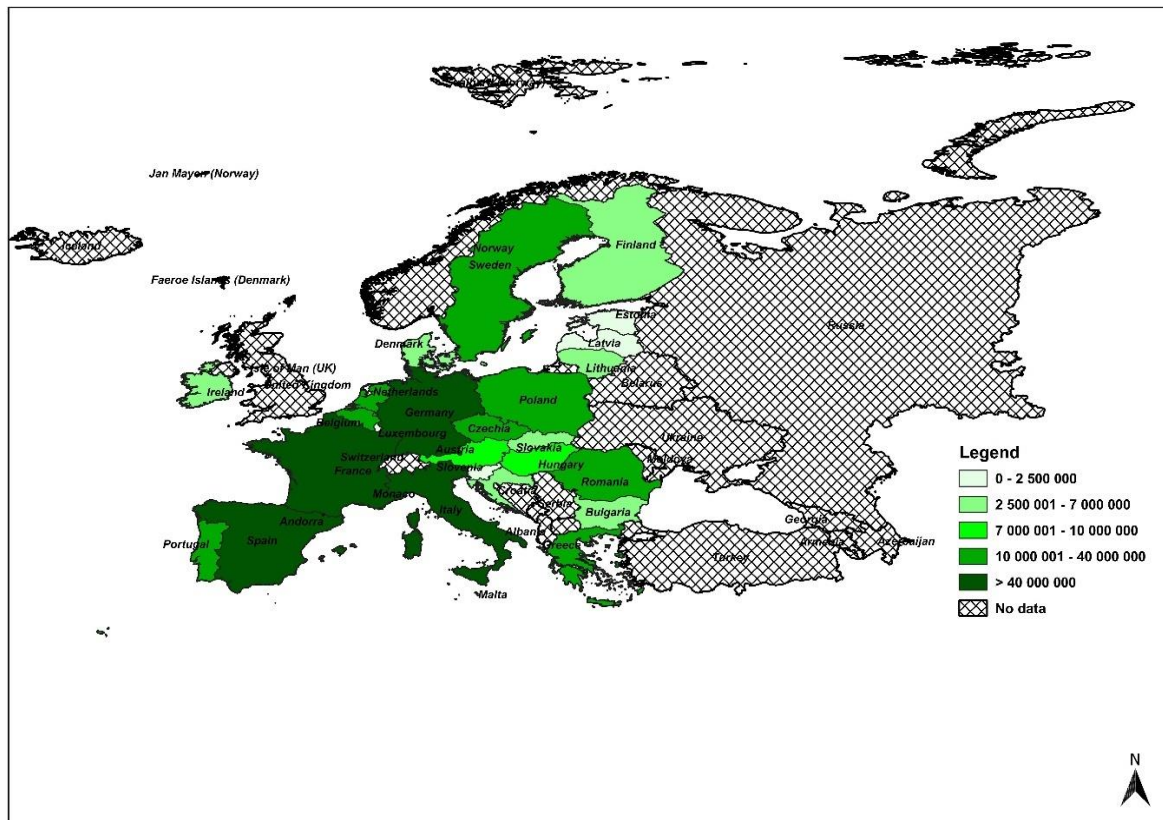
The structure of the population by country has also changed. Two-thirds of the European Union population is located in only five out of the 27 Member States: Germany (18.6%), France (15.2%), Italy (13.3%), Spain (10.62) and Poland (8.4%). In the top of the EU member states, characterized by the number of inhabitants, are Romania (4.3%) and The Netherlands⁴ (3.9%).

² (idem1)

³ Estimated data for European Union without United Kingdom (Eurostat, https://ec.europa.eu/eurostat/databrowser/view/demo_pjan/default/table?lang=en)

⁴ As of January 1, 2020, the Netherlands has changed its name and will henceforth bear the official title of "Netherlands".

Figure 1.2. European Union's population, January 1st, 2022



Source: NIS calculations, based on Eurostat data

The changing trends in the general characteristics of the European population are as follows: we live longer than ever and become an older population with each passing year. Many of us choose to live, work or study in another EU country, and migration to or from Europe continues to fluctuate. More and more of us now live in smaller households and have fewer children than before. These factors of demographic change vary across Europe, often significantly between different regions of the same country.

1.3. Romania's population

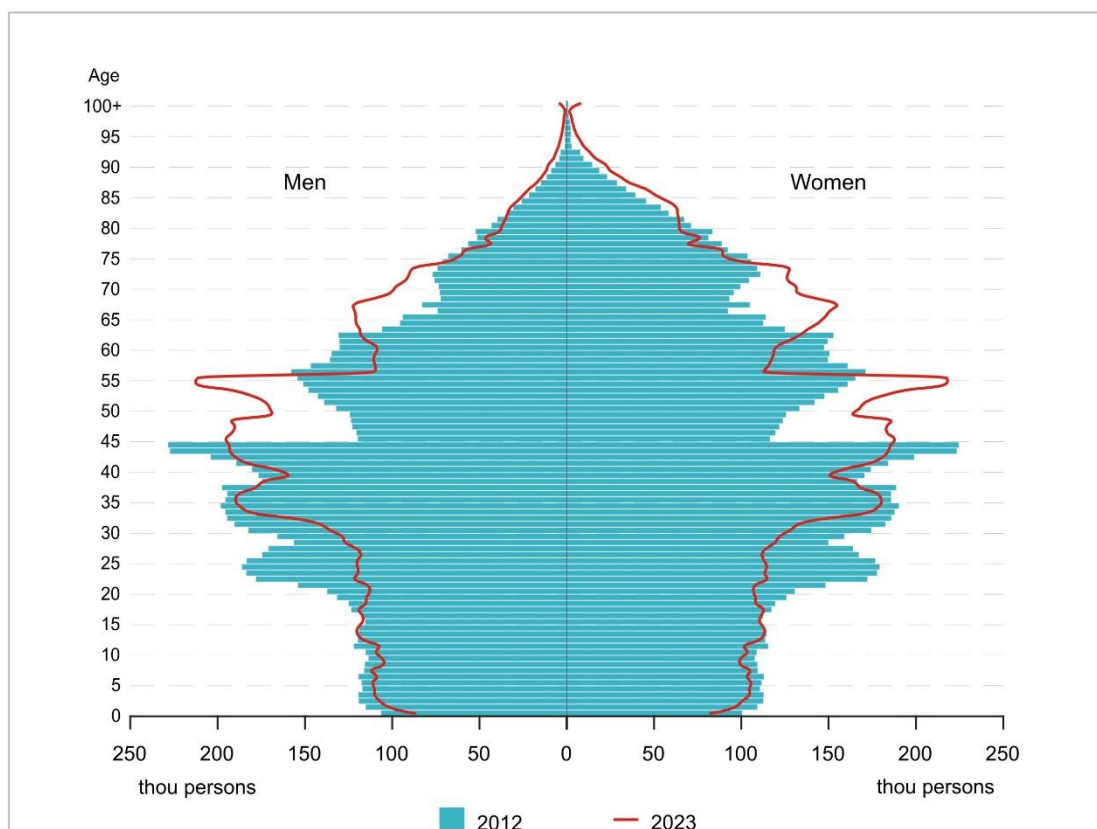
In view to highlight the number of inhabitants living inside the country, but also of those who have their legal residence in Romania, but reside in other countries, official statistics calculates two indicators measuring the size of the population: the usually resident population and the legal population. The two types of populations have different scope: the legal population is defined as the number of persons of Romanian citizenship and having their legal address on Romanian territory, while usually resident population is defined as all persons of Romanian citizenship, foreign citizenship and without citizenship having their usual residence in Romania, for a period of at least 12 months.

1.3.1. Legal population

On January 1st, 2023⁵, the legal population of Romania was 21.92 million people, decreasing compared to the previous year with 87.8 thousand persons. Female population is more numerous (51.2%) than the male population (48.8%).

The average age of the legal population is 42.2 years, 2.3 years higher than on January 1, 2012. The median age is 42.8 years, increasing by 4.0 years compared to January 1st, 2012.

Figure 1.3. Legal population, by sex and age, on January 1st, 2012 and 2023^p



Source: NIS, Statistical survey on legal population

Note: p – for 2023, provisional data

On January 1, 2023, the largest share in the total population was held by the age group 50-54 years (8.5%). Among males, the share of this age group was 8.7%, and among females 8.3%. The share of the 0-4 age group was 4.6%, lower than that of the 5-9 age groups (4.8%), 10-14 years (5.1%) and 15-19 years (5.2%).

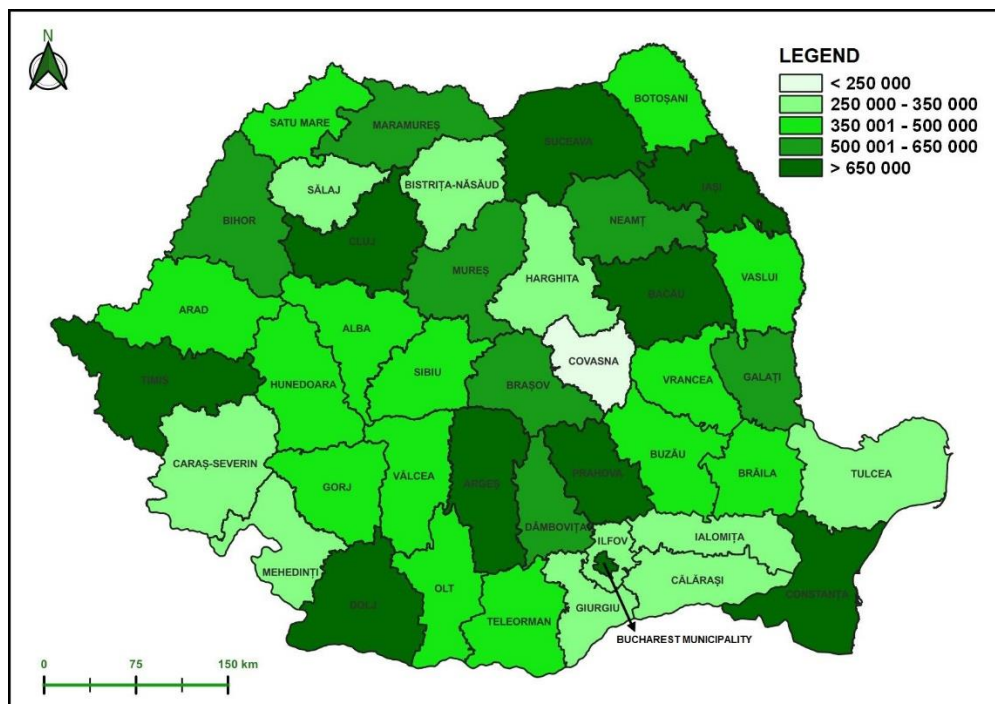
On January 1st, 2023 the sex ratio was 95 men to 100 women, the same as on January 1st, 2012 (95 men per 100 women). Until the age of 51, the number of men was higher than the number of women. From that age on, the number of women exceeded the one of men.

⁵ Provisional data; to be reviewed in February 2024

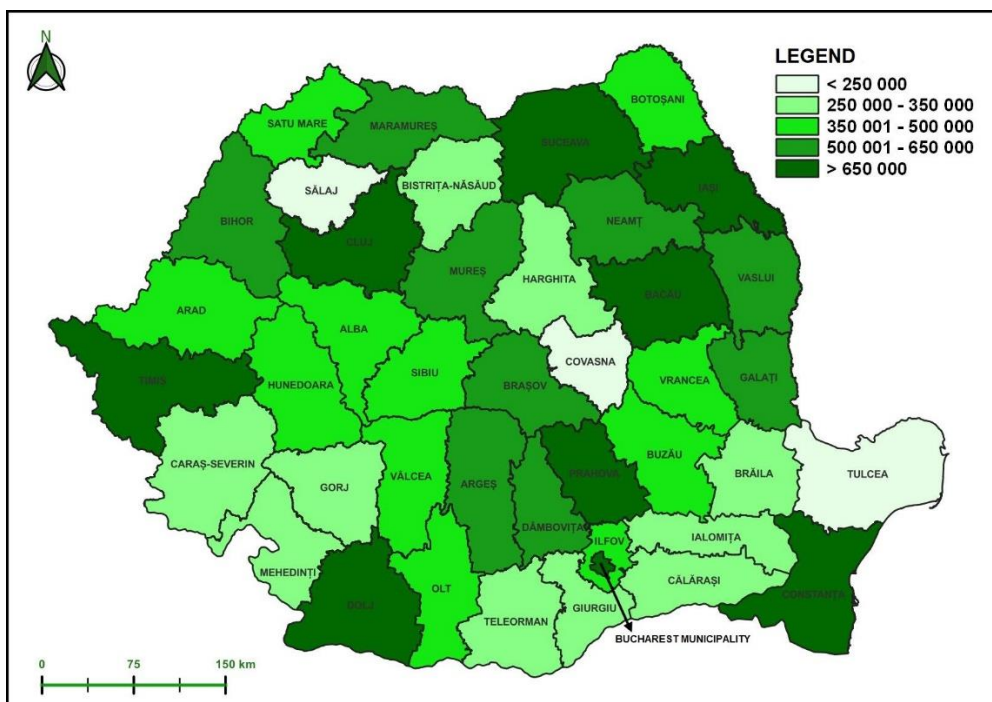
The legal population in the urban area was 12304 thousand people, a slight decrease compared to January 1, 2012 (3.1%).

Figure 1.4. Legal population, by county, on January 1st, 2012 and 2023^p

2012



2023^p



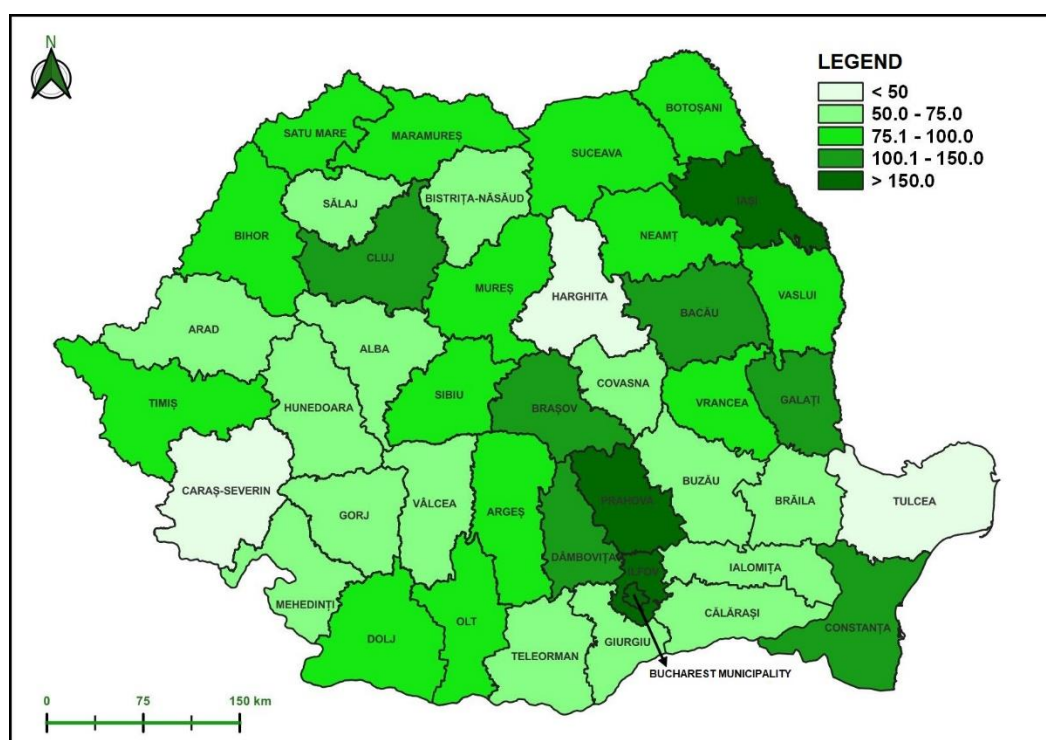
Source: NIS, Statistical survey on legal population

Note: p – for 2023, provisional data

At territorial level, the legal population is not evenly distributed. Geographical factors, as well as the economic polarisation, have gradually led to a demographic polarisation. Thus, Bucharest concentrates almost one tenth of the population with legal address in Romania (9.9%). In 2023, the counties with numerous population are Iași (4.5%) and Prahova and also Suceava (3.5% each). In contrast, there are counties with lower population concentration: Salaj (1.1%) and Tulcea and Covasna (1.0% each).

Population density in Romania at the beginning of 2023 was 92.0 inhabitants/km², only 12 counties exceeding this value. Since the area of counties is not very different in size, population density is, to a large extent, correlated with the territorial distribution of the legal population.

Figure 1.5. Legal population's density, by county, on January 1st, 2023^p



Source: NIS, Statistical survey on legal population

Note: p – for 2023, provisional data

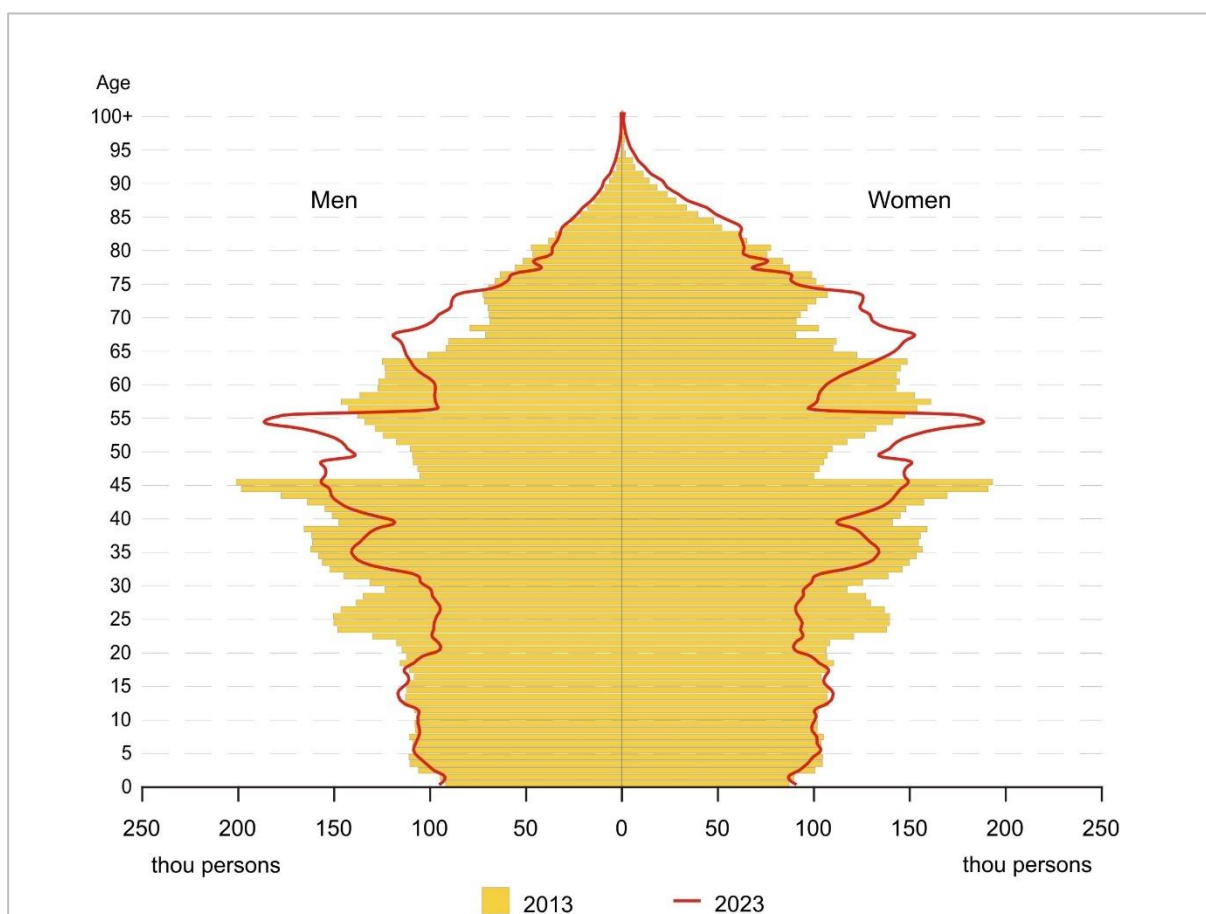
The counties with high population density coincide with those where population is larger. The municipality of Bucharest is to be noticed, for which population density (9012 inhabitants/km²) is nearly a hundred times greater than the density calculated at national level. The lowest population density on January 1st, 2023 was in Tulcea County (26.6 inhabitants/km²).

1.3.2. Usually resident population

Although the usually resident population of Romania follows a downward trend, Romania is still among the top EU Member States, in terms of population size, on the seventh position, with a population of 19.1 million inhabitants. The major milestones which pointed out the markedly reduction of the usually resident population were the Censuses of 2011 and 2021, a period when the population declined by almost 1.1 million people. On January 1st, 2023, the provisional data also shows the continuing downward trend of the usually resident population (19.1 million inhabitants).

The same with the legal population, the female usually resident population is greater than the male usually resident population (51.4%).

Figure 1.6. Usually resident population, by sex and age, on January 1st, 2013 and 2023^p



Source: NIS, Statistical survey on usually resident population

Note: p – for 2023, provisional data

On January 1st, 2023, the age structure of the usually resident population shows that the largest weights are those of persons aged 50-54 (8.3%), respectively 45-49 years (7.8%) and 40-44 years (7.4%).

1.3.3. Demographic ageing

Population ageing is a worldwide phenomenon. According to the UN data, the share of elderly population (aged 60 years and over) is 13.2% in 2019, but in the long term will increase, even in regions where the birth rates are higher than mortality rates.

Demographic ageing is present in particular in Europe, where there is a natural decline and an excessive ageing of the population.

Almost 30 years after the political, economic and social changes that have marked Europe at the end of the ninth decade and in the beginning of the tenth decade, the economic and social landscape of central and eastern European countries - including Romania - changed radically and these changes have also impacted the demographic developments. Two phenomena have contributed to the acceleration of ageing in these countries - declining birth rates and increasing international migration.

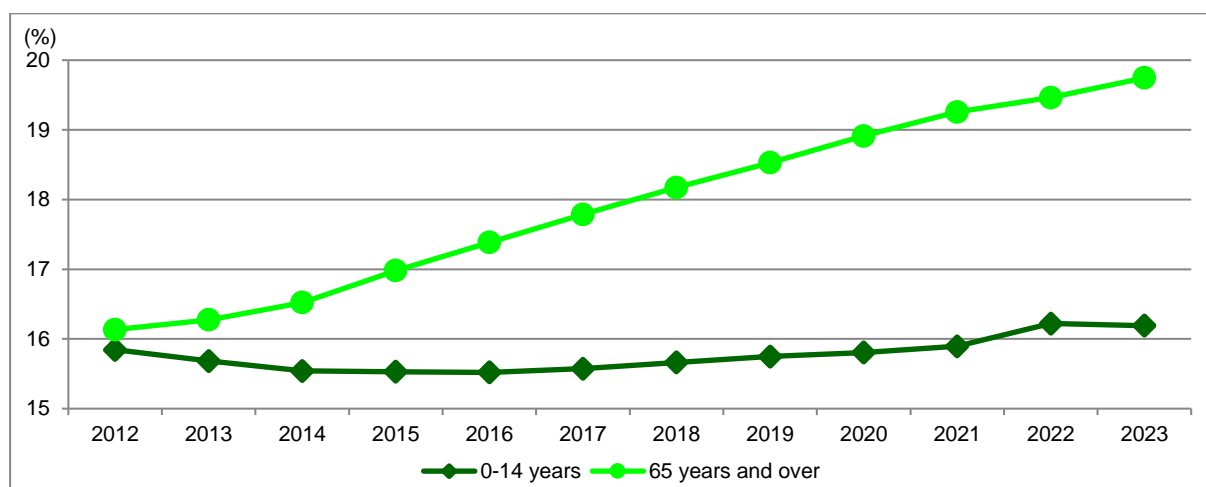
On the other hand, an ageing population did not spare the Western Europe countries. Slow but constant progress of ageing in Western Europe countries has facilitated the adaptation of economic and social life to the new demographic realities and encouraged the identification of financial resources needed to cover the increasing needs of ageing.

At European Union level, the year 2004 was the year of change in the ratio between the share of young and elderly people, the share of young people under 15 years of age (16.2%) being surpassed by the share of the elderly population of 65 years and more (16.4%). For Romania, the year of change in the ratio between the proportion of young and elderly people has been 2008.

In Romania, demographic changes concern in particular the population structure by age group, the increased share of elderly people raising particular economic and social problems.

The age structure of the usually resident population of Romania bear the imprint characteristic to a process of population ageing, mainly due to falling birth rates, which entailed the absolute and relative reduction of young people (0-14 years). In parallel, the increase in life expectancy has entailed increased number and share of elderly people (65 years and over).

Figure 1.7. Share of population aged 0-14 years and of population aged 65 years and over in total of usually resident population, on January 1st, during 2012-2023^p



Source: NIS, Statistical survey on usually resident population

Note: p – for 2023, provisional data

During 2012-2023, the usually resident population aged 0-14 years showed a continuous decrease in the share of the total of population, so that on January 1st, 2023 accounted for 16.2% (17.1% of the male population and 15.3% of the female population), while the population of 65 years and over increased, being 19.7% of the total of usually resident population (16.2% for men and 23.1% for women).

Table 1.1. Structure of usually resident population, by age group and sex, on January 1st, 2012 and 2023^p

Age groups	Total		Male		Female	
	2012	2023	2012	2023	2012	2023
Total	100	100	100	100	100	100
0- 4 years	5.0	5.0	5.3	5.3	4.7	4.7
5- 9 years	5.0	5.5	5.3	5.8	4.8	5.2
10-14 years	5.2	5.7	5.4	6.0	4.9	5.4
15-19 years	5.3	5.6	5.6	5.9	5.1	5.3
20-24 years	7.3	5.0	7.7	5.3	7.0	4.7
25-29 years	7.4	5.0	7.8	5.3	7.1	4.7
30-34 years	8.4	6.2	8.8	6.6	8.0	5.9
35-39 years	8.2	6.7	8.6	7.1	7.8	6.4
40-44 years	9.1	7.4	9.4	7.8	8.8	6.9
45-49 years	5.4	7.8	5.6	8.2	5.3	7.4
50-54 years	6.5	8.3	6.5	8.6	6.4	8.0
55-59 years	6.8	6.0	6.7	6.1	6.9	6.0
60-64 years	5.7	6.0	5.4	5.8	6.0	6.3
65-69 years	4.0	6.7	3.6	6.0	4.4	7.3
70-74 years	4.0	5.4	3.4	4.6	4.6	6.2
75-79 years	3.3	3.3	2.6	2.6	3.9	3.9
80-84 years	2.1	2.5	1.6	1.8	2.6	3.1
85 years and over	1.3	1.9	0.9	1.2	1.6	2.6

Source: NIS, Statistical survey on usually resident population

Note: p – for 2023, provisional data

The usually resident population structure by age groups shows a decrease in the weights of the age groups up to the age of 44, as a result of the low birth rate and the emigration of young people. The groups most affected are 20-24 years (2.3 percentage points), respectively 25-29 years (2.4 percentage points).

Another red flag about the acute phenomenon of population ageing is represented by the increased values for average age and median age of population.

On January 1st, 2023, the average age of the female and male population in Romania has increased compared to the same date of previous years. The average age of the female population is higher than the average age of men by 3.5 years. The rural population, more aged, has an average age of 41.9 years, 1.0 years more than urban population (42.9 years). Median age is also increasing for both sexes. Both in Romania (with 0.7 years, 2023 against 2021) and at EU level (by 0.7 years, 2022 against 2019). Half of the people from urban area in Romania were younger than 42.9 years (in 2023).

Table 1.2. Average and median age of the usually resident population on January 1st

					-years-
Year	ROMANIA		UE27		
	2012	2023 ^P	2012	2022 ¹⁾	
Average age					
Both sexes	40,6	42,4	41,6	43,6	
Male	39,0	40,6	40,2	42,2	
Female	42,2	44,1	42,9	45,0	
Urban	40,3	42,9			
Rural	41,0	41,9			
Median age					
Both sexes	40,1	43,6	41,6	44,4	
Male	38,5	41,7	40,2	42,8	
Female	41,6	45,5	43,0	45,9	
Urban	40,1	44,2			
Rural	40,2	42,9			

Source: NIS calculations, based on Eurostat data

Note: p – for 2023, provisional data; *) 2022 is the last available year in Eurostat database

The population ageing trend has a deep impact on all future generations and on areas of economic and social activity: labour market, social protection, education, culture etc.

The demographic aging index increased from 101.8 (as of January 1st, 2012) to 122.0 elderly people per 100 young people (as of January 1st, 2023).

**Table 1.3. Demographic dependency ratio and demographic ageing index
on January 1st, during 2012-2023^p**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Demographic ageing index	101.8	103.8	106.3	109.3	112.0	114.2	116.0	117.7	119.7	121.2	120.0	122.0
Demographic dependency ratio	47.0	47.0	47.2	48.2	49.0	50.1	51.1	52.1	53.2	54.2	55.5	56.1

Source: NIS, Statistical survey on usually resident population

Note: the indicators are calculated to 100 adults, respectively to 100 children;
p – for 2023, provisional data.

The demographic dependency ratio was on January 1st, 2023, of 56.1 elderly persons to 100 adults, up from January 1st, 2012 (47.0).

The sharpening of demographic ageing is further substantiated by the increase in the period of 2012-2023 of the demographic ageing index: 122.0 elderly persons (aged 65 and over) to 100 children (0-14 years) on January 1st, 2023 as against 101.8 on January 1st, 2012.

1.4. International migration

In Romania, international migration is a phenomenon generating effects, both favourable and unfavourable, at all levels of society: individuals, households, local communities and at national level. In the aftermath of 1989, the most important and visible effect of international migration was the decrease in the usually resident population and the population ageing, through the involvement in migration especially of young people, who are, generally speaking, the most economically active. The impact of international migration, in particular the one of emigration, is especially felt on the labour market: reducing the share of working population increases the pressure on the one remaining to support elderly people, but has also far-reaching implications on the systems of social services, health and education; moreover, migration entailed changes in demographic phenomena evolution, in particular on fertility, changes population structure by age and sex, as well as changes in family composition. Another negative effect of international migration was the total or partial depopulation of some localities, the so-called “basins of emigration”.

At European level, international migration is influenced by a combination of economic, political and social factors: either in a migrant's country of origin (push factors) or in the country of destination (pull factors). According to Eurostat statistics, in 2021 almost 2.5 million migrants have left an EU(27) Member State. This value represents not only migratory flows towards/from the European Union but also the flows recorded between the different Member States.

In recent years, economic prosperity and political stability of the EU exerted a considerable pull effect on immigrants, however not affecting our country. Among the EU Member States, 23 have a higher share of immigration than emigration, being seen as importing countries, but in Latvia, Greece, Croatia and Romania, emigrants outnumbered immigrants.

The people of the European Union are free to move and reside in the various EU Member States. In 2022⁶, the majority of EU citizens living in other EU Member States were Romanian citizens (3.1 million or 23.3% of all EU citizens living in another EU country), followed by Polish citizens (1.5 million or 11.6%), Italians (1.5 million or 11.1%) and Portuguese (969 thousand or 7.3%).

On 1 January 2022, 38.0 million people⁷ born outside the EU-27 lived in an EU Member State, while 17.3 million people were born in an EU Member State other than the one in which they had residence. Only in Hungary, Romania, Luxembourg and Slovakia the number of people born in other EU member states was higher than the number of people born outside the EU-27.

Official statistics in Romania estimated the annual flows of international migration according to the provisions of Regulation (EC) no. 862/2007 of the European Parliament and of the Council on Community statistics on migration and international protection. It should be noted that definitions of international migration components in the Regulation set limits to the number of emigrants, respectively immigrants depending on the usual residence concept and the criterion of 12 months and over. A further remark is linked to the definition of immigrants, which also includes persons “turning back home” after having established the usual residence in another State for a period of 12 months and over.

Emigration is particularly difficult to measure, in particular in the Community area, due to the free movement of persons. However, official statistics in Romania is continually striving to improve the quality of the estimates, through the use of multiple data sources, both statistical and administrative sources.

During 2003-2022⁸, the flow of people who left the country for a period of at least 12 months revealed significant variations from one year to another, but particularly from a period of economic development to another, international migration being also influenced by the national and European political and social context. 2007, the year when Romania has become a Member State of the EU, has marked a historic peak flow of emigrants (544.1 thousand persons, almost three times more than in the previous year). In the following years, the number

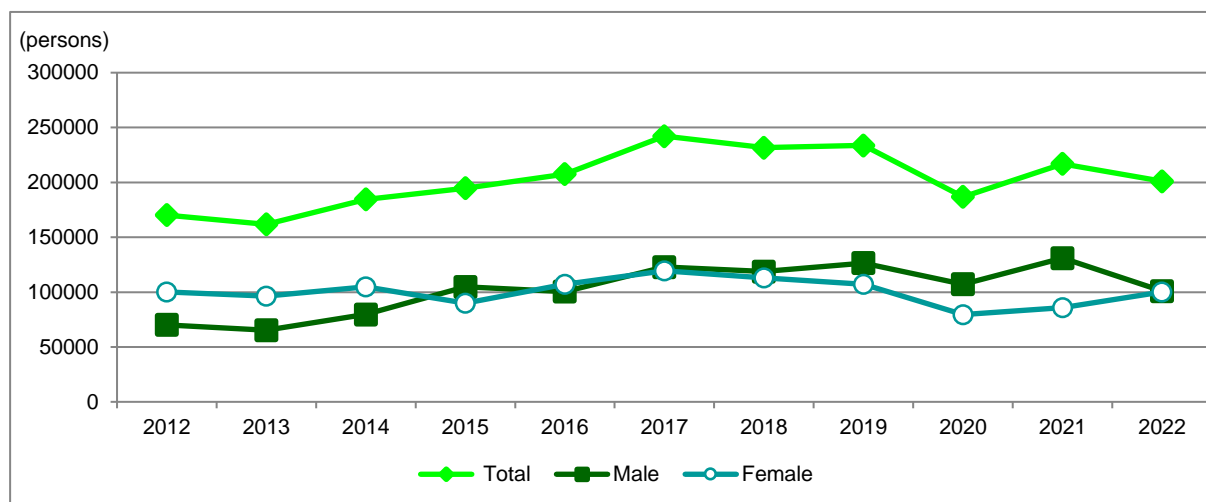
⁶ <https://ec.europa.eu/eurostat/cache/digpub/demography/bloc-3b.html?lang=en>

⁷ http://ec.europa.eu/eurostat/statistics-explained/index.php/Migration_and_migrant_population_statistics/ro

⁸ The data for 2022 are provisional

of people who have emigrated from Romania decreased, reaching the minimum in 2013 (162 thousand persons).

Figure 1.8. Annual emigrants flow, by sex, during 2012-2022^p

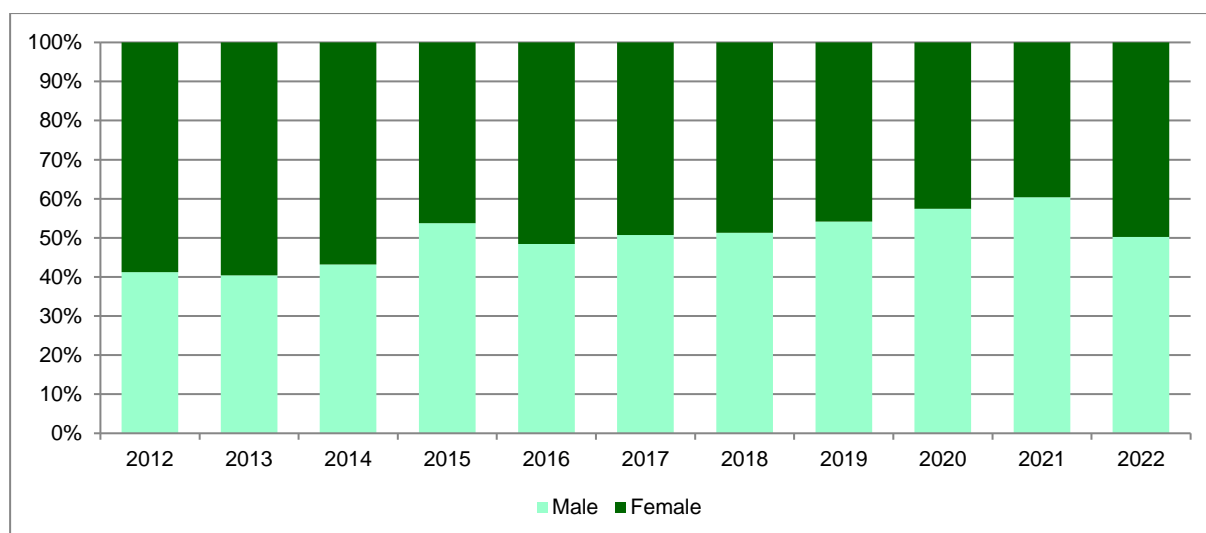


Source: NIS, Statistical survey on long-term international migration

p – for 2022, provisional data.

International migration has affected both sexes, but in different proportions: until the year 2008, the emigration was balanced by gender, but in 2009-2014 the share of female immigrants was always higher than the male share. Since 2015, the situation was reversed (except 2016), so that in 2022 the share of male immigrants was 50.2%.

Figure 1.9. Evolution of annual emigrants flow structure by sex, during 2012-2022^p



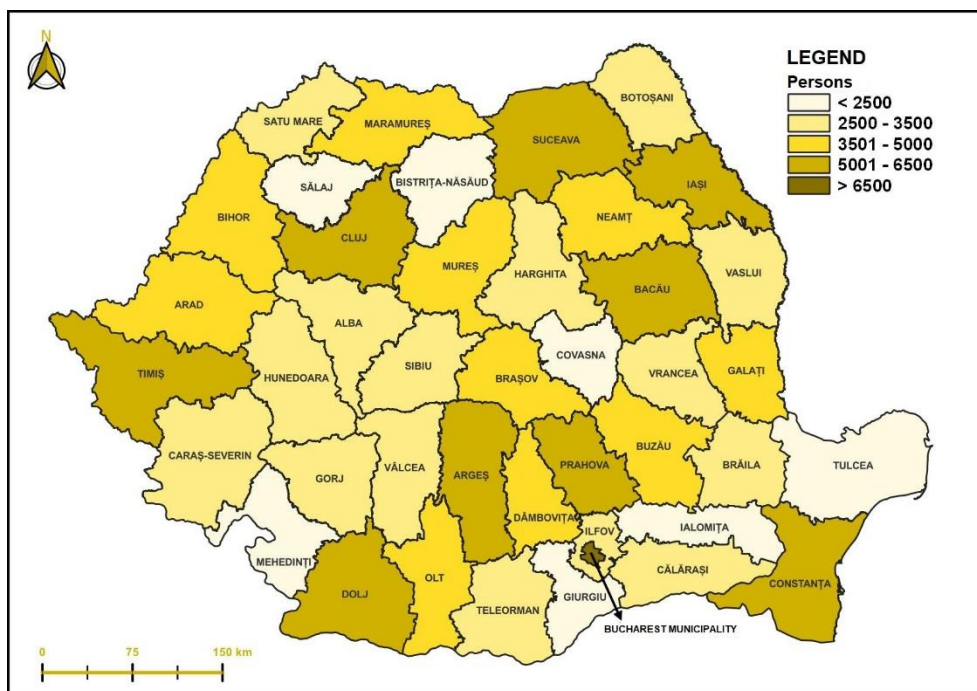
Source: NIS, Statistical survey on long-term international migration

p – for 2022, provisional data.

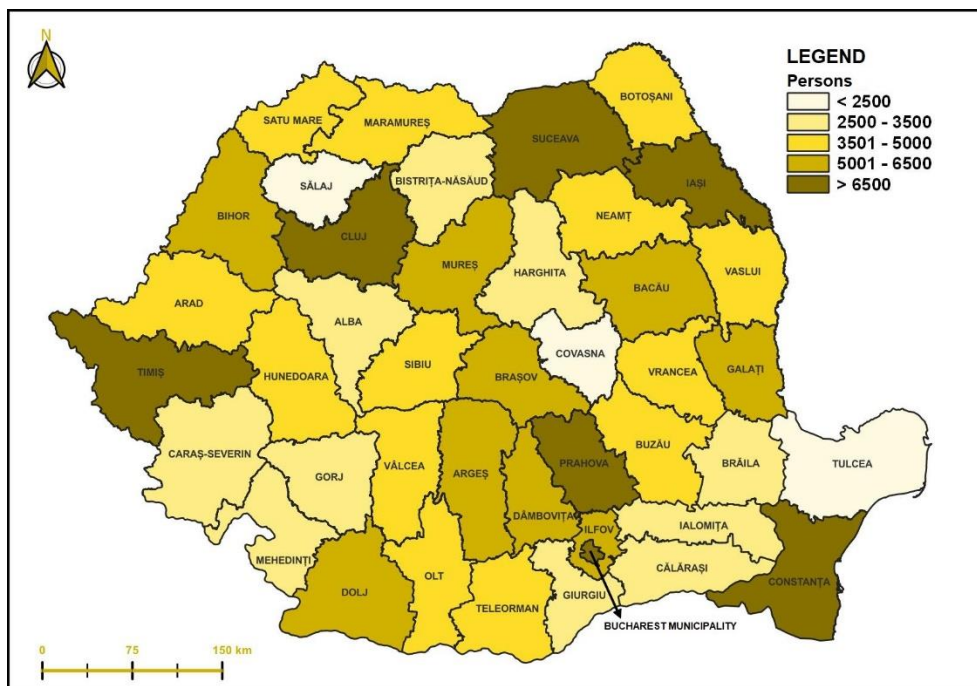
The distribution of emigrants at territorial level indicates the existence of some emigration basins, particularly in counties where the population is very large. For example, a large number of emigrants are recorded in Bucharest, but also in Prahova, Iași, Constanța, Timiș, Cluj, Dolj and Suceava counties (more than 6500 persons in 2022).

Figure 1.10. Number of emigrants, by county, in 2012 and 2022^p

2012



2022^p

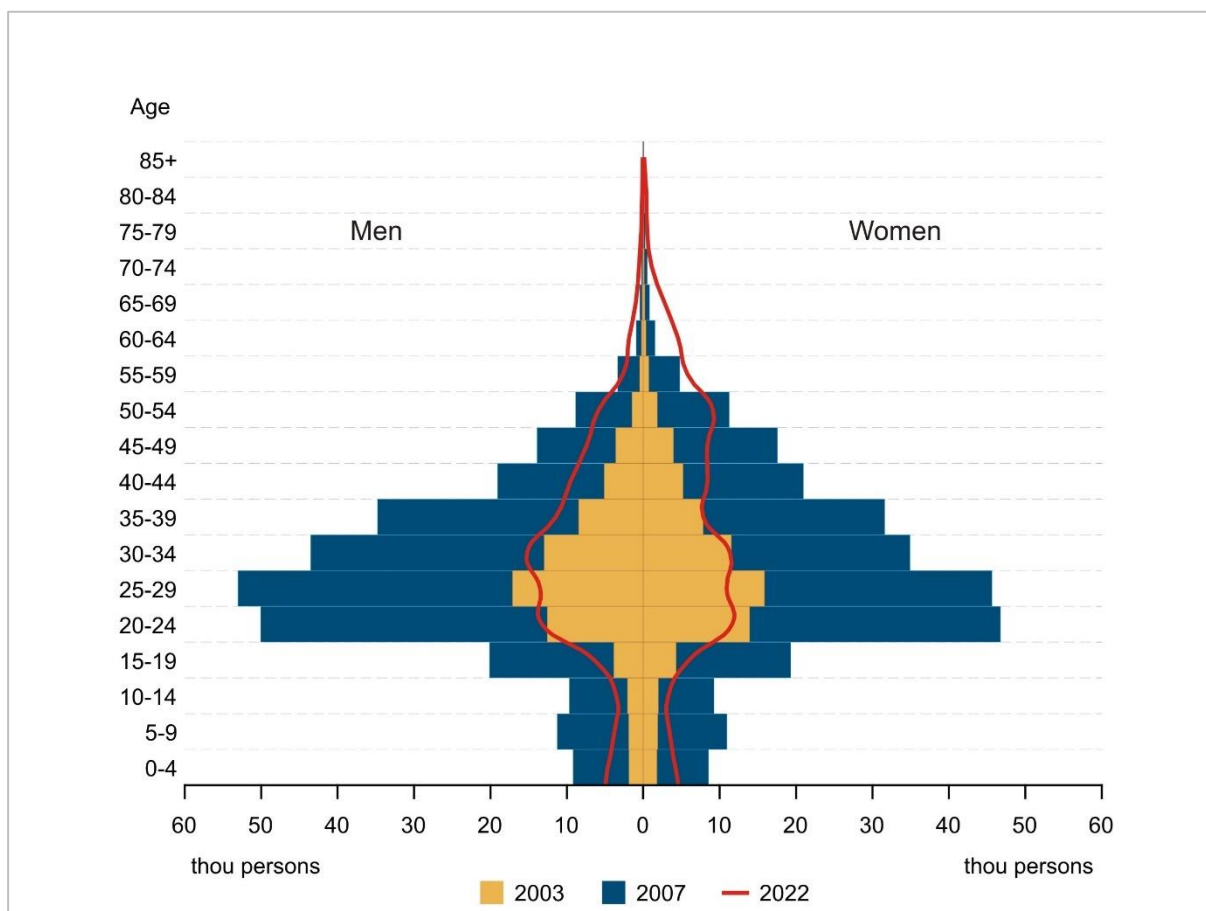


Source: NIS, Statistical survey on long-term international migration

Note: p – for 2022, provisional data

The dominant age of emigrants is in the range of 30 to 34 years for both men and women. The pyramid of emigration flows, by sex and age, also illustrates the intensity of international migration phenomenon since 2007.

Figure 1.11. Pyramid of emigration flows, in 2003, 2007 and 2022^p

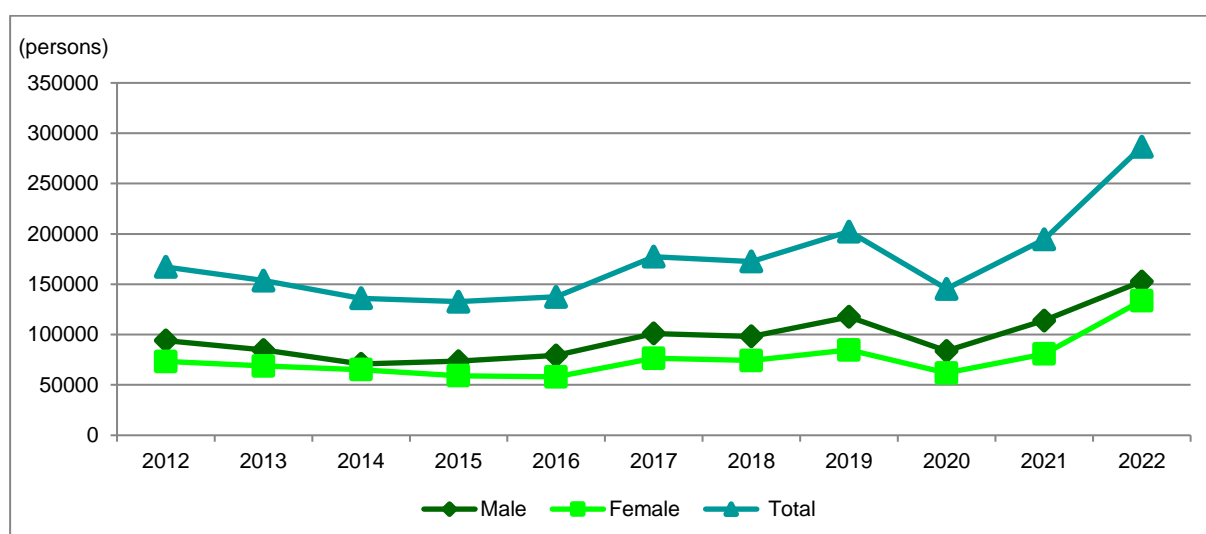


Source: NIS, Statistical survey on long-term international migration

Note: p – for 2022, provisional data

An unprecedented specific of international migration is circular migration or inter-state populations exchange, where the nationality or the legal address of the person are no longer essential criteria to define the concept of international migration. For example, Romanian immigrants registered in countries that were up to 2010 true reservoirs in terms of international migration (Italy and Spain) are deemed to have “emigrated” in the United Kingdom and Germany, the main criterion being economic and political stability in the country of destination. The year 2012 marked a balancing of the yearly inflow of immigrants and emigrants from Romania, under the circumstances where the year 2007 was considered to be the peak of departures abroad.

Figure 1.12. Immigrants flow, during 2012-2022^p



Source: NIS, Statistical survey on long-term international migration

Note: p – for 2022, provisional data

Until 2012, the number of people who immigrated to Romania has been oscillating, with a minimum in 2007, a downward trend during 2013-2016 and an increasing trend in the last 2 years. The exception is the year 2020, which is marked by the beginning of the SARS-Cov2 pandemic. In 2022, the immigrants flow has been estimated at 286.6 thousand persons, 53.3% being male. This year's dates are also marked by another event: the war in Ukraine.

1.5. Demographic projections

Demographic projections aims to anticipate the likely evolution of a country's population by the end of a given year, based on population data and certain indicators that characterize demographic phenomena, such as fertility, mortality and international migration. The usual demographic projection period spans several decades, sometimes up to a century. Although demographic projections are only hypothetical "what if" exercises, the estimated results are used by decision makers to understand the future population dynamics for a longer time horizon, they are used in informed debates about demographic and social changes that affect our daily lives. For example, in the European context, demographic projections allow us to analyze the long-term economic and fiscal implications caused by the aging European population.

The most recent population projections published by Eurostat are those released in June 2023, based on observed data from 2021. The time horizon of the projections is 2019-2100.

Population projections provide data on 32 European countries, and the data are published only at national level.

We should emphasize that the information provided by the demographic projections shows how the size and structure of the population would change if the assumptions made about fertility, mortality and international migration remained true throughout the projection period time.

According to the demographic projections made by the Statistical Office of the European Commission, by the year 2100, the population of the EU-27 will reach about 419,46 million inhabitants.

**Table 1.4. Population projections at the horizon of 2030, 2040, 2060, 2080, 2100
-ranking according to 2100-**

	-thousands persons ⁹ -				
	2030	2040	2060	2080	2100
UE-27	452700	451592	440054	426917	419462
Germany	85284	85184	84333	84175	84117
France	69386	70527	70105	69332	68043
Italy	58774	58520	55369	52234	50195
Spain	49267	50237	49296	46757	45121
Poland	37421	35844	33376	30611	29516
Netherlands	18342	18710	18689	18728	18310
Romania	18219	17233	15689	14681	14610
Sweden	11020	11581	12563	13127	13278
Belgium	12009	12344	12632	12728	12556
Czech Republic	10851	10716	10713	10521	10646
Austria	9215	9413	9541	9558	9577
Hungary	9527	9340	9148	8966	9054
Portugal	10249	9989	9270	8821	8981
Greece	10033	9501	8349	7466	7283
Denmark	6060	6141	6164	6184	6126
Ireland	5417	5746	6090	6054	5871
Bulgaria	6574	6155	5578	5133	5072
Finland	5631	5561	5345	5105	4785
Slovakia	5450	5302	5029	4661	4552
Croatia	3693	3496	3148	2920	2823
Slovenia	2119	2110	2050	1974	1951
Lithuania	2742	2523	2167	1899	1776
Estonia	1359	1342	1330	1296	1290
Latvia	1756	1587	1357	1199	1166
Cyprus	958	974	992	993	1008
Luxembourg	740	831	943	990	997
Malta	605	686	788	806	759

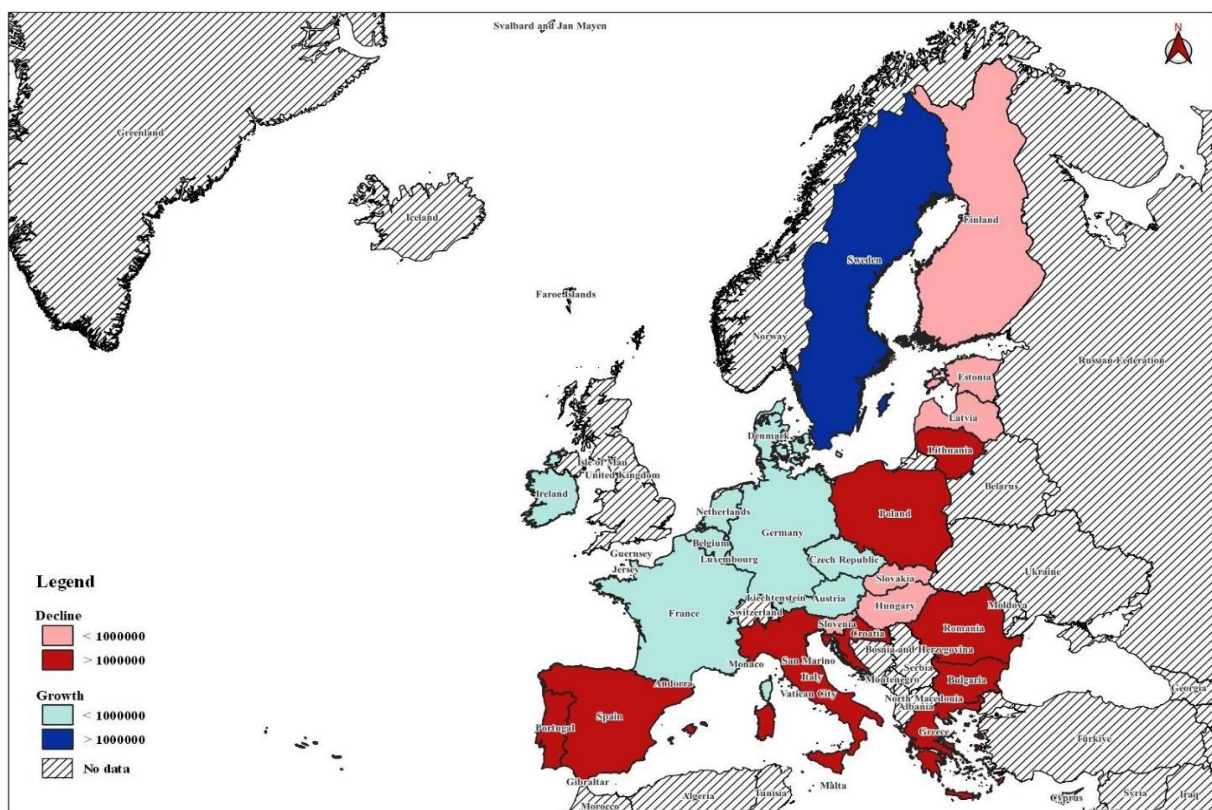
Source: Eurostat, Population projections at national level: <http://ec.europa.eu/eurostat/data/database>

⁹ The total achieved by summing up the populations of all the Member States can be different of the EU27, total population due to rounding up of data expressed in thousand persons.

If in 2022, the population projections of the UE27 states showed that Germany, France, Italy, Spain, Poland, Romania and Netherlands have the largest populations in the year 2100, although the hierarchy undergoes few changes, some states will suffer significant decreases of the population. The first three places will still be occupied by Germany, with a population forecast for 2100 of 84.1 million inhabitants, France with an estimated population of 68.0 million inhabitants and Italy with 50.2 million inhabitants. While Germany and France are projected to experience population increases, Italy is projected to lose approximately 15.0% of its population (by 2022).

In 2100, projections show that Romania will lose over 23.3% (4.4 million inhabitants) of its population reaching 14.6 million inhabitants. According to the demographic projection made by Eurostat at the horizon of 2100, our country will be ranked 7th in the ranking of EU countries by population, overtaken by Netherlands. At the same time, Sweden which is expected to gain approximately 3 million inhabitants (compared to the year 2022) will be close to Romania in terms of population size.

Figura 1.13. Forecast of population changes in the EU Member States, at the horizon of 2100



Source: Eurostat, Population projections at national level <http://ec.europa.eu/eurostat/data/database>

Romania's population decline will be accompanied by changes in the age structure of the population. The young population aged 0-14 will decrease substantially in the period 2022-2100, of about 1.1 million persons, and the share of young persons in the total population will decrease from 16.2% (in 2022) to 13.5% (in 2100). The working age population of 15-64 will decrease by 2100 by 4.2 million persons. Due to the decline (in the number) of young persons, the share of the adult population in the total population will register in the first part of the projection horizon a slight decrease from 64.3% in 2022 to 63.5% in 2033, after which it will start to decrease sharply, in 2100 reaching 54.9% of the total population. The population aged 65 and over, is expected to increase from 3.7 million persons in 2022, to 4.6 million persons in 2100.

The share of the elderly population in the total population will increase sharply from 19.5% (in 2022) to 31.6% (in 2100) which will lead to an increase in the demographic aging of the Romanian population. The total dependency ratio of the young and elderly population will increase from 55 young and old persons (in 2022) to 82 young and old persons (in 2100) per 100 adults aged 15-64.

1.6. Vital events

Vital events capture the way in which a population is changed due to births, deaths, migration and population ageing, over a certain period of time. Vital events evolution is underpinning the explanation of Romania's demographic decline over the last ten years, with significant effects on the social structure, the labour market and economic efficiency, social security, social cohesion between generations, etc.

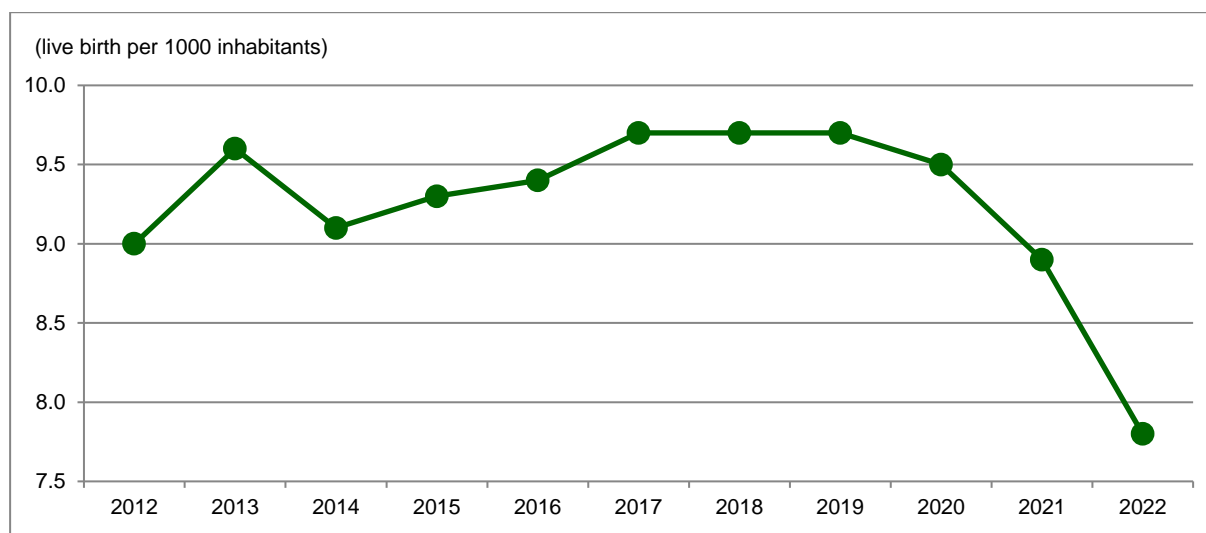
1.6.1. Live birth rate

The information on live birth rate are crucial for the society as this rate directly influences the size of natural increase and, together with the balance of international migration, an increased life expectancy and population ageing, entail changes in the demographic structure of the country.

In the last ten years, the live birth rate¹⁰ in Romania was around 200 thousand live births annually, but it remains far below the level that would ensure the simple replacement of the population, being overpassed by a relative increase in mortality. The year 2022 marks a significant decrease in the number of live births, being registered 171.1 thousand live births with their legal address or usual residence in Romania. Compared to 2012 the number of live births was lower by 30.0 thousand live births, and compared 2021, a decrease of 25.7 thousand live births. In 2022, in urban areas, the number of live births was higher than in rural areas (with 5.1 thousand live births).

In the period 2012-2022, the birth rate had an oscillating evolution, noting a sharp decrease between 2020 and 2022 (from 9.5 live births per 1000 inhabitants to 7.8 live births per 1000 inhabitants). The period 2012-2016 recorded an oscillating rhythm of the birth rate with a minimum of 9.0 live births per 1000 inhabitants in 2012 and a maximum of 9.7 live births per 1000 inhabitants in the period 2017-2019. The last three years, 2020, 2021 and 2022 represented a period of dramatic decline in the birth rate which, in 2022, dropped to 7.8 live births per 1000 inhabitants.

Figure 1.14. Live-birth rate, during 2012-2022



Source: NIS, Demographic statistics

Note: See footnote no. 10.

The study of nuptials is also of great importance in demography, as nuptials are an important premise for the birth rate. In Romania, the family continues to be an essential element in the life of the individual, the official marriage still being the mean of establishing a family, and

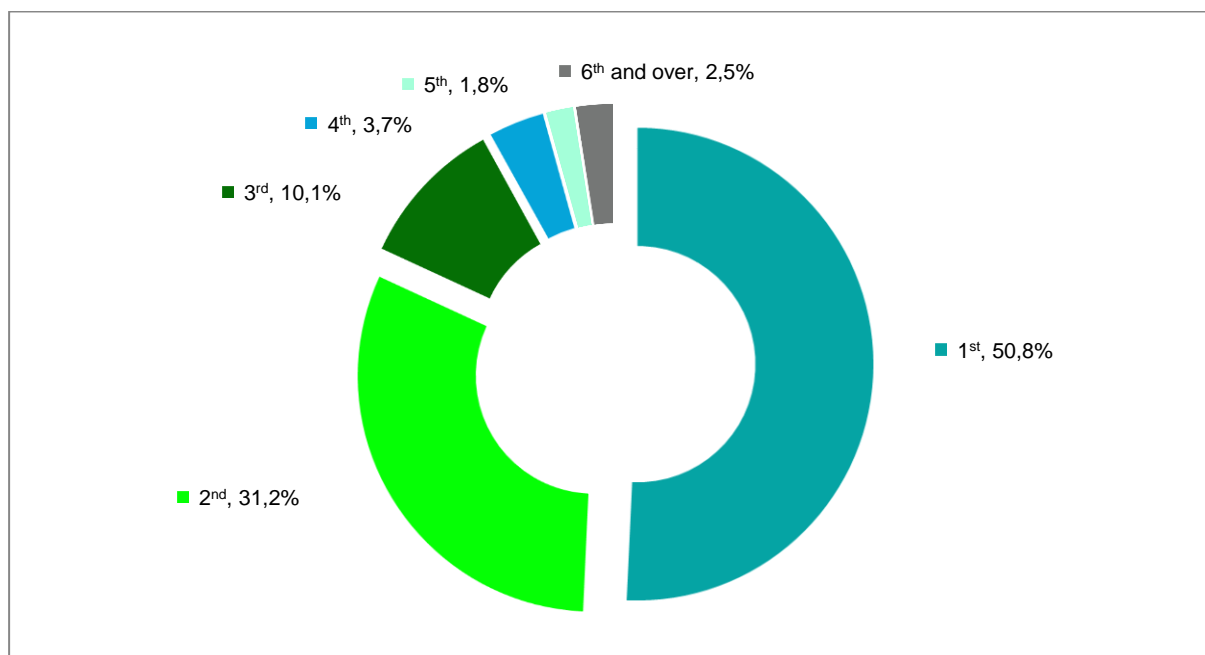
¹⁰ Are included the live-births whose mothers had either their legal address or usual residence in Romania. For the period 2017-2020, the data were revised according to the revisions schedule of the NIS. The data for 2022 are semi-final and the rates are provisional. For the calculation of birth rates it was used the legal population on July 1st of the reference year.

consensual union is not as widespread as in other Member States. On the other hand, the age at first marriage has been steadily rising over the last decade, the decision on marriage being made after the training process is complete, when young persons are integrated into the labor market and they have the material resources necessary to ensure the most appropriate upbringing of the children. The increase of the average age at first marriage leads, in a cascade, to an increase in the age at which mothers decide to have a child and, implicitly, to a reduction in the number of years in which it is possible to give birth to other children, with negative effects on the conjunctural index of fertility.

Although social structures are not as flexible as in other EU countries, the number of children born out of wedlock has increased in Romania, which means that this decision no longer depends so much on the marital status, by the opinion or reproach of others, but is mainly determined by other criteria: finding a suitable life partner, an adequate income, having the material resources necessary for the proper upbringing and education of children, special circumstances in the life of each individual, etc.

Families with children do not have many children, so the weights of live-births first and second order are the highest (50.8%, respectively 31.2%, in 2022).

Figure 1.15. Distribution of live-births, by live-birth order, in 2022



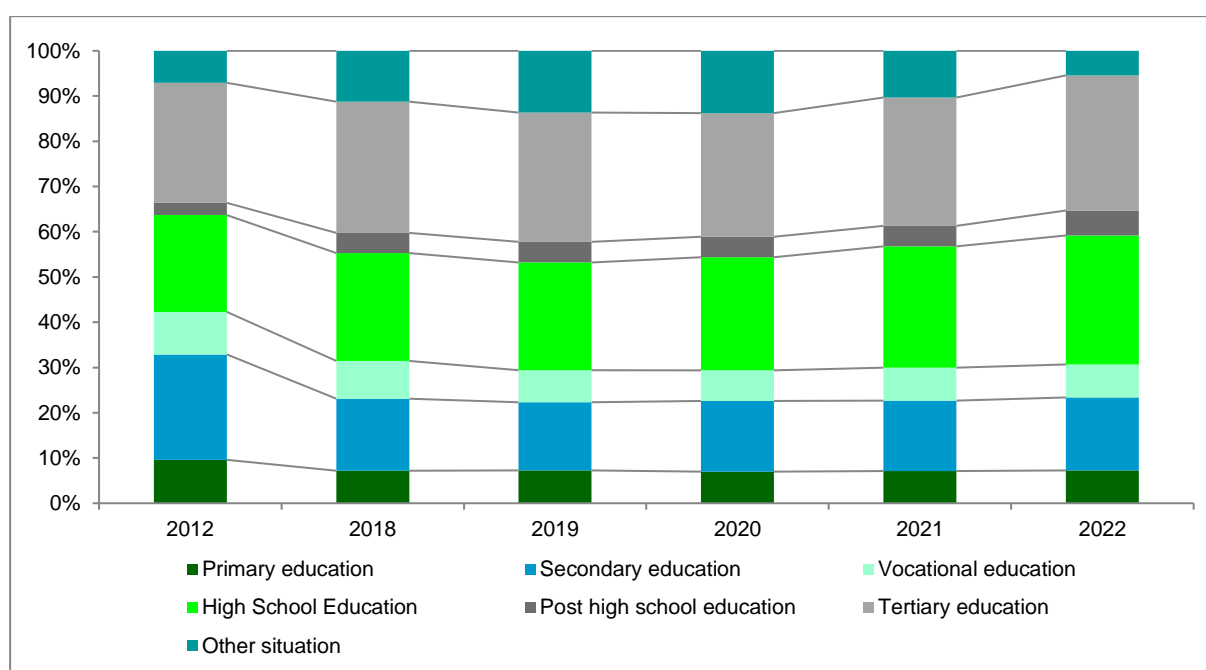
Source: NIS, Demographic statistics

Note: For 2022 it includes the live-births whose mothers had the legal address or usual residence in Romania and data are semi-final. The difference obtained by summing the weights resulting from the distribution of live births by rank results from rounding the percentages to decimal place.

Only 1.8% of live births in 2022 are children of rank V. Compared to 2012, the number of live births of rank VI and over decreased, their share being in 2022 de 2.5% (with 0.5 percentage points lower than in 2012).

A phenomenon that is noticeable in our country is the fact that the number of live births whose mothers have a high level of education (tertiary education) has increased and the share of those with mothers with a low level of education has decreased (at most high school level). The phenomenon is also associated with the increasing in the share of women with higher level of education at national level.

Figure 1.16. Distribution of live-births, by mother's educational level, during 2012-2022



Source: NIS, Demographic statistics

Note: Are included the live-births whose mothers had either their legal address or usual residence in Romania. For the period 2017-2020, the data were revised according to the revisions schedule of the NIS. The data for 2022 are semi-final.

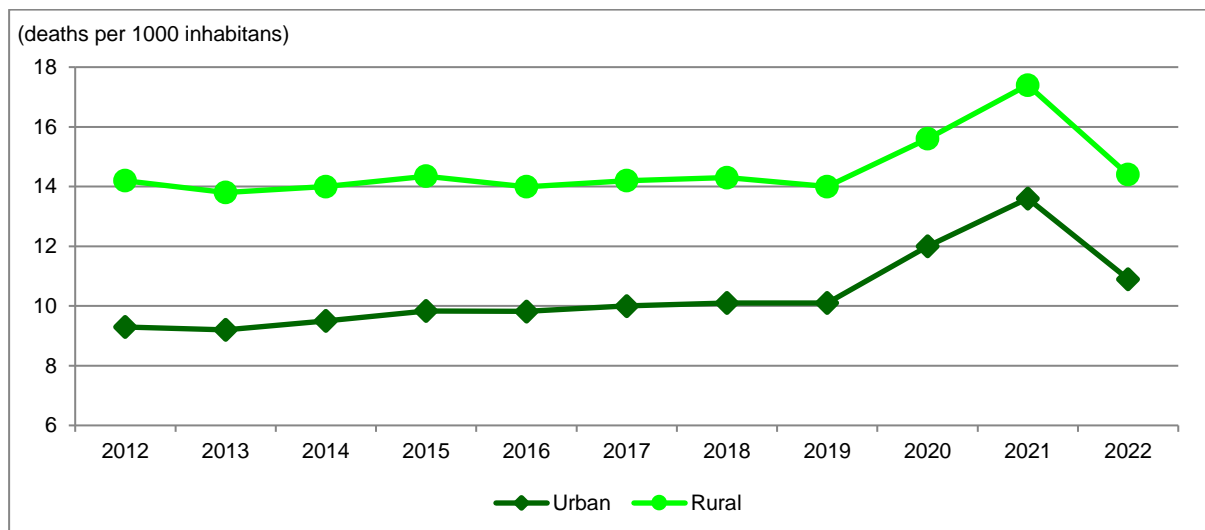
The distribution of live births by mother's level of education shows a 3.3 percentage points increase in the share of live births to mothers with tertiary education in 2022 compared to 2012, while the share of live births to mothers that graduated at most high school dropped by 9.5 percentage point in 2022. Between 2012 and 2022, about a quarter of live-born's mothers had a high school education level, in 2022 weight exceeding 28.0%.

1.6.2. Mortality rate and infant mortality rate

- **Mortality rate**¹¹

In 2022, 272483 people died, 63580 less than in 2021. Between 2012-2022, the general mortality rate in Romania remains at a relatively constant value, with values ranging from 11.4 deaths per 1000 inhabitants in 2012 to 12.4 deaths per 1000 inhabitants in 2022. The years 2020 and 2021, marked by the COVID-19 pandemic, stand out from the general trend of this period, in 2020 the mortality rate being 13.5 deaths per 1000 inhabitants, and in 2021 the rate being 15.2 deaths. The number of deaths was higher in rural areas, but the gap between the two residence areas shows a continuous narrowing trend.

Figure 1.17. Evolution of mortality rates, by residence area, during 2012-2022



Source: NIS, Demographic statistics

Note: See footnote no. 11.

¹¹ Are included the deceased persons who had either their legal address or usual residence in Romania. For the period 2017-2020, the data were revised according to the revisions schedule of the NIS. For 2022, the rates are provisional. The mortality rates were calculated based on the legal population on July of the reference year.

In Romania, in 2022, 91.9% of all deaths are caused by five large groups of diseases that have determined the leading cause of death ¹²: circulatory system diseases, tumors, respiratory diseases, digestive tract diseases and traumatic injuries, poisoning and more consequences of external causes. Circulatory diseases are currently the cause of more than half of all deaths and, together with tumors, account for more than 70% of all deaths.

If the structure of deaths by the main causes of death is analysed in more detail, significant differences are observed by sex and place of residence. Thus, the share of deaths due to circulatory diseases is higher among the female population compared to the male population; it is also higher in rural areas compared to urban areas. Conversely, tumors are more common among men and persons in urban areas.

The evolution of mortality rates in the period 2012-2022 for each of the five causes of death, by sex, had some particular characteristics. Thus, mortality rates from **circulatory system diseases** (mainly ischemic heart disease and cerebrovascular disease) are generally higher among women. In 2022, compared to 2012, the mortality rate due to circulatory diseases increased by 6.4 deaths per 100000 inhabitants for men and decreased by 2.5 deaths per 100000 inhabitants among women. In the period 2012-2022, the highest level of mortality due to circulatory system diseases was reached in 2021, for both men and women: 763.2 deaths per 100000 inhabitants for men and 816.8 deaths per 100000 inhabitants for women. In the correct evaluation of the mortality trend due to diseases of the circulatory system in Romania, it should be taken into account that, for the most part, the illnesses and deaths caused by this group of diseases (as well as those due to tumors and traumatic injuries, poisonings and other consequences of external causes) are closely related to individual and collective habits and behaviors.

The trend of mortality rates due to **tumors** was one of decrease, among men, registering, in 2022, compared to 2012, lower mortality rates, by 18.4 deaths per 100000 inhabitants. In the period 2012-2018 among women, there was a trend of increasing death rates. Starting from 2019 the rates decreased from 83.6 deaths per 100000 inhabitants to 171.1 deaths. Given that this period of decline also includes the years of the COVID-19 pandemic, the evolution of the mortality rate due to tumors among women must be followed in the following period as well.

¹² *Causes of death, according to the International Classification of Diseases - 10th revision, 1994 - World Health Organisation*

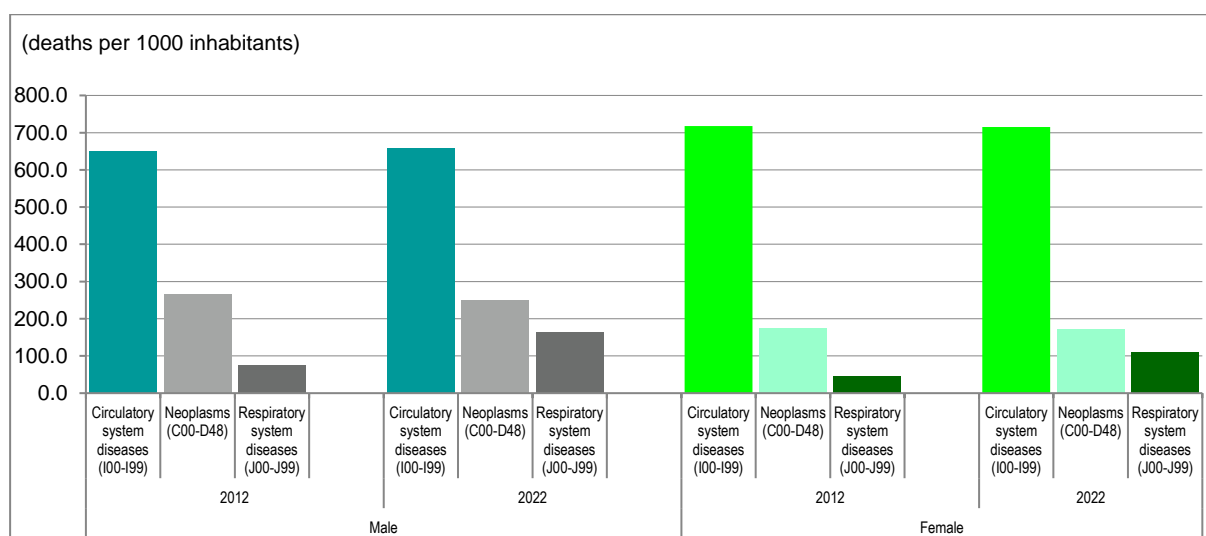
Mortality due to **diseases of the respiratory system** registered an increasing trend for men, from 75.0 deaths per 100000 inhabitants in 2012 to 162.1 deaths per 100000 inhabitants in 2022, and for women from 44.0 deaths per 100000 inhabitants in 2012 to 109.1 deaths per 100000 inhabitants in 2022.

Mortality caused by **diseases of the digestive tract** has remained relatively constant in recent years, for both sexes, but those most affected by these diseases are also men. In 2022, the mortality rate due to this cause was 94.0 deaths per 100000 inhabitants for males and 47.1 deaths per 100000 inhabitants for females.

Mortality caused by **traumatic injuries, poisoning and other consequences of external causes** is more than three times higher among men compared to women. The evolution was a positive one, decreasing over the whole period 2012-2022.

The fact that in Romania mortality rates are currently at a substantially higher level compared to the rates recorded by most EU Member States explains, in part, the large gaps in the average life expectancy of males and females, respectively from Romania and other European countries.

Figure 1.18. Mortality rates, by cause of death and sex, in 2012 and 2022



Source: NIS, Demographic statistics

Causes of death, according to the International Classification of Diseases - 10th revision, 1994 - World Health Organisation.

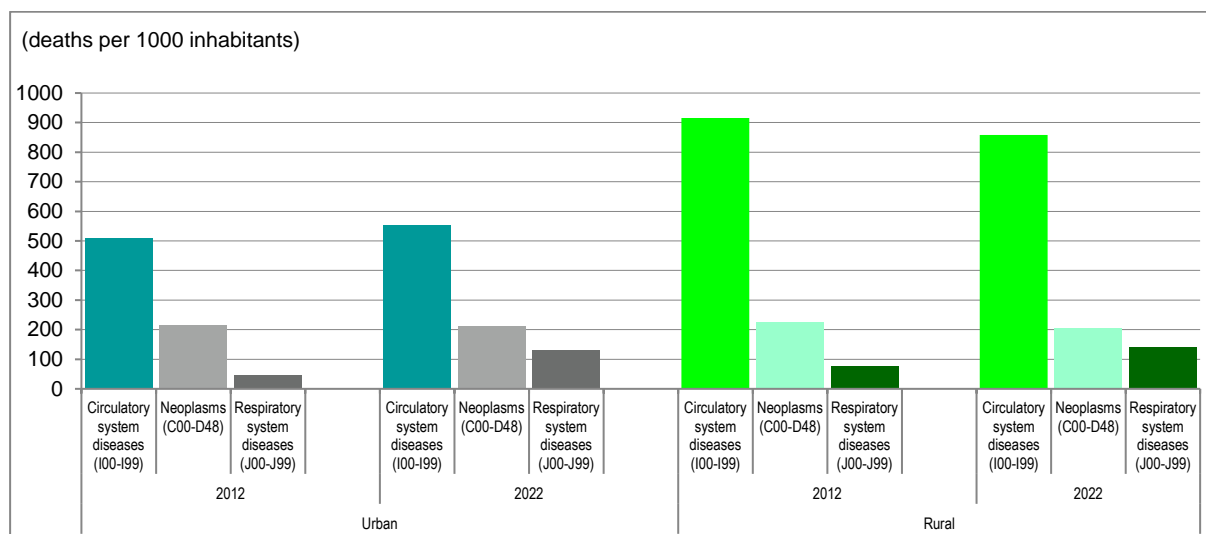
Note: For 2022 includes deceased persons who had either their legal address or usual residence in Romania, and the rates are provisional. The mortality rates were calculated based on the legal population on July 1st of the reference year.

Statistics on mortality rates by the five main causes of death and by area of residence between 2012-2022, show that they were substantially higher in rural areas compared to urban areas. The most significant differences are the mortality rate due to circulatory diseases. Between 2012-2022, mortality rates due to circulatory system diseases increased in urban areas (from 507.2 deaths per 100000 locuitori la 513.3 decese la 100000 locuitori) and decreased in the rural area (from 915.3 deaths per 100000 inhabitants to 838,6 deaths per 100000 inhabitants). In the following period, marked by the COVID19 pandemic, the years 2020 and 2021, the mortality rate increased significantly in both areas of residence, in 2022 it decreased again to 553.3 deaths per 100000 inhabitants in urban area and to 857.8 deaths per 100000 inhabitants in rural area.

After circulatory system diseases, tumors are the second leading cause of death in Romania. Between 2012-2022, by residence area, the intensity of mortality due to this cause decreased from 214.9 deaths per 100000 inhabitants (in 2012) to 212.4 deaths per 100000 inhabitants (in 2022) in urban area and from 224.3 deaths per 100000 inhabitants (in 2012) to 204.2 deaths per 100000 inhabitants (in 2022) in rural area.

Mortality rates due to respiratory diseases, the third leading cause of death in Romania, increased in the period 2012-2022, both in urban area (by 84.0 deaths per 100000 inhabitants in urban area and by 65,0 per 100000 inhabitants in rural area). Significant increases were registered in 2020 and 2021, caused by the COVID-19 pandemic, from 70.9 deaths per 100000 inhabitants in 2019, to 177.8 deaths per 100000 inhabitants in 2020 and to 308.7 deaths per 100000 inhabitants in 2021 in urban area and from 91.8 deaths per 100000 inhabitants in 2019 to 169.7 deaths per 100000 inhabitants in 2020 and 281.6 deaths per 100000 inhabitants in 2021 in rural area.

Figure 1.19. Mortality rates, by cause of death and residence area, in 2012 and 2022



Source: NIS, Demographic statistics

Causes of death, according to the International Classification of Diseases - 10th revision, 1994 – World Health Organisation.

Note: For 2022 includes deceased persons who had the legal address or usual residence in Romania, and the rates are provisional. The mortality rates were calculated based on the legal population on July 1st of the reference year.

- **Infant mortality rate**¹³

Between 2012-2022, infant mortality has shown a continuous decline. However, for Romania, this issue remains a priority in the field of public health policies, given the still very high level of this rate (5.9 deaths under the age of 1 year per 1000 live births in 2022). About 90% of all deaths of children up to one year of age are caused by the following causes: respiratory diseases, some diseases whose origin lies in the perinatal period, birth defects, chromosomal deformities and abnormalities, infectious and parasitic diseases.

On the background of a general trend of reducing the number of deaths of children under 1 year and the infant mortality rate in the period 2012-2022, the sharpest reduction in the infant mortality rate was recorded in the case of deaths caused by respiratory diseases (from 2,6 deaths under 1 year of age per 1000 live births in 2012, to 1.4 deaths under 1 year of age per 1000 live births in 2022).

Some diseases whose origin lies in the perinatal period and congenital malformations, deformities and chromosomal abnormalities remain two of the major causes of infant mortality. Although infant mortality caused by the two causes decreased in the period 2012-2022 by about one death per 1000 live births for each of the two causes, the share of deaths under 1 year due to diseases whose origin is in the prenatal period has increased from

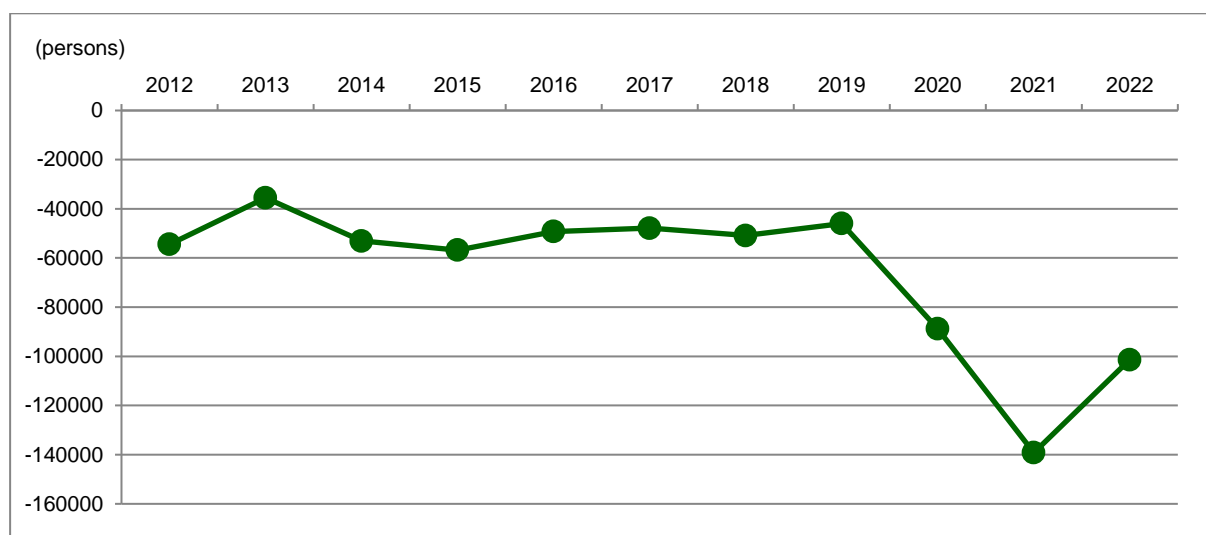
¹³ Are included the deceased persons under 1 year of age who had either their legal address or usual residence in Romania, respectively the live-births whose mother had either her legal address or usual residence in Romania. For the period 2017-2020, the data were revised according to the revisions schedule of the NIS. The data for 2022 are semi-final.

34.4% in 2012 to 34.7% in 2022, and the share of deaths under 1 year due to birth defects, deformities and chromosomal abnormalities increased from 23.4% in 2012 to 25.5% in 2022.

1.6.3. Natural change

The crude birth rate and mortality rate sizes determine and shape the evolution of the natural increase of a population ¹⁴. During 2012-2022, the natural change was permanently negative. The natural change improved in 2013 (-35.5 mii persoane), but in recent years the trend is again unfavorable, the value of the indicator evolved, during the COVID-19 and post-pandemic, to -88.8 thousand persons (in 2020), to -139.2 thousand persons in 2021, reaching -101.4 thousand persons in 2022.

Figure 1.20. Evolution of the population's natural change, during 2012-2022

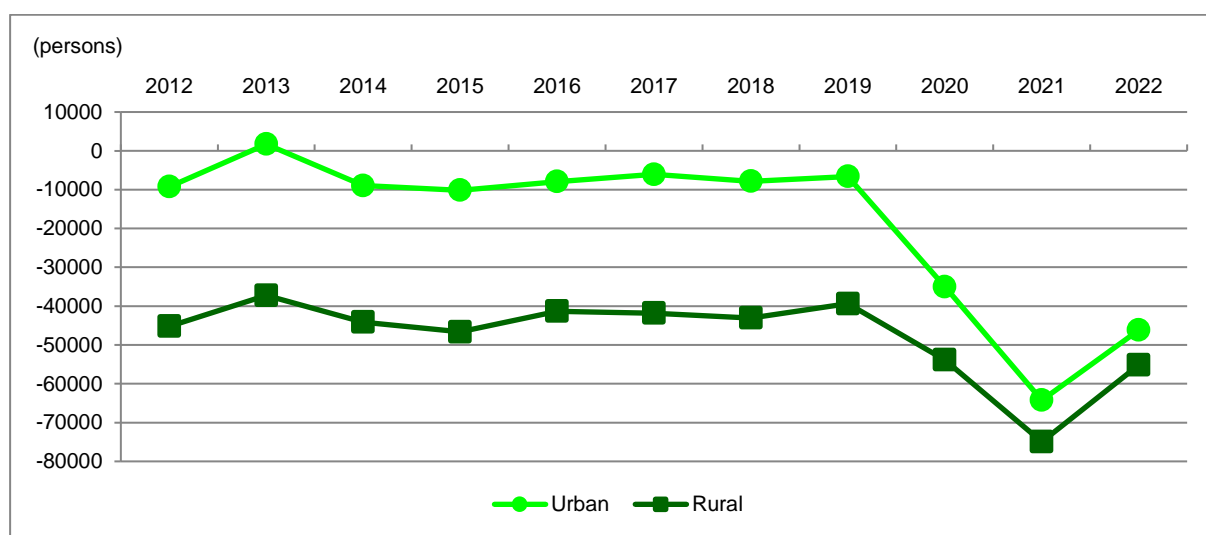


Source: NIS, Demographic statistics, <http://statistici.insse.ro:8077/tempo-online>

¹⁴ Are included the live-births whose mothers had either their legal address or usual residence in Romania, respectively the deceased persons who had the legal address or usual residence in Romania. For the period 2017-2020, the data were revised according to the revisions schedule of the NIS. The data for 2022 are semi-final.

Between 2012-2022, the natural change was negative in both urban and rural area, except for 2013, when a positive natural change was registered in urban area. In 2022, the decreasing trend of natural change is maintained for both residence area, the absolute difference of natural change between them, was, 9.0 thousand persons, and lower in urban area.

Figure 1.21. Population's natural change, by residence area, during 2012-2022



Source: NIS, Demographic statistics, <http://statistici.insse.ro:8077/tempo-online>

Note: Are included the live-births whose mothers had either their legal address or usual residence in Romania, respectively the deceased persons who had the legal address or usual residence in Romania. For the period 2017-2020, the data were revised according to the revisions schedule of the NIS. The data for 2022 are semi-final.

1.6.4. Life expectancy at birth and fertility rate

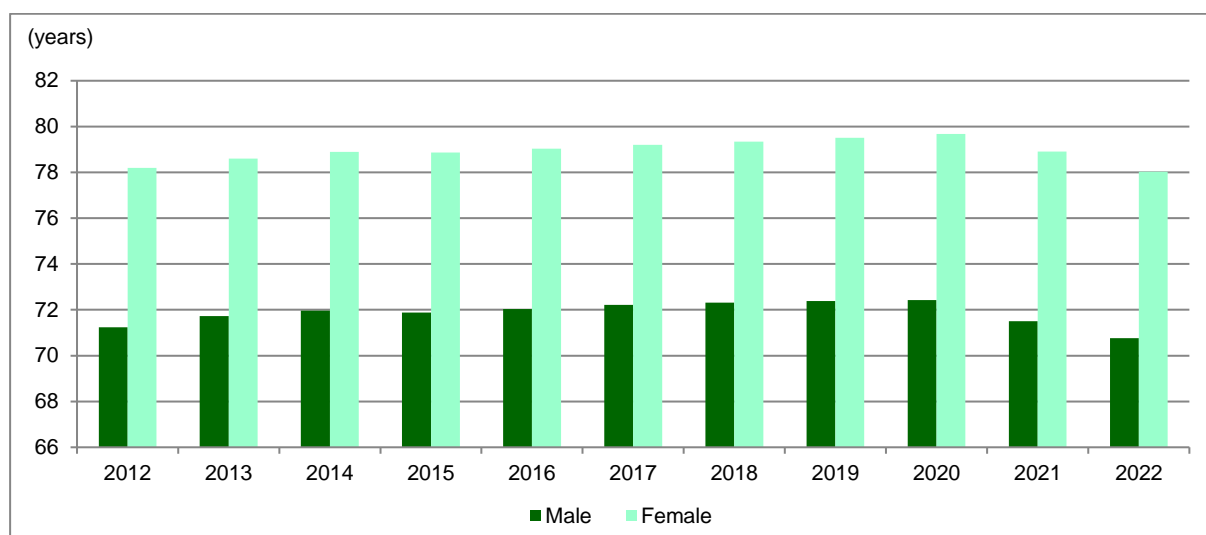
The differentiated evolution by residence area of both mortality rate but particularly of infant mortality rate has marked the life expectancy dynamics. Life expectancy gives an overview on the differences between the population categories (by residence area, sex, etc.) in terms of living standards.

Life expectancy at birth (or average life expectancy) of the Romanian population¹⁵ has increased slightly in recent years for both sexes, both in urban and rural area. The indicator shows higher levels for women.

¹⁵ For the period 2017-2020 the data were revised according to the revisions schedule of the NIS. The data for 2022 are provisional. Life expectancy at birth was calculated based on the legal population, the deceased persons (who had their legal address in Romania until 2012 and who had either their legal address or usual residence in Romania since 2012) and internal migration based on change of residence.

In 2022 the life expectancy at birth was 74.31 years for the entire population, 0.38 years less than in 2012. For the entire period analysed, there is a difference of 7 years between the average lifetime of women and men, in favor of women (78.03 years compared to 70.76 years, in 2022).

Figure 1.22. Life expectancy at birth, by sex, during 2012-2022

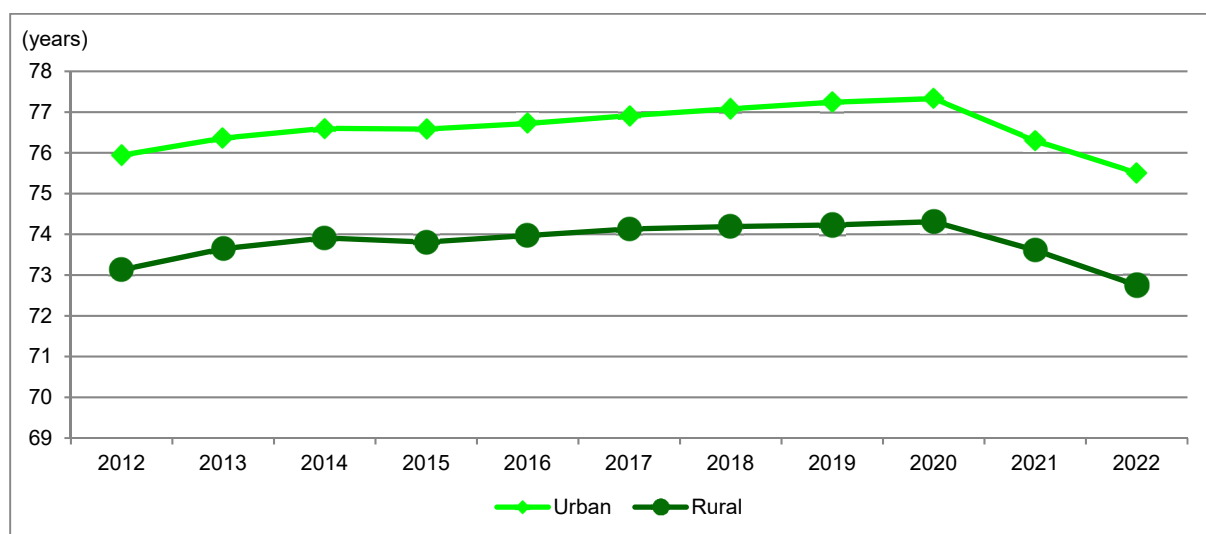


Source: NIS, Demographic statistics

Note: For the period 2017-2020 the data were revised according to the revisions schedule of the NIS. The data for 2022 are provisional. Life expectancy at birth was calculated based on the legal population, the deceased persons and internal migration with the change of residence.

By area of residence, there are also differences in the size of this indicator, life expectancy at birth being higher in urban areas. In 2022, the average life expectancy of persons in urban area was 75.51 years, 2.76 years longer than in rural area. In 2022, the lowest life expectancy was calculated for men in rural area (69.16 years).

Figure 1.23. Life expectancy at birth, by residence area, during 2012-2022



Source: NIS, Demographic statistics

Note: For the period 2017-2020 the data were revised according to the revisions schedule of the NIS. The data for 2022 are provisional. Life expectancy at birth was calculated based on the legal population, the deceased persons who had their legal address in Romania until and internal migration with the change of residence.

Life expectancy at certain ages is an important milestone in shaping those public policies that take into account the life cycle of men and women with their particularities, such as: employment policies, public pension policy, public health policies, social protection policies and other.

Life expectancy at the age of 65 is an important indicator for assessing the longevity of a population marked by aging, as it is known that older persons have poorer health and need medical services and social protection.

Another relevant indicator in the monitoring and analysis of demographic phenomena is the fertility rate¹⁶.

The fertility rate values decreased in the period 2012-2022, from 35.6 live births per 1000 women of fertile age (in 2012) to 33.4 live births per 1000 women of fertile age (in 2022). Between 2017-2019, an improvement of the fertility rate was recorded, reaching in 2019, the highest value from of the period 2012-2022, 40.4 live births per 1000 women of fertile age. The year 2022 marks the lowest fertility rate in this period, 33.4 live births per 1000 women of fertile age.

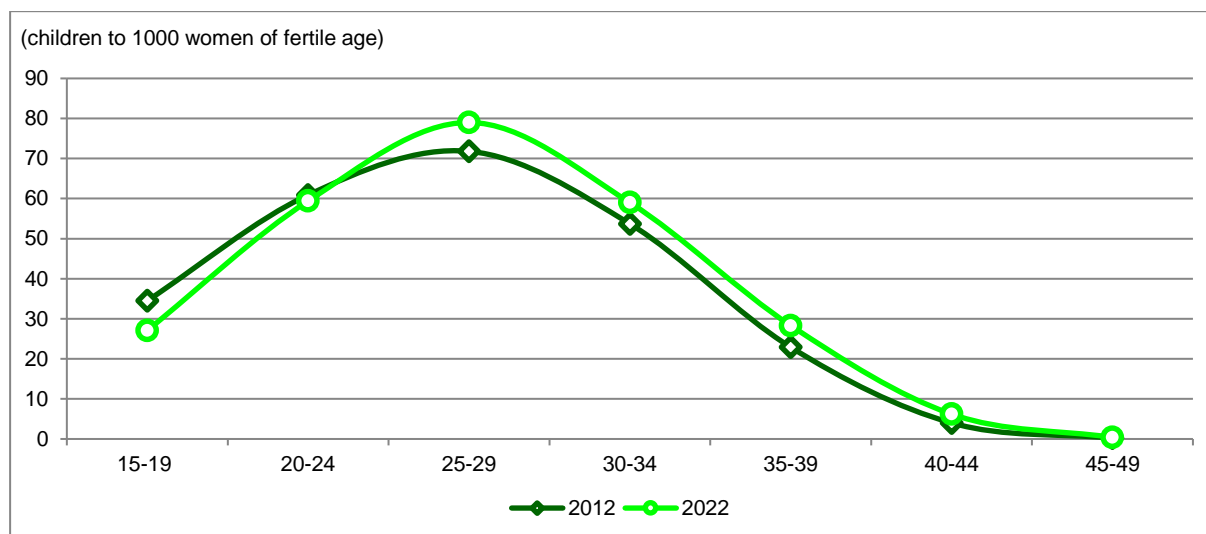
¹⁶ Live births per 1000 women of fertile age (15-49 years).

Are included the live-births whose mothers had either their legal address or usual residence in Romania. For the period 2017-2020, the data were revised according to the revisions schedule of the NIS. The data for 2022 are semi-final. The calculation of fertility rates used the legal female population aged 15-49 years on July 1st of the reference year.

The distribution by age groups of the number of children born per 1000 women of fertile age shows that the maximum fertility was registered in the age group 25-29 years, during the entire period 2012-2022. There is a trend of flattening in the distribution of fertility rates by age group, from 71.8 live births per 1000 women of fertile age (for the 25-29 age group) in 2012, to 79.0 live births per 1000 women of fertile age in 2022.

As expected, the age groups with the highest fertility rates are 25-29 years, followed by the groups 20-24 years and 30-34 years, and at the opposite pole are the upper age groups (40-44, respectively 45-49 years).

Figure 1.24. Fertility rate, by age group of mother, in 2012 and 2022



Source: NIS, Demographic statistics. <http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table>

2. HEALTH

2.1. Survey objectives

The population health is one of the most relevant benchmarks of the economic and social situation of a nation, being closely linked with living standard, living and working conditions, but also with the risks derived from the functioning and management of the healthcare system.

In Romania, health policies are constantly evolving, the vision of the National Health Strategy for 2023-2030 being “a healthier and more autonomous population with a sustained increase in healthy life expectancy and a good quality of life”.

Morbidity indicators are used to track a nation's population's health. However, a frequently used indicator remains life expectancy (at birth or at certain ages), also used for the analysis of demographic developments. Beyond life expectancy, the World Health Organisation has proposed the “healthy life expectancy” indicator, seconded by another indicator that expresses “years lived in poor health”.

Other indicators used to characterise the population health status are calculated on the basis of a wide range of statistical data on the incidence of some diseases, access to healthcare, as well as data on the management of the healthcare system and its costs.

The beneficiaries of the statistical information related to the healthcare system are mainly policy makers playing a role in drawing up public policies in healthcare and social fields, academic environment and the general public.

2.2. Population health - vital prerequisite for social development

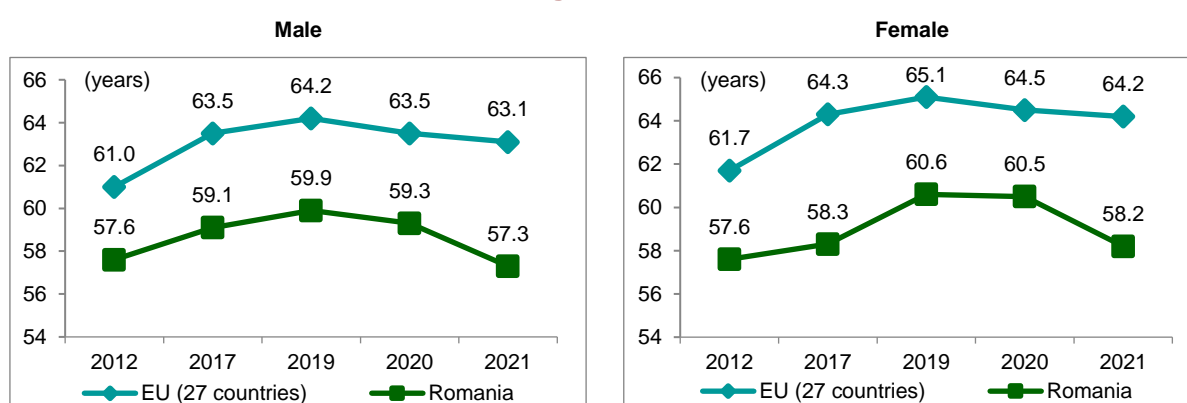
2.2.1. Healthy Life Expectancy

Healthy life expectancy is a dimension of the life quality of a nation and an indicator of potential yield of investments in human capital. Healthy life expectancy is the indicator that introduces the concept of quality of life, by focusing on those years that people can enjoy without having limitations due to an illness or disability. Over the last decades, life expectancy has increased

at global level, but at the same time, the structure of morbidity highlights the increasing prevalence of some chronic diseases. While the life expectancy at birth indicator provides a more general picture of the population health, the indicator on healthy life expectancy has been developed to analyse whether the increase of life expectancy is accompanied by an increase of good health over time or on the contrary. Healthy life expectancy divides life expectancy into different states of health and offers a qualitative dimension to the quantitative notion of the average number of years lived. Healthy life expectancy measures how many years, on average, a person at a certain age is expected to live in good health, considering the specific rates of mortality, morbidity and the risk of disability for that year.

Eurostat computes annually, at EU level and at Member State level, the indicators on life expectancy and healthy life expectancy based on its own method, using the annual data provided by each Member State in the field of demography (death) and population, using statistical data on persons with usual residence in each Member State¹. Healthy life expectancy at birth², in Romania, in 2021, was 57.3 years for men and 58.2 years for women, and the life expectancy at birth², in 2022, was 71.5 years for men and 79.3 years for women. Thus, though life expectancy at birth for men in 2022, was 7.8 years lower than life expectancy of women, and healthy life expectancy at birth for men in 2021 was 0.9 years lower than that of women. Compared to men, women live longer, but in poorer health status (having a higher number of years with moderately or severely limited activity).

Figure 2.1. Healthy life expectancy at birth, by sex, in Romania and EU-27, during 2012-2021



Source: Eurostat, 2023, <http://ec.europa.eu/eurostat/data/database>.

¹ At national level, life expectancy is calculated on the basis of demographic (death) and population data from 3 consecutive years, on the basis of statistical data on deaths of persons who have their legal address or usual residence in Romania and the data on population by legal address on 1st January, and 1st July of each year.

² According to data published by Eurostat. The latest year with available data on the Eurostat website.

The healthy life expectancy³ at the age of 65 was, in Romania, in 2021, of 4.0 years both for men and women, significantly below the values of this indicator at EU-27 level respectively of 9.9 years for women and 9.5 years for men. In 2021, Sweden and Ireland had, in the case of healthy life expectancy at the age of 65, the largest values both for men (14.5 years, respectively 12.3 years), and women (14.8 ani, years respectively 13.0).

Another important indicator for monitoring the health status of a population is the incidence of certain diseases (number of new cases recorded in a year). The first contact of patients with the medical system is the family physician. Thus, the primary medicine provided by family physicians records the number of new cases, providing statistics on the incidence of morbidity. For an objective analysis of new cases of disease, a derived indicator is calculated that shows the incidence of new cases of disease per 100,000 inhabitants, broken down by disease classes.

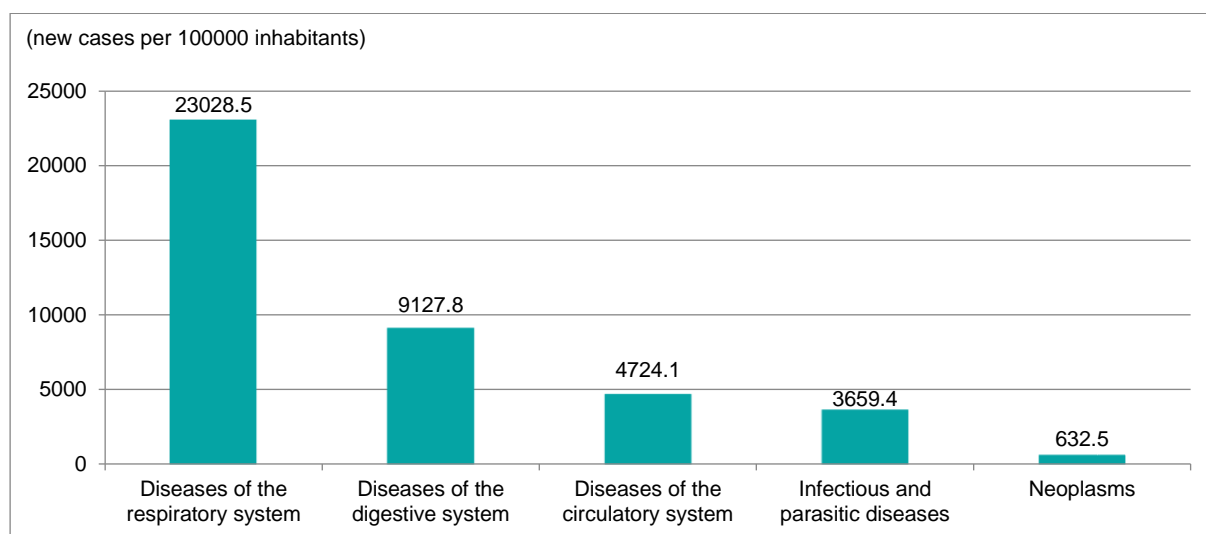
Concerning the diseases reported by family physicians, their incidence, by disease classes, shows an oscillating evolution during 2012-2022, the total number of new cases registering a maximum in 2012 (79.4 thousand new cases per 100 thousand inhabitants) and a minimum in 2020 (66.8 thousand new cases per 100 thousand inhabitants). In 2022, the incidence of diseases increased compared to the previous period, tending to the level before the COVID-19 pandemic, and compared to 2021, it increased by 3.6%. The data for the year 2022 must be seen in the context of the post-COVID-19 period when ensuring access to monitoring and detecting new cases with the main diseases with a major impact on health was no longer limited by the pandemic's preventative efforts.

The most common diseases for which the population visits the family physician, are diseases of the respiratory system, of the digestive system, of the circulatory system and infectious and parasitic diseases.

The incidence of respiratory diseases per 100 thousand inhabitants has decreased during 2012-2022 from 31525.9 cases per 100 thousand inhabitants in 2012, to 23028.5 cases in 2022, while the incidence of digestive diseases has recorded oscillations, but on an increasing trend, with a minimum in 2014 (7857.2 new cases per 100 thousand inhabitants) and a maximum in 2021 (9405.5 new cases per 100 thousand inhabitants).

³ According to data published by Eurostat.

Figure 2.2. Incidence of some classes of diseases, declared by the family physicians, in 2022



Source: Ministry of Health – National Institute of Public Health.

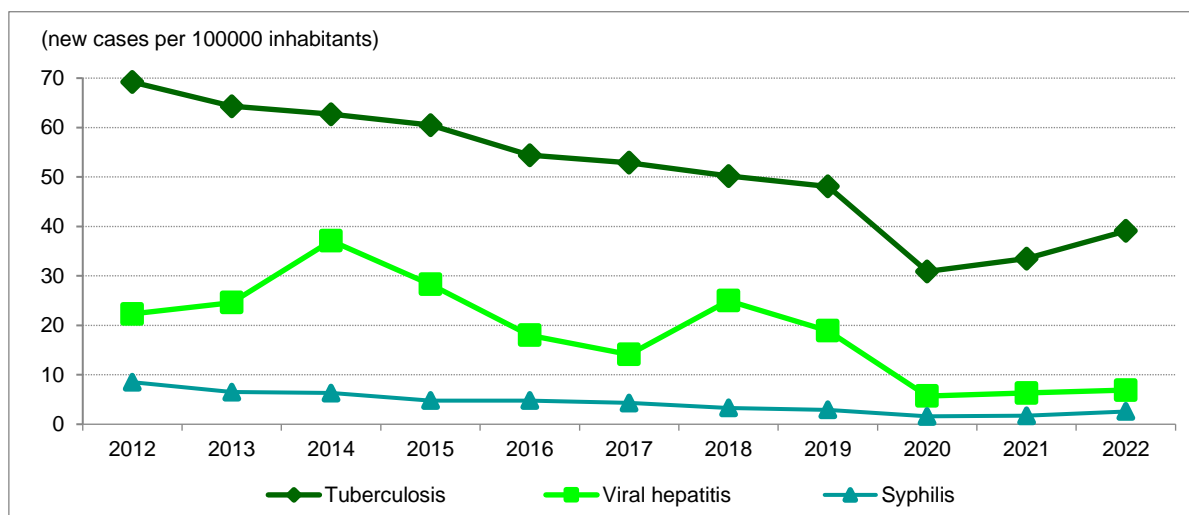
Note: The indicators were calculated using the usual resident population on 1st July of 2022.

Of note is the significant increase in new cases of congenital malformations, deformations and chromosomal anomalies, from 41.6 new cases per 100 thousand inhabitants in 2012 to 69.7 new cases in 2022, with an increase of 16.4% compared to of the previous year, as well as of conditions whose origin lies in the perinatal period, from 14.8 new cases per 100 thousand inhabitants in 2012, to 19.9 new cases in 2022, with a decrease of 8.3% compared to 2021.

The number of new cases of neoplasms registered annually, in recent years, has seen a significant evolution, from 374.0 new cases per 100 thousand inhabitants in 2012, to 632.5 cases in 2022, representing an increase of 69.1%. In 2022, the incidence of neoplasms cases recorded the maximum of the analysed period, representing a 28.2% increase compared to 2021, but also a 15.3% increase compared to 2019.

Regarding infectious and parasitic diseases, in the period 2012-2022, the data show a continuous decrease until 2018 (2352.2 new cases per 100 thousand inhabitants), followed by an increase until the end of the analysed period (3659.4 new cases per 100 thousand inhabitants).

Figure 2.3. Incidence of certain infectious and parasitic diseases, during 2012-2022



Source: Ministry of Health – National Institute of Public Health and "Marius Nasta" Pneumophthiology Institute

Note: The indicators were calculated using the usual resident population on 1st July of each year.

Between 2012-2022, there is a decrease in the incidence of tuberculosis cases, from 69.2 (in 2012) to 30.9 new cases per 100 thousand inhabitants (in 2020), followed by an increase up to 39.1 new cases per 100 thousand inhabitants (in 2022). Syphilis incidence dropped from 8.5 new cases per 100 thousand persons (in 2012) to 1.6 new cases per 100 thousand persons (in 2020), then increased to 2.6 new cases per 100 thousand persons (in 2022). The frequency of new cases of viral hepatitis, in the same period, had an oscillating evolution, with a maximum of 37.1 new cases per 100 thousand inhabitants registered in 2014 and a minimum of 5.7 new cases per 100 thousand inhabitants registered in 2020. During the COVID-19 and post-COVID-19 periods, the incidence of viral hepatitis per 100 thousand inhabitants was at low levels compared to the 2012-2019 period.

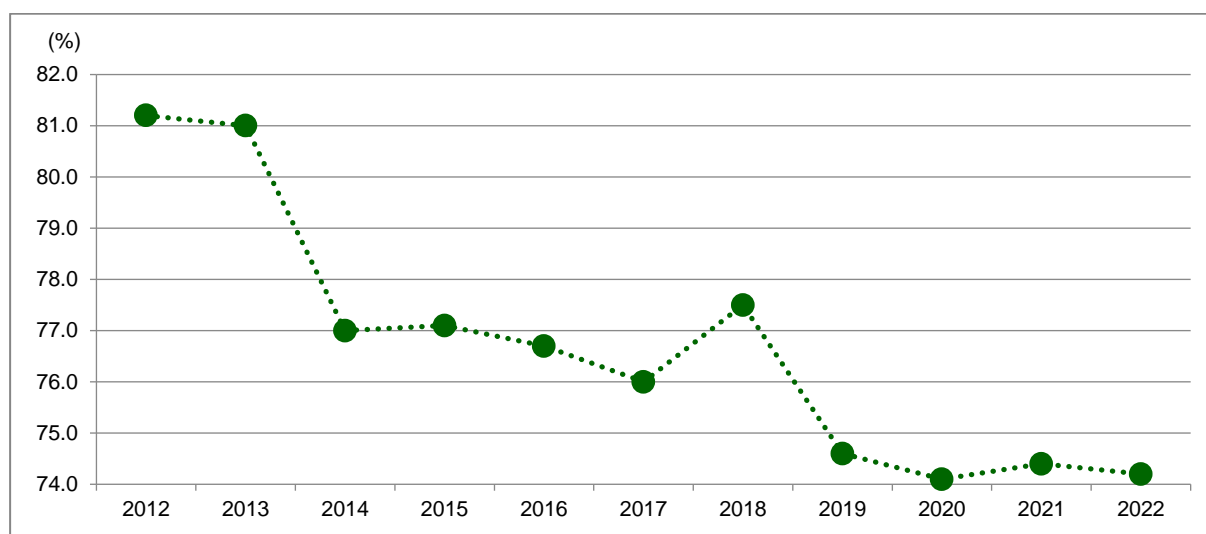
2.3. Access to healthcare services

The population's access to the public and private healthcare system services depends on a wide range of factors. The first filter is the status of insured person under the social health insurance scheme, through population enrolment on the family physicians' lists.

2.3.1. Outpatient medical services

In outpatient care, among the medical services provided to the population, the most common are the services of primary medicine, represented by the services (consultations) provided by family physicians.

Figure 2.4. Rate of enrolment on a family physicians' list, during 2012-2022



Source: The National Health Insurance House

Note: Rates have been calculated using the legal population on 1st July of each year. The data for 2022 are provisional.

The population enrollment rate at the family physician has decreased in recent years, the highest enrollment rate at the family physicians⁴ from 2012-2022 was recorded in 2012 (81.2%), and the lowest in 2020 (74.1%). In 2022, the enrollment rate at the family physician relative to the legal population was 74.2%.

According to the territorial profile, the enrollment rate at the family physicians⁵ in 2022 varied from 61.1% in the North-East area to 74.9% in the South-Muntenia region. In the Bucharest-Ilfov area, the enrollment rate at the family physician was 74.0%.

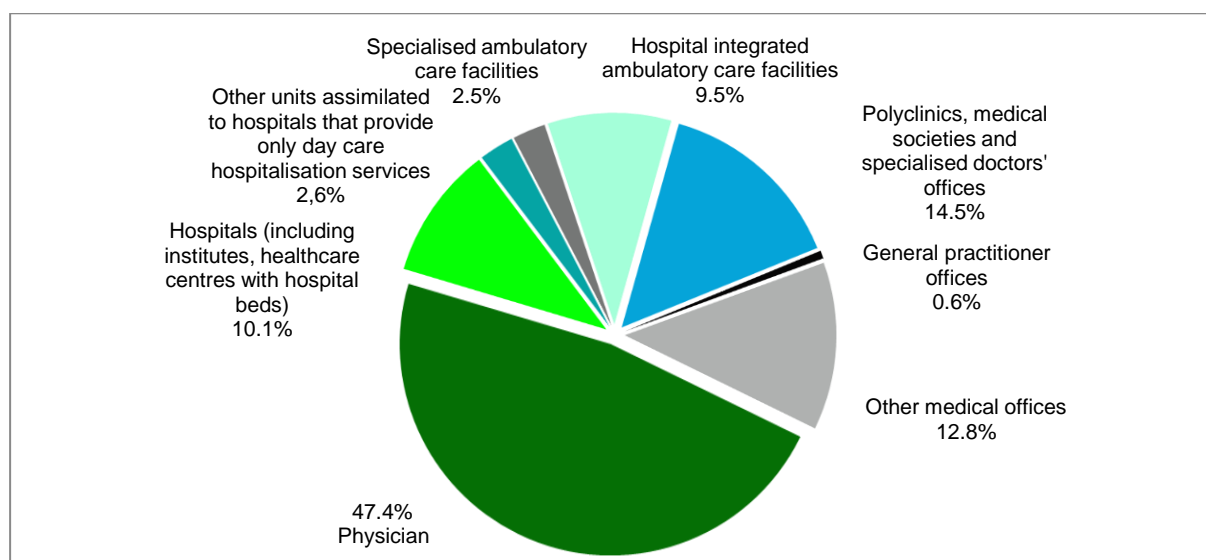
Primary healthcare services are complemented by specialized healthcare provided as outpatient services. The hospitals' integrated ambulatory care facilities and the specialised ambulatories are healthcare units that provide medical care to patients for almost all medical conditions, without hospitalisation. In the hospitals' integrated ambulatory care facilities and in the specialized ones, during the analysed period, 12.5 million consultations were provided on average, annually. The highest number of consultations was recorded in 2019 (13.5 million), the lowest number of consultations was recorded in 2020, 10.5 million consultations. The decrease of 22.3%, in 2020 compared to 2019, in the context of the COVID-19 pandemic, is the result of the population addressing the health system rather in the case of medical

⁴ The enrollment rate at the family physician refers to the legal population in Romania and, at the national level, includes CASAOPSNAJ insured persons.

⁵ The rate of enrolment on the family physician list at territorial level, in 2019 and in 2022, do not include CASAOPSNAJ insurance holders for whom no data are available at territorial level.

emergencies than for the performance of preventive procedures. In 2022, 13.2 million consultations were registered, approaching the maximum of the analysed period from 2019.

Figure 2.5. Number of outpatient consultations, in the main types of healthcare units, in 2022



Source: NIS, Statistical survey "The activity of the medical and healthcare network".

Note: The category Hospitals (including institutes, healthcare centres with hospital beds) include consultations to patients in the emergency room and Emergency Admission Units (UPU) and outpatient consultations given to patients in the medical offices in the hospitals.

The number of consultations in polyclinics, medical societies (excluding dental societies), and specialist offices has increased from 14.7 million consultations in 2012 to 16.0 million consultations in 2022, recording the lowest values in 2014, 2015 and 2020 (between 12.1 and 12.8 million consultations).

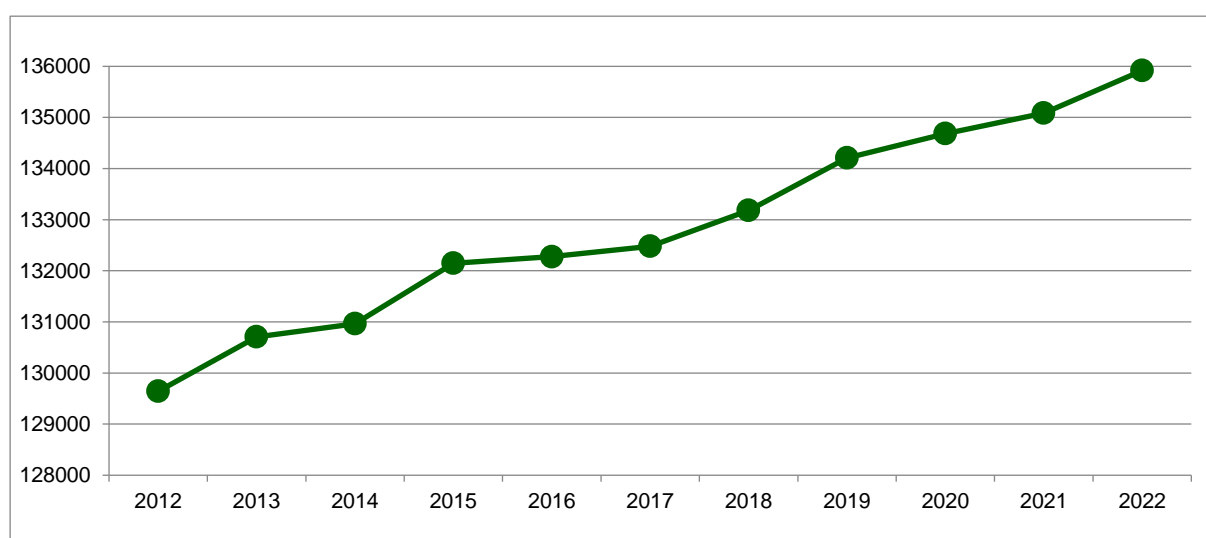
The share of outpatient consultations provided in hospitals (in medical offices, emergency rooms and Emergency Admission Units) in the total number of outpatient consultations was 10.3% in 2012, reached 11.6% in 2019, and decreased to 10.1% in 2022. In the context of the 2020 pandemic, the share of outpatient consultations provided by hospitals dropped to 9.1%, a decrease due to the predilection of medical services with hospitalisation in order to limit the spread and treatment COVID-19.

2.3.2. Healthcare services provided in hospitals

Healthcare services provided by hospitals are a significant part of the provision of health services to the population, as they provide mainly continuous hospitalisation services. Hospitals may also include structures that provide specialized outpatient services, day hospitalisation services, home care and outpatient paraclinical services.

The growth of the number of hospital beds is an important indicator of public policies for the administration of the healthcare system. Hospitals (public and private) had 129.6 thousand beds for continuous hospitalisation in 2012, their number reaching 135.9 thousand beds in 2022. During this period, the network of hospitals and units assimilated to hospitals that offer continuous hospitalisation services diversified, smaller healthcare units with a reduced number of continuous hospitalisation beds emerging, so that the number of beds in hospitals was slightly increasing from year to year, with 2022 representing increases of 4.8% compared to 2012 and 0.6% compared to 2021.

Figure 2.6. The evolution of the number of hospital beds for hospitalisation continues, during 2012-2022



Source: NIS, "Activity of Sanitary Units" statistical survey. Starting with 2020, statistical survey "The activity of the medical and healthcare network".

As in previous years, in 2022, the largest number of beds was recorded in the specialties⁶ of internal medicine (26.0 thousand beds) and surgery (23.5 thousand beds), being followed by the specialties of psychiatry and neuropsychiatry (17.3 thousand beds), recovery, physical medicine and balneology (8.8 thousand beds) and obstetrics and gynecology (8.6 thousand beds).

Compared to 2012, in 2022 more beds were made available to patients for continuous hospitalisation in the following specialties: A.I.C. (Anaesthesia and Intensive Care) (684 more

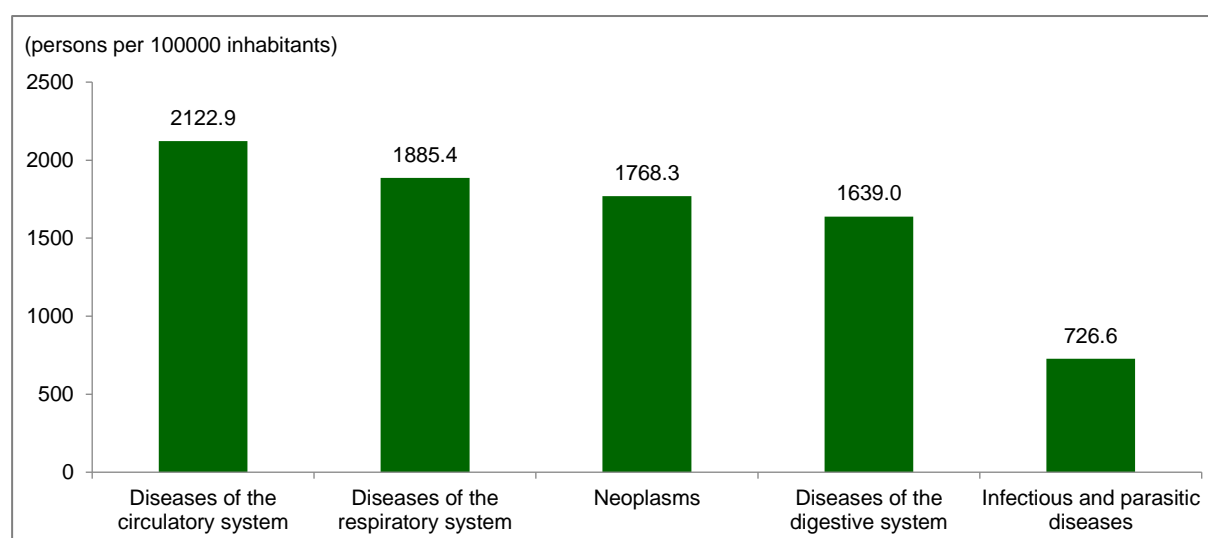
⁶ 1) The internal medicine specialty includes beds for: internal medicine (including non-tuberculous pneumology beds in internal medicine departments), endocrinology, occupational diseases, cardiology, rheumatology, diabetes, nutrition and metabolic diseases, gastroenterology, hematology and nephrology; 2) The surgery specialty includes beds for: general surgery, maxillofacial surgery, pediatric surgery, plastic and reparative surgery, cardiovascular surgery, neurosurgery, thoracic surgery, endocrine surgery, oncological surgery, orthopedics-traumatology and urology; 3) The specialty of psychiatry and neuropsychiatry includes beds for psychiatry, neuropsychiatry and neuro-psycho-motor recovery.

beds), surgery (1.2 thousand more beds) and recovery, physical medicine and balneology (1.9 thousand more beds).

The structure of hospital beds by specialty which, in 2020 and 2021, changed due to measures taken to treat COVID-19 patients, changed again in 2022, by redistributing the necessary beds, and allocating them to the specialties necessary to stabilize and optimize the health status of the population. Therefore, in 2022 compared to 2021, the number of beds for continuous hospitalisation in the following specialties increased: neurology, recovery, physical medicine and balneology and surgery.

An important indicator that reflects the morbidity of the population is the structure of patients discharged from hospitals according to diagnosis. Some of the most common diagnoses of the discharged patients are determined by the respiratory system diseases, circulatory system diseases, neoplasms, digestive system diseases and infectious and parasitic diseases.

Figure 2.7. Discharged patients by some classes of diseases, in 2022



Source: National School of Public Health, Management and Professional Development

Note: The indicators were calculated with the usual population on July 1, 2022. The data are provisional. The data refer to patients discharged from continuous hospitalisation.

From data on the number of discharged patients (in continuous hospitalisation) collected from clinical reports of hospitals (public and private) on the minimum data set at the patient level, who received hospital services within the social health insurance system, during 2012-2022, most were diagnosed (main diagnoses) with diseases of the circulatory and respiratory systems. At the same time, neoplasms represented the third diagnosis among patients discharged from continuous hospitalisation, in 2022 this diagnosis had a frequency of 1.8 thousand patients discharged per 100 thousand inhabitants, increasing by 22.7% compared to 2021. In 2022 the number of patients discharged whose main diagnosis were circulatory

diseases, was 2.1 thousand persons per 100 thousand inhabitants, and in the case of respiratory diseases, 1.9 thousand persons per 100 thousand inhabitants.

The average length of hospitalisation has decreased during the analysed period, from 7.5 days in 2012, to 7.3 days in 2022, while in the years marked by the COVID-19 pandemic it has increased to 7.8 -7.9 days. Taking into account the main causes of illness that determine the discharge, the class of diseases with the longest average duration of hospitalisation is that of infectious and parasitic diseases, the average duration of hospitalisation however decreasing during this period, from 12.0 days of hospitalisation, in 2012, to 9.2 days of hospitalisation in 2022.

2.3.3. Disparities in accessing healthcare services

At national level, the access to healthcare services depends, mainly, on the existence and distribution of the healthcare system infrastructure, but also on the available human and financial resources. The small number of healthcare units in rural area, in particular hospitals, long distance to get to a specialised clinic, the costs or waiting lists are the most relevant factors that determine the disparities in population access to healthcare services. Such obstacles, although indirect, unfavourably influence the general health of the population. Basically, a high level of welfare is reflected by a better health and a better coverage of medical needs, by whatever means this occurs.

Since 2012 up to present, inequalities have been maintained in terms of the population's access to health services between residential areas (rural and urban), but also inequalities between different development regions. The indicators that can highlight the disparities regarding access to medical services are the number of persons per medical personnel and the number of outpatient consultations, by residential area and development regions.

In 2012, there were 1683 inhabitants, on average, to a physician⁷ in the rural area, 7 times more than in the urban area. In 2022, the average number of inhabitants per a physician in the rural areas was 1663 inhabitants, representing a decrease of 1.2% compared to 2012 and an increase of 0.9% compared to 2021. Although the situation has improved, the population's access to a physician in the rural areas has not evolved at the same level as that in the urban areas where, compared to 2012, the average number of inhabitants to a physician decreased by over 32.9% (from 225 inhabitants per physician in 2012 to 151 inhabitants in 2022).

The distribution of family physicians by residence area highlights large differences between the areas. Thus, the average number of inhabitants to a family physician, in rural areas, was 2231 inhabitants, representing an increase of 9.9% compared to 2012 and 2.5% compared to

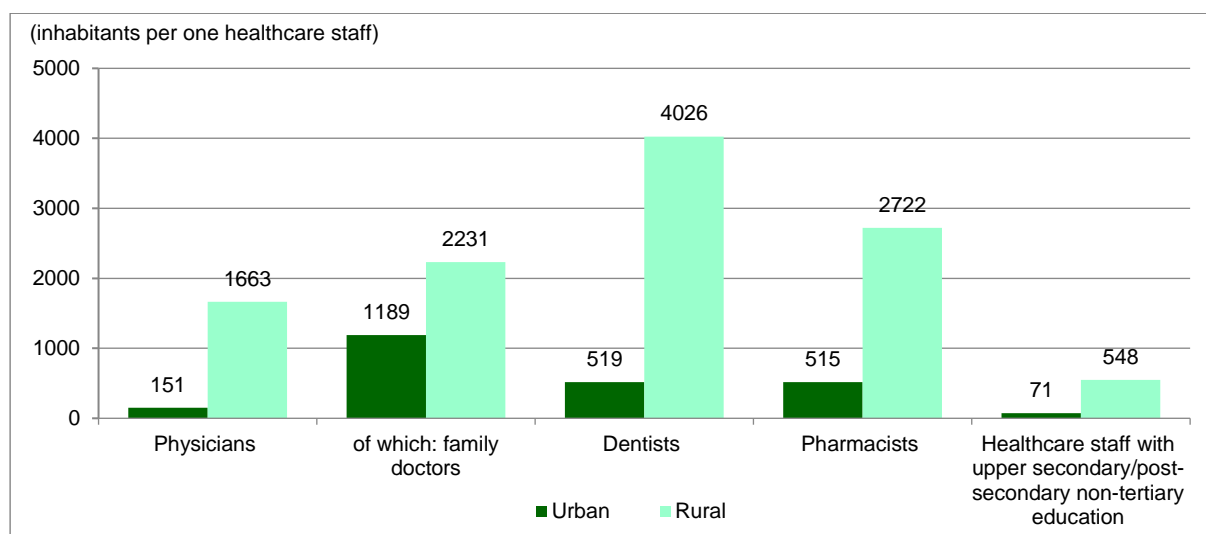
⁷ Dentists excluded

2021. In urban areas, a family physician provided services, on average, to a number of 1189 inhabitants, 1.3% more than in 2012 and 2.6% less than in 2021.

In the case of dentists, in 2012, the number of inhabitants to a dentist was 901 inhabitants in the urban area and almost 6 times higher in the rural area (5140 inhabitants). The situation has evolved positively in both residence areas, but disparities remain significant. Thus, in 2022, there were 519 inhabitants to a dentist in the urban area and 4026 inhabitants in the rural area, that is almost 8 times higher.

The differences are also maintained in terms of the number of pharmacists and that of the healthcare staff with upper secondary/post-secondary non-tertiary education, at the level of 2022 the average number of inhabitants to a pharmacist, in the rural area, being more than 5 times higher than in the urban area, and the number of inhabitants that belongs to a healthcare staff with upper secondary/post-secondary non-tertiary education almost 8 times higher in the rural area compared to the urban area.

Figure 2.8. Average number of inhabitants per one healthcare staff, by residence area, in 2022



Source: NIS, statistical survey "The activity of the medical and healthcare network"

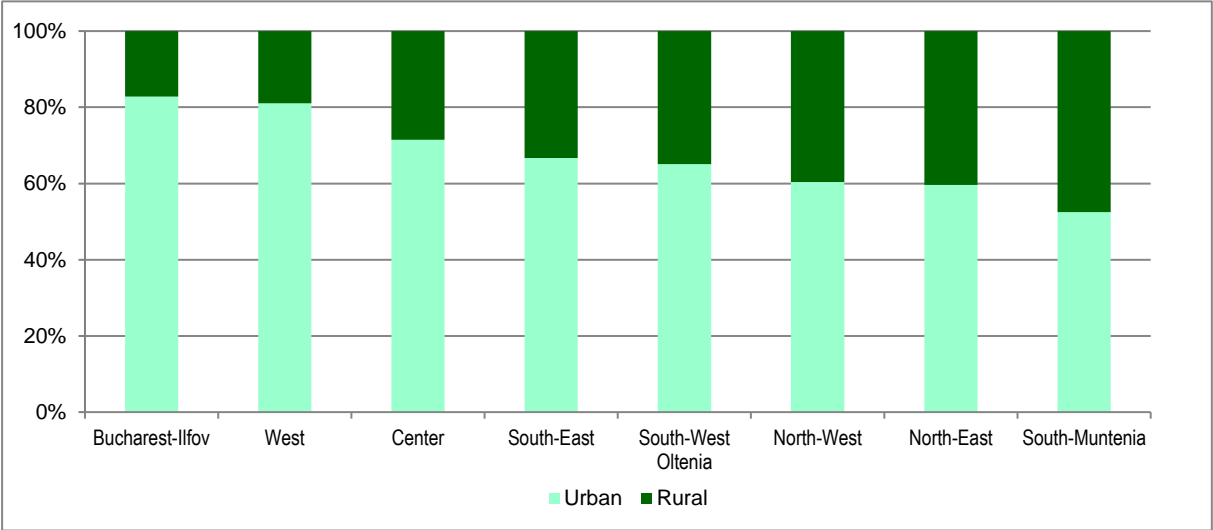
Note: The indicators were calculated using the usual resident population on 1st July of each year (2022). Data are provisional.

The disparities between residence area can be also observed for consultations provided as outpatient services. In 2022, the number of consultations provided to patients with legal residence in the urban area was about twice as high, even though that the number of persons with legal residence in the rural area is almost as numerous as in the urban area.

The population's access to medical services is different - between urban and rural areas - and at territorial level. In 2022, the number of visits by patients living in urban areas was higher in all regions of the country. However, the South-Muntenia region stands out as the difference between

the share of consultations by residential area in the total of consultations in the region was, in 2022, only 4.9 percentage points higher in the urban area. It should also be noted that although the greatest disparities by residential area were recorded in 2022, in the Bucharest-Ilfov Region, this situation is an exception, considering that the rural area is found only in Ilfov county, which is not a large county in terms of population.

Figure 2.9. Outpatient consultations, by residence area and development region, in 2022



Source: NIS, statistical survey “The activity of the medical and healthcare network”

2.4. Resources and expenditure of the national healthcare system

2.4.1. Infrastructure of the national healthcare system

Over the past two decades, the healthcare system infrastructure has undergone significant changes, both in the public and in the private sector. The number of units providing healthcare services has risen steadily, but certain categories of establishments have permanently disappeared, particularly in rural areas (e.g. rural polyclinics). In parallel to the changes in the public sector infrastructure, the private sector infrastructure has expanded greatly providing alternatives for almost the whole range of healthcare services and healthcare units. The development trends of this sector are due to the fact that the private sector can offer quality services and technical performance, being influenced mainly by the increase in demand for medical services and the development of the private health insurance segment, purchased by the population or paid by employers. More and more patients are choosing private medical healthcare providers, either through services covered by the National Health Insurance House, or through private health insurance, or through direct payments to the medical service provider.

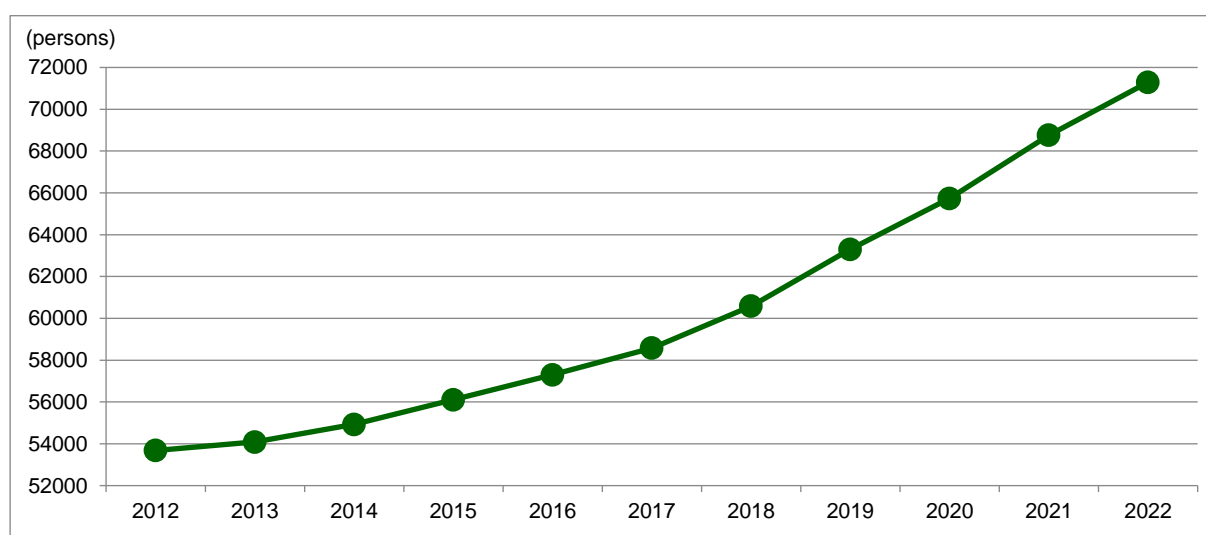
However, although it has grown exponentially in recent years, the private health system is, in terms of size, behind the state one.

In 2022, there were 544 hospitals in our country, most of them in the public sector (68.8%). At the same time, in the private sector the number of hospitals has increased significantly, and their typology is much more diverse, leading to the need for their separate identification in public statistics. Thus, in 2022, in the private sector, in addition to the 170 private hospitals that provided continuous hospitalisation services or continuous and day hospitalisation services, 158 health units assimilated to hospitals were also registered, which only offered hospitalisation services of day for a diverse range of medical specialties.

2.4.2. Healthcare staff⁸

The number of physicians increased continuously during 2012-2022, representing an increase of 32.8%, from 53.7 thousands physicians in 2012 to 71.3 thousands in 2022. In the context of the evolution of the COVID-19 pandemic and post COVID-19 during 2022 and the overburdening of hospitals and medical staff, the number of physicians has increased by 2533 compared to 2021, the most obvious increases being directly correlated with the pandemic and highlighted by the increases in the number of physicians in the main medical specialties involved in the treatment of COVID-19 patients and in the managing the spread of the virus.

Figure 2.10. Number of physicians, during 2012-2022



Source: NIS, "Activity of Sanitary Units". Starting with 2020, statistical survey "The activity of the medical and healthcare network".

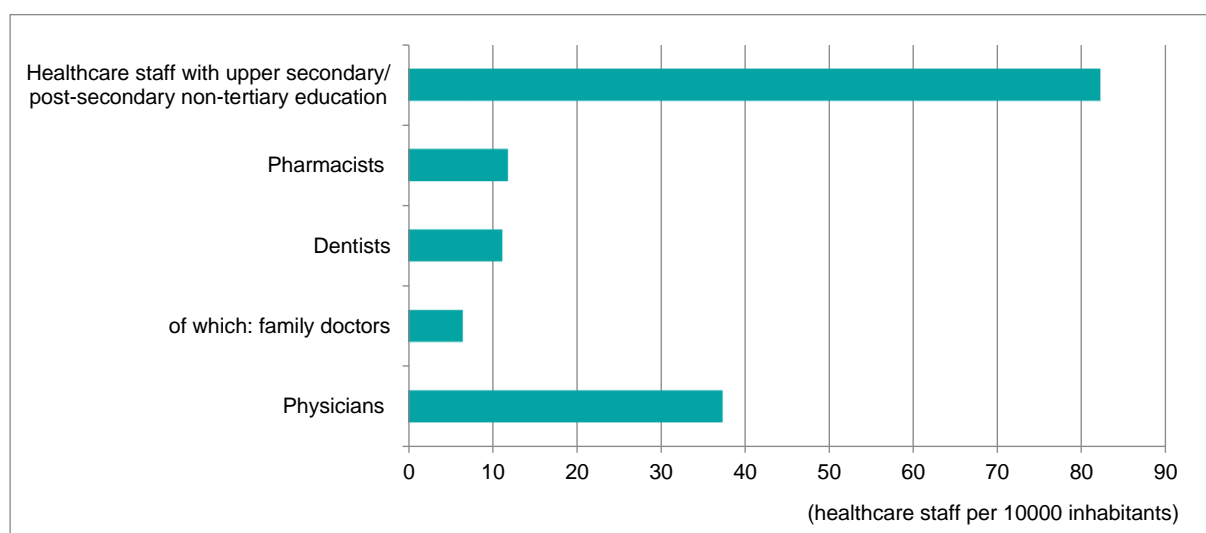
⁸ Statistical data on the healthcare staff only refer to the staff in the public or private healthcare unit where they have concluded their main employment contract. No statistics are available on the healthcare staff operating in several healthcare units, either in the public or private sector.

In 2022, family doctors represented 17.5% (12445 persons) of the total number of physicians (71293 persons). The number of dentists increased in the period 2012-2022 from 13.8 thousand dentists in 2012 to 21.4 thousand in 2022. Another significant increase in the period 2012-2022 was registered among pharmacists, their number reaching in the year 2022, 22.7 thousand, 5.5% more than the previous year.

The evolution of the number of healthcare staff with upper secondary/post-secondary non-tertiary education also had an upward trend, from 125.1 thousand persons in 2012 to 156.7 thousand persons in 2022.

In the period 2012-2022, the number of health personnel per 10,000 inhabitants increased from 26.8 physicians, 6.9 family doctors, 6.9 dentists, 7.7 pharmacists and 62.4 healthcare staff with upper secondary/post-secondary non-tertiary education in 2012, to 37.4 physicians, 6.5 family doctors, 11.2 dentists, 11.9 pharmacists and 82.3 healthcare staff with upper secondary/post-secondary non-tertiary education in 2022.

Figure 2.11. Main categories of healthcare staff per 10000 inhabitants, in 2022



Source: NIS, statistical survey "The activity of the medical and healthcare network"

Note: The indicators were calculated with the usual resident population on July 1, 2022, provisional data.

The growing demand for private health services has increased the need for medical personnel, this being covered by the recruitment of personnel, the part-time employment of some specialists or even the migration of medical personnel from the public to the private sector.

2.4.3. Expenditure of the healthcare system

The capacity of the health system to respond to the medical needs of citizens is limited by various factors, of which underfunding is only one of the most discussed. Between 2012-2021, current expenses for the health system increased by over 174.6%, reaching 76.9 billion lei in

2021. Current healthcare expenditure are financed from various sources, the main source being public administration schemes and financing schemes with compulsory contributions to the health insurance scheme. In the period 2012-2021, the share of public schemes in financing the healthcare system increased from 76.9% in 2012 to 78.3% in 2021.

Table 2.1. Healthcare expenditure, by main financing source, during 2012-2021

Healthcare financing sources - HF	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Government schemes and compulsory contributory healthcare financing schemes	21548.0	26179.2	26566.8	27479.9	29928.4	34755.4	42194.5	48900.8	53315.5	60263.1
- Government schemes	2795.4	4264.3	4442.9	4755.8	5003.2	6843.5	8485.7	9385.7	11651.8	14016.7
- Compulsory contributory healthcare insurance financing schemes	18752.6	21914.9	22123.8	22724.1	24925.2	27911.9	33708.8	39515.1	41663.7	46246.4
Voluntary healthcare payment schemes	181.9	160.0	232.0	245.1	350.4	379.9	429.3	411.7	467.0	557.3
- Voluntary health insurance schemes	60.7	60.7	78.3	98.8	181.3	240.5	288.4	268.5	331.8	379.1
- Non-profit institutions serving households (NPISH) financing schemes	94.2	72.1	115.5	125.3	143.6	93.2	91.9	96.9	99.7	131.5
- Enterprises financing schemes	27.1	27.3	38.2	21.1	25.4	46.3	49.0	46.3	35.4	46.7
Household out-of-pocket payment	6282.7	6657.5	6831.6	7495.6	7930.3	9053.5	10297.1	11475.0	12637.1	16111.4
- Out-of-pocket payments, excluding co-payments	4771.4	5130.9	5131.1	5719.5	5929.3	6953.3	8084.3	9176.8	10268.1	13613.2
- Cost-sharing, with third payers	1511.3	1526.6	1700.5	1776.1	2001.0	2100.2	2212.9	2298.2	2369.0	2498.2
Current healthcare expenditure	28012.6	32996.8	33630.4	35220.7	38209.1	44188.8	52920.9	60787.5	66419.7	76931.8

Source: INS, System of Health Accounts in Romania; the differences arising from summation are due to rounding, the data in the Annexes being represented with 3 decimal places.

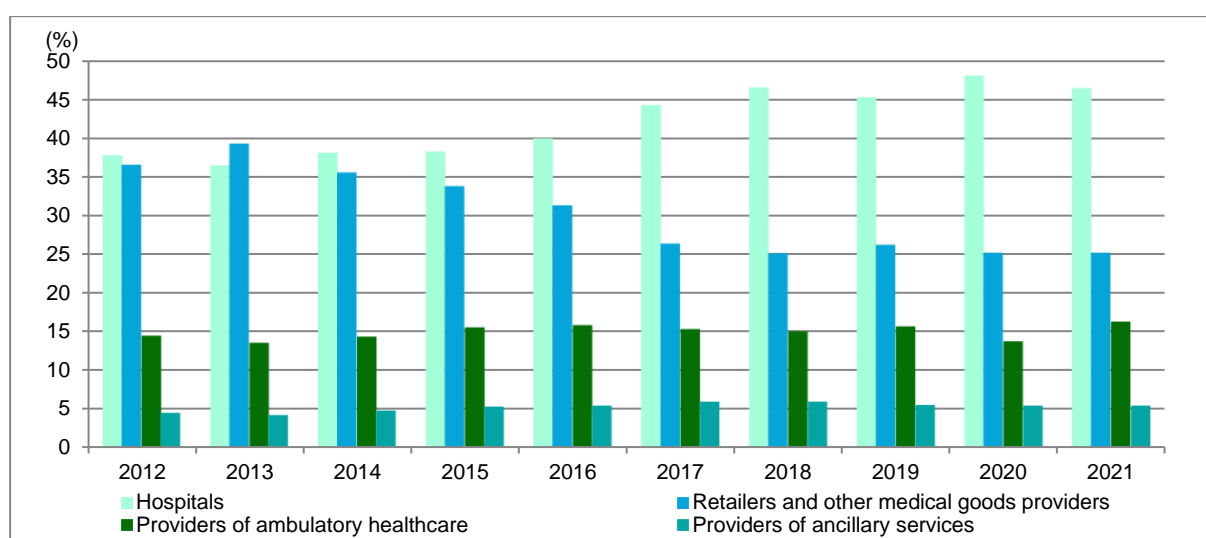
The household out-of-pocket payments for healthcare represents the second financing source for the healthcare system, after the social health insurance scheme. The population's expenses for the purchase of medical goods and services increased by 156.4% during the analysed period, from 6.3 billion lei in 2012, to 16.1 billion lei in 2021, but their share in total current expenses decreased from 22.4% in 2012, to 20.9% in 2021.

Insufficiently developed in our country, voluntary healthcare payment schemes are financing an insignificant share of the population's healthcare costs, representing 0.7% of total current expenditure in 2021.

In the period 2012-2021, from the perspective of health service providers, the most important healthcare expenditures were recorded for services provided in hospitals (46.4% in 2021), followed by those for providers of medical goods (25.2%) and for providers of outpatient services (16.1%).

In 2021, the largest amounts of the national health system were spent in general hospitals and pharmacies, healthcare expenditures in general hospitals were 35.2% of the total current expenditures, while pharmacies had a share of 22.6%. The share of expenditures in specialised hospitals (other than psychiatric hospitals) has evolved during this period from 4.7% in 2012 to 9.6% in 2021, with the development of the private sector playing an important role. Medical offices represented 10.1% of the total current expenditures of the health system and, among outpatient service providers, used the most important part of the healthcare system's funds (63.0% in 2021).

Figure 2.12. Current healthcare expenditure, by main categories of providers, during 2012-2021



Source: NIS, System of Health Accounts in Romania

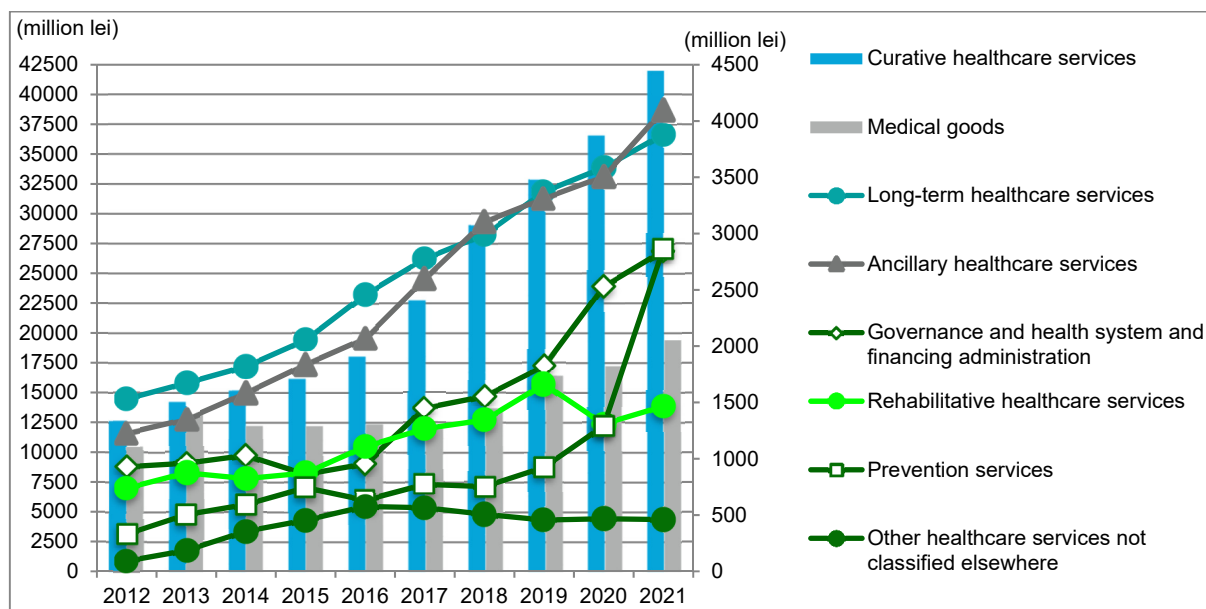
The administration of the national medical system, through the administration and financing institutions of the health system, accounted, in 2021, 3.7% of the total current expenditures of the health system.

Regarding the expenses for medical services, between 2012-2021, the curative care services accounted for the largest part of the total current expenditures, their share increasing from 45.3% in 2012, to 54.5% in 2021. Expenditures for medical goods (medicines and medical devices) also represent an important share of current health expenditure, but their share has decreased from 37.4% in 2012 to 25.2% in 2021.

In the total current expenditure, in 2021, the most significant amounts were recorded for curative care services for continuous hospitalisation provided in health units with beds (33.6%), for prescription-only medicines delivered by open-circuit pharmacies and in the pharmacies of healthcare units (13.3%) and for outpatient curative care services provided in medical and dental offices (11.2%). At the opposite pole are the prevention services which represent only 3.7% of the current healthcare expenditure, but which have registered a significant increase,

especially during the COVID-19 pandemic as a result of the vaccination campaign, but also of the increase in the financing of some early disease detection services and epidemiological surveillance programs.

Figure 2.13. Structure of current healthcare expenditure, by category of services, during 2012-2021



Source: NIS, System of Health Accounts in Romania

Among curative services, the highest expenditures in 2021 were made for those with continuous hospitalisation (61.7%), and among medical goods, the largest share (94.8%) was held by pharmaceutical products and other non-durable medical goods.

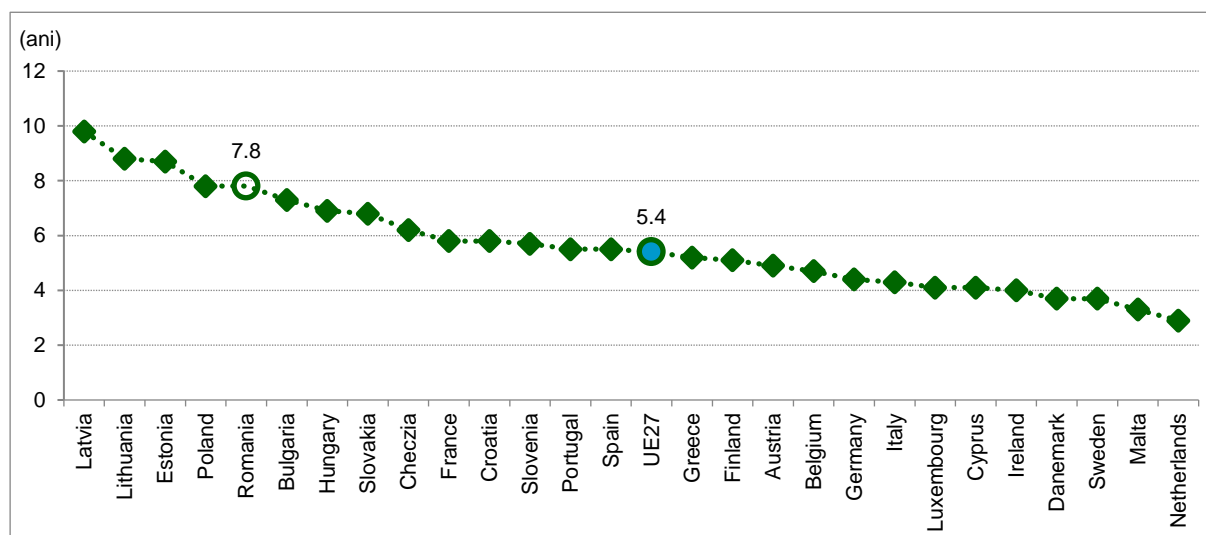
2.5. Health - approach in the international context

Healthcare systems around the world are organized and financed in many different ways. Non-financial and financial indicators can be used to evaluate how a health system aims to meet the basic needs of the population in terms of medical assistance, by quantifying the financial, human and technical resources in the field of healthcare. In general, countries with advanced economies allocate important resources to health financing, as a prerequisite for long-term sustainable development. Good health leads over time to an increase in labor force participation and productivity, therefore, being one of the main drivers of economic growth. The level and efficiency of healthcare resources, which depend primarily on the quality of public policies, determine the extent to which the health status of a country's population can be improved.

The World Health Organization (WHO) is an international organization that has the role of maintaining and coordinating the health situation of populations around the globe, being responsible for managing health issues worldwide, establishing the research agenda in the field of health, establishing norms and standards, evidence-based policy making. In this regard, the WHO launched the European Work Program 2020-2025 - "United Action for Better Health in Europe", which was adopted by the WHO Regional Committee for Europe in 2020, a program which, under the motto "no one is left behind" sets as priorities moving towards universal health coverage, better protecting the population in the face of healthcare crises and ensuring a healthy life and well-being for all at all ages.

In 2022⁹, life expectancy in Romania was 5.4 years less compared to the average of EU-27 Member States. According to Eurostat, in 2022 (the latest year available for EU-27) the average life expectancy in the European Union was 80.7 years, and in Romania for 75.3 years, increasing compared to 2021 when it was 72.8 years. Together with the Baltic countries and Bulgaria, Romania ranks among the countries with the lowest life expectancy at birth in EU-27. Within this group of countries Bulgaria has the lowest life expectancy at birth (74.3 years), followed by Letonia (74.8 years), Romania (75.3 years), Lithuania (76.0 years) and Hungary (76.2 years). The highest values for life expectancy at birth in 2022 were recorded in Spain (83.2 years), Sweden (83.1 years), Italy and Luxembourg (83.0 years).

Figure 2.14. The gap in life expectancy at birth between women and men in the EU27, in 2022



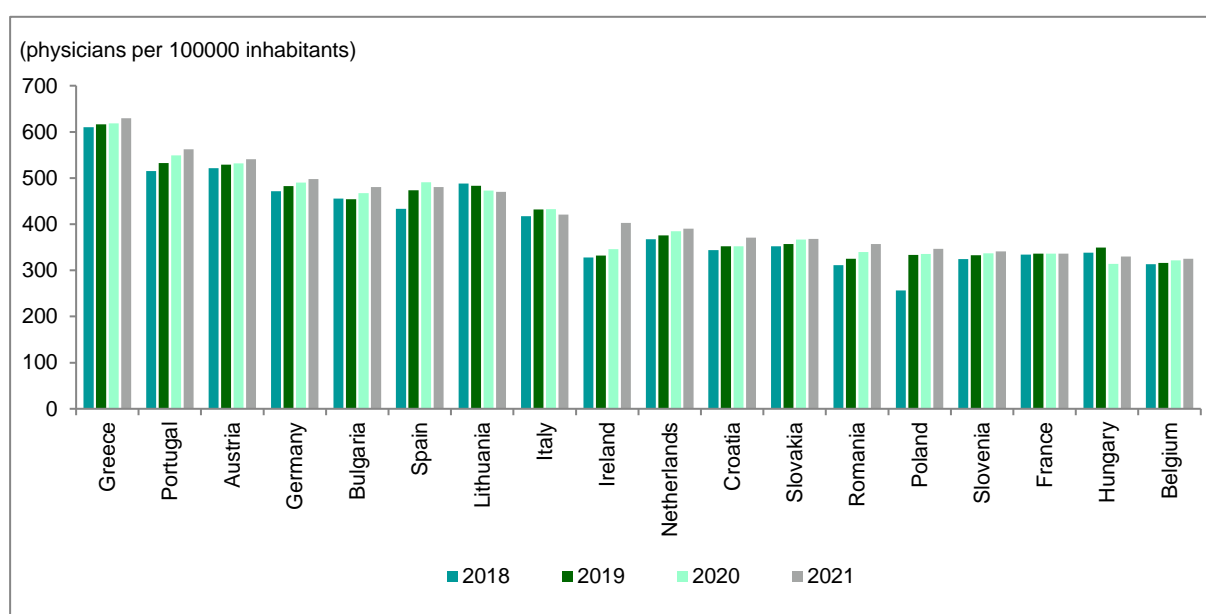
Sursa: Eurostat, 2023, <https://ec.europa.eu/eurostat/databrowser/view/TPS00205/default/table?lang=en>

Note: The reference year for data for the EU (27 countries) is 2022, and for Germany and Ireland is 2021, the latest years published by Eurostat.

⁹ Eurostat: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_mlexpec&lang=en

One of the key indicators for measuring the capacity of health systems to cope with the health care needs of the population is the total number of physicians, expressed per 100 thousand inhabitants¹⁰. Although in Romania the values of the indicator have increased in recent years (357 physicians per 100 thousand inhabitants in 2021, compared to 268 physicians per 100 thousand inhabitants in 2012 and 311 in 2018), the number of physicians still remains low for covering the healthcare needs of the population compared to other European states. Lower values of the indicator were recorded in Belgium (325 physicians per 100 thousand inhabitants, in 2021). The highest values of this indicator were recorded in Greece (629 physicians per 100 thousand inhabitants, in 2021).

Figure 2.15. Number of active physicians to 100000 inhabitants, in some EU Member States



Source: Eurostat, <http://ec.europa.eu/eurostat/data/database>

The financing of healthcare expenditure is carried out, in almost all the member countries of the European Union, mainly by the public administration and additionally by the private sector. According to Eurostat data, in Romania, in 2021, current health expenditure represented 6.5% of GDP¹¹, compared to the countries with the highest amounts spent on health, such as France, Germany, Austria and Belgium. As in the other member states, in Romania the balance is tilted in a significant degree towards the public sector, with 78.3% of current expenditure in 2021, the main source of funding for public expenditure on health being the financing schemes of compulsory healthcare contributory insurance system. In this context, the private healthcare system appears as a viable alternative to complement the public healthcare system whose

¹⁰ 2021 is the last year for which Eurostat published data on the "number of active physicians per 100,000 inhabitants".

¹¹ <https://ec.europa.eu/eurostat/databrowser/view/tps00207/default/table?lang=en>

mission for the period 2023-2030 is to create a "responsive, friendly and transparent healthcare system that offers informed choices and high quality services for citizens, opportunities for development and motivation for health professionals, ensures safe and welcoming healthcare facilities, adequate investments in the health of the population and communities, and assumes the role of leader in all decisions concerning the state of health"¹².

¹² *National Health Strategy 2023-2030*

3. EDUCATION

3.1. Survey objectives

Education entails many benefits for the society, many of them having major impacts on how national economy is developing. “A country able to achieve results on literacy 1% higher than international average will reach a level of labour productivity and of the GDP per capita by 2.5% and 1.5% respectively higher than those of other countries” (Barro, 2001).

Educational statistics are the main national educational policy guidance, as one country's population education has a strong impact on the labour market and economic and social development.

The statistical surveys in the field of education provide the necessary information for describing the operating condition and performance levels of the education system and analysing developments over time and space in the field of education. They also ensure comparable data at national and international levels for users involved in drawing up, implementing and evaluating educational policies, and also for the academic and business environments as well as for the general public.

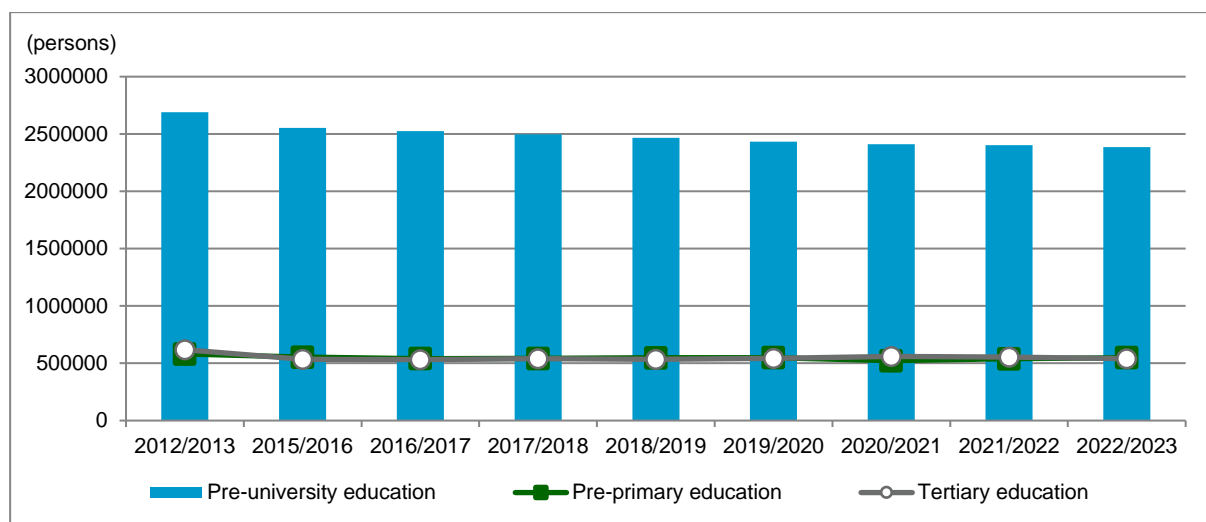
3.2. School population trends

The resident school age population aged 0-23 years is the primary segment of the children and young people enrolled in the educational system. The downward trend of the usually resident population is extending over the school population. Thus, if during the school/academic year 2012-2013 the number of pupils/students in Romania was 3.9 million people, in the school/academic year 2022-2023 it has reached only 3.5 million people. The main cause of school age population decline is directly linked to the negative natural increase over the last two decades, as well as to international migration.

Following the Covid-19 pandemic, activities specific to the educational activities in Romania have resumed physically with children/pupils/students attending the educational

establishments/institutions classes/courses. In the 2022-2023 school/academic year, 15.8% of the total school population were pupils in early-childhood education and development and pre-primary education, 68.7% were enrolled in pre-university education, and 15.5% were tertiary education students.

Figure 3.1. School population, by education level, during 2012-2022



Source: NIS, Statistical surveys on education

The comparative analysis of the school population in the school year 2022-2023 compared to 2012-2013 school year shows that, in relative terms, the largest decrease in the school age population (- 12.9%) was recorded in tertiary education. Furthermore, pre-primary education has a number of children 10.2% lower compared to 2012-2013 school year, while the school population in pre-university education¹ has decreased by 11.3%.

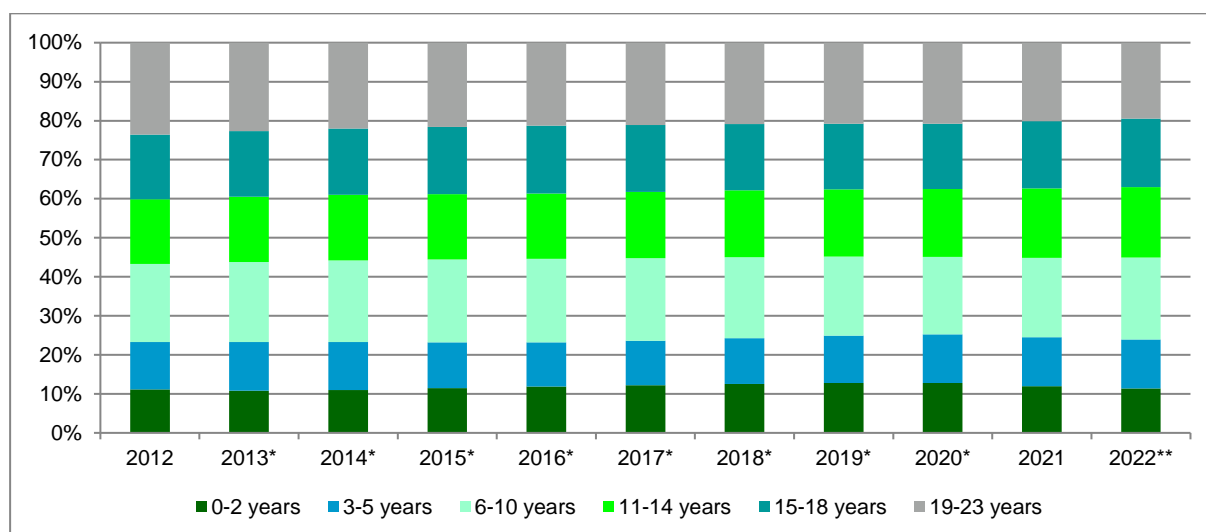
In the 2022-2023 school year, 67.4% of the total students in pre-university education were enrolled in primary and lower secondary education², and 0.7% had disabilities. Most of the students with disabilities were learning in special schools, the curricula being appropriately adapted to their needs of education, recovery and social integration.

In accordance with the legislation in force, the age groups for the school population are: 3-5 years, 6-10 years, 11-14 years, 15-18 years, 19-23 years and over, each age group corresponding to certain levels of education. The structure of the school age population is relatively balanced, both by age groups and as in dynamics.

¹ Pre-university education includes primary, lower secondary, upper secondary, vocational and post-secondary non-tertiary education

² Primary and lower secondary education also comprises special needs education

**Figure 3.2. Structure by school age group of the usually resident population
(as at July 1st), during 2012-2022**



Source: NIS, Statistical surveys on education

* Revised data

** Provisional data

Since 2014, education statistics have also included the age group 0-2 years, specifically for early childhood education and development. The number of children attending early childhood education and development programs (in nurseries) in the 2022-2023 school year accounted for 4.8% of children up to two years old.

The structure by sex of the school age population does not reflect significant disparities, the share of female population being almost equal to that of male school population.

3.3. Educational system quality

The legislative and procedural changes in education have been a constant priority within policies and strategies in the field of education. However, the way in which they were implemented varied over time and took place in a series of stages.

In the direction of promoting educational and practical training alternatives aimed at facilitating access to the labor market for the population in rural areas, where the network of high schools is not as developed as in urban areas, the education legislation allowed the reorganization of vocational education (since 2011), which was subsequently also found in its form of dual education (since 2017), for level 3 vocational qualifications. These specialized accelerated professionalization programs, aimed at 8th grade graduates, are carried out in close partnership with the business world and are based on a partnership contract between the economic operator, the educational institution and the administrative-territorial unit, as well as

on individual internship contracts between the economic operator, the pupil/parent/guardian and the educational institution. Applications for work-linked training are submitted by economic operators to the National Center for the Development of Vocational and Technical Training (CNDIPT).

Amendments made in 2013 to the Law on education set forth a 11-year duration compulsory education (from the preparatory grade to the 10th grade), namely the first cycle of upper secondary education became part of compulsory education. In 2020, the Law on Education was again amended, with the adoption of the extension of compulsory education to all upper pre-school and upper secondary education, and by 2023, compulsory education will also include middle school, and by 2030, lower pre-school. In addition, by another regulatory act in 2019, agricultural high schools were placed under the Ministry of Agriculture and under the coordination of the Ministry of Education.

In Romania, education is provided mostly through the public system, the private schools network in pre-university education experiencing steady annual growth. Thus, in the school year 2022-2023, compared to the starting year of the time series analyzed, i.e. the school year 2012-2013, the most significant relative increases in the number of private kindergartens and secondary schools are recorded (+83.3% and +82.3%, respectively).

Within the national educational system, courses are organised by mode of study (full-time classes, evening classes, part-time classes and distance education, subject to the educational level), most of pupils and students being enrolled in full-time education.

The functioning of the education system according to national quality standards automatically implies guaranteeing access to quality education and promoting learning opportunities for all members of a society. Romania continues to make progress in improving the education system and the corresponding offer of specializations, qualifications and curricula, so that it consistently meets the needs of the labour market and achieves the sustainable development goals set by the sectoral and national strategies currently being implemented.

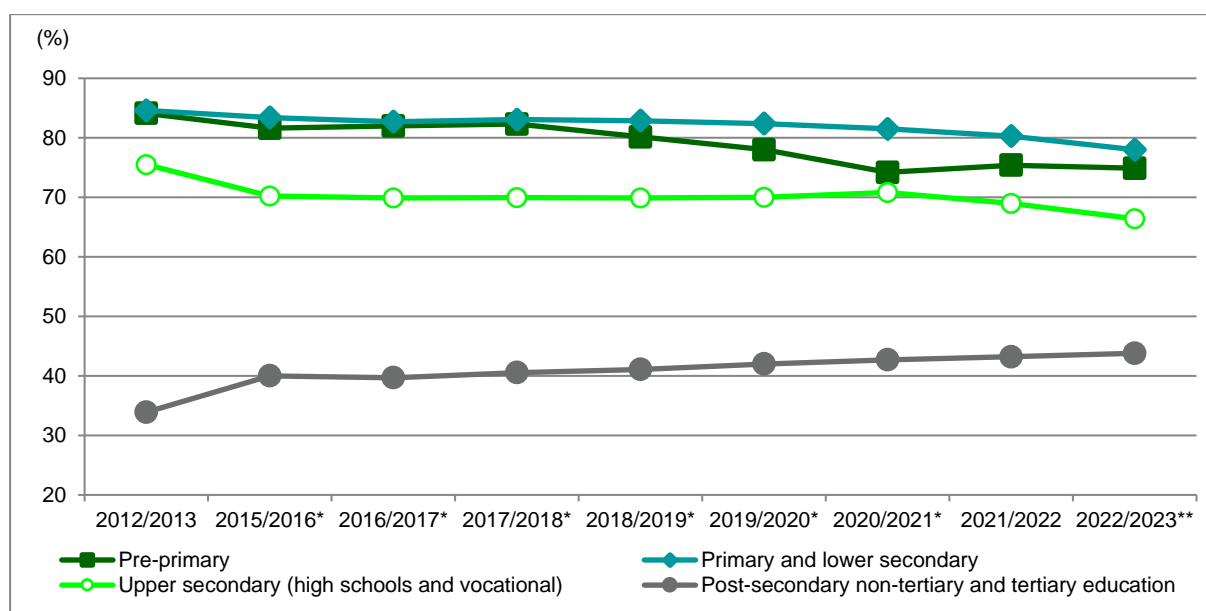
3.3.1. Enrollment in formal education

One of the most comprehensive forms of training - formal education - holds an important place in social policies drawing up. The school population (official age group 0-23 years) in formal education is the trigger for the development of a nation's human capital. The access to education for all the society members, irrespective of their intellectual, socio-economic, familial, ethnic or religious characteristics, is a priority objective for all educational systems in most countries.

In Romania, during 2012-2022, enrollment in formal education developed differently for all education levels and for most levels in a disadvantageous way. In pre-primary education, for example, the non-enrollment phenomenon obviously became sharper, the net rate of enrollment in education showing a downward trend, from 84.1% in the school year 2012/2013 to 74.9% in the school/academic year 2022-2023.

In primary and lower secondary education during the period under review, participation in education decreased from the value recorded in the 2012/2013 school year (84.6%) to 78.0% in the 2022-2023 school year.

Figure 3.3. Net enrollment rate, by education level, during 2012-2022



Source: NIS, Statistical surveys on education

Note:

- For the calculation of net enrollment rate, the usually resident population as at July 1st of each year was used.
- Starting with the 2012/2013 school year, in accordance with the legislation in force (Law on Education no. 1/2011), the age groups for the school aged population are: 3-5 years, 6-10 years, 11-14 years, 15-18 years, 19-23 years and over.
- Starting with the 2014/2015 school year, this indicator also includes the number of children in nurseries, with a new age group being created for children aged 0-2.

* Revised data

** Provisional data

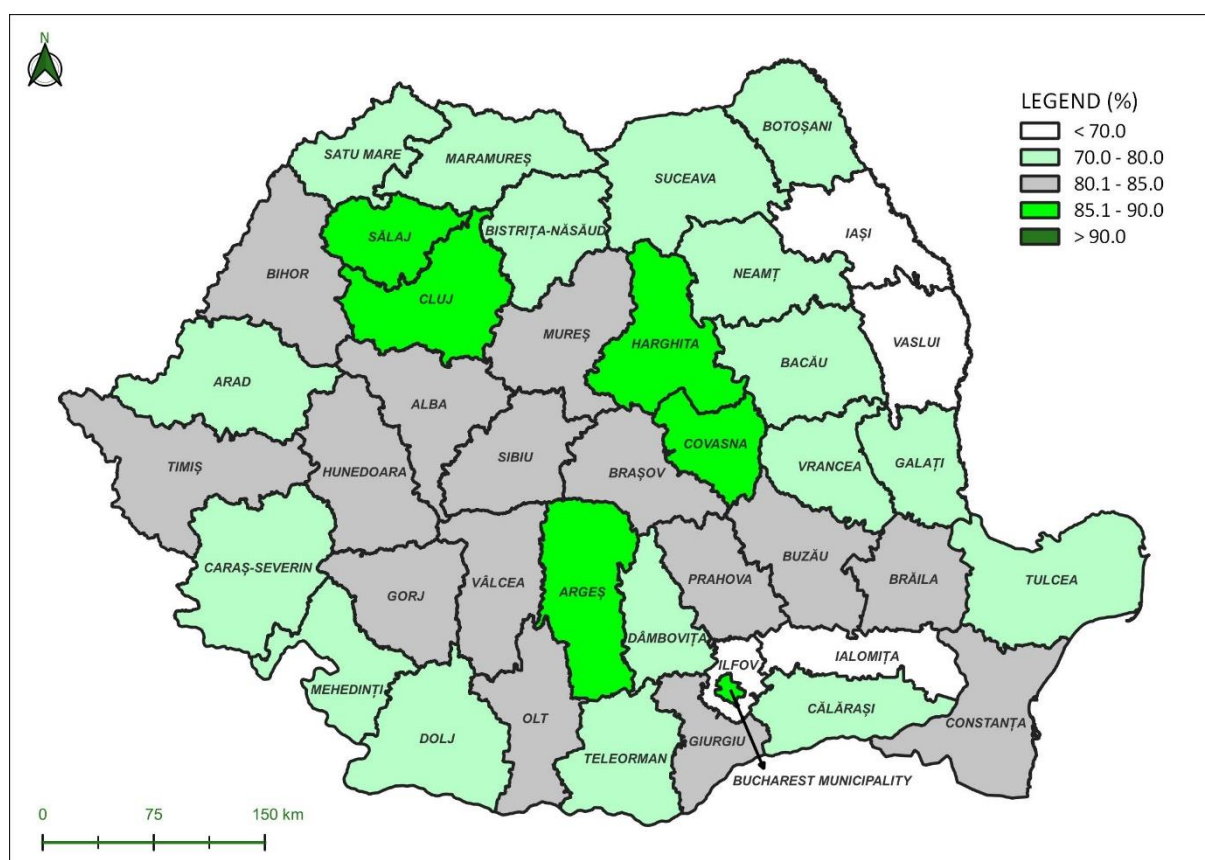
In post-secondary non-tertiary education as well as in tertiary education, though the net enrollment rate almost doubled during the analysed period, the value for the indicator remains at low levels (43.8% in the 2022-2023 school/academic year). In what concerns the two levels of education (post-secondary non-tertiary and tertiary education), the main reason for the low enrollment rate is the typical age group, respectively 19-23 years, ages where a significant share of the population chooses to join the labour market.

The territorial distribution of enrollment in each level of education illustrates significant differences between counties. The highest net enrollment rate in the school/academic year

2022-2023 is recorded in Bucharest (93.0%), and Cluj is the next in the hierarchy (87.5%). At the other end of the scale, the lowest enrollment rates were recorded in Ilfov (35.9%), Ialomița (44.7%) and Vaslui (46.1%) counties.

Bucharest, Harghita, Covasna, Cluj, Argeș, and Sălaj are among the counties registering a primary education enrollment rate above 85%, namely: 89.9%, 87.5%, 86.9%, 86.8%, 85.9% and 85.2%, respectively.

Figure 3.4. Territorial distribution of net enrollment rate in primary education in 2022-2023 school year

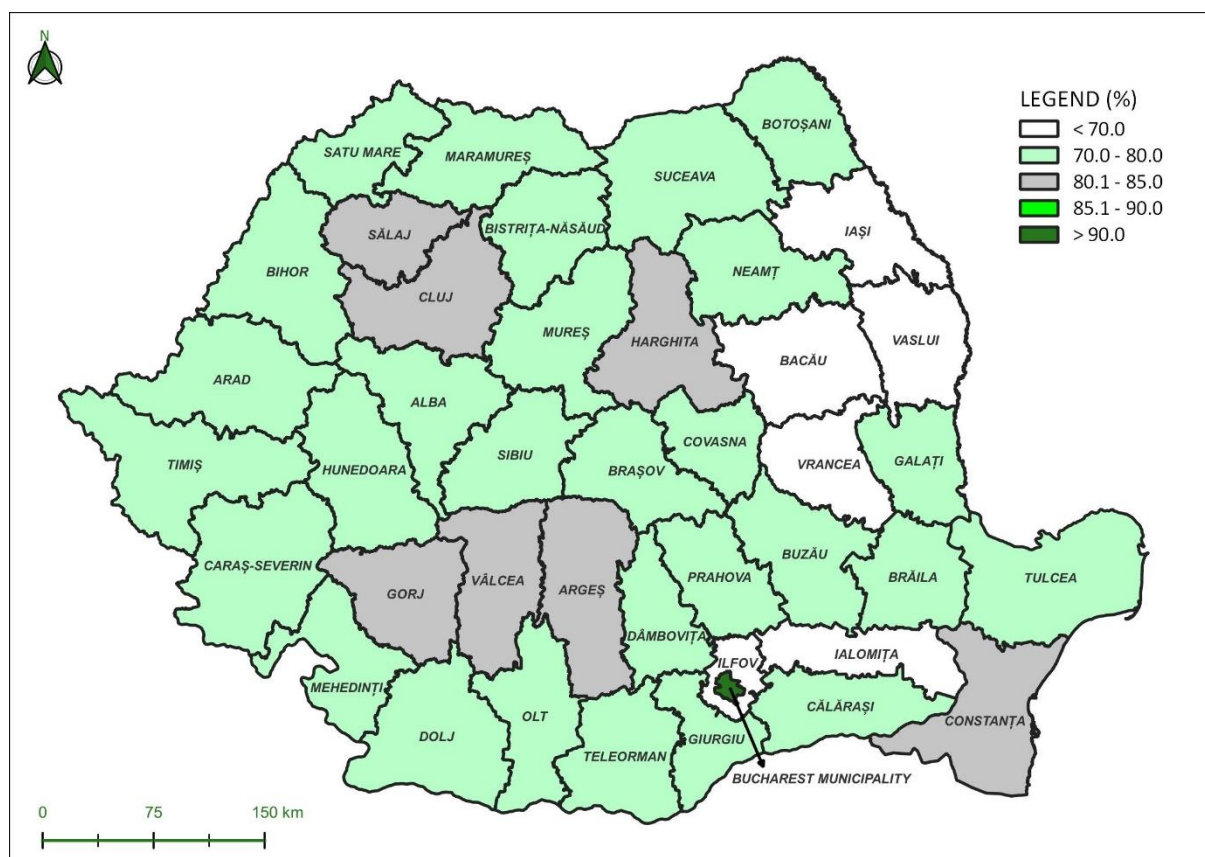


Source: NIS, Statistical surveys on education

Note: For the calculation of net enrollment rate, the usually resident population on July 1st was used.

The net enrollment rate in lower secondary education points out territorial disparities, the highest values of the net enrollment rate in secondary education were recorded in Bucharest (92.0%), followed by Argeş (82.5%), Cluj (82.2%) and Gorj (81.9%).

Figure 3.5. Territorial distribution of net enrollment rate in lower secondary education in 2022-2023 school year

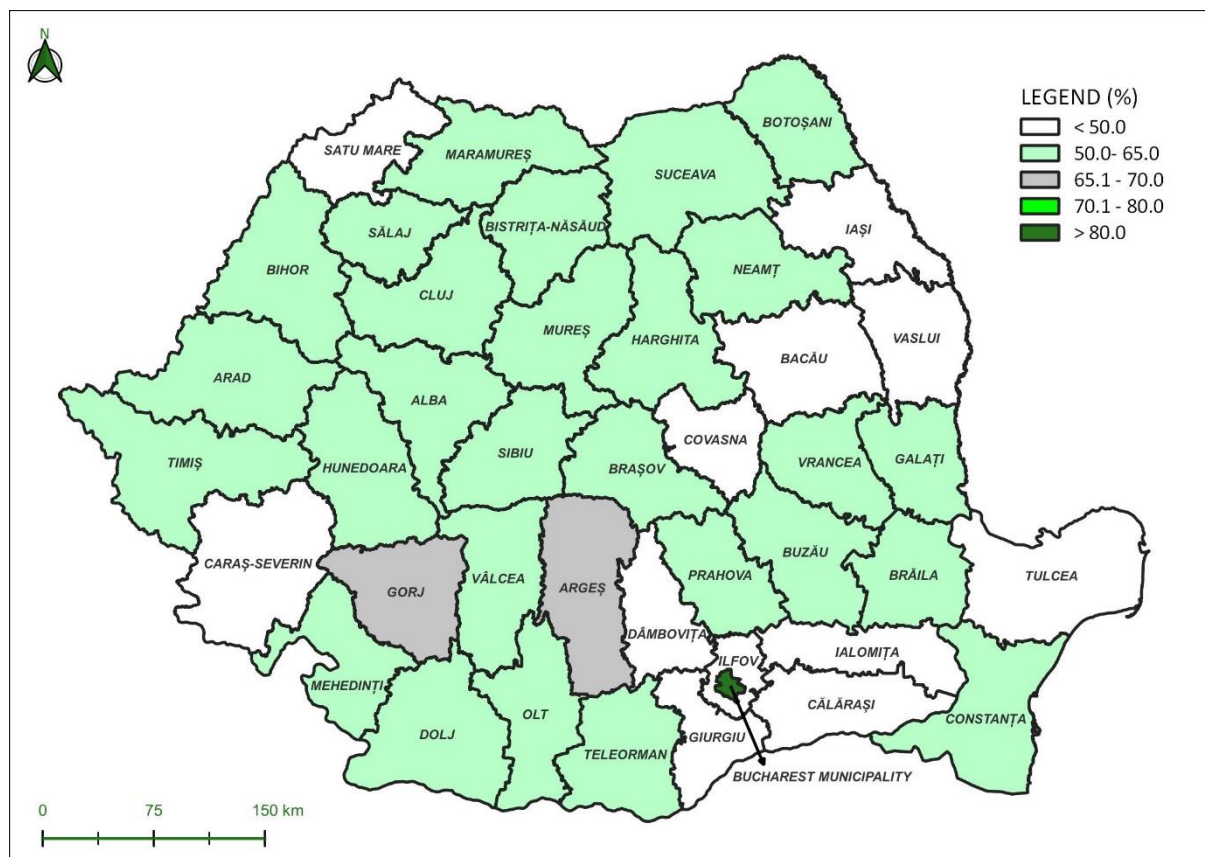


Source: NIS, Statistical surveys on education

Note: For the calculation of net enrollment rate, the usually resident population on July 1st was used.

Enrollment in upper secondary education is relatively evenly distributed at territorial level, the most common net enrollment rates ranging from 50.0% to 65.0%.

Figure 3.6. Territorial distribution of net enrollment rate in upper secondary education in 2022-2023 school year

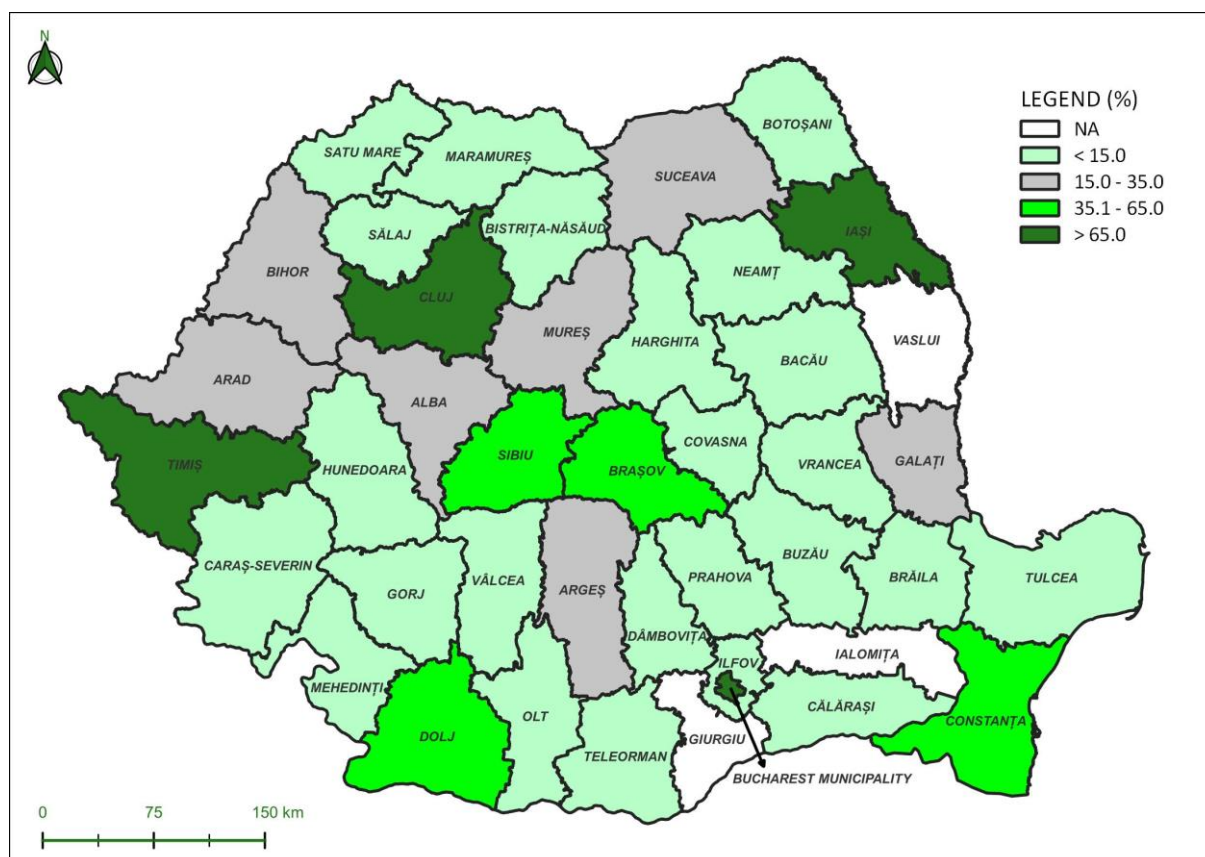


Source: NIS, Statistical surveys on education

Note: For the calculation of net enrollment rate, the usually resident population on July 1st was used.

In tertiary education, Romanian traditional university centres, such as Bucharest, Cluj, Iași, and Timișoara attract a large number of students, the tertiary education programmes net enrollment rates exceeding 65.0%.

Figure 3.7. Territorial distribution of net enrollment rate in tertiary education in 2022-2023 academic year

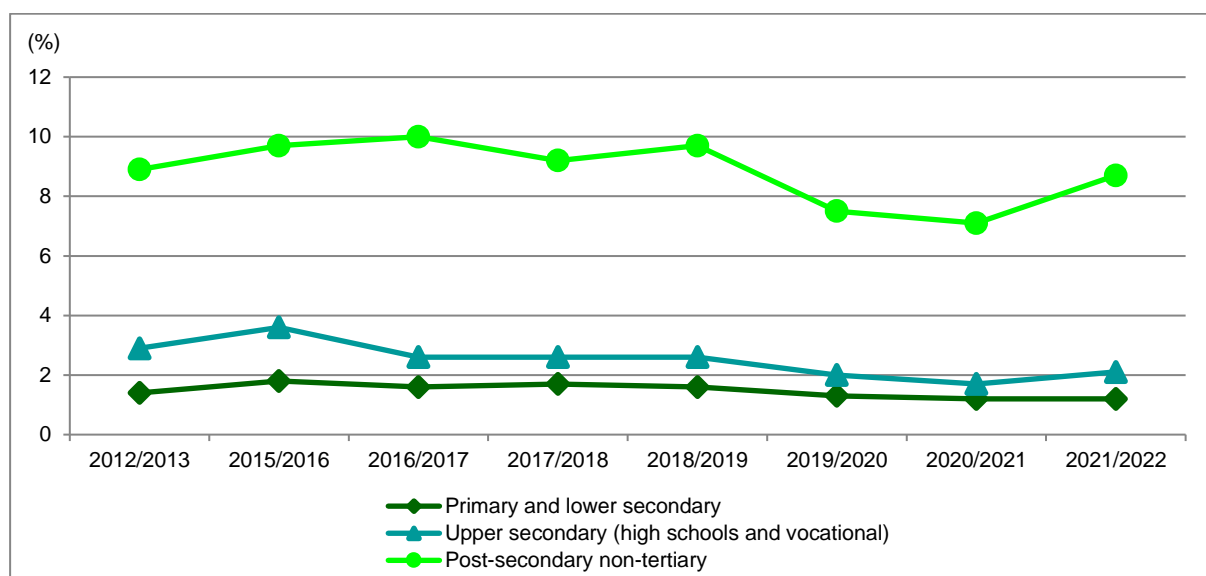


Source: NIS, Statistical surveys on education

Note: For the calculation of net enrollment rate, the usually resident population on July 1st was used.

Although social policies and strategies to enroll as many school-age children as possible in the national education system have been implemented at the national level, a significant proportion of children remain outside the system. A statistical indicator that points out the lack of enrollment is the dropout rate, calculated as the difference between the number of students enrolled at the beginning of the school year and the number of students enrolled at the end of the same school year, as a percentage of the number of students enrolled at the beginning of the school year. Dropout trends in recent years highlight Romania's vulnerability in terms of access to education.

Figure 3.8. Dropout rate, by education level, during 2013-2022

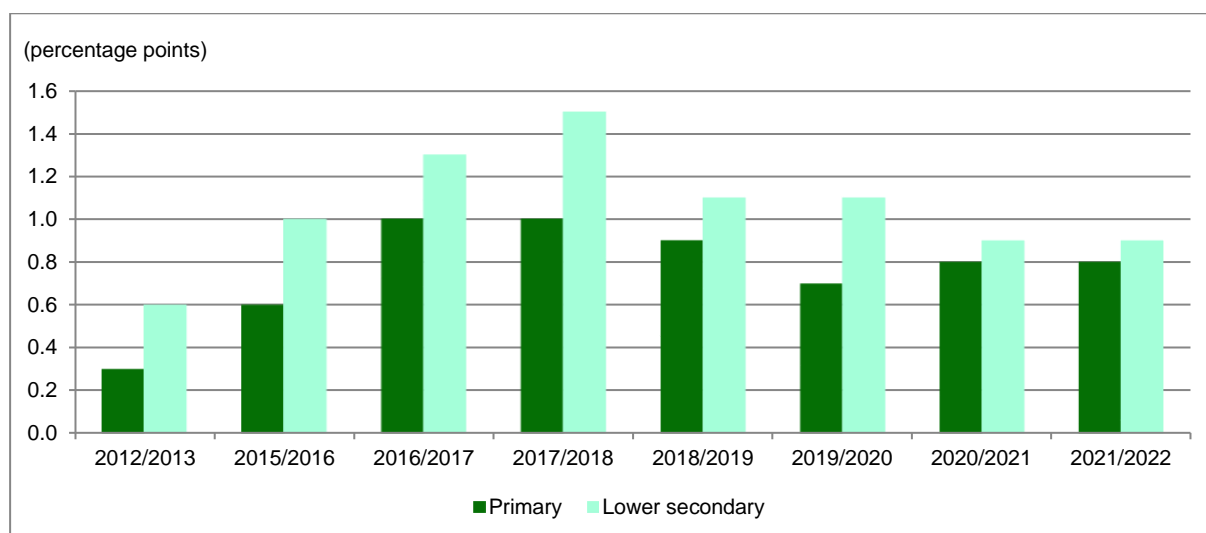


Source: NIS, Statistical surveys on education

Note: Dropout rates for primary and lower secondary education are calculated without including the number of pupils in special education.

By residence area, the dropout is frequently shown in rural area, in particular for lower secondary education. The most significant differences between urban and rural areas as regards the dropout rate in primary and lower secondary education were registered in the 2016-2017 and 2017-2018 school years).

Figure 3.9. Urban-rural differences in dropout rates for primary and lower secondary education, during 2013-2022



Source: NIS, Statistical surveys on education

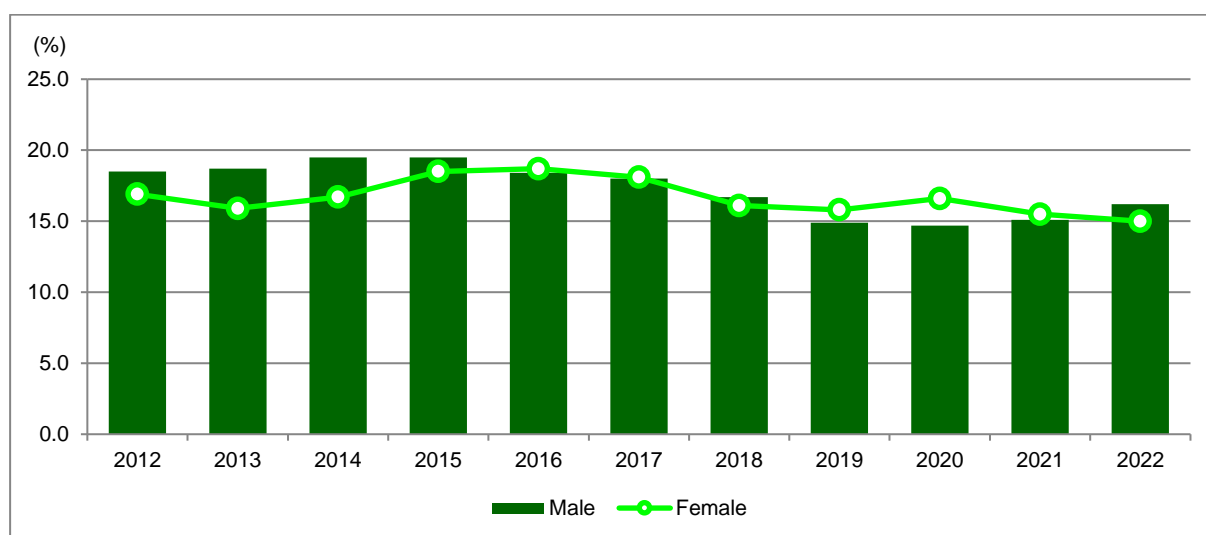
A more detailed assessment of the school losses, including dropouts, can be achieved by cohort analysis method. This measurement method requires the observance of a student cohort enrollment throughout a school cycle (from the preparatory grade and 1st to 4th grade, 5th to 8th grade) and the calculation of the losses recorded during this period due to dropouts, repetition or other causes (expulsion, death, etc.). Cohort analysis is an alternative way of assessing dropouts, since the current method (known as the entry/exit method) only observes dropouts recorded during one school year.

Early school leaving rate among young people is another relevant indicator ³ that reflects the enrolment. Romania is a worrying situation as regards the rate of early school leaving, although in recent years there is a declining trend of the phenomenon.

In Romania, the early school-leaving rate was 15.6% in 2022. For the period 2012 to 2022, the years 2019 and 2021 marked the lowest value in Romania for this indicator (15.3%).

Poverty, seasonal work carried out by children, the limited educational attainment of parents, a low accessibility of education services and limited infrastructure are among the factors which lead to early school leaving and the national strategy refers to.

Figure 3.10. Early (18-24 years) school leaving rate, by sex, during 2012-2022



Source: NIS, Household Labour Force Survey (LFS)

³ Defined as the share of the population aged 18-24 with low education level, not attending any type of education (either formal or non-formal) during the last four weeks before the interview, in total population aged 18-24 years. People who graduated less than primary, primary or lower secondary education are considered as having a low level of education.

In order to prevent the early leaving from education and training, educational intervention programs are carried out at national level, aiming at lower the risk of school failure and preventing school dropout.

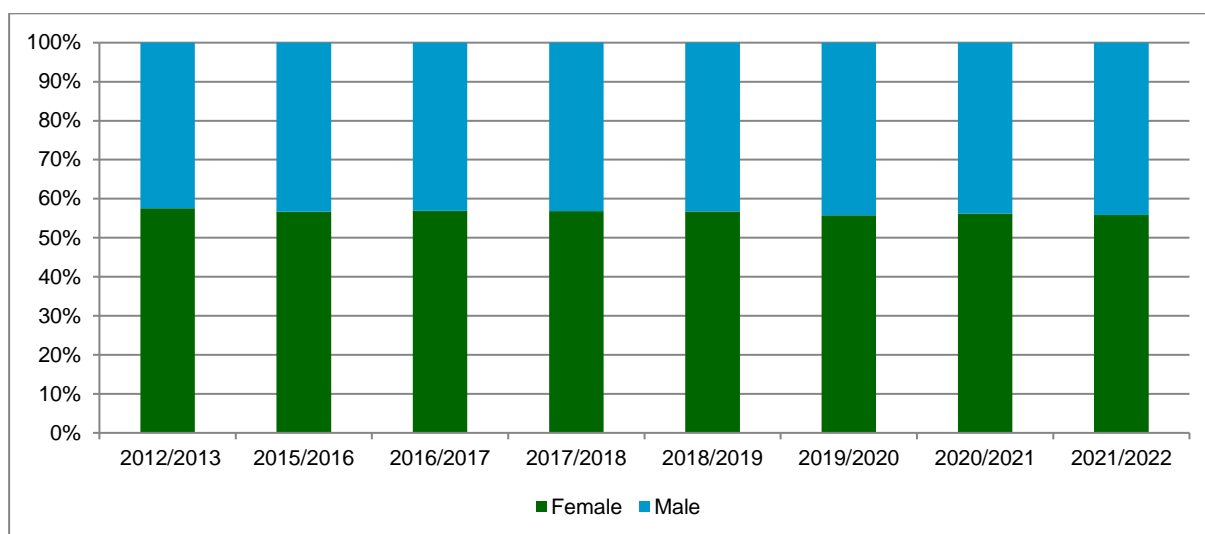
3.3.2. Assessment of the educational process quality

In Romania, the quality of early childhood, pre-university and higher education is ensured by national interest bodies, which are empowered to bring the educational system and process in line with national standards and procedures applicable to both public and private educational institutions. The two components of evaluation (internal and external) are carried out by the school inspectorates, the Romanian Agency for Quality Assurance in Pre-University Education (ARACIP) and the Romanian Agency for Quality Assurance in Higher Education (ARACIS). The two agencies develop specific indicators to assess the quality of the educational process. In addition, the Ministry of Education plays a key role in quality monitoring and control, as it is also responsible for controlling and implementing the quality assurance and improvement measures recommended by the two agencies. In addition, the government has adopted new quality standards (standards and benchmarks) and a new external evaluation methodology for pre-university education in 2020.

Based on statistical data, the evaluation of the quality of the educational process within the national education system is carried out starting from the main results of the educational activity, using a set of statistical indicators that reflect the baccalaureate results, the promotion of students and the school situation.

The period 2013-2022 was marked by fluctuations from one school year to the next in the number of students who passed the baccalaureate exam. In 2021/2022, 99.3 thousand students passed the baccalaureate, 12.9 thousand fewer than in 2012/2013. In terms of gender, the distribution maintained the same trend, with the proportion of female students who passed the baccalaureate exam always exceeding that of male students.

Figure 3.11. Structure by sex of students who passed the baccalaureate examination, during 2013-2022

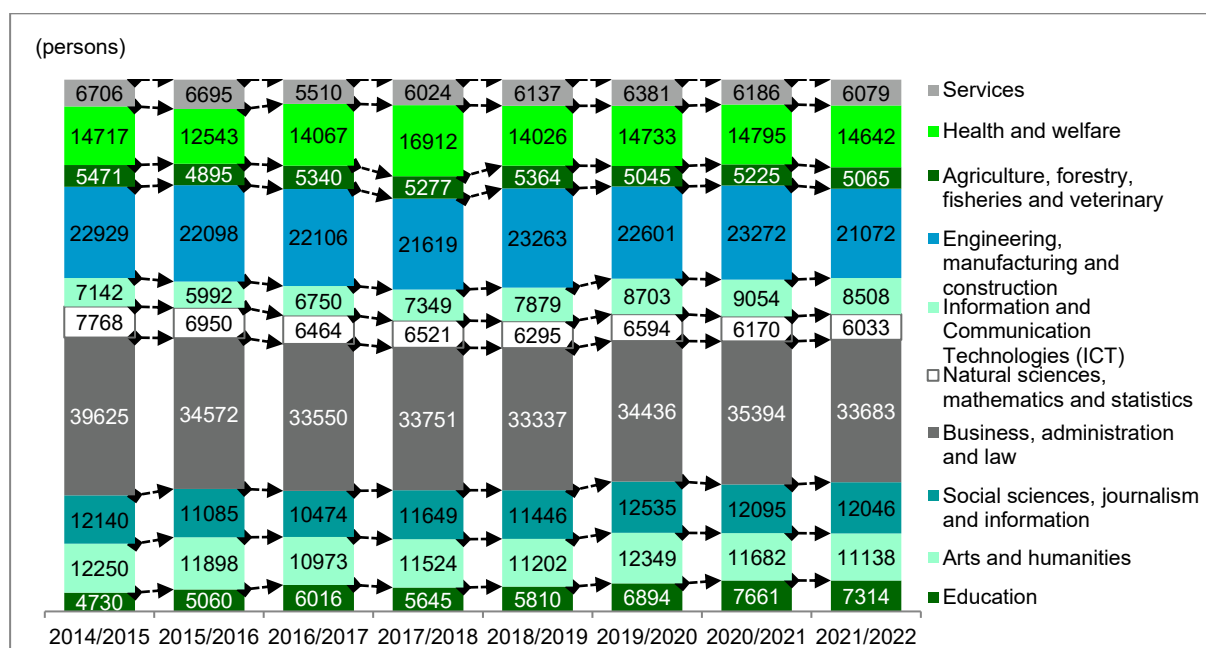


Source: NIS, Statistical surveys on education

In direct correlation with upper secondary school graduates who have passed their baccalaureate examination, tertiary education graduates followed the same trend over time. In tertiary education, the number of degree graduates showed a downward trend at the beginning of the period 2015-2022, followed by an increase of 4.1% in the academic year 2017/2018 compared to the previous academic year and 4.4% in the academic year 2019/2020 compared to the academic year 2018/2019.

In absolute terms, in the last two years, the number of graduates with a higher education degree in comparison with the academic year 2014/2015 has decreased by 1.9 thousand people (in the academic year 2020/2021) and by 7.9 thousand people (in the academic year 2021/2022), respectively.

Figure 3.12. Distribution of tertiary education graduates, by main groups of specialisations, during 2015-2022



Source: NIS, Statistical surveys on education

Note: Tertiary education refers to Bachelor's degree graduates, Master's degree graduates, post-graduates, PhD graduates, and advanced research post-doctoral programmes graduates/researchers.

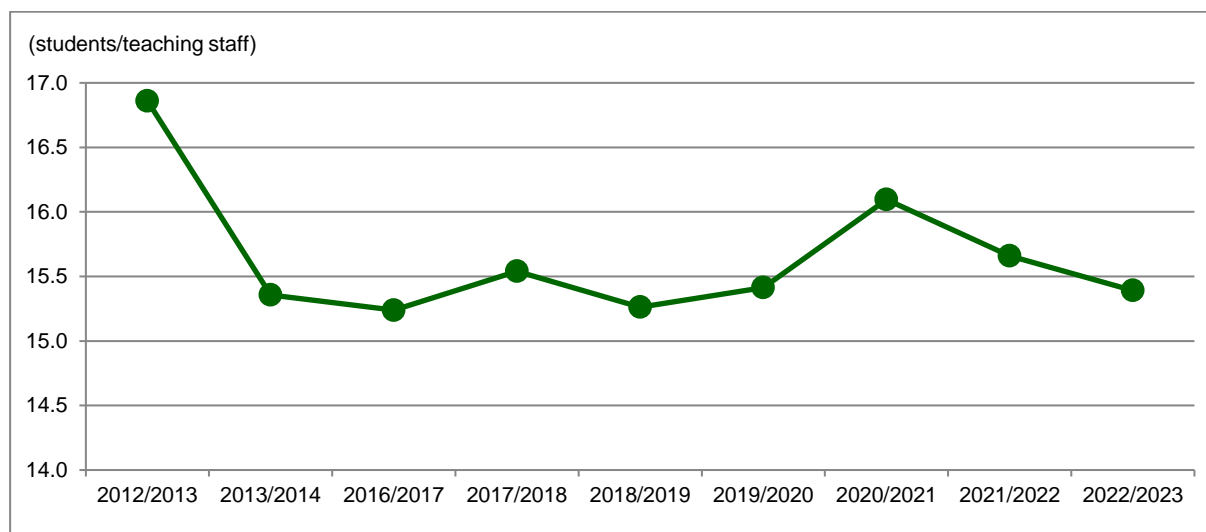
The structural changes in the distribution of tertiary education graduates by main groups of specialisations were marked in the 2021/2022 by a significant decrease registered in several areas. For example, in relative terms, the most affected was the field of "Natural Science, Mathematics and Statistics", with a decrease of 22.3% as compared to the 2014/2015 academic year.

Compared to the academic year 2014/2015, in the last two academic years (2020/2021, 2021/2022) the highest percentages of graduates with a degree in higher education were recorded in the specialization groups "Educational Sciences" and "Information and Communication Technologies (ICT)", the relative values reaching, in the academic year 2020/2021, 62.0% and 26.8%, respectively.

Another relevant indicator reflecting the educational process quality is the number of Bachelor's degree students per teacher in tertiary education. If in the academic year 2012/2013 there were 17 students per teacher, which is higher than the critical quality value⁴, the indicator has stabilized in the period 2013-2019. Subsequently, a fluctuating evolution is observed, so that in the academic year 2022/2023, the value of this indicator returns to the normal values (15 students/teacher).

⁴ The maximum value ARACIS imposed for the maximum ratio between the number of students and the number of teachers per programme is 15 (<http://www.aracis.ro/proceduri/>).

Figure 3.13. Number of students to a teacher, during 2012-2022



Source: NIS, Statistical surveys on education

3.4. Resources of the system

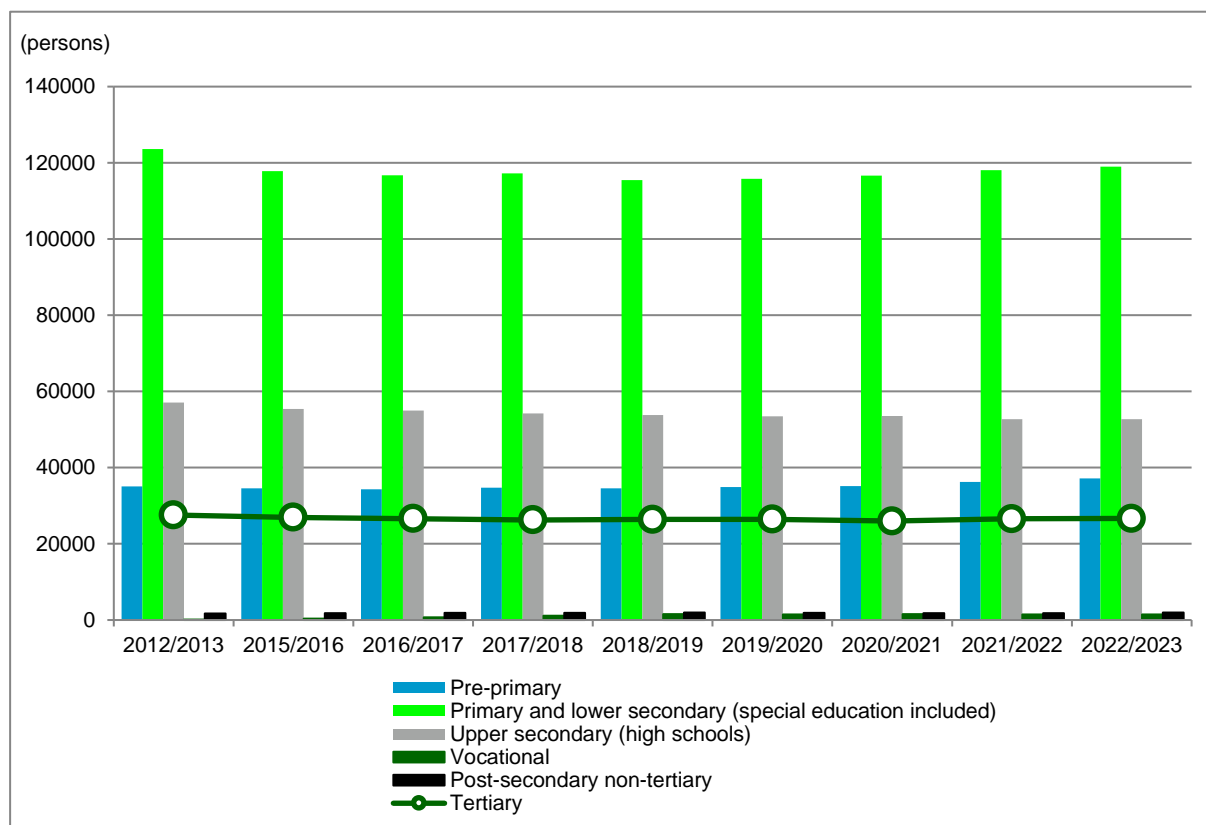
3.4.1. Teaching staff

An important factor in how the results of the educational process are reflected is the size and professional qualities of the teaching staff. The staff of the educational system consists of teaching staff, auxiliary teaching staff and administrative, maintenance and operational staff. According to the Staff Regulations, the teaching staff includes those persons in the educational system who are responsible for the teaching process and education.

Teaching staff consists of early childhood teachers, educators, pre-school teachers, primary school teachers, teachers of practical training, teachers, teachers-instructors, professors, teachers-correpetitors, itinerant and support teachers, teachers-educators, teachers-psychologists, teachers-school psychologists, teachers-logoped, teachers-preparators, university assistants, military masters, university lecturers, associate professors, university professors.

During 2012-2022, along with the decrease in the number of pupils enrolled, the number of pre-university education teaching staff from all levels has also diminished. Upper secondary (high school) education faced the sharpest decrease in teaching staff in the 2022-2023 school year, namely up to 7.6% as against the level recorded in the 2012-2013 school year. Furthermore, primary and lower secondary education have suffered significant losses in the number of teachers (-5.6%, and -2.5%, respectively).

Figure 3.14. Teaching staff, by education level, during 2012-2022

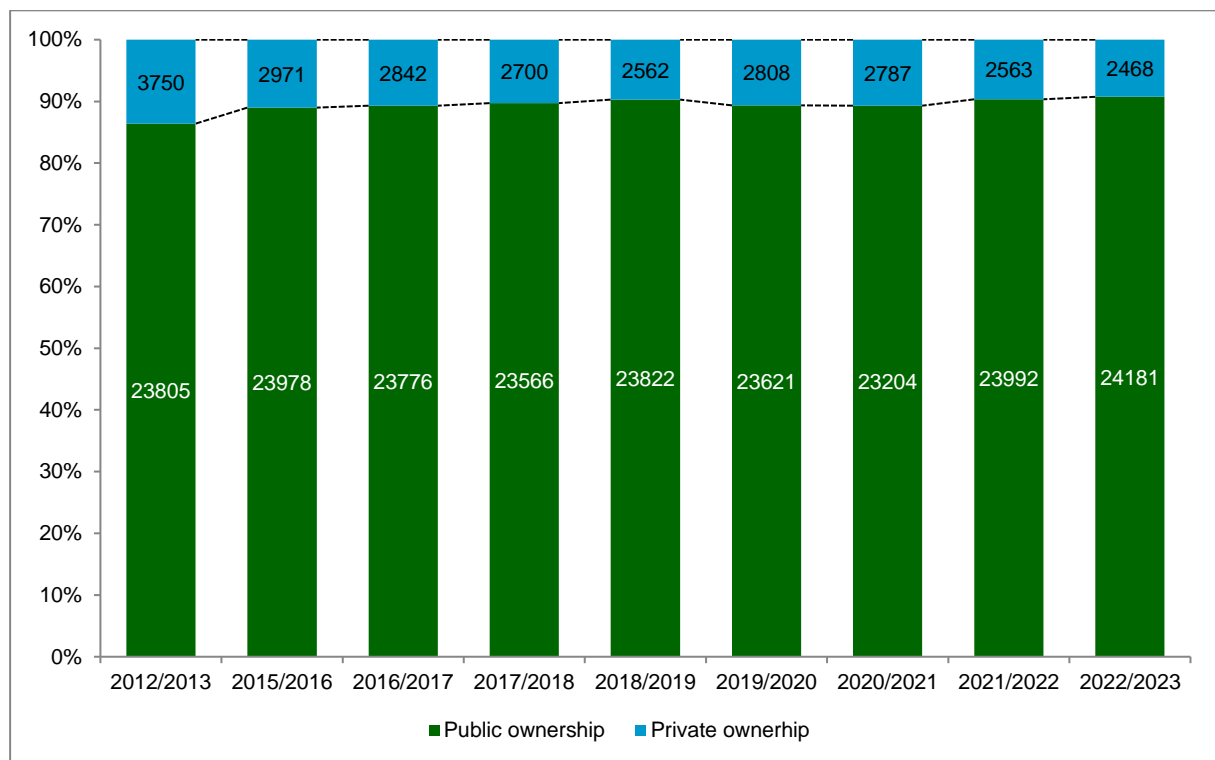


Source: NIS, Statistical surveys on education

In the 2022-2023 academic year, 26.6 thousand of tertiary education teaching staff were employed, 0.9 thousands less than in the 2012-2013 school year.

Between 2012-2014, the proportion of male teachers was much higher than that of female teachers, but in the 2015-2016 academic year, the gender balance of tertiary education teachers was equalized. The 2022-2023 academic year is the seventh in a row that marks a change in the situation, with female teachers outnumbering male teachers (+1.3 thousand people).

Figure 3.15. Structure of teaching staff in tertiary education, by ownership of the educational institution, during 2012-2022



Source: NIS, Statistical surveys on education

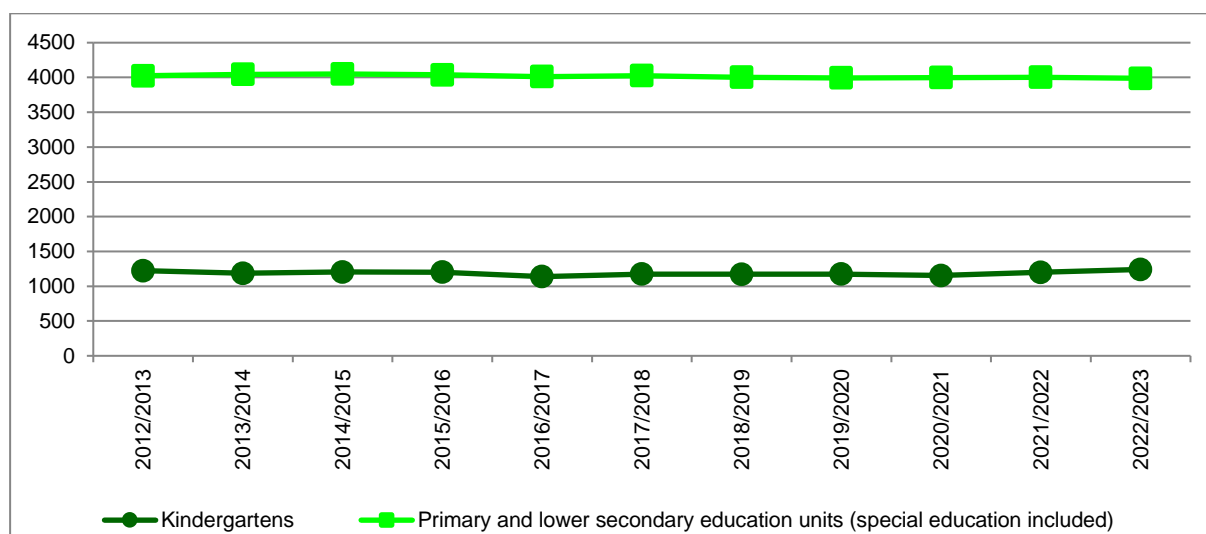
Of all education levels, tertiary education in Romania is best represented both in the private sector and in terms of teaching staff. However, the magnitude of private tertiary education institutions is still low, public tertiary education prevailing. For example, in the 2022-2023 academic year, there were more than 9.8 times as many faculty working in public higher education than in private higher education.

3.4.2. Infrastructure of the national educational system

The continuous decline in enrollments has led to the restructuring of the schools network and as such, during the period 2012-2022, the educational establishments in primary, lower and upper secondary, as well as tertiary education showed a decrease.

The tendency to reduce the number of schools is also reflected in the primary and lower secondary education levels, in the sense that some schools have been transformed into divisions of other primary and lower secondary schools or into settings of school groups hosting several levels of education.

Figure 3.16. Evolution of pre-primary, primary and lower secondary school establishments, during 2012-2022

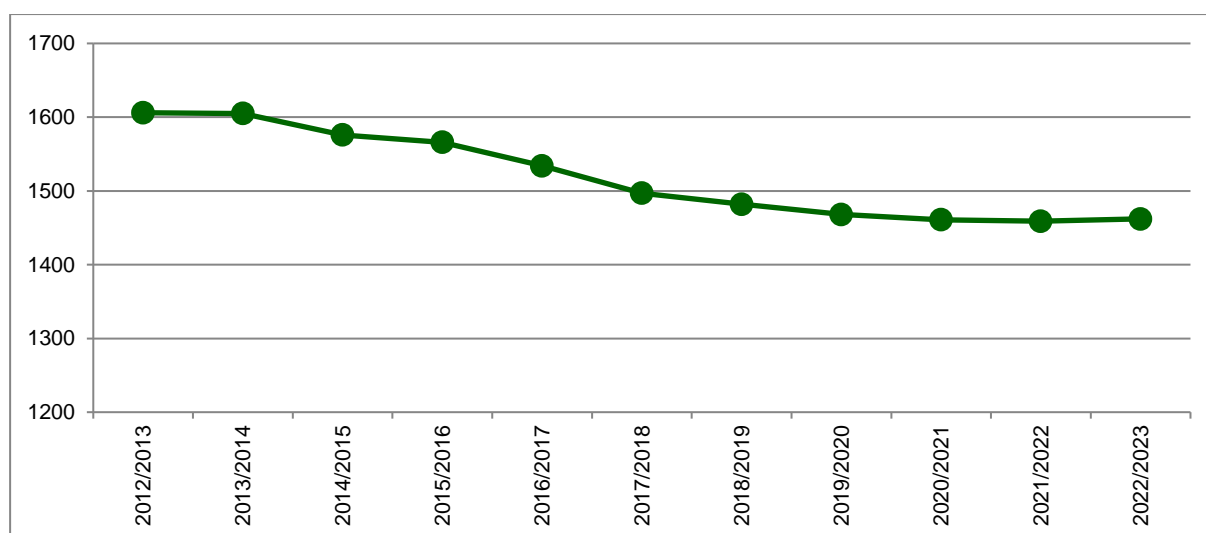


Source: NIS, Statistical surveys on education

Note: Statistical data on the number of school establishments in pre-university education refer to independent units (nurseries/kindergartens/primary and lower secondary schools/upper secondary/vocational or post-secondary non-tertiary and foremen school establishments), meeting the following conditions: to have legal status; they are assigned the Unique Identification Code / the tax code; to represent the type of school registering the greatest number of students; to have "full-time" pupils/students enrolled – except for nurseries and kindergartens; and/or the teaching personnel of which declared to have registered their main position with, and/or being provided with their own education unit's support facilities.

A decrease of 0.9% in the number of primary and lower secondary schools is noted in the 2022-2023 school year as compared to the school year 2012-2013, whilst the number of high schools (upper secondary schools) decreased by 9.0%.

Figure 3.17. Evolution of upper secondary units (high schools), during 2012-2022



Source: NIS, Statistical surveys on education

From 2012 to 2022, tertiary education lost a total of 20 academic institutions. In the 2022-2023 academic year, tertiary education comprises 87 universities, out of which 53 in the public sector.

Regarding the support facilities the educational establishments/institutions used during the school/academic year 2022-2023, such facilities were represented by the totality of the resources at the latter's disposal to cover, on the largest possible scale, in territorial profile, the need for access and participation in the instructional-educational process of the school population at each level of education.

3.5. Education in international context

Education is a fundamental human right, and to fulfill this right, countries must ensure universal access to inclusive and equitable quality education; people must be guaranteed equal opportunities to access and complete all levels of education within an education system. Each of the EU Member States is largely responsible for its own education and training systems and for the content of its teaching programmes (curricula). Rethinking education directs the attention the Member States should pay to the professional development of human resources involved in promotion life-long learning.

The statistical data of the last years of the series analyzed in this publication show an improvement in the participation of pre-school children in education in our country, but also reflect the fact that significant efforts are needed to reduce absenteeism and early school leaving, to increase the number of tertiary graduates and the participation of adults in learning, or to reduce the mismatch between education/training and labor market needs, and to redistribute resources equitably to early and compulsory education.

Data for the EU-27⁵ indicate over 91.1 million pupils and students enrolled in the overall educational system, in all education levels in the year 2021.

⁵ According to Eurostat,
https://ec.europa.eu/eurostat/databrowser/view/educ_uoe_enra01_custom_8245170/default/table?lang=en

**Table 3.1. Share of school population in all education levels (ISCED⁶ 0-8),
in total population, in the EU Member States, during 2015-2021**

	2015 ¹⁾	2016 ¹⁾	2017 ¹⁾	2018 ¹⁾	2019 ¹⁾	2020	2021
Belgium	27.0	27.7	27.8	27.5	27.5	26.2	25.7
Bulgaria	17.8	17.5	17.3	17.2	17.0	16.8	16.7
Czechia	20.3	20.1	20.1	19.6	19.6	19.8	20.0
Danemark	28.8	28.2	27.8	27.6	27.2	27.0	26.9
Germany	20.6	20.5	20.6	20.6	20.8	20.8	20.9
Estonia	22.2	22.0	21.9	21.9	21.9	22.0	22.3
Ireland	:	:	27.9	30.7	29.5	28.8	28.1
Greece	:	:	:	21.5	22.7	:	:
Spain	21.9	21.9	21.9	22.0	22.0	22.0	22.1
France	23.0	23.1	23.2	23.3	23.3	23.3	23.2
Croatia	19.4	19.3	19.5	19.4	19.3	19.3	19.2
Italy	18.0	17.9	18.0	18.0	18.2	18.2	18.2
Cyprus	21.0	21.4	22.0	22.2	22.5	22.7	22.5
Latvia	21.0	21.2	21.6	21.8	21.9	22.0	22.3
Lithuania	22.4	22.2	22.2	21.9	21.5	21.2	21.2
Louxbembourg	19.1	18.9	18.7	18.6	18.5	18.6	18.3
Hungary	19.6	19.2	19.3	19.1	18.9	18.9	18.8
Malta	18.1	17.8	17.4	17.3	16.9	16.5	16.7
The Netherlands	24.7	24.5	24.7	24.3	24.2	24.1	24.2
Austria	20.4	20.3	20.3	20.3	20.2	20.2	20.4
Poland	21.1	20.9	20.5	20.4	20.3	20.2	20.3
Portugal	:	:	20.5	20.4	:	:	:
Romania	18.8	18.4	18.3	13.5	18.3	18.2	18.2
Slovenia	20.8	21.1	21.2	21.3	21.3	21.3	21.5
Slovakia	19.0	18.7	18.4	18.3	18.3	18.3	18.5
Finland	26.8	27.0	27.0	27.2	26.7	26.6	26.6
Sweden	27.6	27.8	28.5	28.8	28.5	28.7	29.2

Source: Eurostat, https://ec.europa.eu/eurostat/databrowser/view/educ_uoe_enra04/default/table?lang=en

Note: ":" No data available

¹⁾ Revised data.

The EU27 average early school-leaving rate for young people (18-24 years) in 2022 was 9.6%, with Romania recording the highest rate (15.6%) and Croatia the lowest (2.3%).

⁶ According to ISCED 2011

**Table 3.2. Relevant indicators on the population education level,
in the EU Member States, in 2022**

-%-

	Early school leaving rate (18-24 years)	Educational attainment of young people aged 20-24 years	Weight of young people aged 30-34 years with superior education
EU27	9.6	83.6	42.8
Belgium	6.4	88.2	53.1
Bulgaria	10.5	88.0	33.4
Czechia	6.2	90.3	36.5
Denmark	10.0	75.8	52.3
Germany	12.2	70.6	39.3
Estonia	10.8	83.2	45.7
Ireland	3.7	95.0	61.9
Greece	4.1	94.0	44.8
Spain	13.9	78.7	49.2
France	7.6	90.0	49.2
Croatia	2.3	97.2	34.2
Italy	11.5	85.1	27.4
Cyprus	8.1	90.4	62.7
Latvia	6.7	89.5	45.7
Lithuania	4.8	93.5	61.0
Luxembourg	8.2	77.5	62.9
Hungary	12.4	83.7	34.4
Malta	10.1	87.4	42.5
Netherlands	5.6	87.4	56.0
Austria	8.4	85.4	44.0
Poland	4.8	90.6	46.6
Portugal	6.0	89.3	43.0
Romania	15.6	82.3	26.3
Slovenia	4.0	94.7	48.8
Slovakia	7.4	90.7	39.3
Finland	8.4	86.7	46.8
Sweden	8.8	84.2	55.4

Source: Eurostat, <http://ec.europa.eu/eurostat/data/database>

The chances of finding a decent job are considerably higher for those who have a higher level of education. Again, Croatia is to be remarked among the EU Member States with a particularly high level of educational attainment of young people aged 20-24 years (97.2%), almost 13 percentage points higher than the EU27 average (83.6%) and at a significant distance to the Member State that is on the last place, Germany (70.6%). Romania is among the disadvantaged countries (82.3%).

The share of people aged 30-34 years with tertiary education follow the same direction, four of the EU Member States being remarked due to the values of this indicator exceeding 60%: Luxembourg, Cyprus, Ireland and Lithuania. At the other end of the spectrum are Italy and Romania, with less than 30%.

4. EMPLOYMENT

4.1. Survey objectives

The importance of statistical survey in the field of employment derives from the strong links established between the labour market developments and the social and economic phenomena. The results of national statistical surveys, expressed in relevant indicators defining the labour market, for example, employment, unemployment and labour costs, provides the necessary information for establishing relationships which describe the economic and social life of a nation. Currently, Romania still lags behind the European average in terms of the economic and social development and the fundamental causes are entailed by recent demographic developments, but also by the still very large gaps between Romania and the EU Member States developed in respect of the labour force distribution on the three major sectors of the national economy.

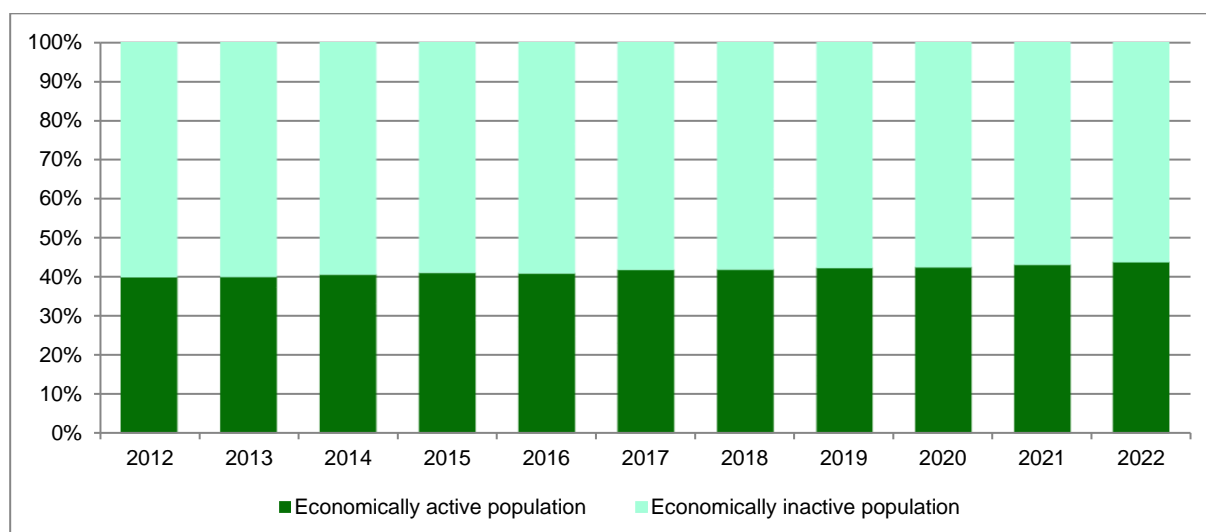
The data on employment in Romania are provided primarily by the Household Labour Force Survey, but also by other relevant statistical surveys carried out by the National Institute of Statistics and by administrative sources.

4.2. Trends in employment on the labour market

4.2.1. Economically active population

The economically active population comprises the persons employed on the labour market and the unemployed. In 2022 economically active population of Romania was of 8270.8 thousand persons, with 276.3 thousand persons more compared with 2012. The increasing of the economically active population is a direct consequence of the intensification of the participation of the adult population in economic activity at the national level, but also of the changes in its age structure.

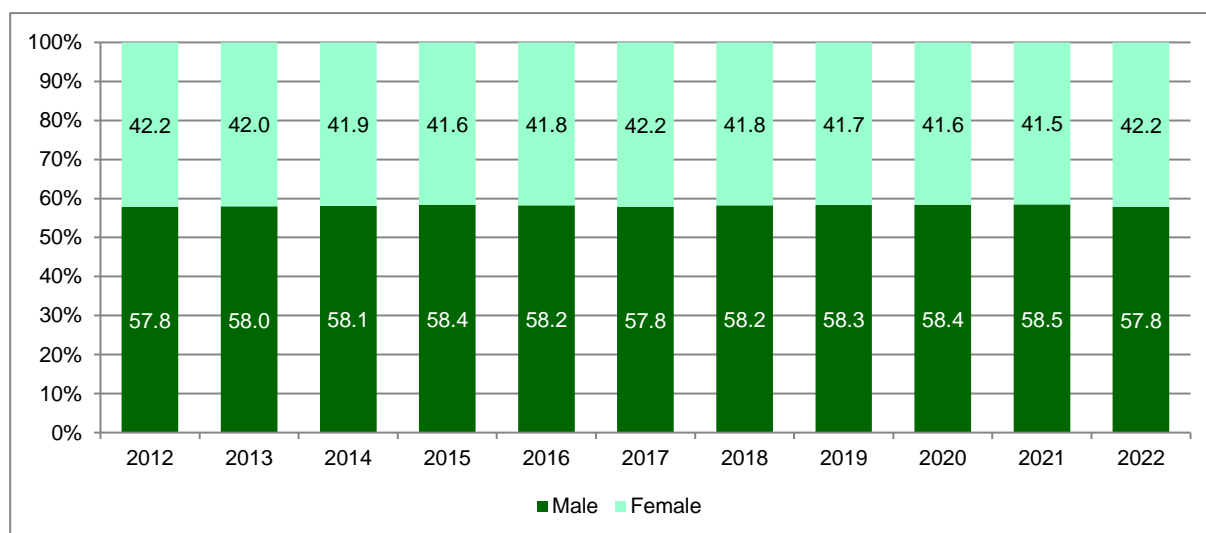
Figure 4.1. Population structure, according to the participation in economic activity, during 2012-2022



Source: NIS, Household Labour Force Survey (LFS)

A characteristic of the economically active population in Romania is the greater presence on the labour market of the male population. In the period 2012-2022, the economically active male population was always higher than the economically active female population, with shares ranging from 57.8% to 58.5%.

Figure 4.2. Distribution of economically active population, by sex, during 2012-2022



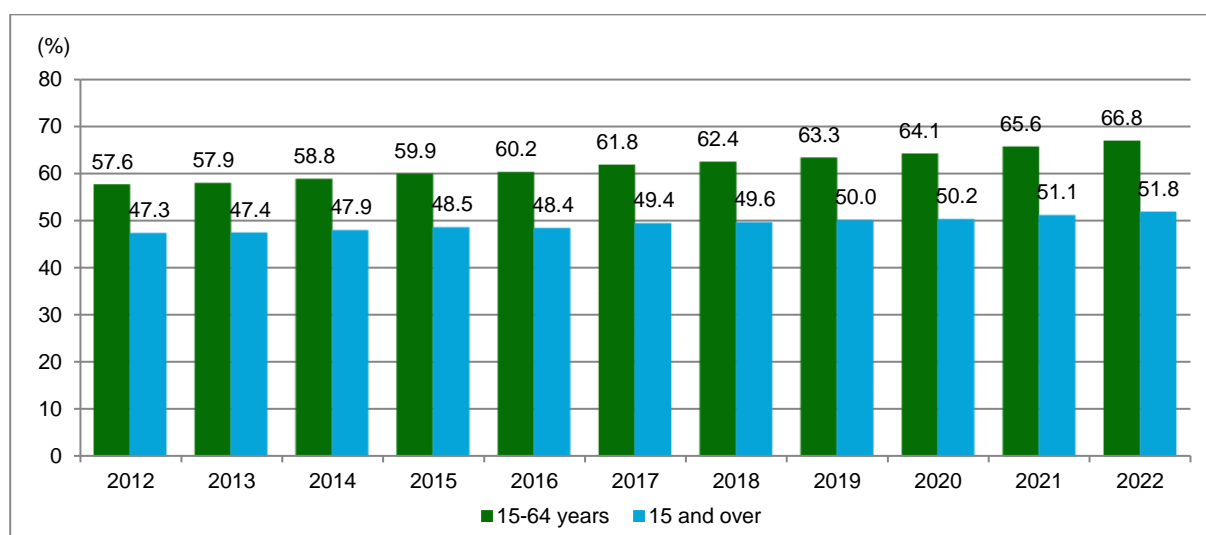
Source: NIS, Household Labour Force Survey (LFS)

In Romania, the majority of the economically active population lives in urban area. During 2012-2022 period, the economically active population distribution by residence area had developed differently from one stage to the other, yet with small amplitude variations. The

largest difference between the two residence areas was of 25.0 percentage points in 2012, while the lowest was of 15.6 percentage points in 2022.

The activity rate calculated for the population of 15 years and over was 51.8% in 2022. For the working age population (15-64 years), the activity rate was in 2022 of 66.8%, with 9.2 percentage points higher than in 2012.

Figure 4.3. Activity rate, during 2012-2022



Source: NIS, Household Labour Force Survey (LFS)

In the case of working age population (15-64 ani), the activity rates are higher for men, the gender gap being, in 2022, of 18.8 percentage points.

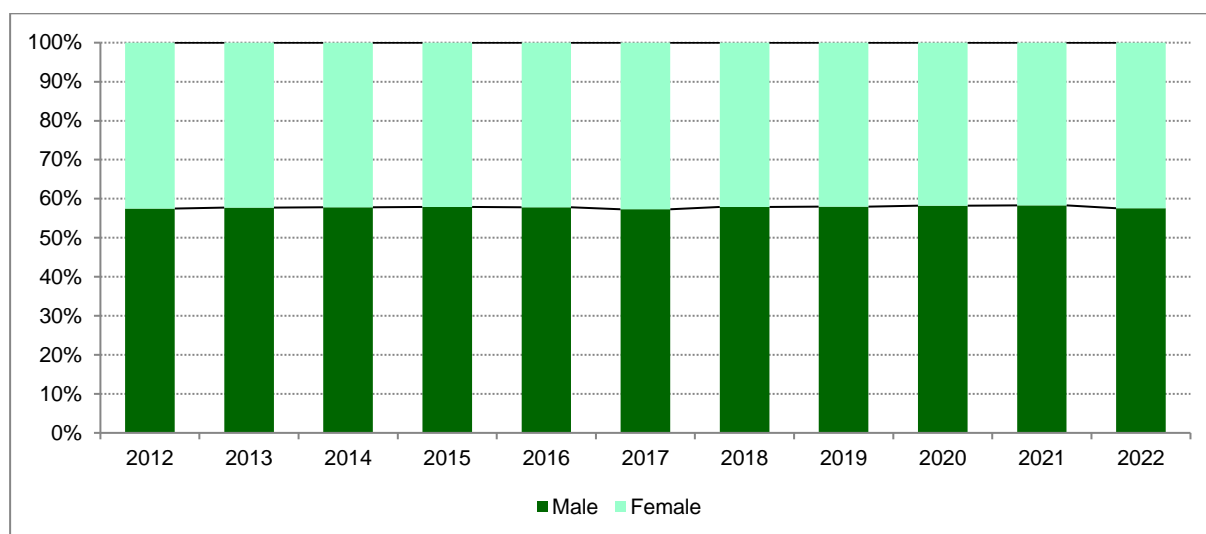
There are also differences in activity rates by residence area. For the working age population, during 2012-2022, the differences between the activity rates by residence area were in favour of the urban area. In 2022, the activity rate of the working age population in urban area was by 9.0 percentage points higher than in rural area.

4.2.2. Employment

Another relevant indicator for monitoring the labour market developments is employment. In 2022, employment was 7806.5 thousand persons, increasing in the last decade with over 50 thousand persons, on average, annually.

The same as the economically active population, male employment has a larger share (57.6%, in 2022) than female employment. The phenomenon is strongly influenced by factors related to “employment culture” in Romania, women employment being traditionally lower.

Figure 4.4. Distribution of employment, by sex, during 2012-2022



Source: NIS, Household Labour Force Survey (LFS)

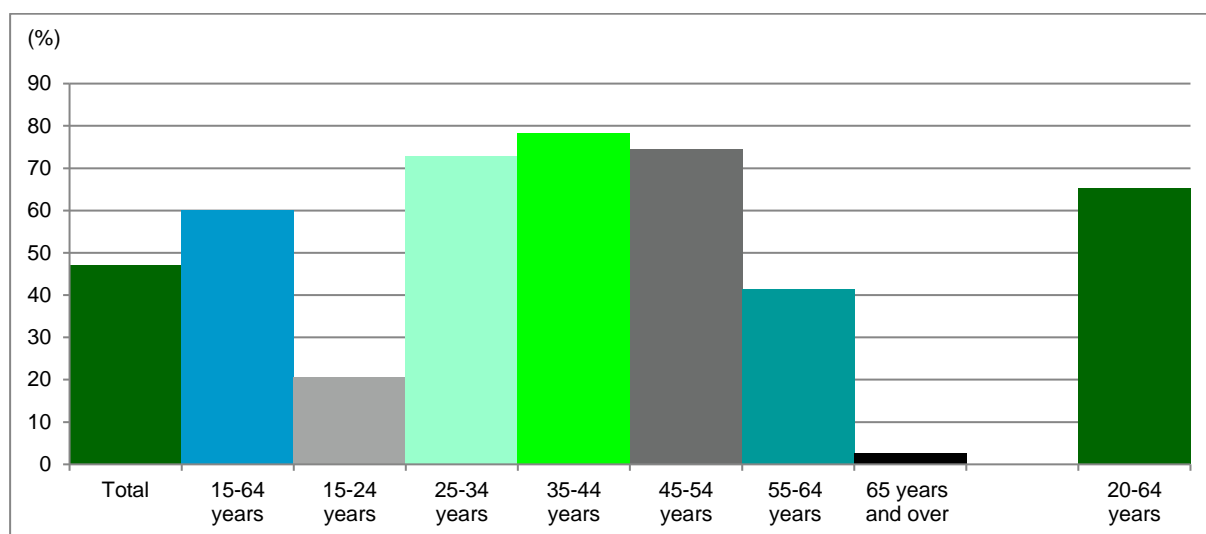
By residence area, the gap between urban and rural employment tends to reduce in recent years. In 2022, the difference was of 18.4 percentage points in favour of the urban area, compared to 25.4 percentage points in 2012.

The employment rate for the working age population (15-64 years) was, in 2022, of 63.1%. This indicator had higher values for men (71.5%, compared to 54.4% for women) and for persons from urban area (68.6%, compared to 56.3% in rural area).

The analysis of employment by education level reflects the fact that the tertiary education entailed the highest value of the employment rate for the working age persons (89.5%, compared to 64.6% for the secondary education, respectively 36.6% for the low level of education). In 2022, the lowest employment rate for the working age persons (15-64 years) was recorded for female, for people with a low level of education (23.5%).

Youth employment is low in Romania, despite the improvement over the last years. In 2022, the employment rate among young people (15-24 years) was 19.7%, by 0.8 percentage points higher than in 2012. At the other end of the scale, the employment rate of elderly people (55-64 years) was 46.7%, 15.8 percentage points higher as compared to 2012. For the age groups characteristic to a high labour potential (25-54 years) the employment rates were higher than the national average, the maximum being recorded for the age group 35-44 years (80.9%, in 2022).

Figure 4.5. Employment rate, by age group, in 2022



Source: NIS, Household Labour Force Survey (LFS)

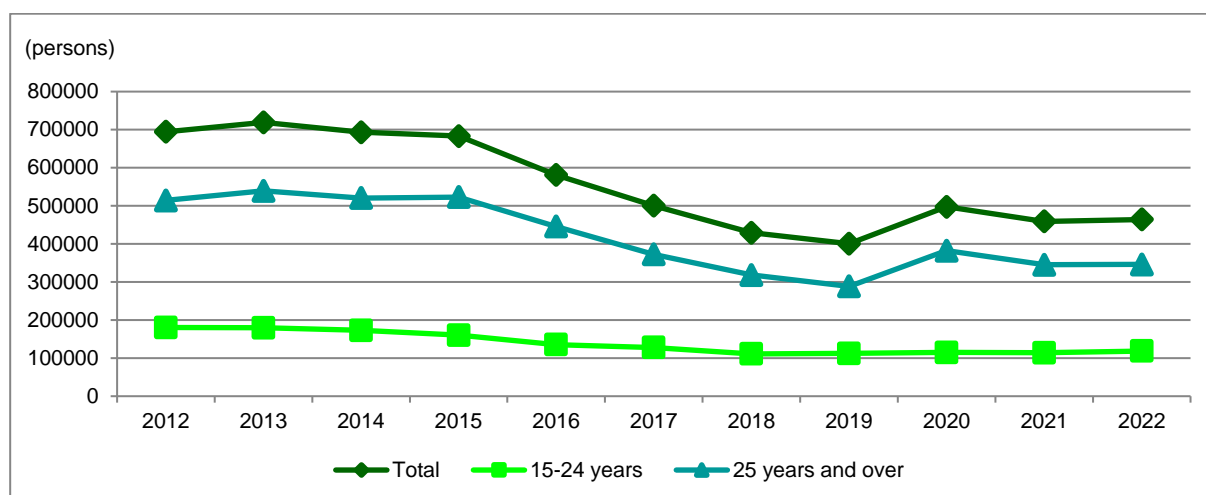
In 2022, the employment rate of the population aged 20-64 years was 68.5%, 11.7 percentage points over the value of 2012.

4.3. Unemployment

4.3.1. ILO unemployment

The unemployed population is an important indicator for monitoring and analysing the labour market, being part of the economically active population. The total number of unemployed estimated according to the methodology of the International Labour Office (ILO), knew different evolutions during 2012-2022, being influenced, in recent years, by the effects of the COVID-19 pandemic. After a period of relative stability - during 2012-2015 - when the number of unemployment stood over 600 thousand, beginning with 2016 the number of unemployment decreased continuously and significantly reaching 400.5 thousand persons in 2019, 294.1 thousand persons less than in 2012. In 2020, following the restriction of some activities, in the context of the restrictions imposed to limit the effects of the COVID-19 pandemic, the number of unemployed increased to 497.3 thousand people, by 96.8 thousand people more than the previous year. In the following years, unemployment decreased, reaching 464.4 thousand people in 2022.

Figure 4.6. Evolution of the ILO unemployed number, during 2012-2022

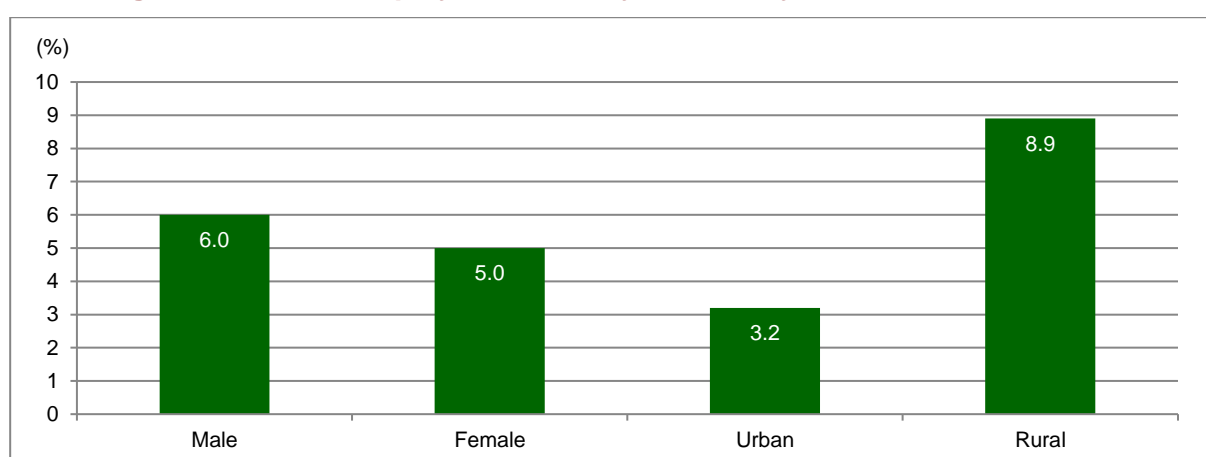


Source: NIS, Household Labour Force Survey (LFS)

Unemployment is measured in relative terms based on the unemployment rate. This indicator reflects the trends recorded by the unemployed population during 2012-2022. The year 2022 marks a stagnation in the unemployment rate compared to 2021 (5.6% both in 2021 and in 2022).

The gender gap between the two unemployment rates was, in 2022, of 1.0 percentage points (6.0% for men compared to 5.0% for women), and of 5.7 percentage points by residence area (3.2% in urban area compared to 8.9% in rural area)

Figure 4.7. ILO unemployment rate, by sex and by residence area, in 2022



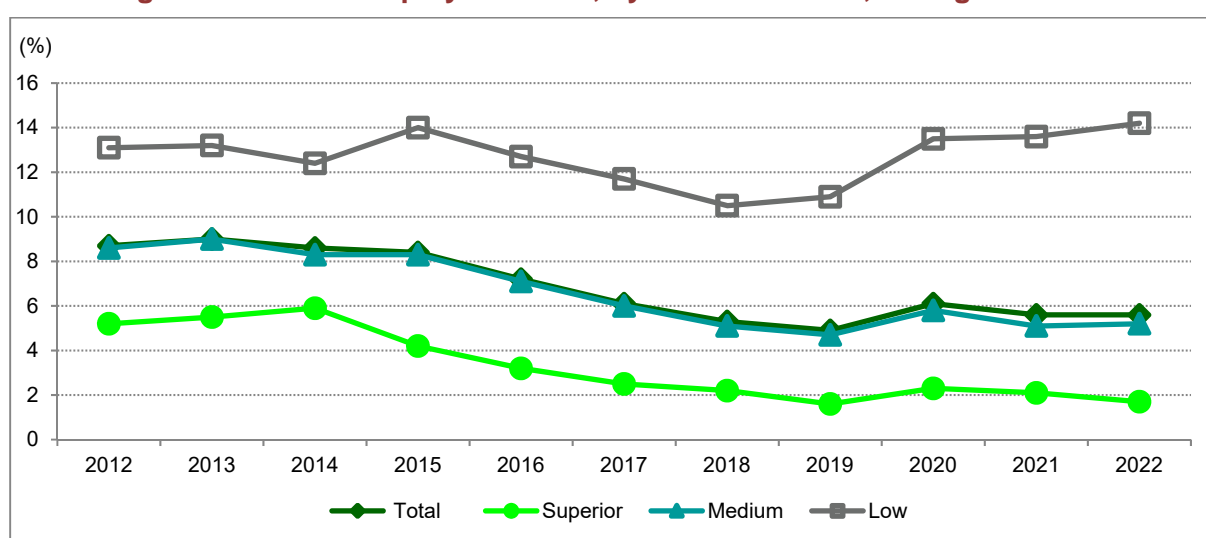
Source: NIS, Household Labour Force Survey (LFS)

The unemployment rate among young people (15-24 years old) followed during the period 2012-2022 a similar trend to that of the indicator calculated for the general population (15 years and over), its level being much higher. In 2022, the youth unemployment rate was 22.8%.

Unemployment affects, to a greater extent, the graduates of lower education levels (medium and low) compared to the graduates of superior education. For example, in 2022, the ILO unemployment rate for persons with medium education was 5.2%, respectively 14.2% for the low education level, significantly higher compared to the rate recorded for unemployed people with superior education (1.7%).

Over the last decade, there are different evolutions of the unemployment rates, for all segments of the population, depending on the economic and social phenomena that have characterised the various periods of time; however, the graduates of superior education have always been less affected (the highest unemployment rate among superior education graduates was 5.9%, reached in 2014).

Figure 4.8. ILO unemployment rate, by education level, during 2012-2022



Source: NIS, Household Labour Force Survey (LFS)

The unemployment pressure on the labour market is reflected both in its level and trend, as well as in the average duration when a person has that status.

In 2022, the average duration of unemployment was 14.7 months, increasing compared to 2021 (14.4 months). The shortest average duration of unemployment was recorded for young people aged 15-24 from urban areas (9.7 months), and the longest (21.4 months) for people aged 45 and over from urban areas.

The incidence of long-term ILO unemployment (the share of people unemployed for one year and over in the total number of unemployed) was, in 2022, of 38.5%. Long-term unemployment was close values for men 38.3% and 38.7% for women and higher values in urban area (45.3% compared to 35.1% in rural area).

For young people (15-24 years), the incidence of long-term ILO unemployment was, in 2022, of 55.2%. The share of unemployed persons aged 15-24 years in total population of 15-24 years has had an evolution similar to the unemployment rate, the values for this indicator being also marked by the macroeconomic and social environment at national level.

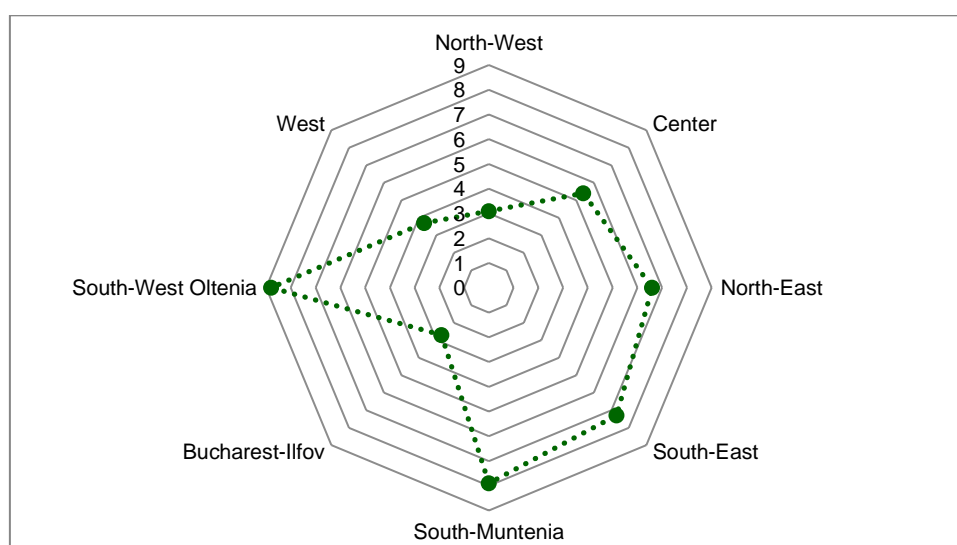
Table 4.1. Weight of ILO unemployed persons aged 15-24 years in total population aged 15-24 years, by sex and by residence area, during 2012-2022

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total	7.4	7.7	7.6	7.3	6.3	6.0	5.3	5.4	5.6	5.6	5.8
Male	8.5	8.8	8.9	8.3	7.4	6.9	6.2	6.4	7.0	6.9	6.8
Female	6.3	6.5	6.3	6.3	5.1	5.0	4.3	4.4	4.2	4.3	4.7
Urban	7.6	7.7	7.5	6.5	5.1	4.6	4.1	4.2	4.3	3.2	3.3
Rural	7.2	7.6	7.8	8.2	7.4	7.3	6.3	6.5	6.8	7.7	8.0

Source: NIS, Household Labour Force Survey (LFS)

In 2022, the number of ILO unemployed aged 15-24 years accounted for 5.8% of the total population of this age group, with a higher gender gap: 6.8% for men and 4.7% for women. At territorial level, unemployment has differently affected population of the country regions, depending on their level of economic development, but also as a consequence of certain factors of another nature (geographic, socio-demographic etc.). In 2022, the ILO unemployment rate reached the highest values in the regions South-West Oltenia (8.8%) and South-Muntenia (7.9%), while the lowest were recorded in North-West (3.1%) and Bucharest-Ilfov (2.7%).

Figure 4.9. Unemployment rate by region, in 2022



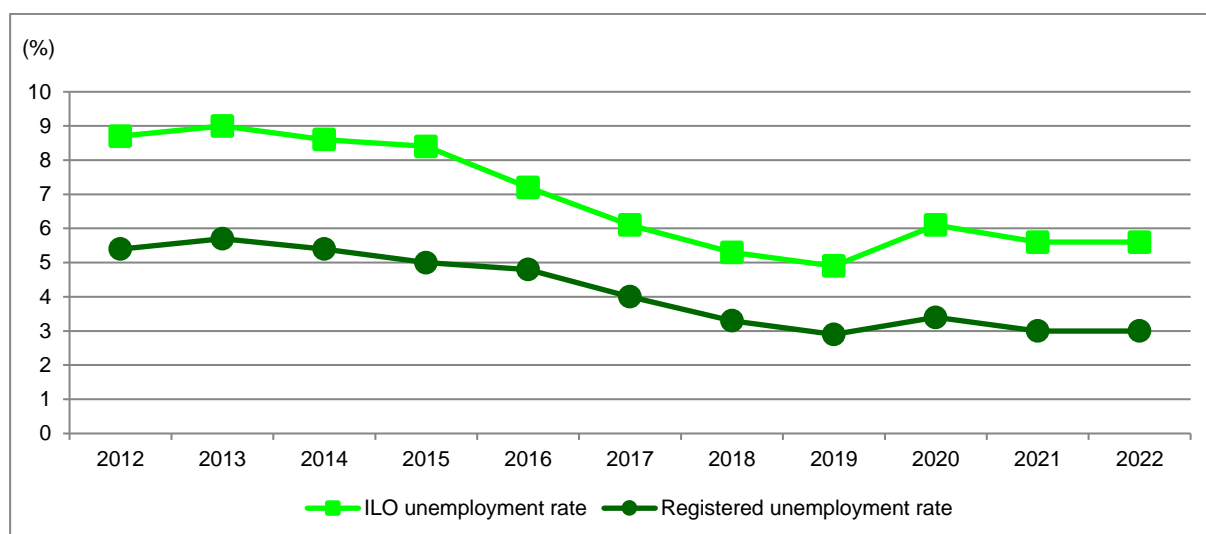
Source: NIS, Household Labour Force Survey (LFS)

The unemployment situation is different among the development regions, in particular by residence area. The highest unemployment rate was recorded in the rural areas of the region South-West Oltenia (14.7%), and the lowest, in urban areas North-West and in rural areas in Bucharest-Ilfov (2.0%).

4.3.2. Registered unemployment

Depending on the established objectives in terms of measuring the dimension and intensity of unemployment, several unemployment rates are used simultaneously, calculated based on different methodologies. In addition to the ILO unemployment rate, calculated based on statistical data provided by the Household Labor Force Survey, the registered unemployment rate is also calculated, based on data from administrative sources (collected by the National Agency for Employment). The differences between the values of the two unemployment rates result from differences in coverage, as well as from the application of different calculation methodologies.

Figura 4.10. Registered unemployment rate and ILO unemployment rate, during 2012-2022



Source: 1. National Agency for Employment (ANOFM) - for the registered unemployment rate; 2. NIS, Household Labour Force Survey (LFS) - for the ILO unemployment rate

4.4. Economic inactivity

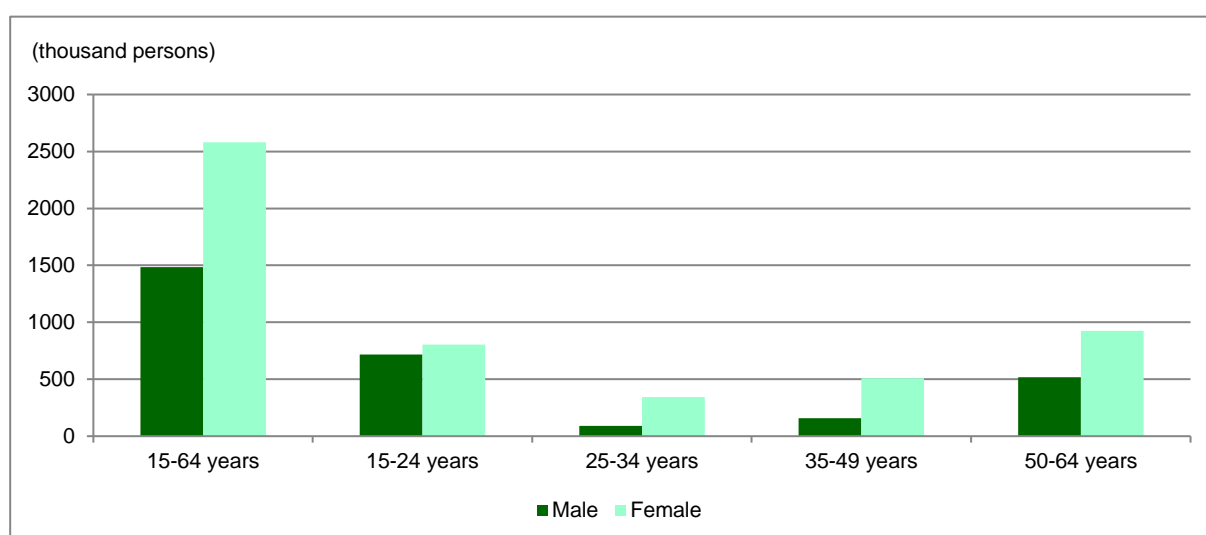
4.4.1. Economically inactive population

The economically inactive population comprises all persons who either did not work at least one hour or were not unemployed over a given reference period, being in one of the following

situations: they were pupils or students, pensioners (of all categories) or persons carrying out only domestic work in private households; they were upheld persons or they were producing income, other than income from employment. One of the unfavourable characteristics of Romanian labour force is that the economically active population is lower - in share - than the economically inactive population and this was still the case for the whole analysed period (2012-2022).

In 2022, the economically inactive population amounted to 10.7 million persons and accounted for 56.3% of total population. 72.1% of the economically inactive persons were aged for at least 15 years. The majority of economically inactive persons (50.8%) were living in the urban area. The analysis of the population economic inactivity, by sex, reflects a slight imbalance in terms of not employed women (in 2022, 58.2% of the economically inactive population were women).

Figure 4.11. Economically inactive population, of working age (15-64 years), by sex and by age group, in 2022



Source: NIS, Household Labour Force Survey (LFS)

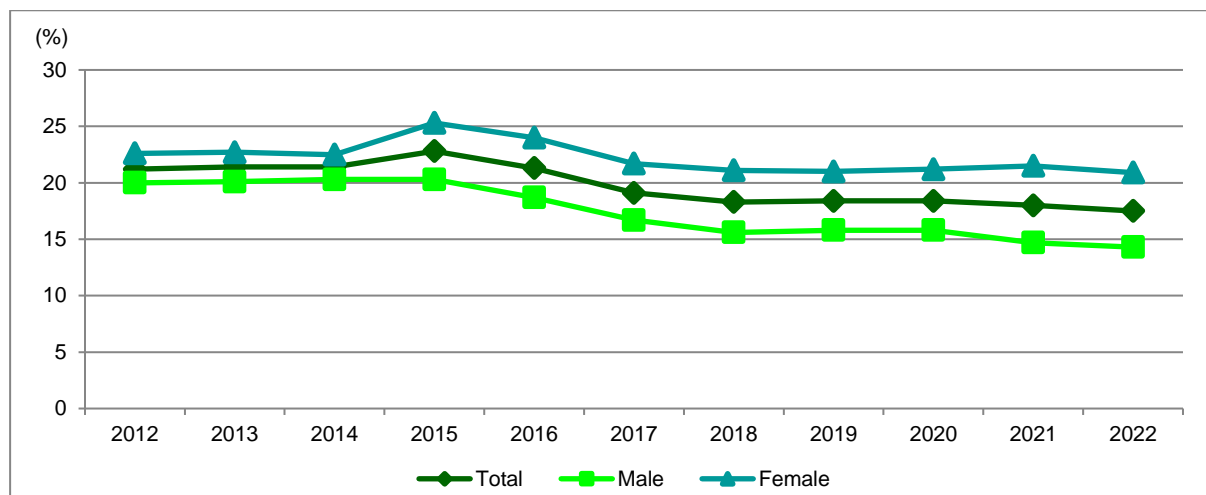
The age groups most affected by economic inactivity are the extreme groups: young people (age group 15-24 years) and people of ages belonging to upper groups (50-64 years), among them the women in final years of the economically active life.

4.4.2. Young people neither in employment nor in education and training (NEET)

A worrying factor on the Romanian labour market is the number of young people aged between 15 and 24 years, who are neither in employment nor in education or training, a concept known as the abbreviation of NEET (Not in Employment nor in Education or

Training). This population segment is a particular category of the economically inactive persons.

Figure 4.12. The rate of young people neither in employment nor in education or training, by sex, during 2012-2022



Source: NIS, Household Labour Force Survey (LFS)

The NEET rate indicates difficulties in the transition from education to the labour market and issues related to employment for the young people not in education.

In 2022, the rate of young people neither in employment nor in education or training was 17.5%, the young people in rural area (23.1%) and female population (20.9%) being the most affected.

4.4.3. Potential additional labour force

Another segment of the economically inactive population is the potential additional labour force, representing the sum of two categories of persons: “economically inactive persons who seek work but are not immediately available to work” and “economically inactive persons who are available to work, but don’t seek it”. In 2022, out of the economically inactive population aged 15-74 years, 203.1 thousand persons represented potential additional labour force. Out of them, 56.3% were women and 69.0% were in rural area.

Of these, 195.5 thousand were available to start work, but were not looking for a job. In 2022, the percentage ratio between this category of people and the active population was 2.4%.

Table 4.2. Potential additional labour force by age group, sex and residence area, in 2022

	Total	Male	Female	Urban	Rural
POTENTIAL ADDITIONAL LABOUR FORCE - TOTAL (thousand persons)	203.1	88.8	114.3	63.0	140.1
	- as % of total -				
15-24 years	20.3	25.4	16.3	24.4	18.4
25-34 years	19.5	17.7	21.0	19.5	19.5
35-44 years	20.5	21.5	19.7	23.6	19.1
45-54 years	27.1	23.7	29.8	22.4	29.3
55 years and over	12.6	11.7	13.2	10.1	13.7

Source: NIS, Household Labour Force Survey (LFS)

In 2022, the distribution by age group of people in the potential additional labour force points out higher shares for people aged 25-44 years (40.0%).

4.5. Job vacancies

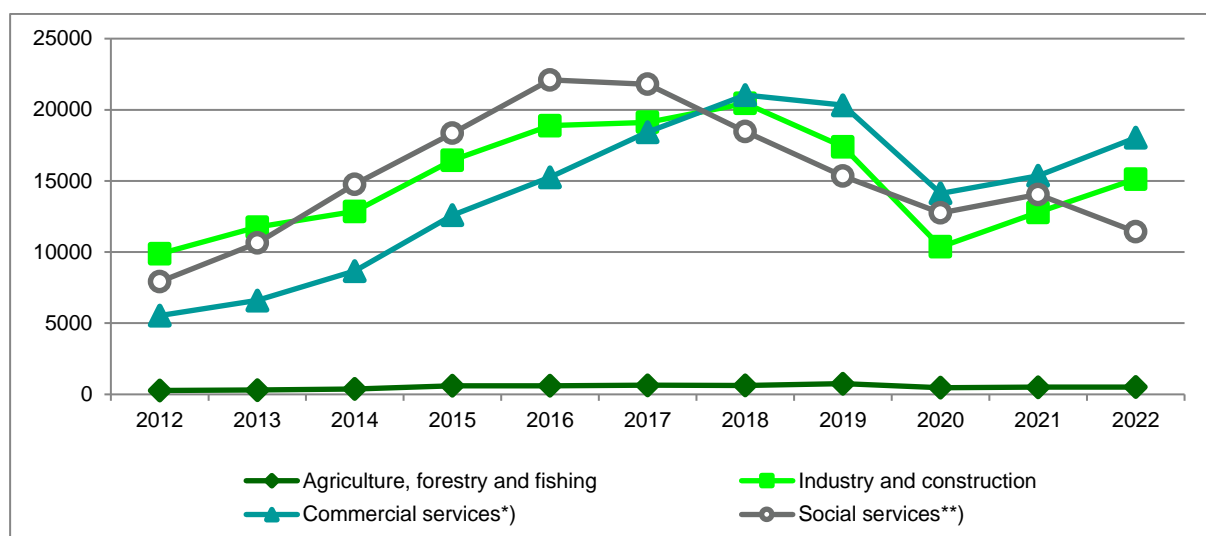
The statistical survey on job vacancies provides information on the number of job vacancies and the job vacancy rate by activities of the national economy and major groups of occupations.

During 2012-2022, the average annual number of job vacancies has evolved differently, depending on the macroeconomic context that marked various moments during the period. The highest values were registered in 2018 (60.6 thousand job vacancies), while in 2012 the fewest job vacancies were found (24.8 thousand job vacancies). For 2013-2018 period, a steady increase in labour demand in almost all economic sectors was noticed. In 2019, the average annual number of job vacancies decreased by about 11% as compared to 2018.

This decrease was accentuated during 2020 (-22.9 thousand as against 2018), due to the economic situation created in the context of the COVID-19 pandemic and the establishment of the state emergency/alert throughout Romania, when a significant number of economic and social units had temporarily suspended or even ceased their economic activity. The following two years were characterized by a return in the increase in labour demand.

Thus, in 2022, the average annual number of job vacancies was 45.1 thousand, increasing with about 20% as against 2020. The highest number of job vacancies were found in the activities related to the commercial services sector (18.0 thousand), and almost 26% were in the activities of wholesale and retail trade; repair of motor vehicles and motorcycles. At the opposite side, with the fewest job vacancies, the primary sector was situated, which includes agriculture, forestry and fishing (0.5 thousand).

Figure 4.13. Evolution of job vacancies, by sectors of national economy, 2012-2022 period



Source: NIS, Job vacancies survey

*) The commercial services sector include, according to CANE Rev. 2, the following activities: wholesale and retail trade; repair of motor vehicles and motorcycles, accommodation and food service activities, transportation and storage, information and communication, financial and insurance activities, real estate activities, professional, scientific and technical activities, administrative and support service activities and other service activities.

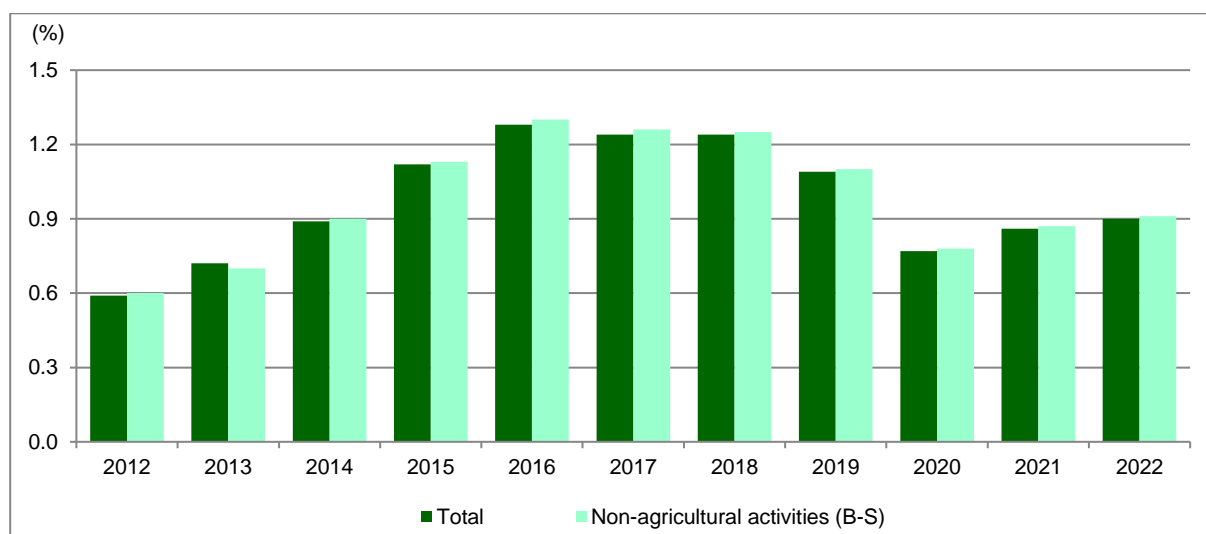
**) The social services sector include, according to CANE Rev. 2, the following activities: public administration (military forces and assimilated excluded), education (about 3.6% private sector included in 2022), human health and social work activities (about 11.2% private sector included in 2022), arts, entertainment and recreation (about 53.7% private sector included in 2022).

The social services sector held about one fourth of the total number of job vacancies, being mainly in public administration, respectively in human health and social work activities. In the secondary sector (industry and construction) 15.1 thousand job vacancies were found, most of which in manufacturing (over 73%).

In 2022, the average annual job vacancy rate was 0.90%, increasing with 0.04 percentage points as against 2021, but decreasing with 0.34 percentage points as against 2018. By comparison with 2012, the average annual job vacancy rate increased by 0.31 percentage points.

By economic activities, the highest values of the average annual job vacancy rate were registered in public administration (1.76%), water supply; sewerage, waste management and remediation activities (1.59%), respectively in arts, entertainment and recreation (1.50%). At the opposite side, the lowest values of the average annual job vacancy rate were found in other service activities (0.25%) and mining and quarrying (0.27%).

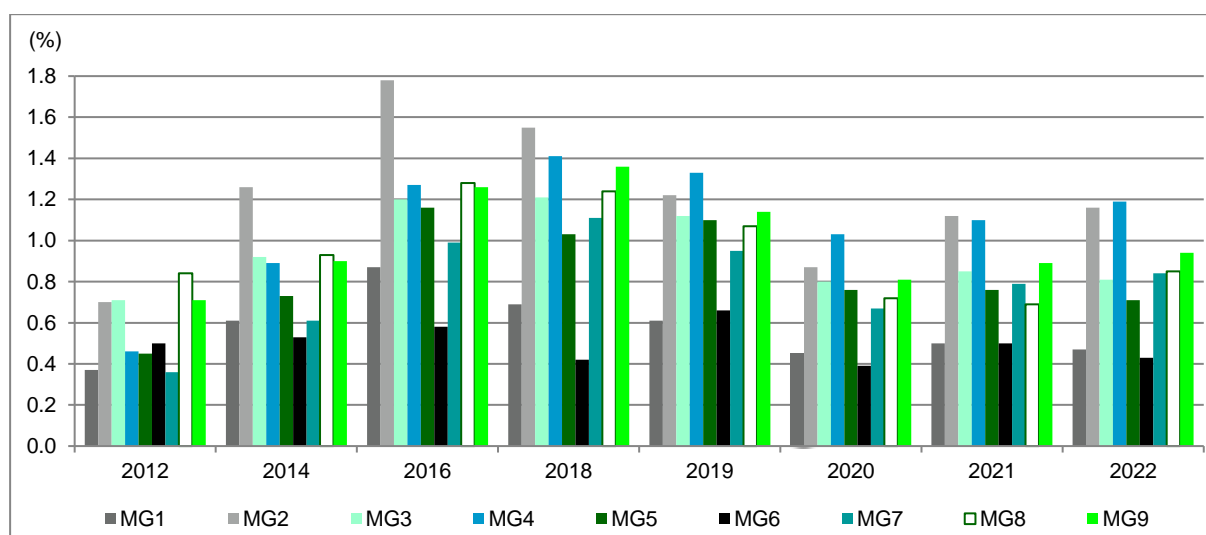
Figure 4.14. Average annual job vacancy rate at national economy level and in the non-agricultural activities, during 2012-2022



Source: NIS, Job vacancies survey

The highest demand for paid labour force is for occupations related to professionals (MG2). In 2022, the number of job vacancies from this major group of occupations was 13.3 thousand, followed by the major group of elementary occupations (MG9) with 6.4 thousand job vacancies, respectively the major group of occupations related to service and sales workers (MG5) with 5.7 thousand job vacancies.

Figure 4.15. Average annual job vacancy rate, by occupation, during 2012-2022



MG1 Managers
MG2 Professionals
MG3 Technicians and associate professionals
MG4 Clerical support workers
MG5 Service and sales workers

MG6 Skilled agricultural, forestry and fishery workers
MG7 Craft and related trades workers
MG8 Plant and machine operators and assemblers
MG9 Elementary occupations¹⁾

¹⁾ In accordance with Order no. 1635/2018 of the Ministry of Labour and Social Justice, the name "Unskilled workers" changed to "Elementary occupations".

Source: NIS, Job vacancies survey

As a result of the economic situation created in the context of COVID-19 pandemic, in almost all major groups of occupations, the average annual number of job vacancies registered decreases. Thus, as compared with 2018, the most significant decreases were registered among the occupations related to professionals (MG2) (-7.0 thousand job vacancies in 2020), followed by elementary occupations (MG9) (-3.8 thousand job vacancies in 2020).

Labour demand returned to an upward trend in the next two years for almost all occupation groups. Compared to 2020, the most important increases of the number of job vacancies were found among the occupations related to professionals (MG2) (+3.0 thousand in 2021, respectively +3.9 thousand in 2022).

An important indicator for monitoring unemployment on the labour market is the *ratio between the number of job vacancies and the number of ILO unemployed*. For the period 2012-2022 this ratio was less than 1, which shows that the number of job vacancies do not cover the need for employment of the unemployed persons: in 2022, on average, were 9.7 job vacancies to 100 unemployed persons (with about 40% less than in 2018).

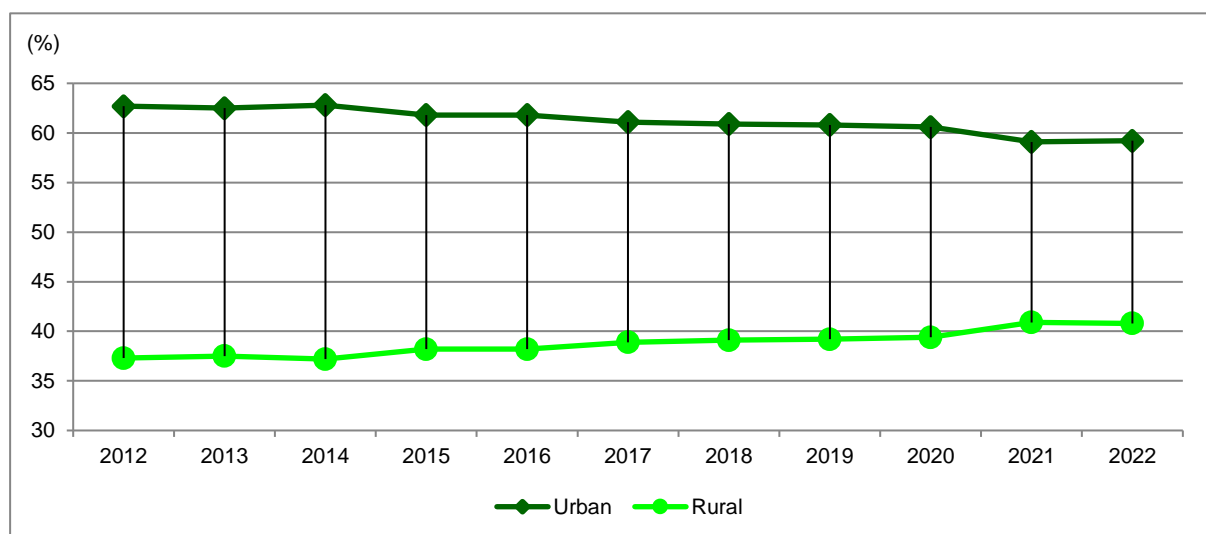
4.6. Trends in employment patterns

The characteristics of Romanian labour market mainly stem from the geo-political space influences where our country was placed over time, as well as from the population size and cultural values related to work relationships. An essential feature of the employment pattern in Romania is that most of the employment is ensured by employees (85.3% in 2022) with an upward trend of this share (in 2012, it was 78.6%).

Entrepreneurship is still not very developed in our country, employers share being only 1.4% in the total employed persons but this phenomenon is also correlated with the fiscal policies and labour related laws. Another feature of employment in our country is that 82.0% of people are working in the private sector. Furthermore, the largest share in employment is that of male population (57.6%).

Another aspect of the national employment pattern is the upward trend in the share of rural area in total employment, its share in total employment increasing from 37.3% in 2012 to 40.8% in 2022.

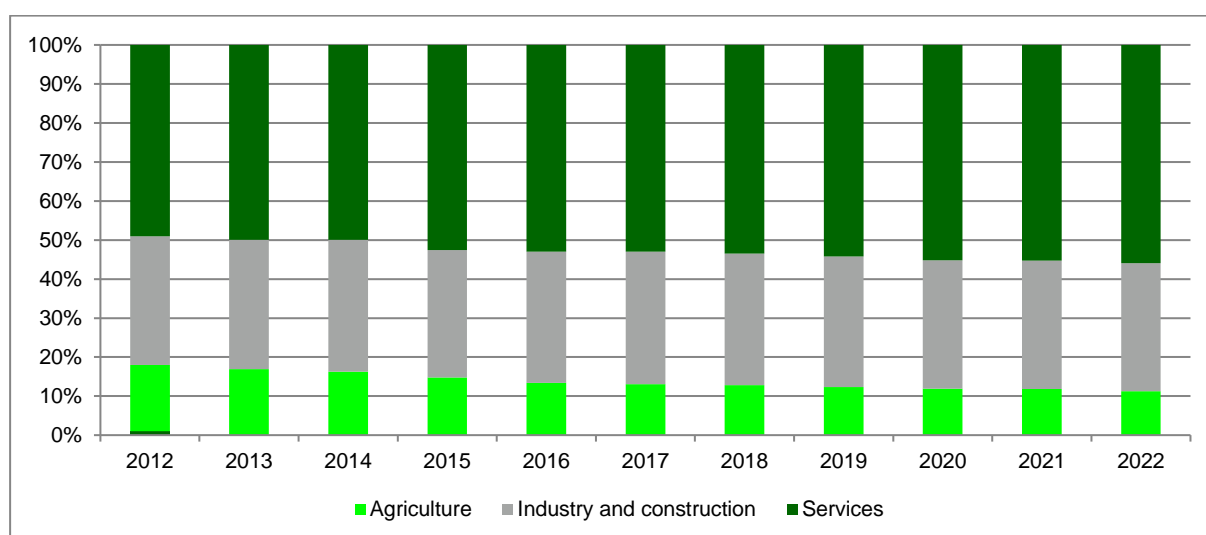
Figure 4.16. Employment distribution by residence area, during 2012-2022



Source: NIS, Household Labour Force Survey (LFS)

The distribution of employment by activity of the national economy, in 2022, indicates that 11.3% of all employed persons were concentrated in the agricultural sector, 32.8% in industry and construction and 55.9% in services. Over the last ten years, the share of employment in agriculture declined, mainly in favour of services.

Figure 4.17. Employment distribution by activity sector of the national economy, during 2012-2022



Source: NIS, Household Labour Force Survey (LFS)

In rural area, the agriculture owned 25.0%. In urban area services ranks first (66.6%) in the employment structure by activity of the national economy.

Strictly referring to employees, distinct employment patterns emerged at national level. Although services holds the majority for both men and women, 73.5% of employed women work in services, while male employees in services hold a share by 21.4 percentage points lower. Regarding industry and construction, 43.7% of male employees were employed in this sector as compared to 25.3% female employees.

Although the share of young workers (15-24 years) has declined over the last decade, the gender gap persists, meaning that young men have a higher share than that of female employed population of the same age (in 2022, 5.1% of male employees were aged between 15 and 24 years, while the share of the employed young girls aged 15-24 was 3.9%).

4.7. Information and Communication Technology

The COVID-19 pandemic has highlighted how Europe's societies and economies rely on digital solutions. In order to support Europe's economic recovery, but especially to ensure a sustainable, intelligent economic growth that promotes social inclusion, the European Union has developed a Proposal for a Regulation of the European Parliament and of the Council establishing the Digital Europe (DIGITAL) program for the period 2021-2027¹. According to the proposed regulation, the DIGITAL program will have as general objectives supporting the digital transformation of the European economy and society and bringing benefits to European citizens and businesses, and as specific objectives (5 specific objectives): high-performance computing; artificial intelligence; cyber security and trust; advanced digital skills; development, optimal use of digital capabilities and interoperability.

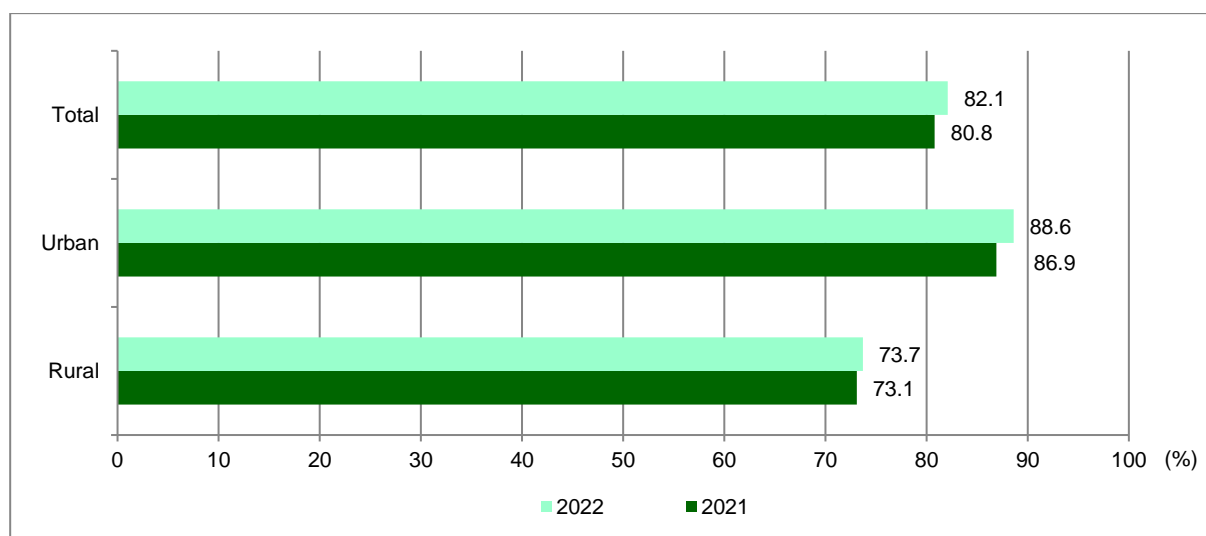
To achieve the general and specific objectives, emphasis is placed on the implementation in Europe of cutting-edge digital technologies; access to high-speed internet, enhancing the digital skills of European citizens to enable them to acquire the necessary knowledge to cope with digital transformation – essential skills for the entire EU workforce, as well as for reducing gaps and filling skill shortages across the Union. The program is inclusive, aiming to build strategic digital capacities to benefit from the digital revolution, develop and strengthen the industry by supporting the digital transformation of enterprises and promoting better exploitation of industrial potential and implementing policies of innovation, research, and technological development, for the benefit of enterprises and citizens throughout the Union, including those in the outermost regions, as well as economically disadvantaged areas.

¹ Source: The European Commission, <https://digital-strategy.ec.europa.eu/en/activities/digital-programme>; <https://eur-lex.europa.eu/legal-content/RO/TXT/uri=CELEX%3A52018PC0434>

The aspects related to the Internet access of households and the population in Romania are highlighted based on the results of an annual selective statistical survey (Survey on access to Information and Communication Technology - ICT).

In recent years, there has been an increase in the number of households in Romania with internet access. In 2022, the share of households with internet access was 82.1%². At the European level, this indicator is calculated for households with at least one person aged 16-74 years, recording a value of 92.4% across EU27 in 2022. Although the value of the indicator for Romania is below the average of the European Union Member States, in 2022, the share of households, with at least one person aged 16-74 years, having internet access was 89.4%. The increase recorded by this indicator compared to 2021 was 0.7 percentage points, and the increase in the degree of internet access compared to 2012 was significant, at 35.6 percentage points. It is thus notable that the internet is gaining more and more users in Romanian households, regardless of age, gender, level of education, or the occupational status of the person designated as head of the household, and regardless of the residential environment of the household.

Figure 4.18. Share of households with access internet, by area residence, in 2021 and 2022



Source: NIS, Survey on population access to Information and Communications Technology (ICT)

² Since 2014, the data were estimated based on the usually resident population on January 1st of reference year and are not comparable to the series published for previous periods. For the year 2022, the data were estimated based on the population on January 1, with the usual residence in private households of the population.

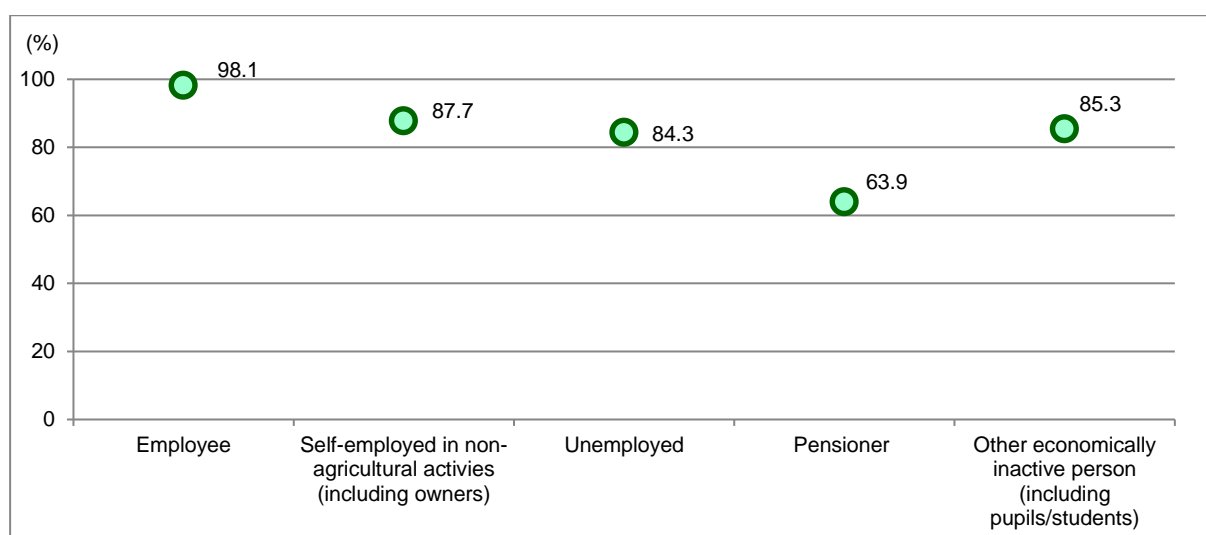
By residential area, it is obvious that internet use is more prevalent in urban areas (88.6%) compared to rural ones (73.7%).

Another relevant indicator for monitoring households in terms of information technology is the share of households with internet access by the education level of the household head.

As the education level of the household head increases, so does the interest in using the internet. Thus, in 2022, only 55.0% of households whose head had a low level of education were connected to the internet, while internet was a facility available at home for 89.6% of households whose head had medium-level education and for 98.5% of households whose head had a higher level of education.

In 2022, households with internet access, whose head was an employee, held the highest share in the total of such households (98.1%), while at the opposite end were households whose head was a retired person (63.9%).

Figure 4.19. Share of households with access to the internet, by the occupational status of the household head, in 2022



Source: NIS, Survey on population access to Information and Communications Technology (ICT)

Based on the age of the household head, internet access is generally found in households of young people (98.1% of households with persons aged 16-24 years and 96.5% of households with persons aged 25-34 years), as well as in households of adults under 55 years of age (97.5% of households with persons aged 35-44 years and 96.5% of those with persons aged 45-54 years).

In 2022, among individuals aged 16-74 years, 88.9% reported that they had used the internet in the last 12 months (89.2% among males and 88.5% among females).

Regarding individuals aged 16-74 years who accessed the internet in 2022, the share of those who accessed the internet in the last 3 months was 85.5% (86.3% for men and 84.8% for women).

Among individuals aged 16-74 years who accessed the internet in the last 3 months, the majority (69.2%) mentioned that they used the internet several times a day, 21.1% used the internet once a day or almost every day, 8.0% at least once a week, and 1.7% accessed the internet less frequently than once a week.

Recent years have also seen an increase in the use of the internet for online shopping, so that in 2022, 27.1% of individuals aged 16-74 years accessed the internet to order goods or services online in the last 3 months.

4.8. Employment and information technology in the international context

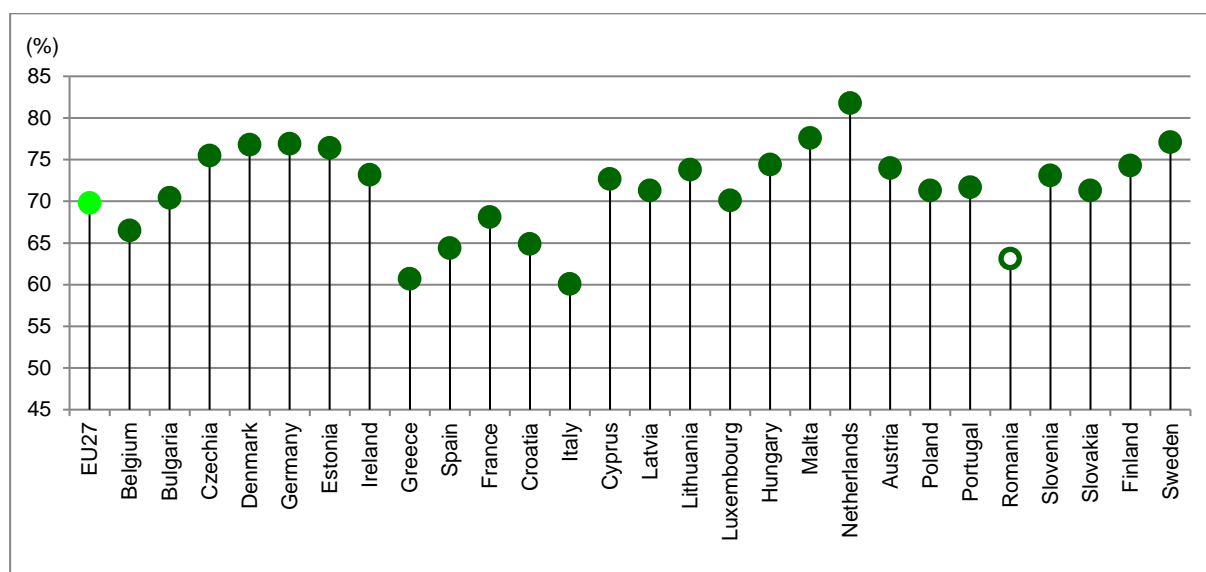
4.8.1. Employment in the international context

Labour market statistics are essential for shaping the employment policies of the European Union, the employment rate being a key social indicator used for the study of employment evolution at European level.

The increase in the average employment rate³ for the European countries, interrupted its course in 2020 when in the context of the COVID-19 pandemic there was a significant decrease in the employment rate. In the years that followed, the employment rate continued to increase, exceeding the level of 2019. In 2021, the employment rate in the EU27 for people aged 15-64 was 68.3%, and 69.8% in 2022.

³ For the population aged 15-64.

**Figure 4.20. Employment rates in the EU Member States,
in 2022**

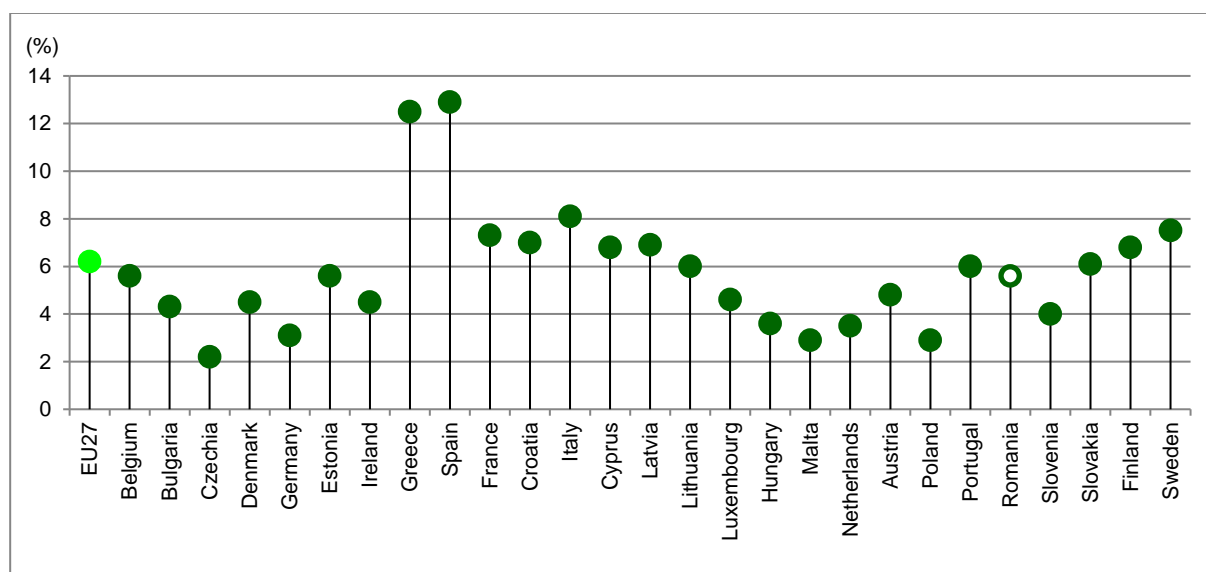


Source: Eurostat, <http://ec.europa.eu/eurostat/data/database>

In 2022, among the EU Member States where the employment rates reached the highest values are in Netherlands (81.8%), Malta (77.6%) and Sweden (77.1%). At the other end of the scale, employment rates were below 65.0%, the lowest rates being recorded in Italy (60.1%), Greece (60.7%), Romania (63.1%), Spain (64.4%) and Croatia (64.9%).

In 2022, the average unemployment rate for the EU27 was 6.2%, but the highest values were observed in Greece (12.5%) and Spain (12.9%).

Figure 4.21. Unemployment rate in the EU Member States, in 2022



Source: Eurostat, <http://ec.europa.eu/eurostat/data/database>

Although the average for the 27 Member States show no significant differences by gender (unemployment rates for women exceeds that of men by 0.6 percentage points), at national levels high gaps are observed in the unemployment rates for men and women. For example, in some Member States, the unemployment rate for men exceeds the values calculated for female population (by 2.5 percentage points in Latvia). There are States where the unemployment rate is higher for female population (by 7.1 percentage points in Greece and by 3.5 percentage points in Spain).

A major concern in respect to employment at European community level are the young people neither in employment, nor in education or training (NEETs).

Table 4.3. Rate of young people neither in employment, nor in education or training in the EU Member States, during 2012-2022

(%)

	2012	2014	2016	2018	2020	2022
EU 27 from 2020	13.2	13.0	12.1	10.9	11.4	9.6
Belgium	11.5	11.2	9.2	8.5	8.6	6.6
Bulgaria	21.2	20.0	18.0	15.0	14.3	12.5
Czechia	8.9	8.1	7.0	5.6	6.6	8.0
Danmark	7.3	6.4	6.7	7.7	7.4	6.7
Germany	8.0	7.2	7.6	6.7	8.2	6.8
Estonia	12.0	11.5	9.2	10.2	9.0	10.7
Ireland	19.2	15.2	12.6	10.1	12.0	6.8
Greece	17.3	16.4	13.6	12.1	11.3	10.6
Spain	18.6	17.1	14.6	12.4	13.9	10.5
France	9.9	11.1	11.7	10.9	11.2	10.1
Croatia	16.6	19.3	16.9	13.6	12.2	11.9
Italy	22.1	23.2	20.9	20.3	20.0	15.9
Cyprus	16.0	17.0	16.0	13.2	14.4	12.9
Latvia	14.9	12.0	11.2	7.8	7.1	8.6
Lithuania	11.2	9.9	9.4	8.0	10.8	9.7
Luxembourg	5.9	6.3	5.4	5.3	6.5	6.7
Hungary	14.4	13.2	10.5	9.8	11.0	9.9
Malta	10.8	10.3	8.8	7.3	9.3	7.1
Netherlands	6.2	6.9	5.9	5.5	5.8	2.8
Austria	7.4	8.4	8.4	7.5	8.6	8.1
Poland	12.1	12.2	10.8	8.8	8.8	8.0
Portugal	13.9	12.3	10.6	8.4	9.1	6.6
Romania	21.2	21.4	21.3	18.3	18.4	17.5
Slovenia	8.5	8.6	7.4	6.0	6.9	8.2
Slovakia	14.1	13.0	12.4	10.3	10.8	9.6
Finland	7.9	9.2	9.1	7.9	8.4	7.6
Sweden	7.5	6.9	6.3	5.8	6.2	4.9

Source: Eurostat. <http://ec.europa.eu/eurostat/data/database>

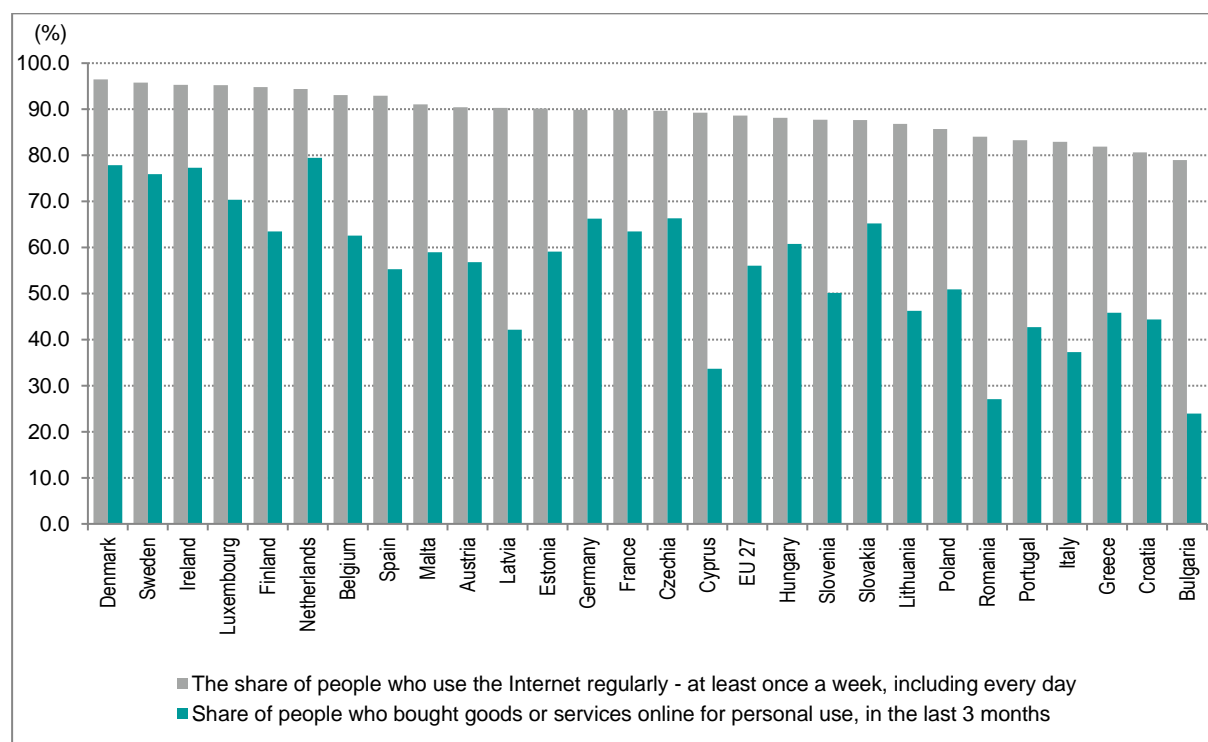
In 2022, 9.6% of people aged 15 to 24 years in the EU were neither in employment nor in education or training. The situation is serious for some States, such as Romania (17.5%), Italy (15.9%), Cyprus (12.9%), Bulgaria (12.5%) and Croatia (11.9%), where the NEETs rate is well above the EU average.

4.8.2. ICT in the international context

The internet and digital technologies are transforming the world we live in, but due to existing online barriers, people's access to some goods and services can be limited. In this context, the European Union, through the Digital Europe Programme (DIGITAL) for the period 2021-2027, aims to create and develop a single digital market. This single market will be able to provide a framework for training the European labourforce (through courses and training internships), boost European economic growth, stimulate job creation, investment, competition, and innovation. A workforce trained with skills in line with new technologies can expand markets, promote better services at more advantageous costs/prices, transform public services, and create new jobs. In this context, Romania, as an EU member state, must adhere to this digitalization program, focus on maximizing the impact of public policies, and view investments in ICT as the main way to transform the Romanian economy into a competitive one.

Comparisons with other EU member states show that Romania is on the path of digital development, but it is not in the leading group of countries where households have access to internet.

Figure 4.22. Share of people aged 16-74, in EU Member States, after using the internet at least once a week (including every day), in 2022 and of those who, in the last 3 months, ordered goods or services online



Source: Eurostat, <http://ec.europa.eu/eurostat/data/database>

Romania holds the 22nd position among EU Member States in terms of regular internet usage - at least once a week (including daily), with 84.1% of all individuals aged 16-74 using the internet. In the ranking of countries where the population has ordered goods or services for personal use, Romania is in the penultimate position (27.1%), placed ahead of Bulgaria by over 3 percentage points.

Given the above context, it is necessary to prioritize investments in the ICT sector in Romania, as this prioritization is the key driver for aligning with the objectives of the Digital Europe Programme. Digital development must occur on all fronts, from the development of digital services, artificial intelligence, cybersecurity, and digital connectivity, to advanced technologies implemented in the economy, health, education, justice, public administration, and also in enhancing the population's skills, access to digital services, and changing the population's behavior in line with technological development.

5. POPULATION INCOME AND EXPENDITURE

5.1. Survey objectives

An analysis of the level and evolution of the population income and expenditure of the population is of particular importance for the development of national macroeconomic policies, because it provides information on the level of socio-economic development, the standard of living, the level of civilization and cultural development, consumption patterns and structural changes in aggregate demand. Moreover, the importance of the research derives from the fact that the data related to the income, expenditure and consumption of the population are used in the calculation of some synthetic indicators of major importance at the national and regional level, such as consumer price index and macroeconomic aggregates (national accounts). The data presented in this chapter include household's income and expenditure, as well as household's consumption, depending on their types and destination and the socio-economic characteristics for the population of Romania. The chapter also provides the comparative trends of the level of indicators for the period 2012-2022.

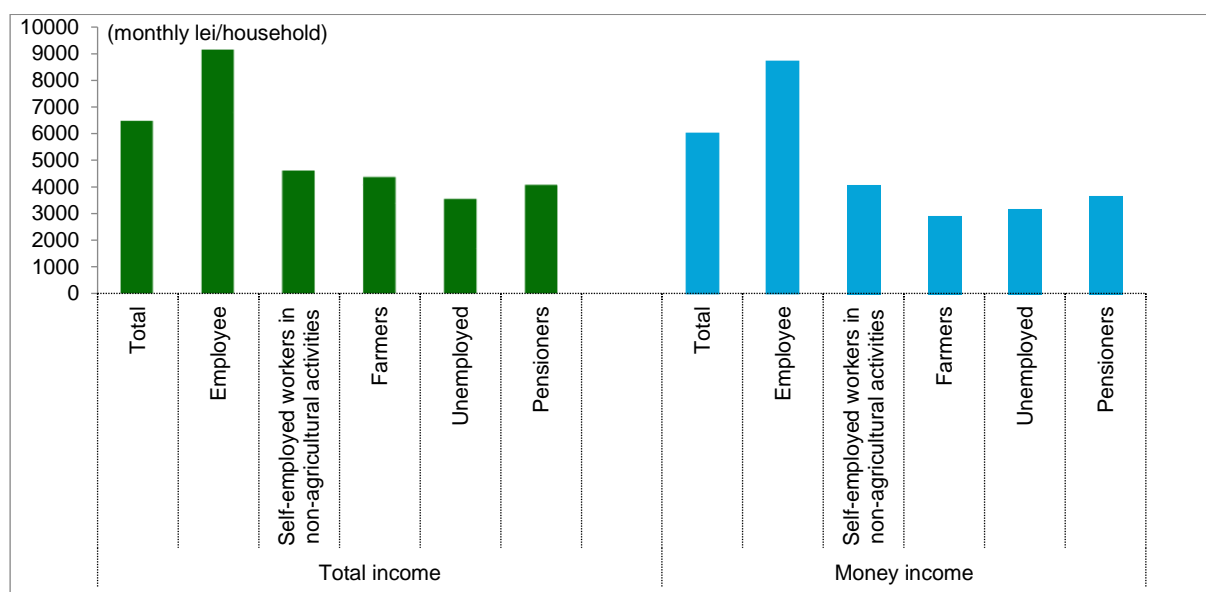
5.2. Households income

5.2.1. Total households income

According to the results of the household budget survey, in 2022, the total average monthly income of households represented, in nominal terms, 6464.1 lei, their value being with 1247.7 lei (23.9%) higher than in 2020 and 2.6 times higher than in 2012. Money income were, on average, 5993.7 lei monthly per household, increasing by 1153.5 lei compared to 2020, and income in kind of 470.4 lei monthly per household (94.2 lei higher compared to 2020). Compared to 2012, money income increased 2.9 times, and those in kind increased 1.1 times.

The occupational status of the household's head has a strong impact on the size and structure of income. Depending on the occupational status of the household's head, employees households have, on average, the highest level of monthly income (9116.9 lei), followed by self-employed workers in non-farmers activities (4590.6 lei), farmers (4351.9 lei), households of pensioners (4061.7 lei) and the unemployed (3541.3 lei).

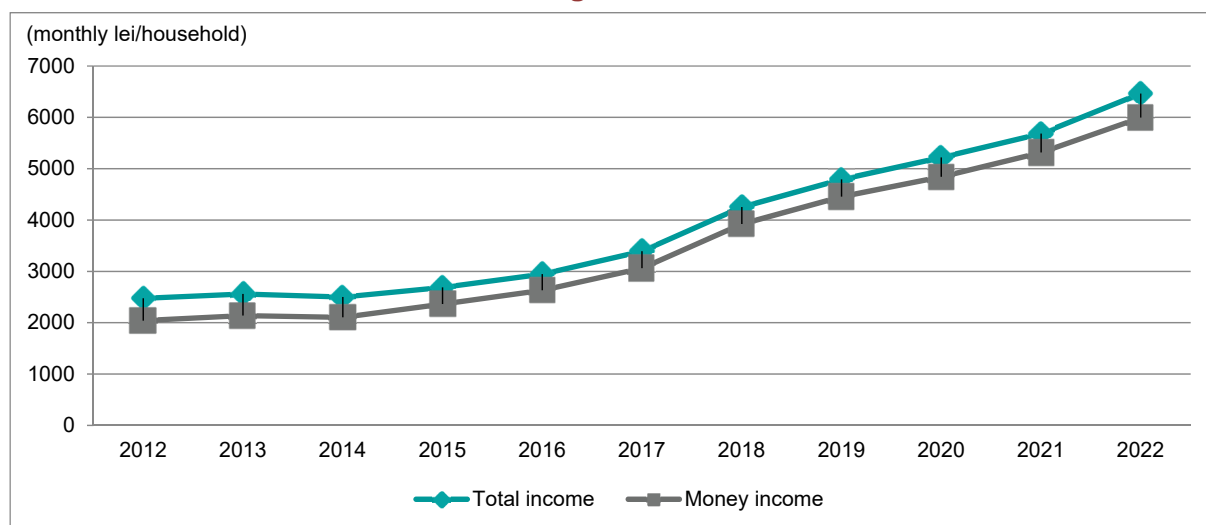
Figure 5.1. Average household total income and money income, by occupational status of the household's head, in 2022



Source: NIS, Household Budget Survey (HBS)

In the period 2012-2022, the total income of the population's households increased, on average, by 10.1% annually, and the money ones had an average annual growth rate of 11.4%.

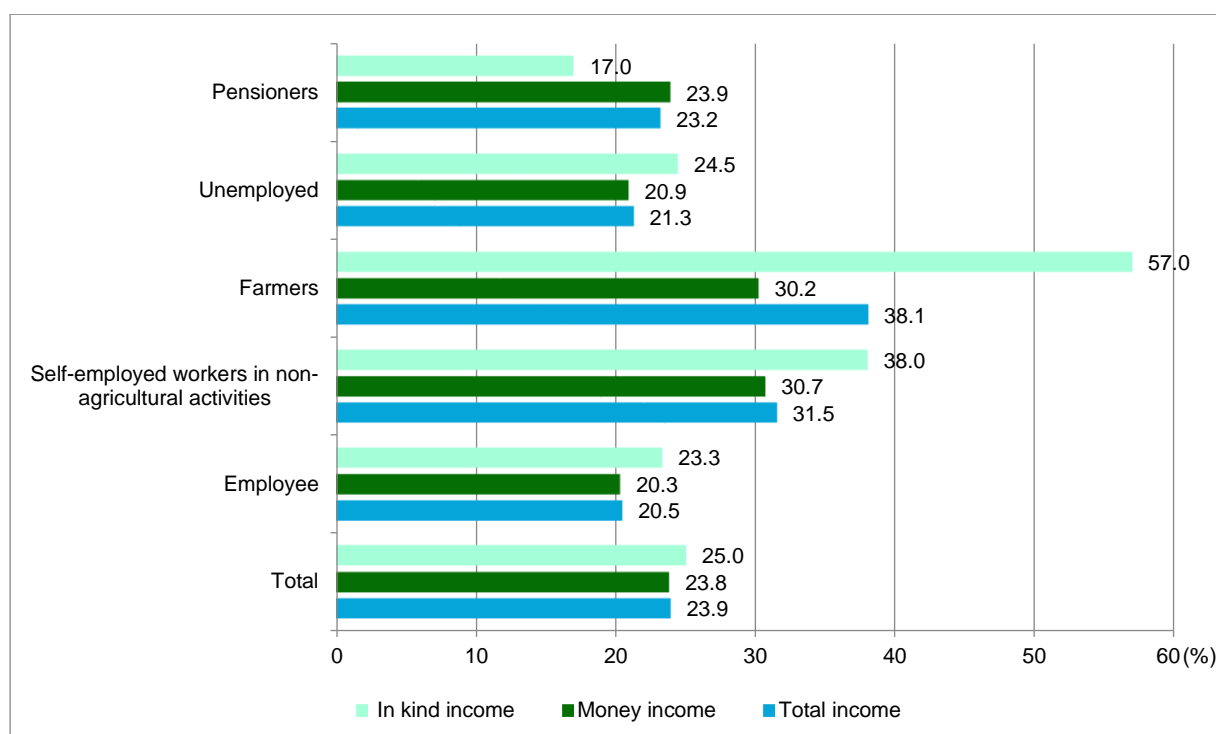
Figure 5.2. Average household total income and money income, during 2012-2022



Source: NIS, Household Budget Survey (HBS)

The increase in total income (23.9%), compared to 2020, was determined, mainly, by the increase in money income by 23.8%, but also by in-kind income by 25.0%. All categories of households registered increases in income in kind. It is noted that the income of households with a designated household head being an employee are in a very large proportion (95.4% in 2022) money income, representing an increase of 5.9 percentage points compared to 2012, while for farmers households, money income represented 66.7% of the household total income, increasing by 14.1 percentage points compared to 2012.

Figure 5.3. The growth rates of the average total income, the average money income and in kind income of the household's population, in 2022 compared to 2020

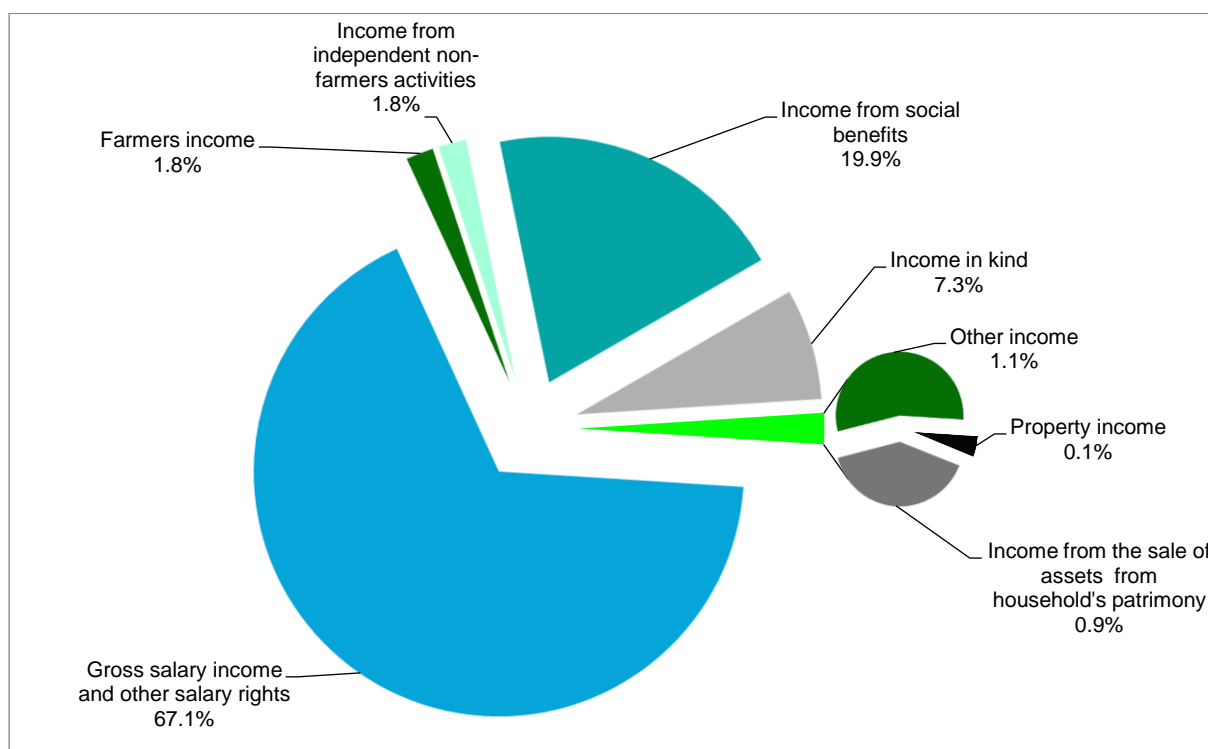


Source: NIS, Household Budget Survey (HBS)

In 2022, salaries and other income associated with them formed the most important source of income, having the largest share in the total income of households (67.1%). Income from social benefits (19.9%), income in kind (7.3%), income from agriculture (1.8%) and income from independent non-farmers activities (1.8%), also contributed to the formation of total household incomes.

In the 2020-2022 period, there were no significant changes in the share of these income categories in total household income, but compared to 2012, the share of salaries increased by 17.0 percentage points, and the share of income in kind decreased by 10.3 percentage points.

Figure 5.4. Structure of total households income, in 2022



Source: NIS, Household Budget Survey (HBS)

The structure of the total income of the households of the population in Romania is similar in both areas of residence.

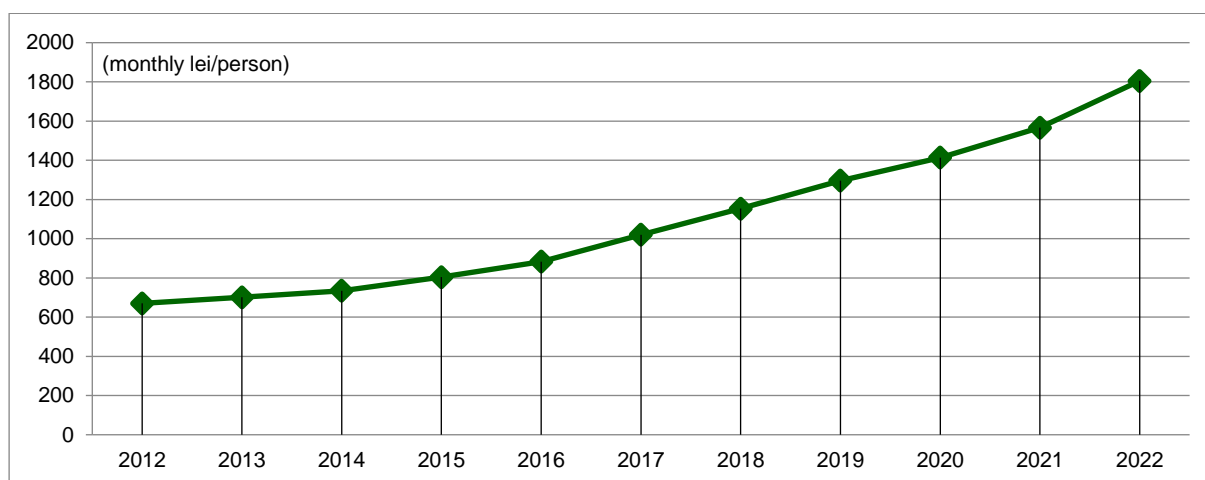
In the urban area, 73.9% of household income came from gross salaries and other salary rights, and 18.5% from social benefits.

The main source of income for rural households is, also, represented by salary income, in a proportion of 55.4%, followed by income from social benefits (22.4%), these being completed by income in kind which provides 12.5% from the total income in rural area.

5.2.2. Household disposable income

The average monthly disposable income per person was, in 2022, 1805.1 lei, their evolution being placed on an upward trajectory in the period 2012-2022, with an annual average increase of 113.5 lei.

Figure 5.5. Evolution of average monthly disposable income, during 2012-2022



Source: NIS, Household Budget Survey (HBS)

In 2022, depending on the occupational status of household's head, employees households recorded the highest average monthly level of disposable income of 2006.3 lei per person, at the opposite pole are unemployed households (870.0 lei).

Figure 5.6. Average monthly disposable income, according to the occupational status of the household's head, in 2022



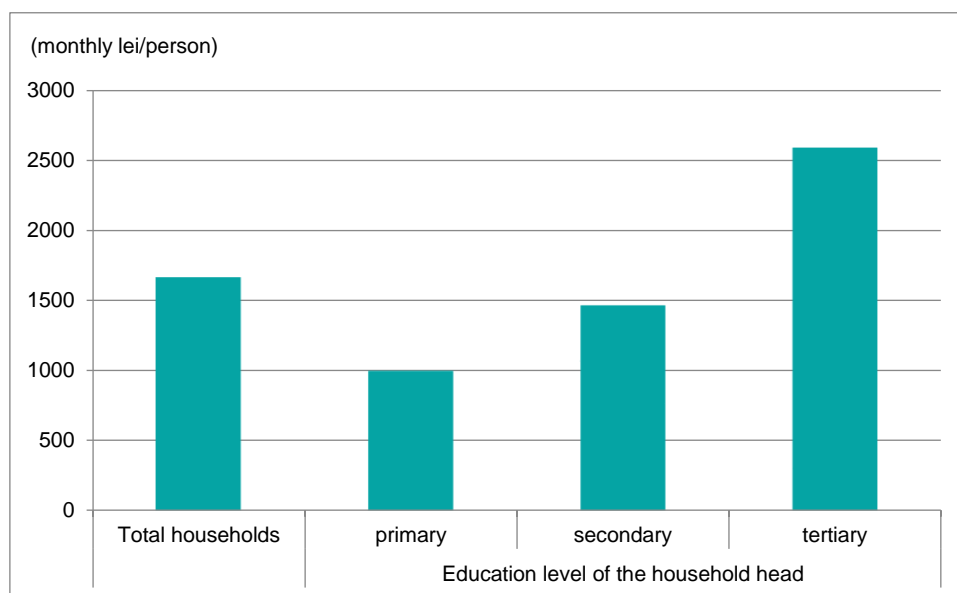
Source: NIS, Household Budget Survey (HBS)

The level of education of the household's head is a factor that influences the size and structure of disposable income. The higher the education level of the household's head, the higher the household's average disposable income per person, and the money income has a greater weight.

In 2022, the disposable money incomes in households whose household's head had a higher level of education were 2583.2 lei monthly per person, 922.2 lei higher than the monthly

average per person of the disposable income of all households in the country and 1.8 times higher than those of households where the household's head graduated from secondary education.

Figure 5.7. Disposable money income according to the education level of the household's head, in 2022

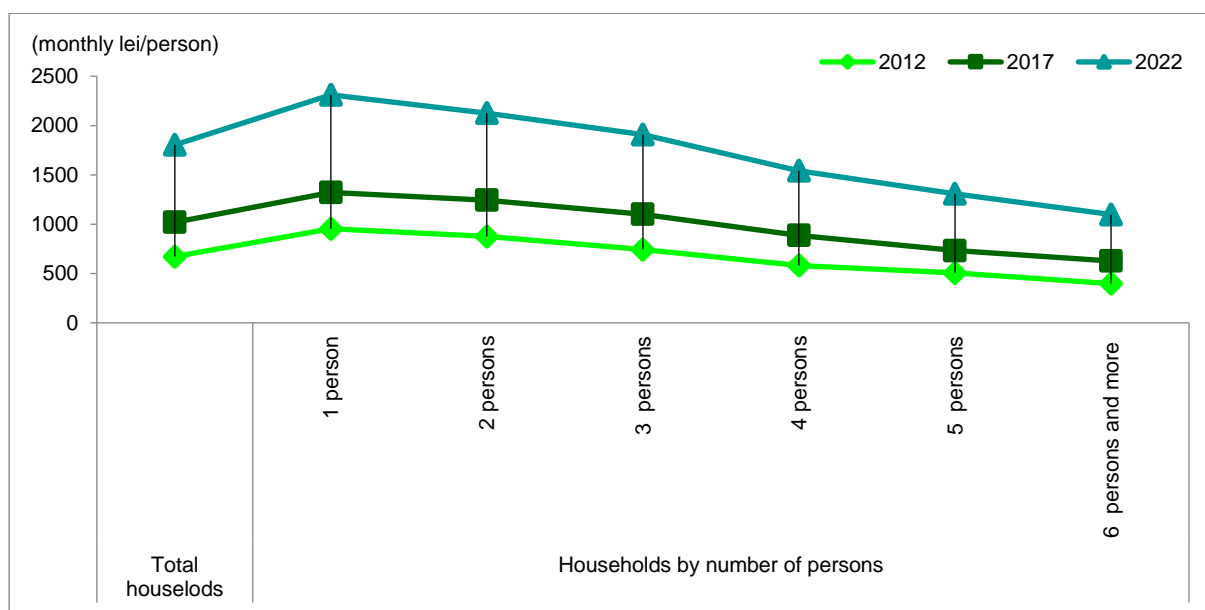


Source: NIS, Household Budget Survey (HBS)

Although the average disposable income per person have an upward evolution over time, their level differs from one household to another, depending on the number of members of which the household is composed. The larger the size of the household, the lower the level of disposable income per person, and the growth over time is slower.

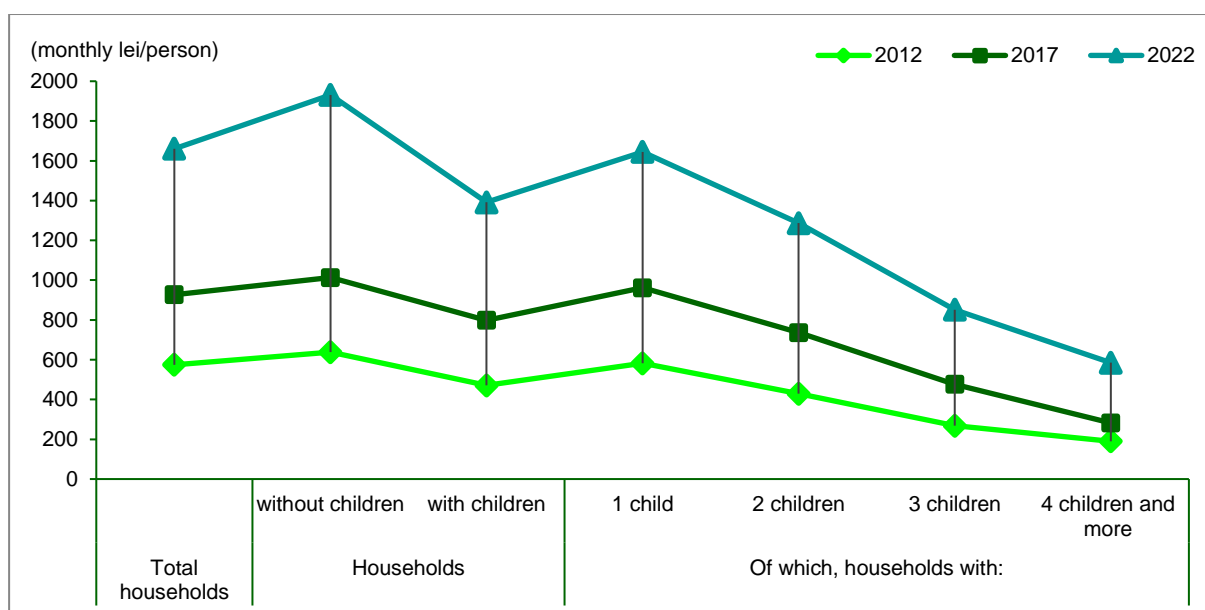
In our country, in 2022, the average monthly disposable income per person of households with at least six members (1098.2 lei) is at 47.5% of the disposable income recorded by households with only one person (2310.9 lei). Also, disposable income is inversely proportional to the number of children in the household: the more children there are in the household, the lower the average monthly disposable income per person. For households without children, the average monthly disposable income per person was 1.4 times higher compared to those with children.

Figure 5.8. Average disposable income per person, by household size, in 2012, 2017 and 2022



Source: NIS, Household Budget Survey (HBS)

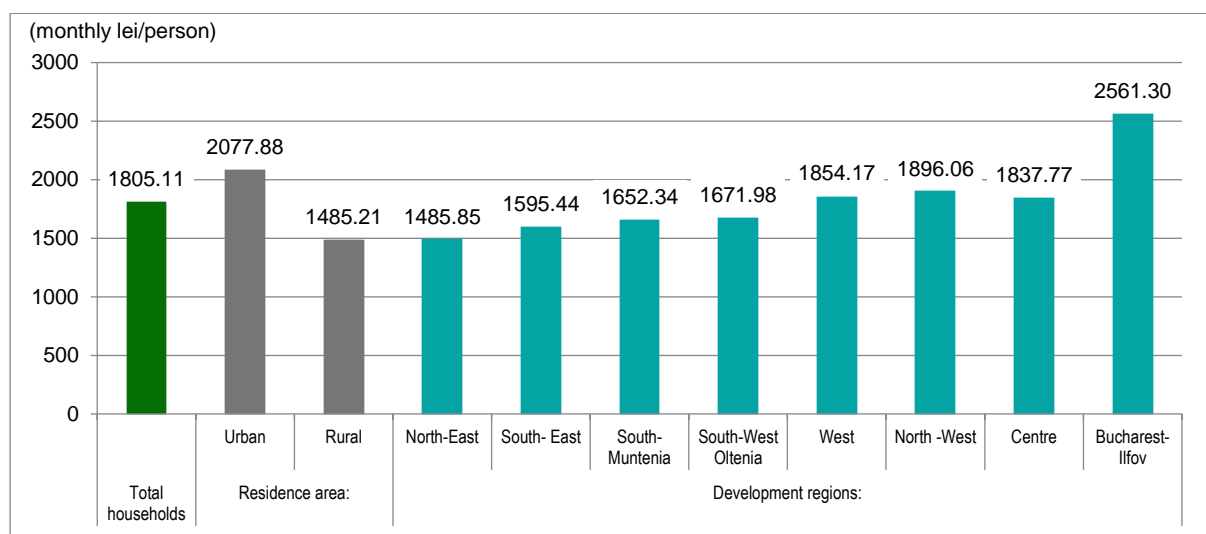
Figure 5.9. Average disposable money income per person, by number of children in the household, in 2012, 2017 and 2022



Source: NIS, Household Budget Survey (HBS)

The concentration of economic growth engines in certain geographical areas and urban centers in the country has led to the creation of disparities in people's income, both between development regions and between urban-rural residence areas. Thus, in 2022, the ratio between the average disposable income per person in the urban area and those in the rural area was 1.4.

Figure 5.10. Average disposable income per person, by development regions and residence area, in 2022



Source: NIS, Household Budget Survey (HBS)

In territorial profile, half of the development regions are characterized by an average disposable income of the population above the national average (West, North-West, Centre and Bucharest-Ilfov). Bucharest-Ilfov is at the top of the regions, in terms of the average level of disposable income, with a level 1.7 times higher than the diametrically opposite region in the ranking, the North-East region.

5.3. Earnings and income from social insurance pensions

5.3.1. Earnings

Earnings are a significant component of the income that most of the labour force benefits, from at least two perspectives: 1) a relatively high share in total income and 2) regular income in the household budget.

The presence of employees in the household and the level of their earnings are two of the main differentiating factors for the total household income, and the earnings evolution is the main driving force for the evolution of the general level of population income. The statistical survey on labour cost provides useful information to reveal the evolution of earnings in the main activities of the national economy (by section, according to CANE Rev.2).

In contrast to the indicator “Salaries and other remuneration” presented in the previous section of the publication, and which resulted from the household budget survey, in this subchapter the “earnings” indicator is presented and resulted from the Labour cost survey.

In 2022, the nominal average net monthly earnings increased with 385 lei compared with the previous year, respectively with 584 lei as against 2020. The last years maintain an upward trend of the average net monthly earnings, for all activities of the national economy. In nominal terms, the average net monthly earnings increased annually, for 2000-2020 period, with an average rate of 14.0%.

The average net earnings vary significantly from one activity of the national economy to another. In 2022, the highest values were registered in information and communication (7694 lei), financial and insurance activities (6273 lei), as well as in electricity, gas, steam and air conditioning supply (5984 lei). At the opposite side with the lowest earnings were the activities related to accommodation and food service activities (2165 lei), respectively other service activities (2380 lei).

Table 5.1. Average net monthly earnings, by activity (section) of national economy¹

-lei-						
Activities of national economy (section level)	2010	2015	2018	2020	2021	2022
A Agriculture, forestry and fishing	1024	1371	2138	2412	2645	3251
B Mining and quarrying	2435	3454	3789	4552	4921	5475
C Manufacturing	1237	1704	2342	2757	2996	3441
D Electricity, gas, steam and air conditioning supply	2671	3077	3815	4832	5187	5984
E Water supply; sewerage, waste management, remediation activities	1256	1575	2221	2648	2770	3088
F Construction	1125	1422	1924	3065	3311	3503
G Wholesale and retail trade; repair of motor vehicles and motorcycles	1166	1588	2228	2609	2806	3222
H Transportation and storage	1557	1863	2450	2907	3064	3466
I Accommodation and food service activities	786	1080	1565	1762	1881	2165
J Information and communication	2687	3822	5202	6191	6775	7694
K Financial and insurance activities	3200	4004	4532	5315	5576	6273
L Real estate activities	1182	1516	2125	2524	2449	2748
M Professional, scientific and technical activities	1915	2748	3462	4143	4401	4795
N Administrative and support services activities	940	1427	2077	2457	2568	2911
O Public administration ^{*)}	1968	2893	4407	5212	5278	5568
P Education	1380	1886	2821	3574	3572	3838
Q Human health and social work activities	1226	1656	3388	4003	4084	4160
R Arts, entertainment and recreation	1103	1385	2236	2723	2912	3218
S Other services activities	824	1297	1752	2024	2159	2380

Source: NIS, Labour cost survey

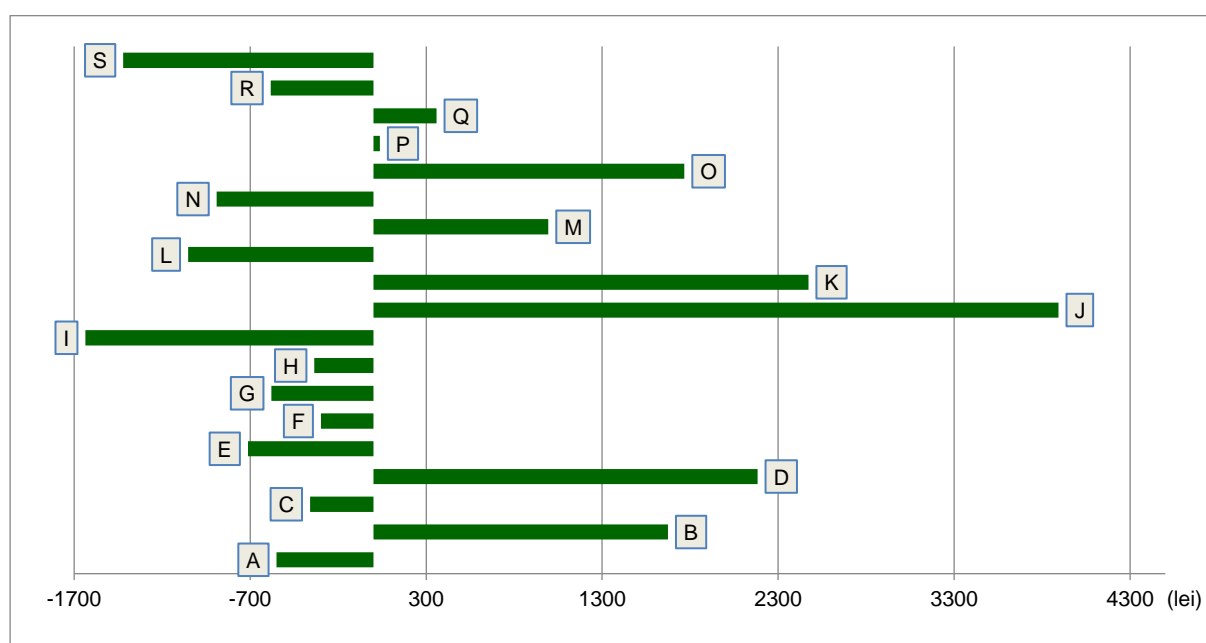
*) excluding armed forces and assimilated

¹ According to CANE Rev.2

Compared to the previous year, in 2022, increases of the average net monthly earnings were recorded in all economic activities, and the most significant were found in agriculture, forestry and fishing (+22.9%), electricity, gas, steam and air conditioning supply (+15.4%), respectively accommodation and food service activities (+15.1%). At the opposite side with the lowest increases of the average net monthly earnings were the activities related to human health and social work activities (+1.9%), public administration (+5.5%), respectively construction (+5.8%).

In 2022, the relative differences in the average net earnings, as against the national average (3801 lei), shows also, disparities between activities of national economy. On the positive side, with the highest values, are the economic activities related to information and communication, financial and insurance activities, respectively electricity, gas, steam and air conditioning supply.

Figure 5.11. Disparities from the average of the average net monthly earnings, by activity of national economy, in 2022



- | | |
|--|---|
| A Agriculture, forestry and fishing | K Financial and insurance activities |
| B Mining and quarrying | L Real estate activities |
| C Manufacturing | M Professional, scientific and technical activities |
| D Electricity, gas, steam and air conditioning supply | N Administrative and support services activities |
| E Water supply; sewerage, waste management and remediation activities | O Public administration*) |
| F Construction | P Education |
| G Wholesale and retail trade; repair of motor vehicles and motorcycles | Q Human health and social work activities |
| H Transportation and storage | R Arts, entertainment and recreation |
| I Accommodation and food service activities | S Other services activities |
| J Information and communication | |

Source: NIS, Labour cost survey

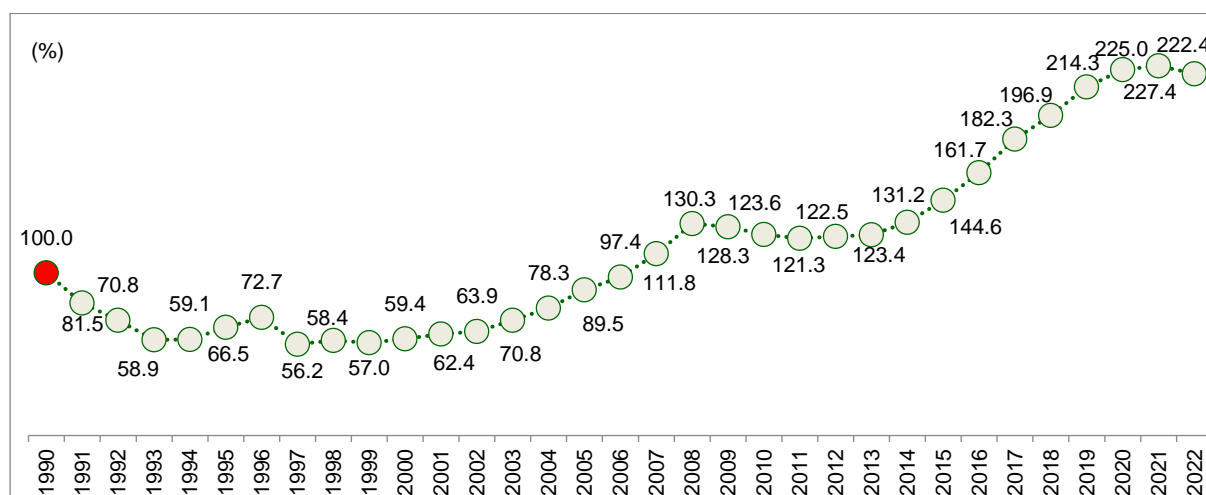
*) excluding armed forces and assimilated

An important indicator of macroeconomic analysis is **the real earnings index**.

For 1991-2022 period, the real earnings index values (1990=100) registered great variations, between 56.2% (in 1997) and 227.4% (in 2021).

If at the beginning of the 2000s, compared to the previous decade, a revival of the real earnings index was registered, only in 2007 this value exceeded for the first time the one recorded in 1990 (by 11.8% as against 1990). In 2008, the value of the real earnings index was 130.3% as against 1990, and in the following years the trend was slightly decreasing. Starting with 2012, the real earnings index resumed its upward trend and reached its maximum value in 2021 (227.4% as against 1990). However, in 2022, as against the previous year, a decrease by 5.0 percentage points of the real earnings index was registered.

Figure 5.12. Real earnings index, during 1991-2022 (1990=100)

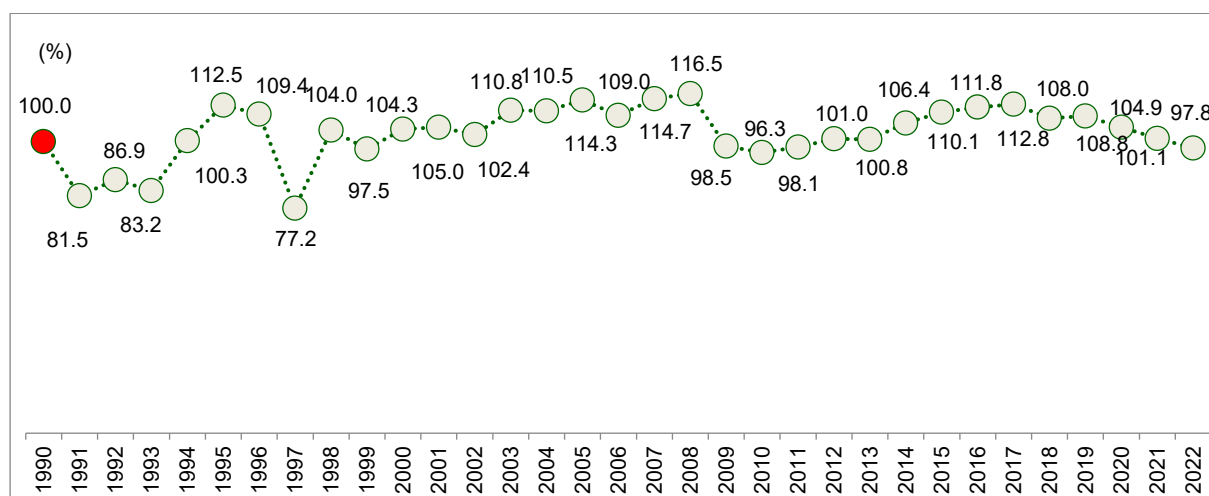


Source: NIS, Labour cost survey and consumer price index

The calculation of real earnings indices having as base the previous year signals the impact of the economic evolution. Thus, if until 1999 the indicator fluctuated, starting with 2000 it registered values of over 100%, the highest being in 2008 (116.5% as against 2007). In 2009-2011 period, the indicator had values below 100% (98.5% in 2009 as against 2008, 96.3% in 2010 as against 2009, respectively at 98.1% in 2011 as against 2010).

Starting with 2012, a slight reversal of the upward trend of the real earnings index is noticed, the most significant increase being registered in 2014 (by 5.6 percentage points as against the previous year). However, in 2022, the real earnings index fell again below 100% (97.8%, with 3.3 percentage points below the level of the previous year), as a result of a more accelerated increase of the consumer price index compared to the increase of the average net earnings index.

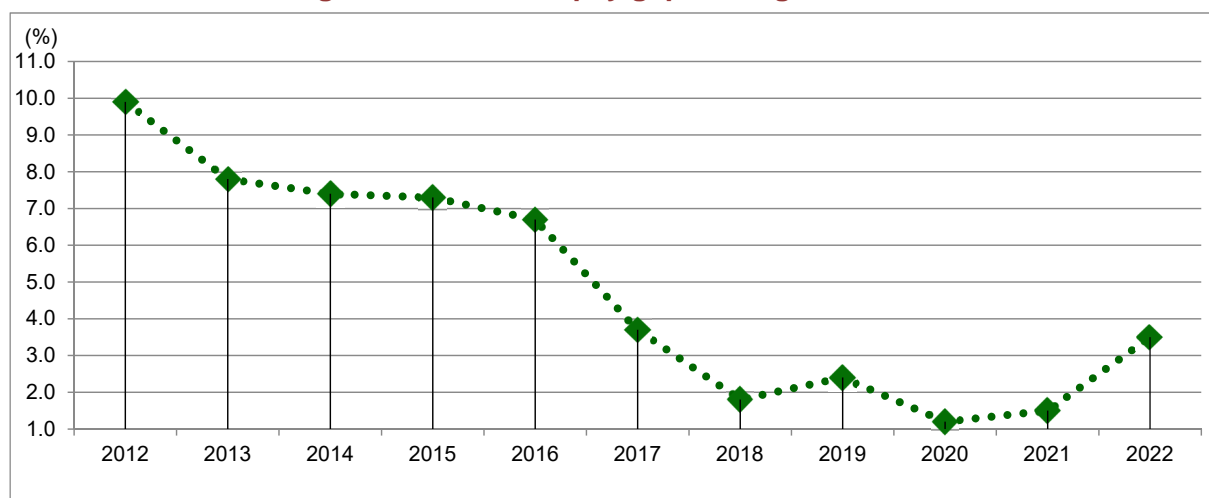
**Figure 5.13. Real earnings index (previous year=100),
during 1991-2022**



Source: NIS, Labour cost survey and consumer price index

As regarding the gender pay gap, women earned in 2022, on average, with 3.5% below the level of earnings registered by men. The gender pay gap is an indicator that expresses the difference between men's and women's average gross earnings as a percentage of men's average gross earnings.

Figure 5.14. Gender pay gap, during 2012-2022



Source: NIS, Labour cost survey

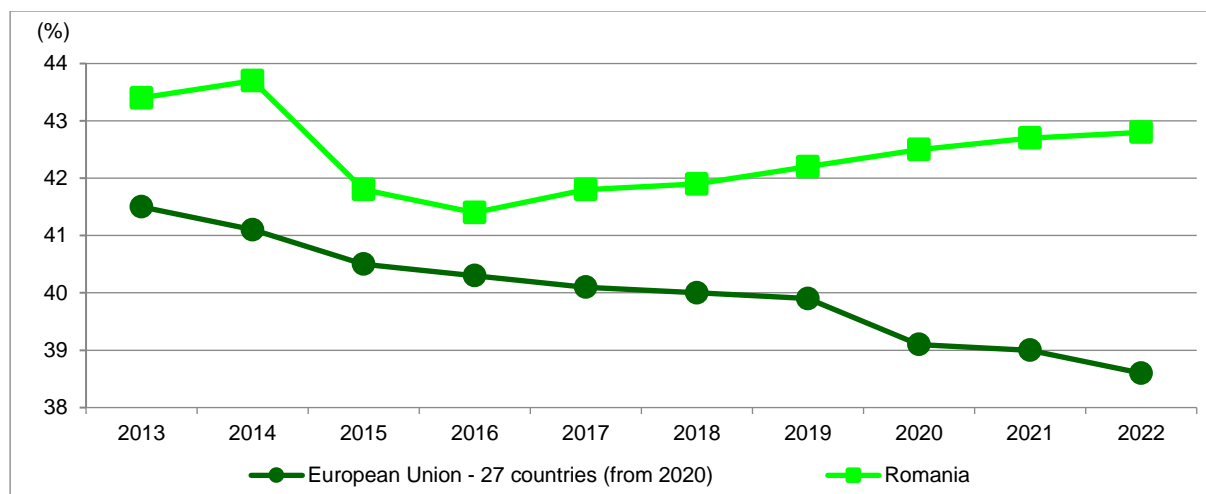
*) For the period 2010 - 2012 data were recalculated based on the results of Labour cost survey (originally, the data source for this indicator was the Survey on earnings in October).

In 2012-2018 period, the gender pay gap had a predominantly decreasing trend, which means a decrease in the differences in earnings by sex. In recent years, the indicator has had an oscillating evolution, with more important increases in 2019 (+0.6 percentage points as against 2018), respectively in 2022 (+2.0 percentage points as against 2021).

A relevant indicator for the labour market is the tax wedge on labour cost² and represents - in a broad sense - the share of all deductions (tax and social security contributions) incurred by the employee and by the employer in total labour cost.

In Romania, in 2022, the tax wedge on labour cost was 42.8%, being with 4.2 percentage points above the European average (38.6% in the EU27) and having an increasing trend since 2016.

Figure 5.15. Tax wedge on labour cost in Romania and in the European Union, during 2013-2022



Source: NIS, Labour cost survey for Romania and Eurostat for the EU

*) For previous years, the data have undergone revisions

During 2013-2022 period, the tax wedge on labour cost has remained ranged between 41.4% and 43.7%, but the average values have been constantly higher than the EU average.

5.3.2. Income from social insurance pensions

Another component of population's income is the income from social benefits (pensions, indemnities, allowances, benefits and social aids). Since 1990, the level of pensions has evolved under the impact of inflation and has been subject to constraints due to the limited resources of the pension system (under the circumstance of a dramatic decrease in the number of taxpayers) and an increase in the number of pensioners.

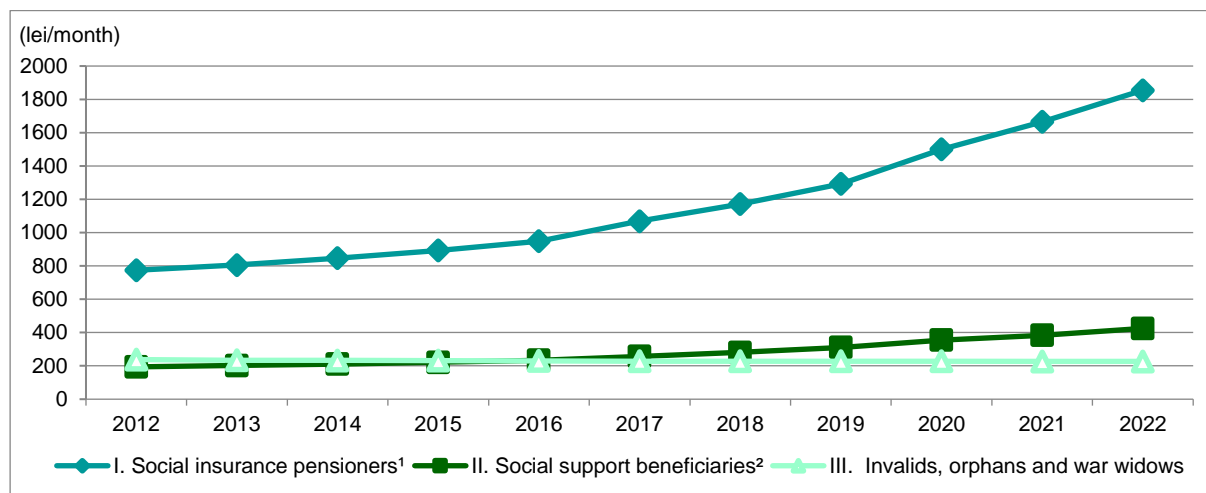
The average monthly social insurance pension³ registered a continuous growth in the years 2012-2022, reaching in 2022, at a value more than 2.4 times higher than in 2012. Since 2012,

² The indicator is defined in the Glossary

³ For the state social insurance pensioners and the pensioners coming from the former system for farmers, pensioners from the Ministry of National Defence, the Ministry of Interior, the Romanian Intelligence Office, the State Secretariat for Cults and the Insurance House of Lawyers.

the social insurance pension has increased at an annual rate of 9.1%, while the other two types of pensions had small annual variations.

Figure 5.16. Evolution of the average social insurance pension, during 2012-2022



Source: NIS. Statistical survey on the number of pensioners and the average monthly pension

Note: ¹ Social insurance pensioners include state social insurance pensioners, pensioners from the Ministry of National Defence, the Ministry of Interior, the Romanian Intelligence Service, the State Secretariat for Cults and the Lawyers Insurance House.

² Social aids recipients are those beneficiaries of social benefits receiving a pension-type social aid from the social insurance funds.

In 2022, the average social insurance pension was 1855 lei. Also, in 2022, the average pension social insurance, excluding pensioners from the old system for farmers and including pensions from other social security schemes, was of 1901 lei.

5.4. Population expenditure

The population's expenditure and consumption behavior are important indicators for describing the state of a national economy, the economic and financial circumstances in which society is at a given moment.

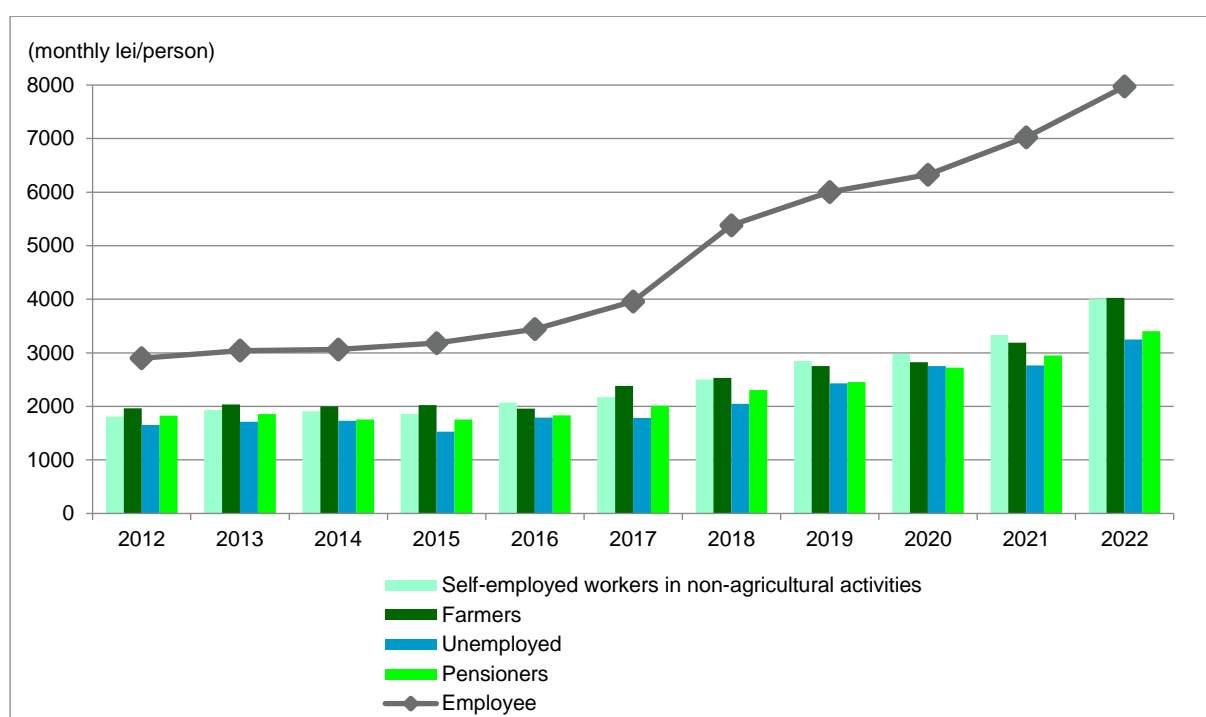
In 2022⁴, the total expenditure of the population were, on average, 5610.8 lei monthly per household, 1238.9 lei higher than in 2020 and 2.5 times higher than in 2012. The total expenditure of the population registered significant differences between different categories of households. Analyzed according to the occupational status of the household's head, in 2022, employee's households recorded monthly expenditure of 2359.7 lei above the average

⁴ Starting from 2014, the results of the household budget survey were estimated based on the resident population and are not comparable with previous data series.

of all households, while pensioner households spent 2207.9 lei below the average of all households.

In the period 2012-2022, a tendency to increase the average monthly expenditure of households is observed, the increase being faster for households with employees (the average annual growth rate of monthly expenditure of households was 10.6% for employees, 8.3 % for self-employed in non-farmers activities, 7.4% for farmers, 7.0% for unemployed and 6.4% for pensioners).

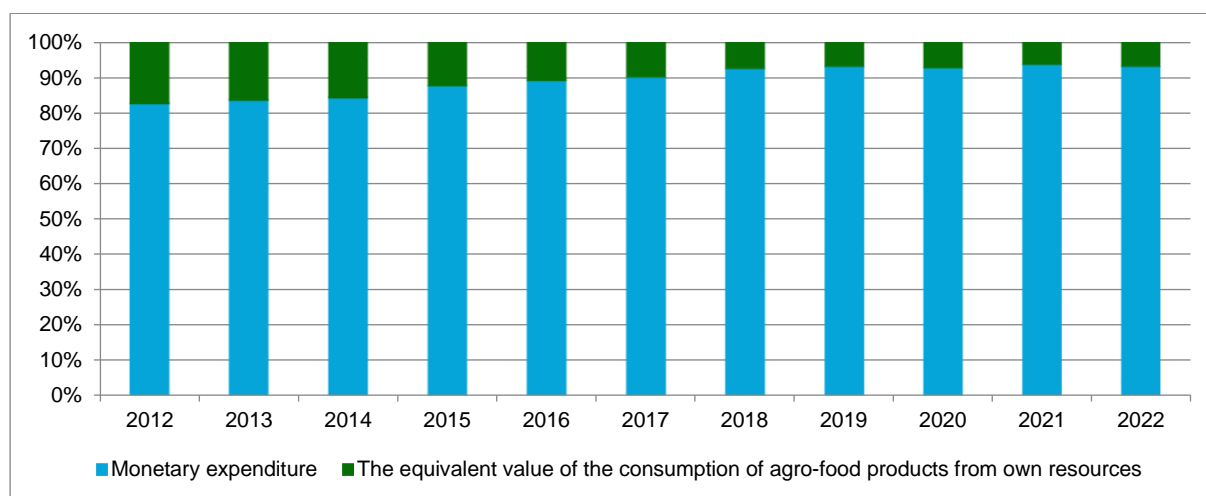
Figure 5.17. The evolution of average monthly expenditure of households, according to the occupational status of the household's head, during 2012-2022



Source: NIS, Household Budget Survey (HBS)

The monetary expenditure of the households, on average, of 5229 lei per household per month, have the largest share in the total monthly expenditure of the households (93.2%, in 2022), the equivalent value of the consumption of agro-food products from own resources being, on average, of 381.7 lei per household per month, with a share of 6.8% in total expenditure.

Figure 5.18. The evolution of the structure of average monthly expenditure of households, by types of expenditure, during 2012-2022



Source: NIS, Household Budget Survey (HBS)

The main destinations of the money spent by households are the consumption of food, non-food goods, services and transfers to the public administration, private pension funds administration and to the social insurance budgets, in the form of taxes, contributions, dues, as well as covering some needs related to household production (animal and birds feed, payment of labor for household production, products for sowing, veterinary services, etc.).

In 2022, the average monthly monetary expenditure per household, analyzed according to the occupational status of the household's head, were almost three times higher in the case of employees households than those of farmers households and 2.5 times higher compared to those of pensioner households.

Table 5.2. The monetary expenditure of households, by destination, according to the occupational status of household's head, in 2022

	Total households	Of which, according to the occupational status of the household's head:				
		Employees	Self-employed in non-farmers activities	Farmers	Unemployed	Pensionaires
Monetary expenditure	5229.07	7653.72	3514.94	2624.66	2927.55	3079.63
Consumption expenditure	3177.28	4027.94	2865.54	2098.75	2265.66	2407.96
Expenditure for unconsumed food and drinks ⁵	107.13	121.89	99.46	78.89	60.87	97.84
Investment expenditure	32.9	43.83	29.73	12.55	-	18.07
Production expenditure	24.79	15.05	17.06	126.83	3.83	25.18
Taxes, contributions, dues	1799.43	3340.94	458.19	263.66	567.56	446.74
Other monetary expenditure	87.54	104.07	44.96	43.98	29.63	83.84

Source: NIS, Household Budget Survey (HBS)

⁵ remaining in stock, given to processing, given to animals, etc.

Employee's households spent the largest amounts for paying taxes and fees, their sharing being 43.7% of the total monthly monetary expenditure. The most burdensome taxes, for all households, are those on salaries (on average 272.5 lei per month per household, which represents 15.1% of the total taxes paid monthly by households, respectively 511.3 lei/month for households of employees, representing 15.3% of the total taxes paid by them) and social security contributions (59.9% of the total taxes paid).

Table 5.3. The structure of taxes, contributions, dues and fees paid on average monthly by households, by type and by the occupational status of the household's head, in 2022

	Total households	Of which, according to the occupational status of the household's head:				
		Employee	Self-employed workers in non-farmers activities	Farmers	Unemployed	Pensioners
Salaries taxes	15.1	15.3	14.8	14.3	14.4	13.9
Pension taxes	0.5	*)	0.2	0.1	-	5.1
Taxes on independent non-farmers activities	*)	*)	0.3	-	-	-
Social insurance contributions	59.9	60.5	60.5	59.6	60.7	55.2
Health insurance and other contributions	23.7	23.8	22.9	22.9	24.0	22.5

*) below 0.05%

Source: NIS, Household Budget Survey (HBS)

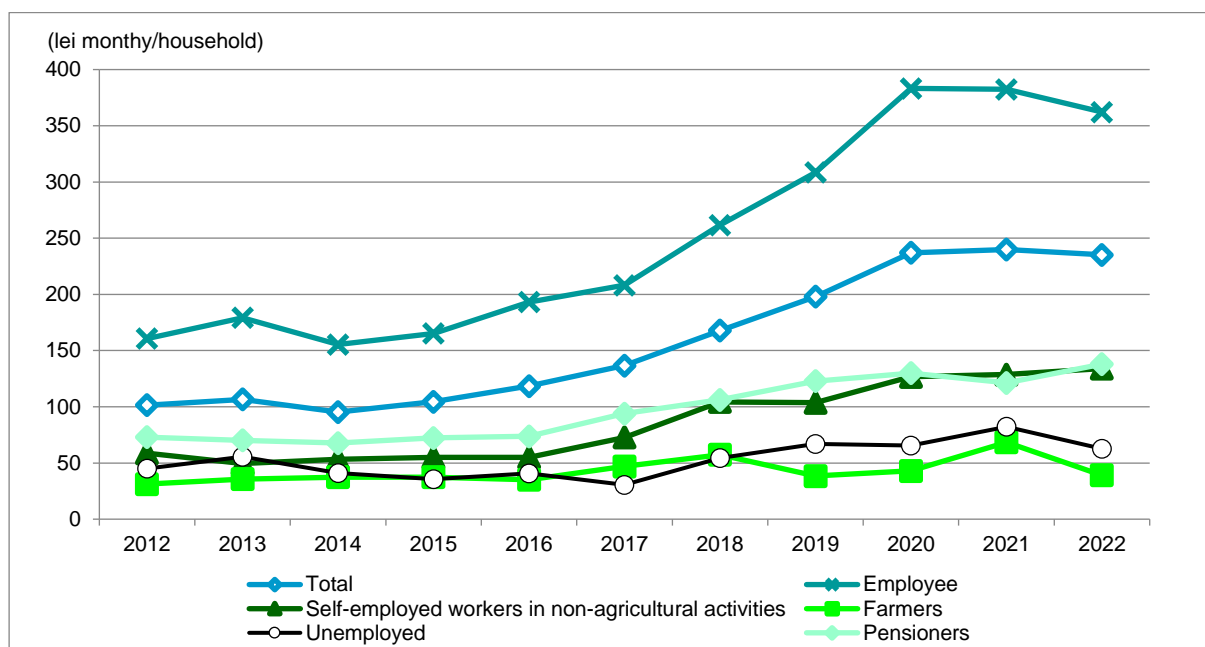
Saving among the population is essential for economic growth and social development. The higher the savings rate, the more funds society has available for investments and, therefore, for increasing production and income.

In Romania, however, the population's total expenditure represented 86.8% of total income (in 2022), the amount remaining for saving being very low. This is the reason why investment expenditure, intended for the purchase or construction of houses, the purchase of land and equipment necessary for household production, the purchase of stock, etc. they have a very small share in the total expenditure of the population's households (only 0.6%).

Another destination of the population's income is the return of loans and credits, but also of the amounts deposited in banks and other financial institutions by households.

In 2022, households where the household's head had the occupational status of employee, spent an average of 326.2 lei per month for loans and credits returned to banks and financial institutions. At the opposite pole are the households whose head is a farmer; they spent only 39.1 lei for the restitution of loans and credits, the amounts deposited at banks and other financial institution's.

Figure 5.19. Loans and credits returned, amounts deposited at banks and financial institutions, by households, by the occupational status of the household's head, during 2012-2022



Source: NIS, Household Budget Survey (HBS)

In the period 2012-2022, an increase in expenditure for loans and credits returned to banks and financial institutions can be observed. The amount spent by households in 2022 was 2.3 times higher than in 2012.

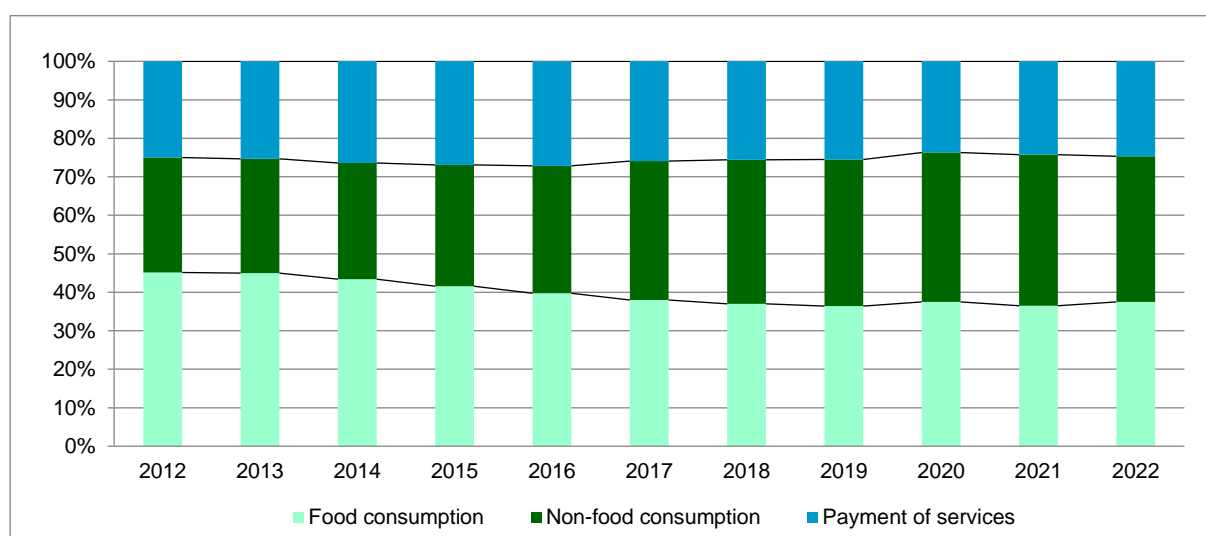
This trend is also reflected by categories of households, depending on the occupational status of the household's head, but with different amplitudes. Thus, in 2022, households of employees and self-employed in non-farmers activities spent 2.3 times more on loans and credits returned to banks and financial institutions than in 2012, those of pensioners 1.9 times, while unemployed and farmers households spent 1.4 times and 1.3 times more than in 2012 for loans and credits return.

5.5. Population consumption

Most part of the monthly disposable income of households is used to cover consumption expenditure, expenditure incurred for the purchase of goods and services necessary to satisfy the consumption needs of household members. In 2022⁶, for all households, 56.6% of total household expenditure were intended for consumption.

The evolution of the structure by components of total consumption expenditures, in the period 2012-2022, highlights an increase in the share of non-food consumption in total consumption expenditures and a decrease in the share of expenditures for food consumption.

Figure 5.20. The evolution of the structure of total consumption expenditure, by components, during 2012-2022

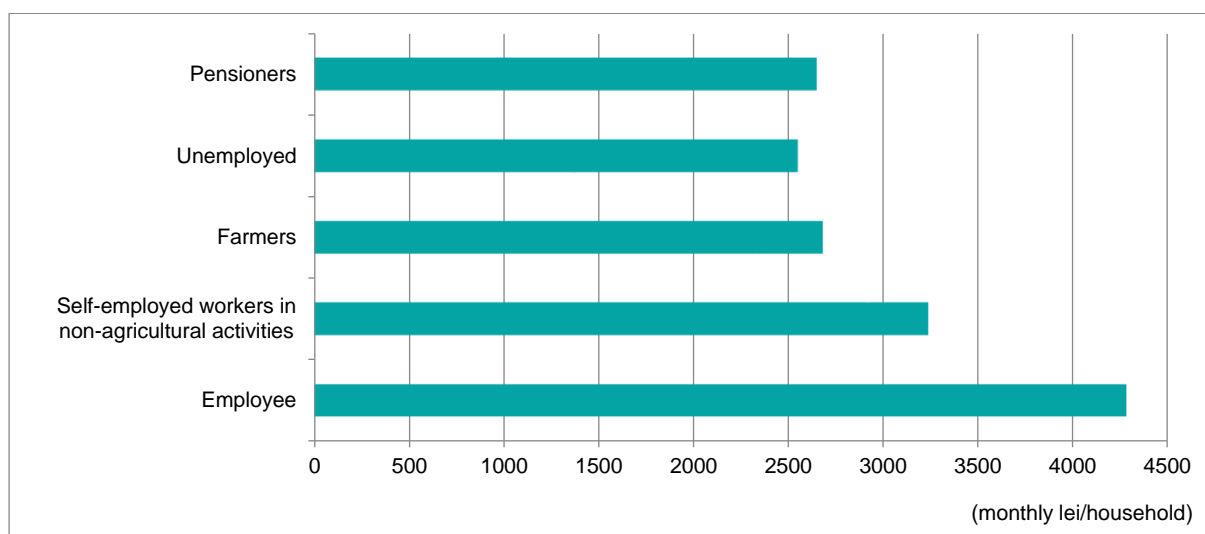


Source: NIS, Household Budget Survey (HBS)

According to the occupational status of the household's head, in 2022 the highest level of total consumption expenditure was registered in the case of employees households (4284.6 lei per household per month, the only value that is above the monthly average of total consumption expenditure), followed by self-employed households in non-farmers activities (3238.4 lei per household per month).

⁶ Starting from 2014, the results of the household budget survey were estimated based on the resident population and are not comparable with previous data series.

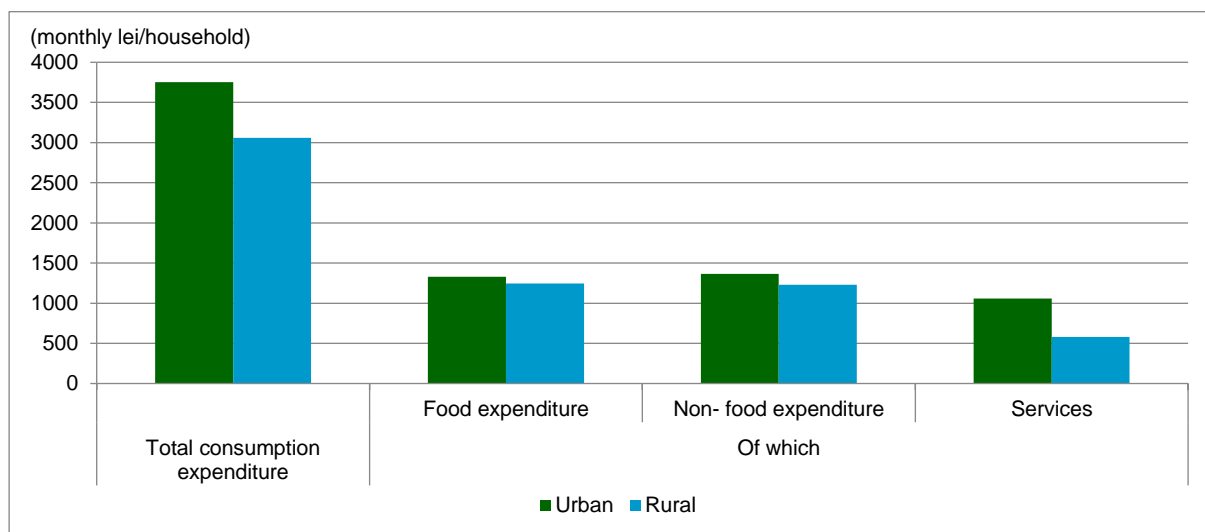
Figure 5.21. The total consumption expenditure of households, according to the occupational status of the household's head, in 2022



Source: NIS, Household Budget Survey (HBS)

Among all categories of households, those of the unemployed (according to the occupational status of the household's head) spend the least on consumption, the average monthly value of total consumption expenditure being 2551.0 lei/household.

Figure 5.22. The total consumption expenditure of households by components and residence area, in 2022



Source: NIS, Household Budget Survey (HBS)

Average monthly expenditure for food and non-food products do not differ greatly between households in the two areas of residence. However, the expenditure for services are

highlighted by residential area, the urban area being characterized by a level 1.8 times higher compared to the rural area.

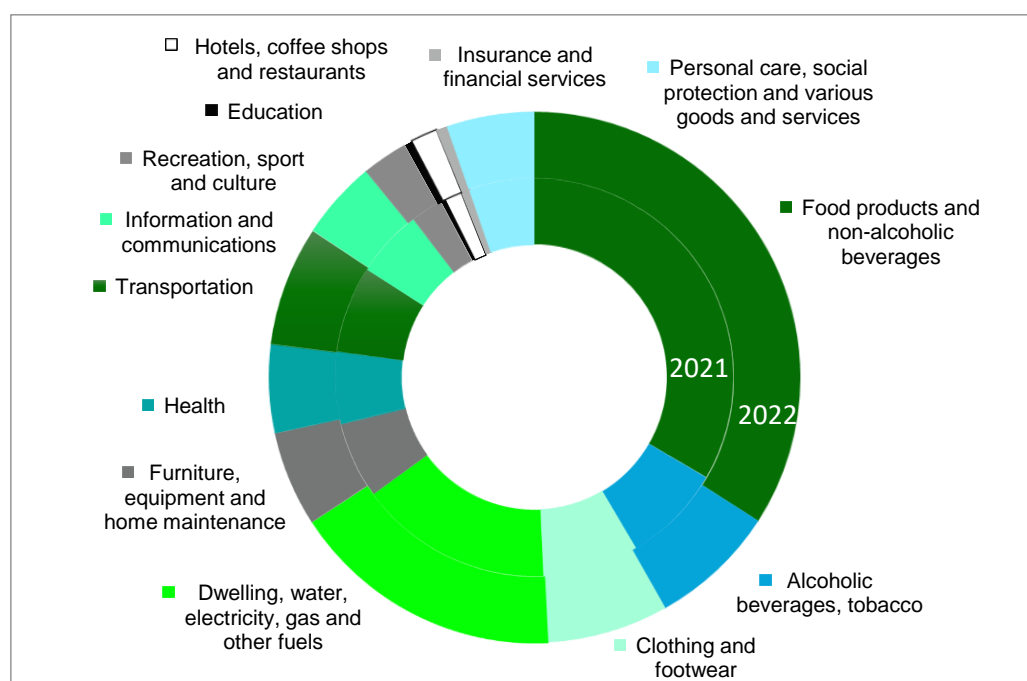
Table 5.4. Total average monthly consumption expenditure per person, by household size, in 2022

		Total consumption expenditure	Of which:		
			Food expenditure	Non-food expenditure	Services
- monthly average per person	1 person	1934.15	758.36	645.86	529.93
	2 persons	1593.68	576.02	612.87	404.79
	3 persons	1420.98	512.64	551.63	356.71
	4 persons	1169.11	435.34	452.08	281.69
	5 persons	1014.85	407.39	401.99	205.47
	6 persons and more	782.47	364.72	278.82	138.93

Source: NIS, Household Budget Survey (HBS)

The composition of household consumption, by household size, shows a decrease in individual consumption expenditure, with each additional member in the household. The trend is also maintained on the main components of consumption expenditure.

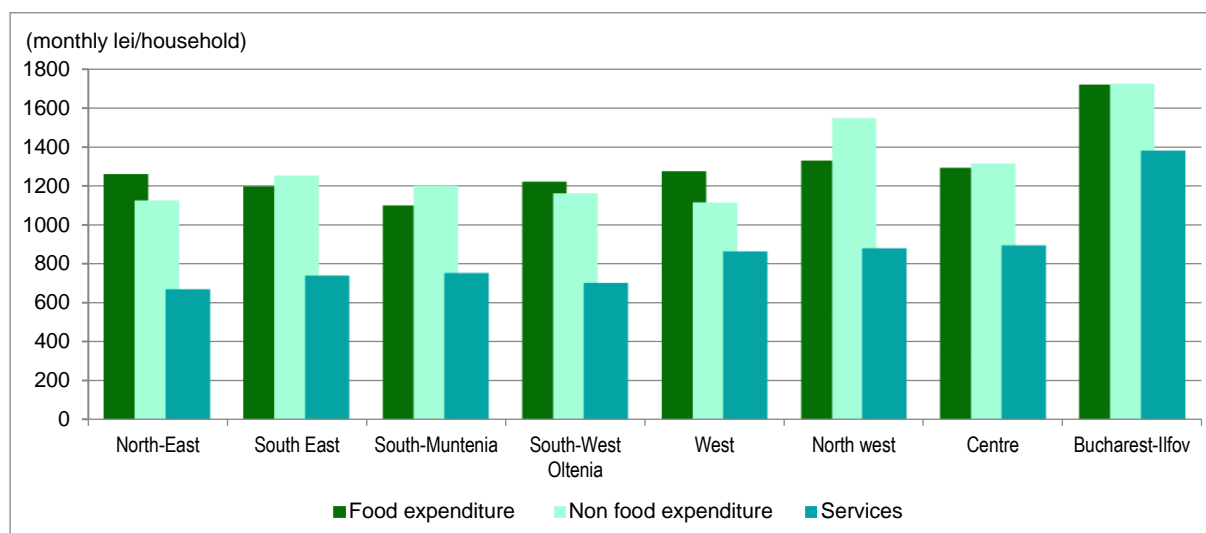
Figure 5.23. The structure of total consumption expenditure of households, by destination, in 2021 and 2022



Source: NIS, Household Budget Survey (HBS)

Although down by 0.7 percentage points compared to 2020, the main destination of total consumption expenditure (COICOP⁷) of the Romanian population, in 2022, remained that destined for food products and non-alcoholic beverages (34.1%). Dwelling expenditure (water, electricity, gas and other fuels) represent the second destination of consumption expenditure with a share of 16.6%, increasing compared to 2020 by 0.9 percentage points.

Figure 5.24. Total consumption expenditure of households, by regions of development, in 2022



Source: NIS, Household Budget Survey (HBS)

In 2022, the highest levels of consumption expenditure were recorded in the Bucharest-Ilfov region, at an average of 4818.0 lei per household per month and in the North-West region, on average of 3752.7 lei monthly per household.

A higher level than the national average (3450.4 lei per household per month) of consumption expenditure is also recorded in the Centre region (3497.4 lei monthly per household).

⁷ Starting 2020, the Classification of Individual Consumption by Destination - COICOP 2018 is used at the 5-digit level, which brings changes to the structure of certain indicators, in the sense of regrouping them, compared to previous years.

6. THE RISKS OF POVERTY AND SOCIAL EXCLUSION

6.1. Survey objectives

The knowledge of data on the poverty and social exclusion risk is of particular importance, both at the national level and from the perspective of international comparisons, under various aspects: first of all, the inequality of the population's income and poverty are realities of any society, although there are different degrees of their manifestation. Unsustainable economic policies, combined with inequitable economic adjustments, create social tensions and the premises for new economic imbalances.

By supporting Member States in combating poverty, social exclusion and discrimination, the European Union aims to strengthen the inclusiveness and cohesion of European society and enable all citizens to benefit from equal access to available opportunities and resources.

Regarding the situation of Romania's social policies regarding the risks of poverty and social exclusion, our country aligns with the guidelines of the 2030 Goals, following the fulfillment of the objectives and targets for the main indicators, such as the risk of poverty or social exclusion rate, the at-risk-of-poverty rate, the severe material and social deprivation rate and people living in households with very low work intensity rate (population aged 0 to 64 years).

The National Sustainable Development Strategy for the period 2013-2020-2030 aims reducing the number of people living below at-risk-of-poverty threshold, stimulating the labor market participation of able-bodied people, developing the protection and social assistance system. However, in the last decade, the social costs of the economic crisis in Romania were substantial and difficult for the population of our country to endure. The expansion and propagation of poverty over time are reflected by the values of the relative poverty rate, which decreased by 1.7 percentage points compared to 2012.

Poverty affects the traditionally vulnerable categories of the population. In recent decades, the inequality of the population's income has increased, which has led to social inequality, a phenomenon also found in states with advanced economies. On the other hand, inequality is increasingly shaping a new component, generated by the pressure of technological progress and educational differences between generations and between various population groups. The users of the information regarding the risks of poverty and social exclusion are, mainly, the political decision-makers, the academic and business environment, the general public. This chapter presents time series for a wide range of indicators that monitor the risks of poverty and social exclusion.

6.2. Income inequality, poverty and material deprivation

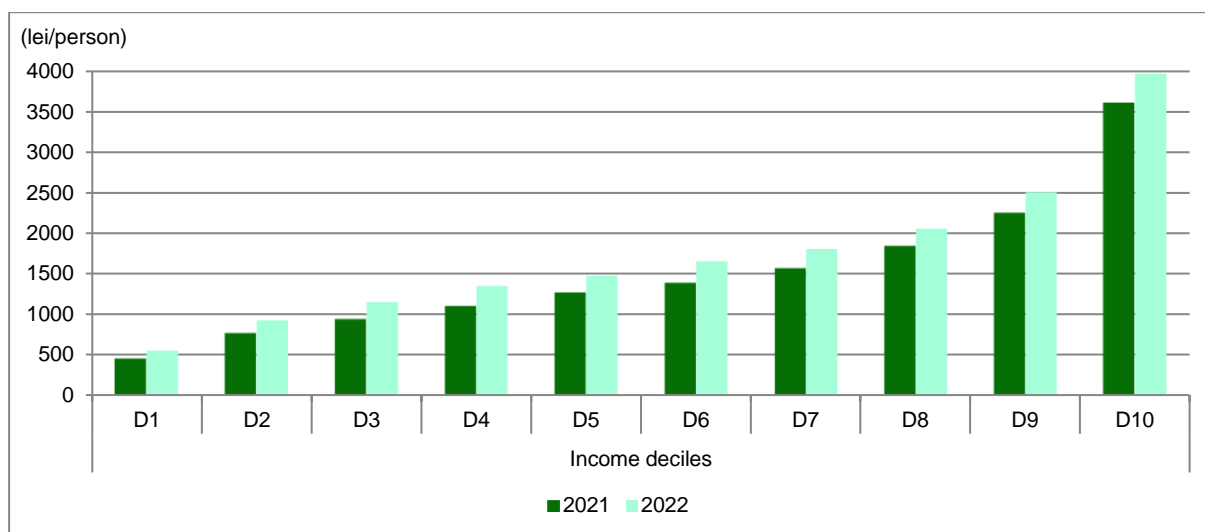
6.2.1. Disposable income and the possibilities of satisfying the consumption needs of households

The welfare level of a household is mainly determined by the number of people bringing income, especially by the number of employed persons and the type of activity they carry out. At the same time, the level of household income depends on the position that its active members hold in the income hierarchy corresponding to the type of activity carried out, that is, on the level of wages, income from agriculture or those obtained from independent non-agricultural activities.

Income inequality is directly evidenced by the distribution of households by income deciles. The analysis of the average level of income by deciles highlights a significant gap between the average income per household from the first decile (which includes households with the lowest income per person) and the average income per household from the last decile (consisting of households with the highest income).

From the perspective of disposable monetary income, in our country we can speak of a slow reduction of the gap between the lower and upper deciles. If in the period 2012-2013 the gap between the average monetary income per person for households from the lower and upper deciles increased from 10.1 to 11.0, starting from 2014 a decreasing trend has been recorded, so that in 2022, the ratio between the average monetary income, per person from the households that form the first and last decile was 7.2, compared to 7.9 as it was in 2021.

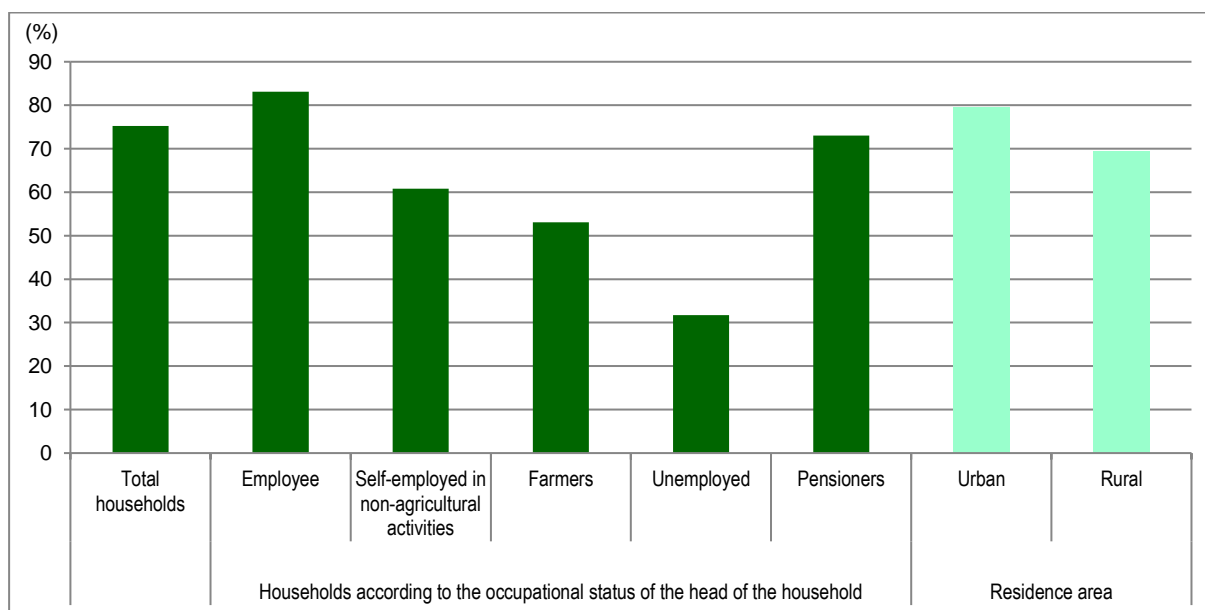
Figure 6.1. Average monetary disposable income, per person, per decile, in 2021 and 2022



Source: NIS, Household Budget Survey (HBS)

In general, for most households, the level of income they achieve and especially of those that remain at their disposal after making the expenses for household production and for the payment of taxes, fees, contributions, etc. it is very low in relation to the expenses they have to make to satisfy their consumption needs. The possibilities of satisfying the consumption needs of households are different between different types of households, classified according to the occupational status of the household's head.

Figure 6.2. The share of households that can meet their needs with the income they have, by area of residence, category, occupational status of the household's head, in 2022

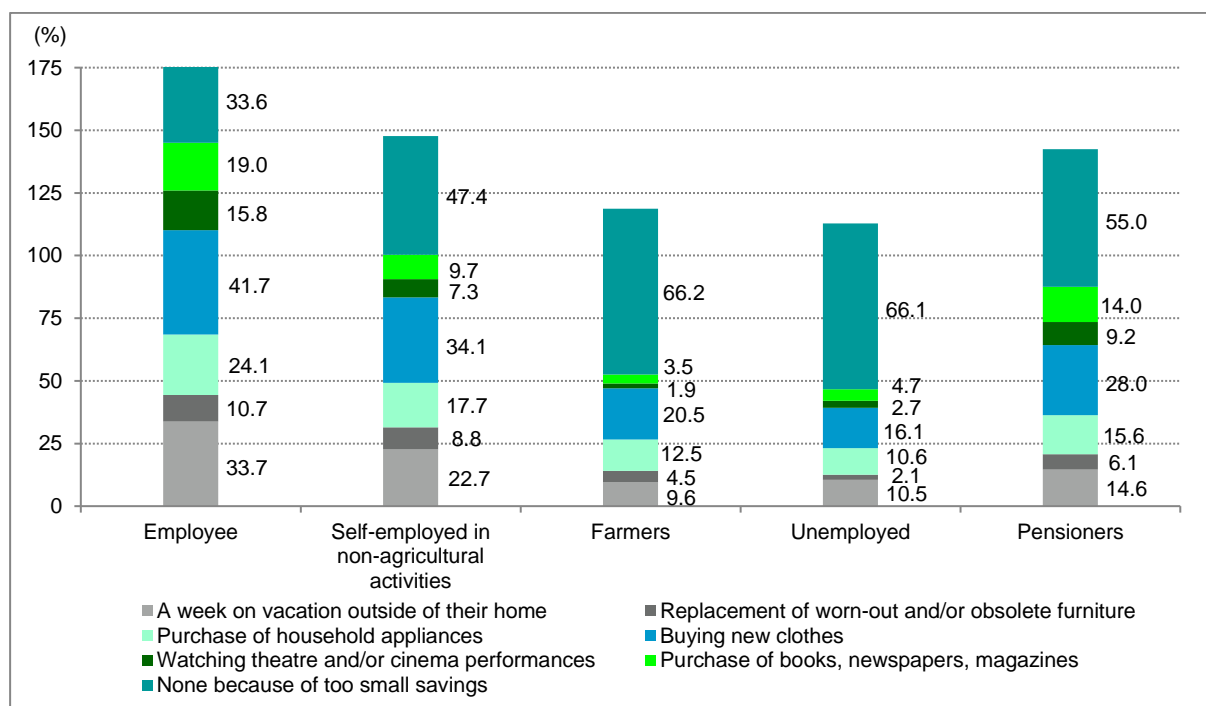


Source: NIS, Household Budget Survey (HBS)

In 2022, in Romania, 75.2% of households met their needs with the income they had. From this point of view, salaried households are privileged, in the sense that 83.1% of them could meet their needs with the income they had at that time. The most affected households were, in 2022, those of the unemployed, where only 31.7% of them could meet their consumption needs.

The residence area is also a factor that influences the level of household income and, implicitly, the possibilities of households to meet their needs depending on the available income. In the urban area, the share of households that could meet their needs with the income they had was, in 2022, 79.6%, 0.2 percentage points lower than in the previous year. Thus, a relative stability of the quality of life in the urban environment is noted, at least from the perspective of covering the consumption needs of households based on the income they have. As for the rural area, in 2022, the share of households that could meet their needs with the income they had was 69.4%, 10.2 percentage points lower than the share registered in the urban environment. The quality of life in the rural area was slightly affected, only in the last 3 years the share of households that could meet their needs with available income decreased by more than 3 percentage points (by 1.5 percentage points in 2022 compared to the previous year and by 1, 6 percentage points in 2021 compared to 2020).

Figure 6.3. The share of households that can meet their needs with the income they have, by category of consumption expenditure, according to the occupational status of the household's head, in 2022



Source: NIS, Household Budget Survey (HBS)

In general, excluding expenses for food and non-food goods of strict necessity, households cannot afford other consumption expenses, such as, for example, replacing used or out-of-date furniture, watching theater or cinema shows, buying books, newspapers and magazines or household appliances. However, in 2022 only 41.7% of employees households could afford to buy new clothes, and 33.7% to spend a week on vacation outside of their home, annually. The frequency of those who could afford, with the income they had, the satisfaction of these needs was significantly lower, across the entire range, for farmers and unemployed households.

The lack of financial resources determined that a large part of households could not afford to replace used and/or outdated furniture. In 2022, just 10.7% of salaried households could pay for the replacement of furniture, while among unemployed households only 2.1% could manage this category of expenses.

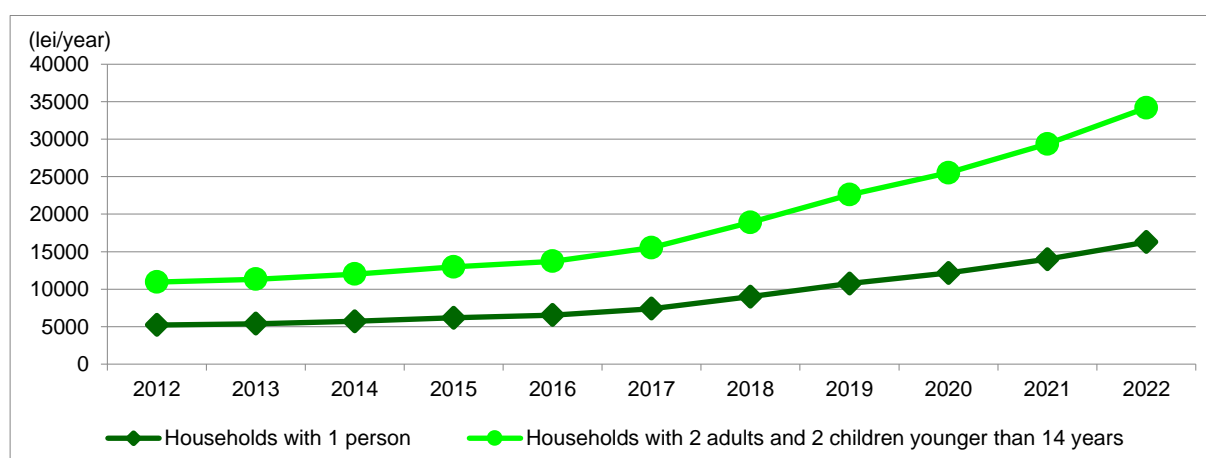
6.2.2. Poverty indicators

The main poverty indicators, estimated on disposable income per adult equivalent are the poverty threshold, the at-risk-of-poverty rate¹ (AROP) and the at risk of poverty or social exclusion rate (AROPE).

The overtime evolution of the at-risk-of-poverty threshold has shown an increasing trend, both for the threshold in case of single-person households and in case of households with two adults and two children under the age of 14 years.

In 2022, the poverty threshold was 16278 lei/year for single-person households, respectively 34183 lei/year for households composed of two adults with two children under the age of 14 years.

Figure 6.4. At-risk-of-poverty threshold, during 2012-2022



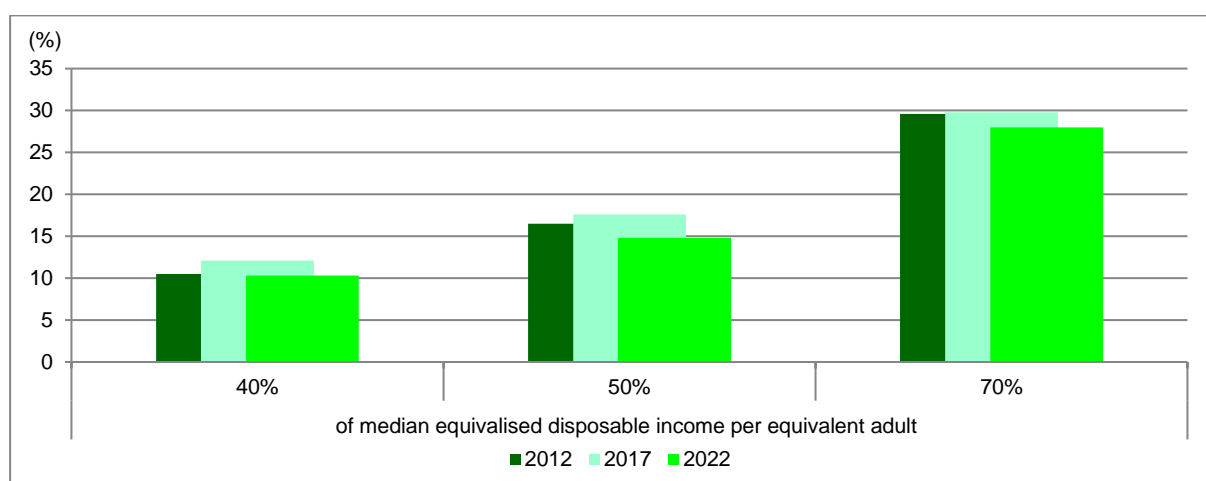
Source: NIS, Quality of Life Survey

¹ Calculated at the threshold of 60% of the median disposable income per adult equivalent, as well as at the thresholds of 40%, 50% and 70% of the median disposable income per adult equivalent

In 2022, the at-risk-of-poverty rate, calculated at the threshold of 60% of the median disposable income per adult equivalent was 21.2%, a decrease of 1.3 percentage points from the previous year and 1.7 percentage points from 2012.

By combining the two indicators (the at-risk-of-poverty threshold and the at-risk-of-poverty rate), it can be stated that 21.2% of the usually resident population in private households in Romania, representing approximately 4 million persons, have an available income less than 16278 lei annually. The over time analysis of the the at-risk-of-poverty rate shows a slight increase in the well-being of the population in Romania, with the values of the indicator showing a slight decrease compared to 2012, regardless of the at-risk-of-poverty threshold used for calculation (40%, 50%, 60%, and 70% of the median disposable income per adult equivalent).

Figure 6.5. At-risk-of-poverty rate, in 2012, 2017 and 2022



Source: NIS, Quality of Life Survey

The demo-socio-economic characteristics of individuals, as well as the types of households in which they live, are factors that often significantly influence the emergence and increase of the risk of poverty. Having a job, and generally the occupational status, is a highly significant characteristic in creating a living framework that ensures the well-being or poverty of the respective individuals. This leads to significant differences in the at-risk-of-poverty rates of different socio-occupational categories.

In 2022, from the analysis of the distribution by gender, it is observed that there are no significant differences in the at-risk-of-poverty rate, which was 20.8% for the male population and 21.7% for the female population. Although there is no evident difference between the degree of poverty among men and women in Romania, it is worth noting that the at-risk-of-poverty rate has evolved differently by gender in the period 2012-2022: until 2014, the at-risk-of-poverty rate was slightly lower for the female population, and in the period 2015-2022, the at-risk-of-poverty rate by gender becomes higher among the female population.

Table 6.1. At-risk-of-poverty rate by household type, during 2012-2022

-%-

	Households without dependent children*	Households with dependent children	Households with:			
			single person with one or more dependent children (monoparental family)	two adults with one dependent child	two adults with two dependent children	two adults with three or more dependent children
2012	14.5	29.0	33.4	17.6	26.1	57.5
2013	15.1	28.7	35.0	15.8	24.9	62.4
2014	16.0	32.0	31.3	13.6	30.9	70.5
2015	17.2	31.8	39.7	15.3	26.1	69.5
2016	18.3	30.8	41.4	16.4	28.1	61.9
2017	17.8	28.1	31.2	13.2	26.3	61.9
2018	19.2	27.0	41.6	15.4	26.6	53.4
2019	20.4	26.4	39.0	15.6	22.0	61.3
2020	20.8	25.4	29.9	11.0	24.1	55.3
2021	19.8	24.7	28.1	11.3	22.1	56.4
2022	18.3	23.5	23.8	11.6	24.8	40.4

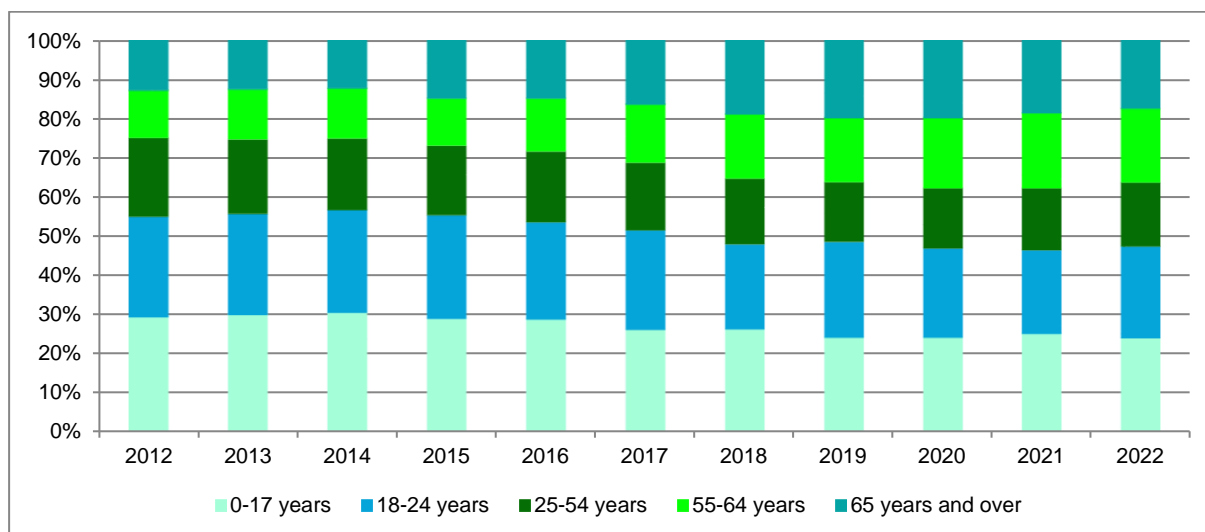
Source: NIS, Quality of Life Survey

Note: * persons aged 0-17 years

The at-risk-of-poverty rate increases proportionally with the size of the household, with the increase being greater as the household has more dependent children. Although at the beginning of the analyzed period households without dependent children were in the most favorable category, starting from 2014, it was observed that households consisting of two adults with one dependent child hold the smallest share of the at-risk-of-poverty rate, reaching 11.6% in 2022. At the opposite pole are households comprising two adults with three or more dependent children, whose poverty situation has improved in recent years (from 70.5% in 2014 to 40.4% in 2022).

Another factor that can increase the risk of poverty is age: against a backdrop of financial stability, the aging of the persons reduces exposure to poverty; thus, the most affected by poverty are children and young people (27.0% in the 0-17 age group, respectively 26.5% in the 18-24 age group).

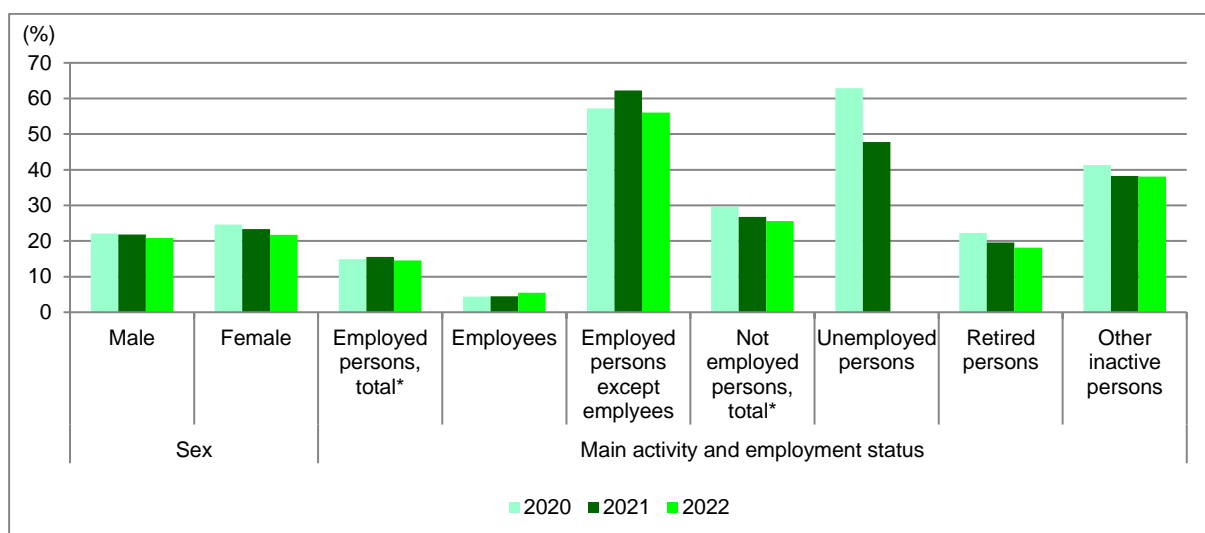
Figure 6.6. At-risk-of-poverty rate by age group, during 2012-2022



Source: NIS, Quality of Life Survey

Compared to 2020, the at-risk-of-poverty rate did not undergo significant variations for any of the main population categories, and there is even a trend of decreasing at-risk-of-poverty rates. For instance, in 2022, the risk of poverty among pensioners decreased by 4.2 percentage points, and for other inactive persons, it decreased by 3.2 percentage points compared to 2020.

Figure 6.7. At-risk-of-poverty rate by main categories of population, in 2020, 2021 and 2022



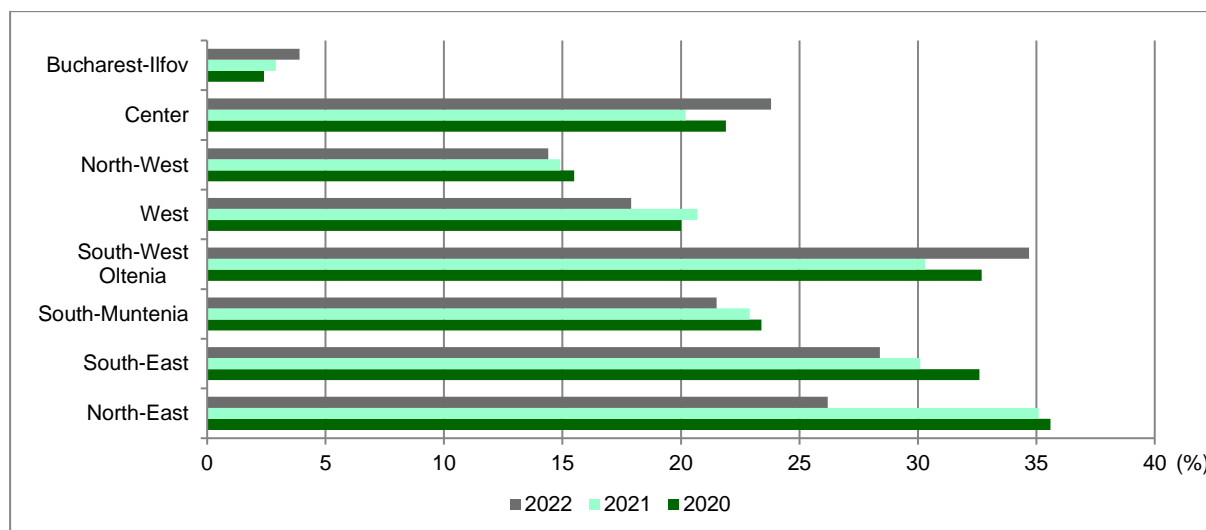
Source: NIS, Quality of Life Survey

Note: * persons aged 18 years and over

In recent years, there has been an increase in the poverty rate among employees, with their share increasing by 1.1 percentage points in 2022 compared to 2020. The segmentation of the population in terms of the level of poverty risk is also visible in a territorial profile.

The lowest at-risk-of-poverty rate is recorded among the population in Bucharest and Ilfov, where the at-risk-at-poverty rate in 2022 was 3.9%. At the opposite pole is the South-West Oltenia region, where 34.7% of the population is under the incidence of poverty.

Figure 6.8. At-risk-of-poverty rate by NUTS2 (regions), in 2020, 2021 and 2022



Source: NIS, Quality of Life Survey

Compared to the reference year 2008, when Romania recorded a maximum of the economic growth, the at-risk-at-poverty rate in 2022 stands at 4.7%². When compared to the reference year 2019, the at-risk-at-poverty rate in 2022 is 11,8%³.

Poverty is measured in various aspects to capture the population at the highest risk. Social protection is specifically conceived to ensure a basic standard of living for all people, regardless of their means. The social protection system in Romania, through all its social protection schemes, provides - through social transfers - a safety net for the population disadvantaged in terms of disposable income. Thus, in 2022, the at-risk-at-poverty rate, calculated before social transfers to the population (including pensions), was 45.0% nationally, twice as high as the level recorded after these transfers.

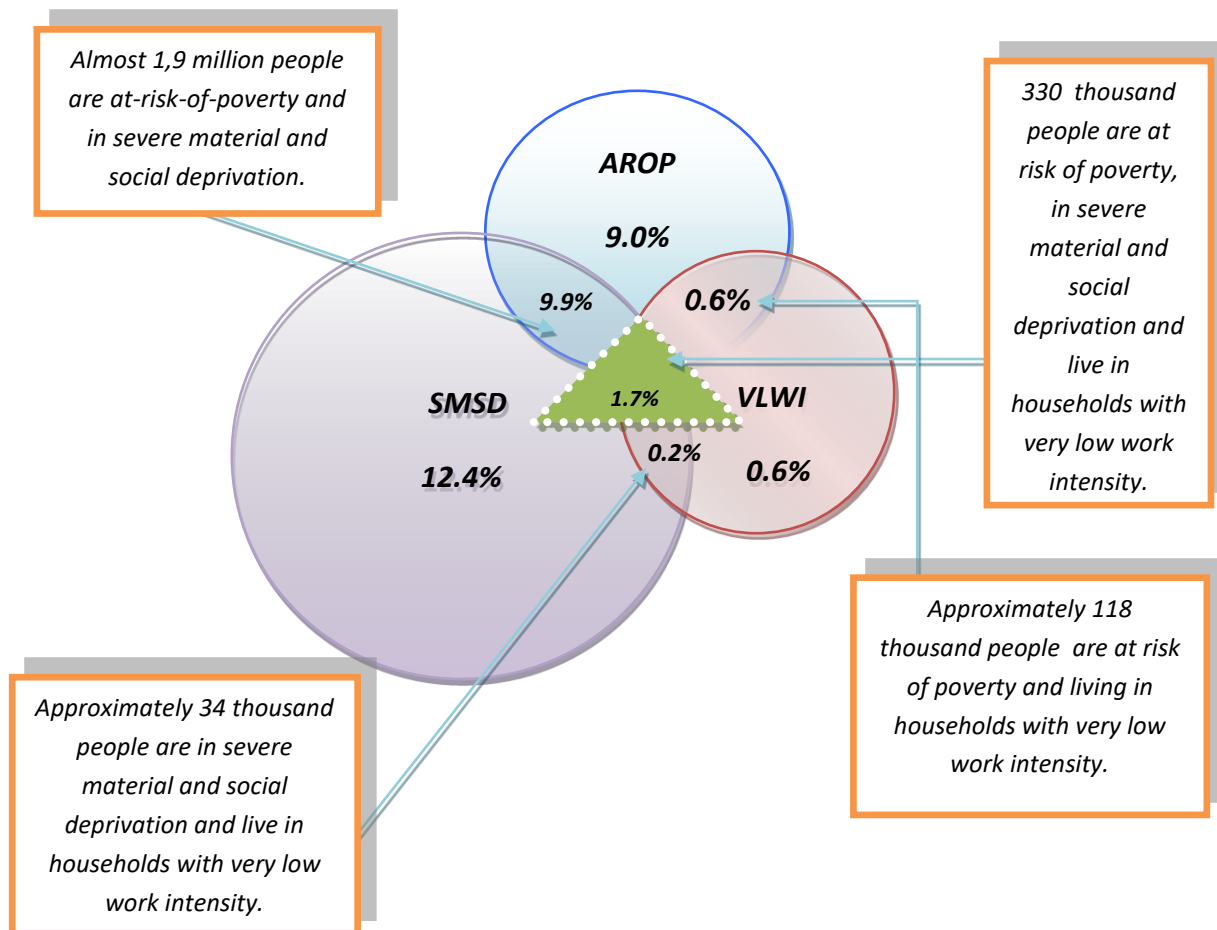
The at-risk-of-poverty or social exclusion rate (AROPE) is an indicator that measures the share, in the total usually resident population, of people in at least one of the following situations: have disposable incomes below the poverty threshold (60% of the median disposable income per adult equivalent); are in a state of severe material and social deprivation; live in a household with very low work intensity. AROPE is a multidimensional synthetic indicator, promoting social inclusion and poverty exclusion.

² The at-risk-of-poverty rate anchored at a fixed moment in time (2008)

³ The at-risk-of-poverty rate anchored at a fixed moment in time (2019)

In Romania, 6.5 million people are at risk of poverty or social exclusion. An illustration of the components of the AROPE is shown in the following figure.

Figure 6.9. Intersection of AROPE components, in 2022

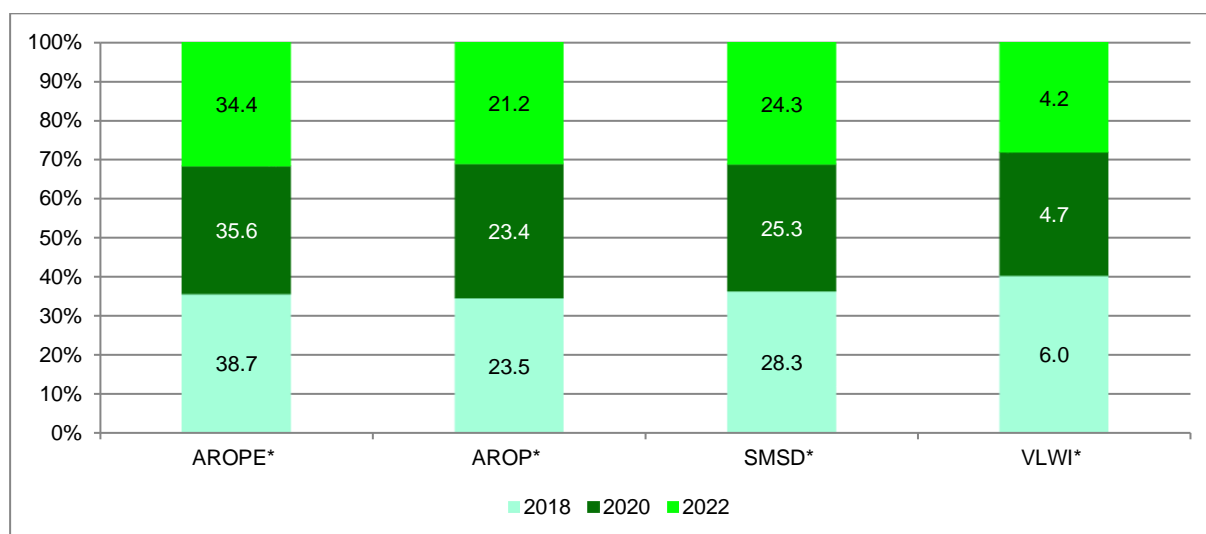


Source: Eurostat, <http://ec.europa.eu/eurostat/en/web/income-and-living-conditions/data/database> (the database accessed on October 10, 2023); Quality of Life Survey, for data on Romania

Note:

1. AROP – At-risk-of-poverty rate
2. SMSD - Severe material and social deprivation rate
3. VLWI - very low work intensity (the rate of persons aged 0-64 years from households with very low work intensity)
4. Data calculated based on the usually resident population on January 1st 2022

**Figure 6.10. Evolution of Europe 2030 target indicators,
in 2018, 2020 and 2022**



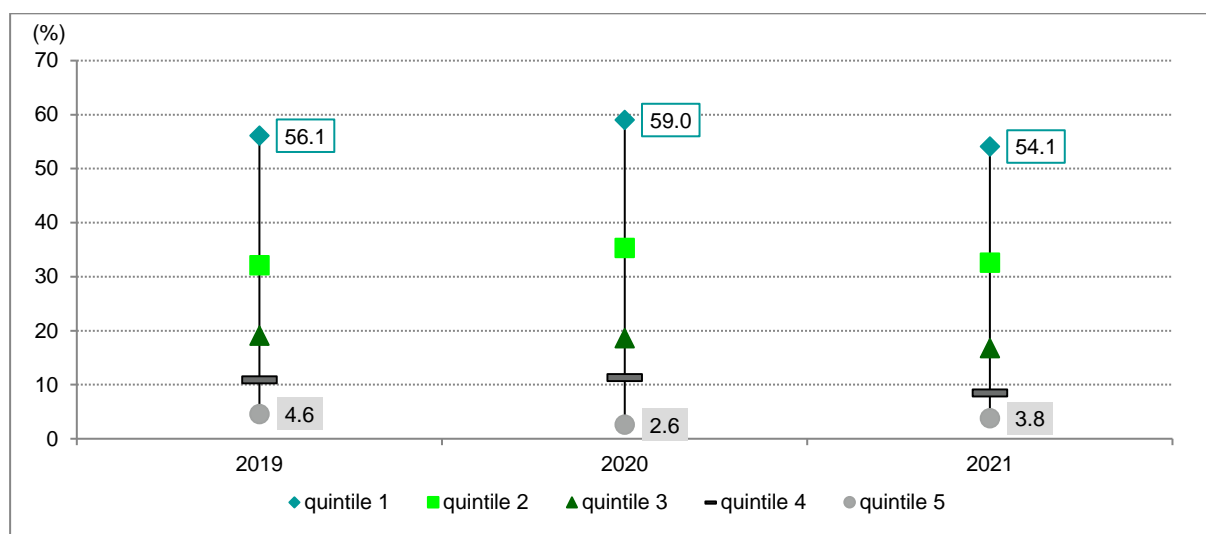
(%)	2018	2020	2022
AROPE*	38.7	35.6	34.4
AROP*	23.5	23.4	21.2
SMSD*	28.3	25.3	24.3
VLWI*	6.0	4.7	4.2

Source: Eurostat, <http://ec.europa.eu/eurostat/en/web/income-and-living-conditions/data/database> (the database accessed on October 10, 2023); Quality of Life Survey, for data on Romania

Note: * Data recalculated based on the usually resident population on January 1st of the reference year. For the year 2022, the data were estimated based on the usually resident population on January 1 in private households of the population.

In 2022, the severe material and social deprivation rate is lower (24.3%) compared to previous years (28.3% in 2018 and 25.3% in 2020). However, the severe material and social deprivation rate increased in 2022 compared to the previous year for almost all age groups, with the only exception being individuals aged 65 and over, where the rate decreased by just 0.5 percentage points.

Figure 6.11. Severe material and social deprivation rate, by income quintile, during 2019-2021



Source: Eurostat, <http://ec.europa.eu/eurostat/en/web/income-and-living-conditions/data/database> (the database accessed on October 10, 2023); Quality of Life Survey, for data on Romania

Note: * Data recalculated based on the usually resident population on January 1st of the reference year.

The most affected households, in terms of severe material and social deprivation, are those in the lower income quintile. In other words, out of the 20% of total households with the lowest incomes, in 2022, 54.1% are in a state of severe material and social deprivation. However, the value of the indicator has improved compared to the previous year when the maximum of the analyzed period was recorded (59.0%). Households with the highest income (from the upper quintile) had a severe material and social deprivation rate of 3.8% in 2021.

6.2.3. Inequality indicators

Piketty has drawn up, in 2014, one of the most important papers in the economic field dealing with income inequality⁴. It argues, relying on historical data (beginning with some centuries ago), that deepening inequality is caused by the fact that the wealth⁵ of a country is going faster than economic growth.

⁴ Piketty, T., 2014, *Capital in the twenty-first century*, Harvard University Press, Cambridge, Massachusetts London.

⁵ The national wealth comprises natural and mineral resources, environmental and spiritual resources of a country, while economic growth is measured on the basis of Gross Domestic Product.

Official statistics measure the inequality based on disposable income per adult equivalent, and the main indicators of inequality are the income inequality index (also known as S80/S20 ratio), Pareto indicator (20/80)⁶ and the Gini coefficient.

The income inequality index (S80/S20 ratio) is an indicator that reflects the income inequality of a population, defined as the ratio between the incomes of the population in the upper quintile and those in the lower quintile. In other words, this ratio reflects the magnitude of the incomes of the richest individuals compared to the incomes of the poorest, within an income distribution. In 2022, the total income of one-fifth of the country's population (with the highest incomes) was 6 times greater than the total income of the poorest 20% of people (with the lowest incomes); the greatest deepening of inequality in the period 2012-2022 was recorded in 2015, when the S80/S20 ratio reached 8.3.

Another indicator that reflects the distribution of income inequality is the Gini coefficient, which measures how much of the total income of the population would need to be redistributed to achieve the hypothetical situation in which income is equally divided among all members of society. In other words, the indicator measures how much the income distribution of individuals within a state deviates from a perfectly equal distribution. Theoretically, the Gini coefficient can range from 0 to 1 (or 0 - 100%). A zero value would mean perfect equality of distribution, meaning all citizens of a country would receive the same income level. Therefore, a lower Gini coefficient is preferred over a higher value. Hypothetically, if the Gini coefficient were 1 (100%), the entire income of a country would be earned by a single person.

For Romania, the Gini coefficient was estimated at 32.0% in 2022, slightly decreasing compared to previous years (34.3% in 2021 and 33.8% in 2020).

6.3. Social protection

Social protection encompasses all actions through which the state provides various services to citizens to protect them against events that can reduce their standard of living. Social protection funding is achieved through contributory or non-contributory financial mechanisms. Contributory financial mechanisms are based on the payment of social contributions, while non-contributory mechanisms rely on budgetary funding and other resources. The issue of social security is a priority for all EU – Member States countries and a defining component of the European social model. However, although economic and social conditions in Europe have improved, the consequences of the crisis from the last decade are still felt in many parts of

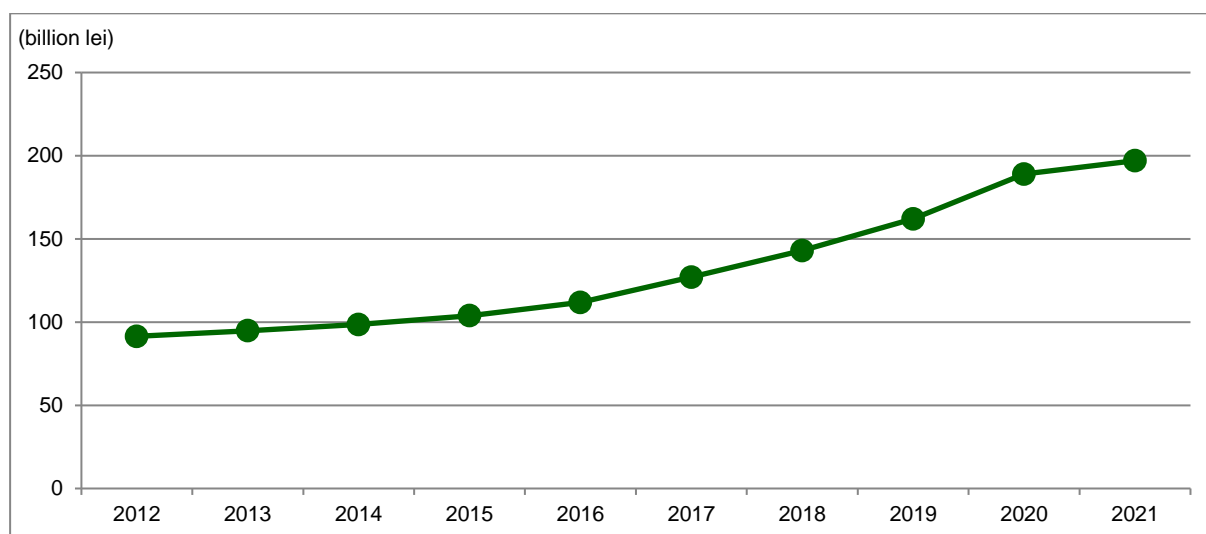
⁶ At the end of 1940, Joseph M. Juran (American engineer of Romanian origin, honorary Member of the Romanian Academy) suggested this indicator and named it after the Italian economist Vilfredo Pareto, who had noted that 20% of the Italian population achieved 80% of total income. Pareto then looked at the situation of other states and observed that a similar distribution applies.

Europe. In April 2017, in an attempt to make progress towards a more equitable Union, the European Commission presented a communication on the European Pillar of Social Rights (EPSR). The Pillar establishes key principles and rights to support equitable and functioning welfare systems, grouped into three categories: (i) equal opportunities and access to the labor market, (ii) equitable working conditions, and (iii) access to social protection and inclusion. The social pillar is accompanied by a "social scoreboard" to monitor progress made.

In Romania, to prevent, limit, or remove the temporary or permanent effects of situations that can generate the marginalization or social exclusion of individuals, families, groups, or communities, the state supports the social protection of its citizens through both financial redistribution measures aimed at individuals or families who meet the eligibility conditions set by law (social benefits) and a complex set of measures and actions implemented to meet social needs (social services), to improve the quality of life.

Social protection is defined in terms of its ultimate goal, which is to protect individuals, families, and their households against major social risks. Major social risks, identified in the statistical survey on social protection (ESSPROS), classify social protection benefits into eight functions: sickness/healthcare, disability, old age, survivors, family/children, unemployment, housing, and social exclusion not elsewhere classified. Social protection expenditures include spending on social benefits, administrative costs, and other types of expenses (e.g., bank interest connected with social funds). Expenditures on social benefits represent the value of social protection resources allocated to beneficiaries, in money or in kind (in the form of goods and/or services), while administrative costs are expenses generated by the organization and administration of social protection schemes. In the last ten years (2012-2021), social protection expenditures have increased in nominal value, from 91.4 billion lei in 2012 to 197.8 billion lei in 2021.

Figure 6.12. Evolution of social protection expenditure, during 2012-2021



Source: NIS, Statistical survey on social protection, ESSPROS

In 2021, the total social protection expenditures amounted to 197853 million lei, an increase of 8875 million lei compared to the previous year, and 2.2 times higher than in 2012. Social protection expenditures are predominantly constituted by expenditures on social benefits (98.1% in 2021), other expenses (administrative costs and other types of expenditures) having a very small share (1.9% in 2021). Social benefits represent a form of supplementing or substituting individual incomes earned from work, to ensure a socially acceptable minimum standard of living, as well as a form of support to promote social inclusion and improve the quality of life for certain categories of people whose social rights are expressly provided for by law.

Table 6.2. Social protection expenditure, by category of expenditure, during 2012-2021

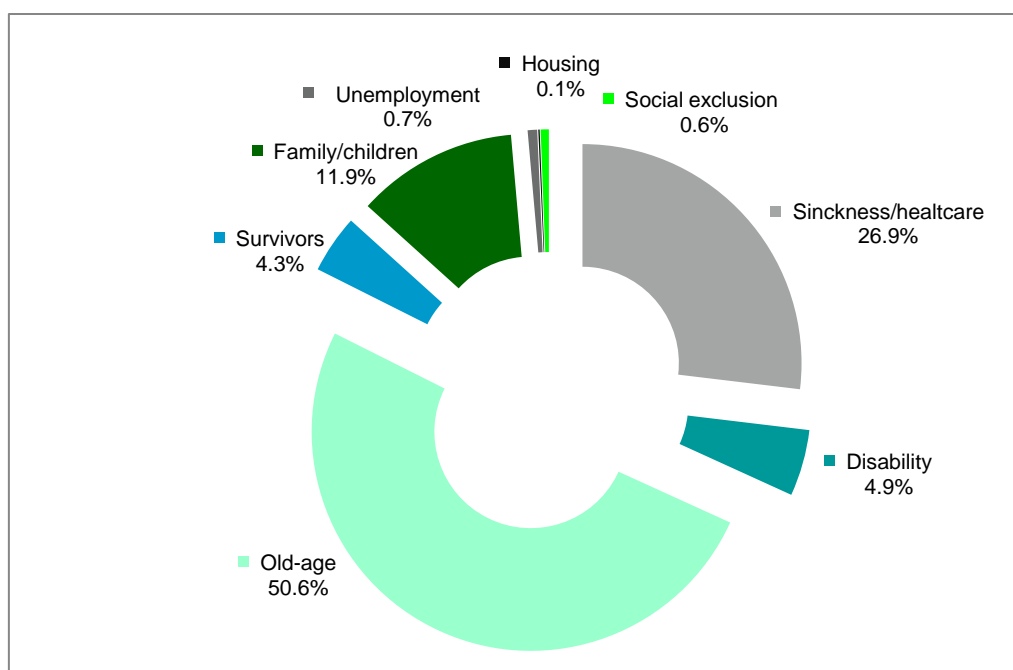
	-million lei-			
	TOTAL	Expenditure with social benefits	Administrative expenditure	Other expenditure
2012	91472	90478	960	34
2013	94812	92782	1946	84
2014	98584	96482	2030	72
2015	103887	101571	2250	66
2016	111822	110053	1702	67
2017	126749	124253	2429	67
2018	142906	140226	2613	67
2019	161955	158855	3033	67
2020	188978	180916	7996	66
2021	197853	194002	3784	67

Source: NIS. Statistical survey on social protection, ESSPROS

Note: The data on social protection expenditures for the year 2021 are semi-final. The final data will be available in November 2023, for the year 2020 the data are final.

Social benefits are granted either in cash (allowances, indemnities, social aids) or in kind in the form of goods (material aids in goods for individual or long-term use and food, provided individually or within programs aimed at facilitating access to education, health, employment, etc.) and/or services (for example: home care services for sick or disabled people, medical and paramedical services, rehabilitation services, placement services, etc.). The distribution - by ESSPROS functions - of expenditures on social benefits reveals that the old age function occupies the first place in terms of social benefit expenditures in Romania (50.6% of the total social benefit expenditures in 2021), followed by the healthcare function (26.9%). It should be noted that these two functions, which occupy the top place in terms of social protection expenditures, are contributory benefits.

Figure 6.13. The structure of expenditure with social protection benefits, by social protection function, in 2021

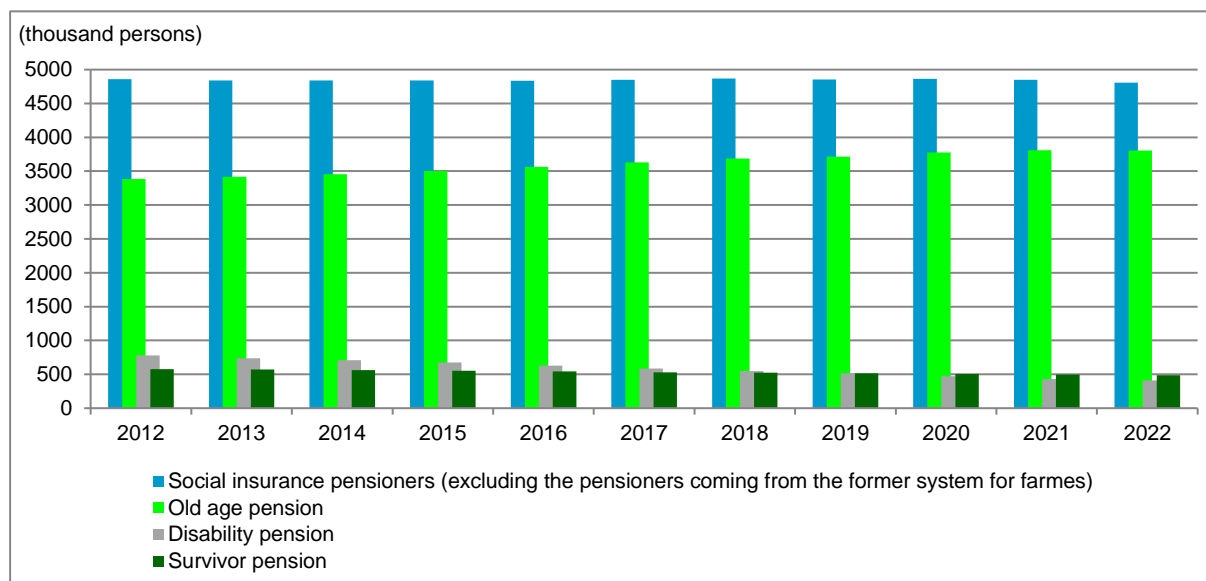


Source: NIS, Statistical survey on social protection, ESSPROS

Note: The data on social protection expenditures for the year 2021 are semi-final. The final data will be available in November 2023.

The increase in social protection expenditures over the last decade is also attributed to the increasing number of social security pensioners. The aging population process and the increase in life expectancy are expected to further increase the number of pensioners. In 2022, the number of social insurance pensioners (excluding pensioners from the former system for farmers) was 4.8 million persons, with 3.8 million old-age pensioners, 0.4 million people receiving disability pensions, and 0.5 million people with survivor pensions.

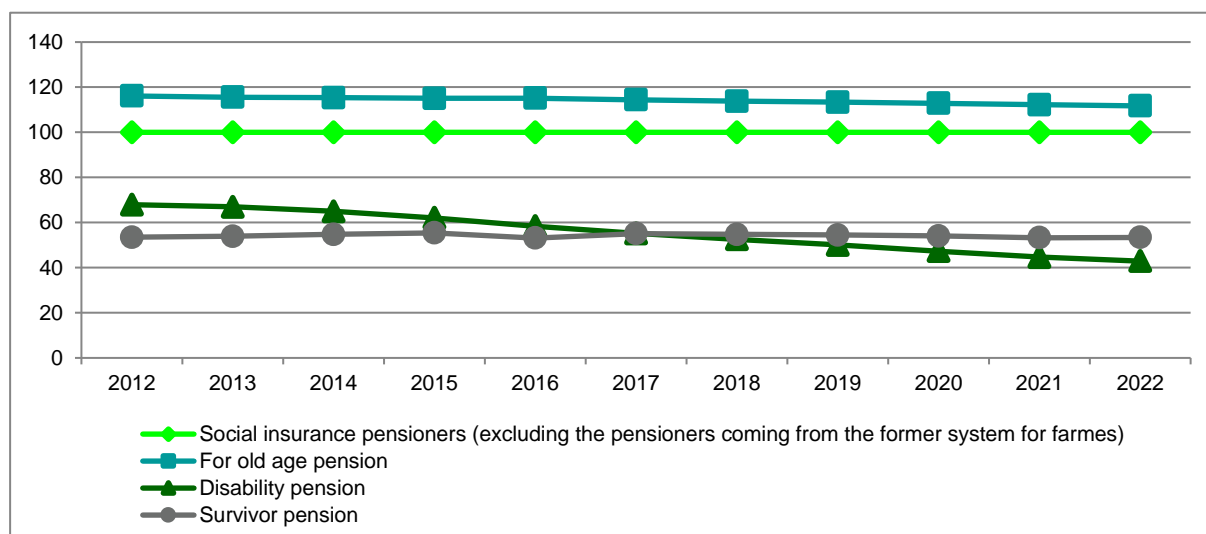
Figure 6.14. Distribution of social insurance pensioners, by category of pension, during 2012-2022



Source: NIS, Statistical survey on the number of pensioners and average monthly pension

The ratio between the average pensions for different categories of pensioners and the average social insurance pension (excluding pensioners from the former system for farmers) - considered as a reference - recorded different trends during the period 2012-2022, depending on each category of pensioners.

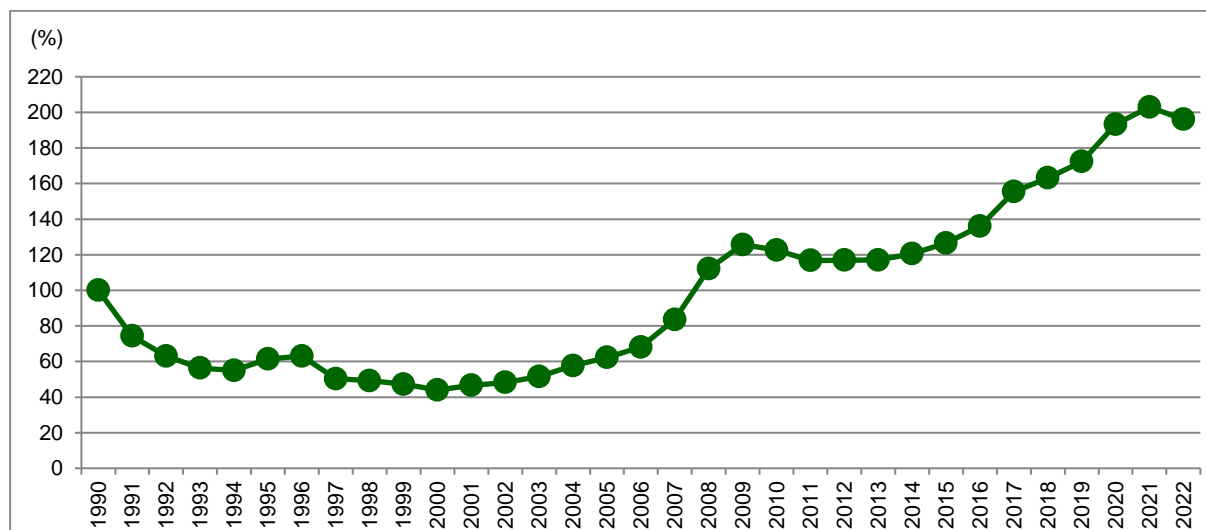
Figure 6.15. Evolution of the ratio between the average pension by category of pensioners and the average pension of social insurance (excluding the pensioners coming from the former system for farmers), during 2012-2022



Source: NIS, Statistical survey on the number of pensioners and average monthly pension

In 2022, the ratio between the average old-age social insurance pension and the average social insurance pension (excluding pensioners from the former system for farmers) was 111.7%, which is 4.4 percentage points lower than in 2012 and 0.5 percentage points lower than in 2021.

Figure 6.16. Evolution of the average real pension index of the state social insurance pensioners (1990=100), during 1990-2022

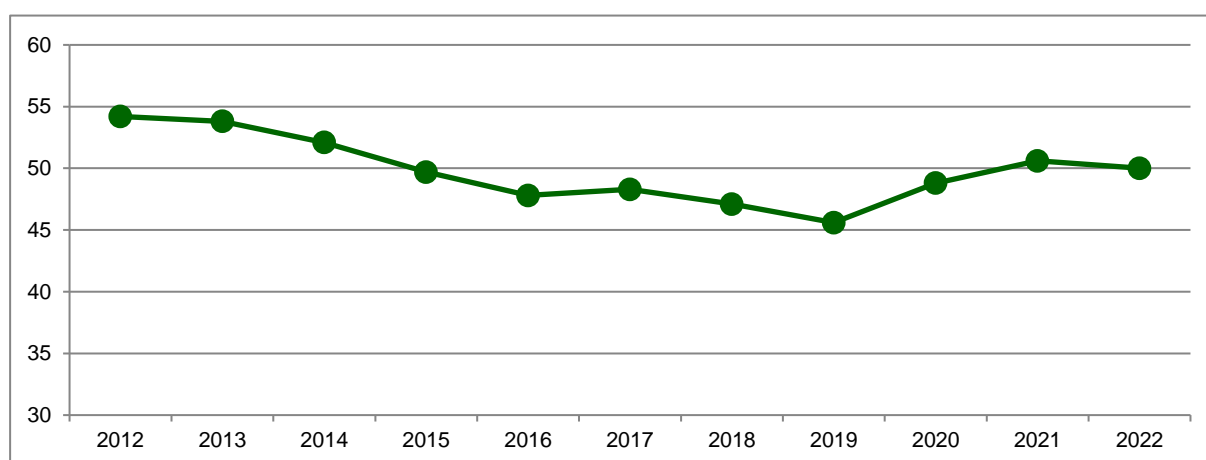


Source: NIS, Statistical survey on the number of pensioners and average monthly pension

¹⁾ Including pensions from the system of the Ministry of National Defense, the Ministry of Internal Affairs and the Romanian Intelligence Service.

During the period 2012-2022, the purchasing power of the average nominal pension showed an upward trend, with the highest value of the real average pension index compared to the year 1990 being recorded in 2021 (203.0%), and then decreasing to 196.1% in 2022.

Figure 6.17. Ratio between the average social insurance pension and the average earnings, during 2012-2022



Source: NIS, Statistical survey on the number of pensioners and average monthly pension

¹⁾ Including pensions from the system of the Ministry of National Defense, the Ministry of Internal Affairs and the Romanian Intelligence Service.

In 2022, in real terms, the average social insurance pension represented 50.0% of the average wage earnings, compared to 54.2% in 2012.

6.4. Poverty incidence and social protection in the international context

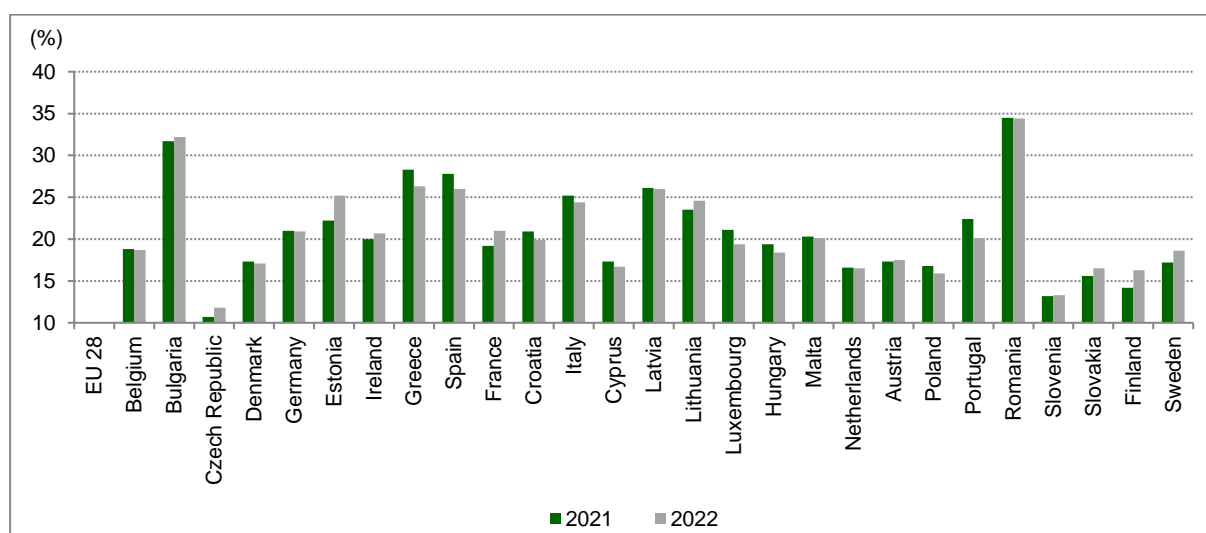
Eurostat, based on the data provided by the Statistical Offices of the Member States, calculates and disseminates annually indicators of poverty, social inclusion and social protection.

The indicator measuring the at-risk-of-poverty or social exclusion rate (AROPE) is the main monitoring indicator for the poverty objective contained in the Europe 2030 Targets.

The data shows a slight decrease in the AROPE value in the European community: in 2022, approximately 95.3 million persons in the European Union (21.6%) were under the incidence of at-risk-of-poverty or social exclusion, compared to 21.7% in 2021.

According to the data for 2022, Bulgaria and Romania have the highest rates of risk of poverty or social exclusion among EU Member States. In Romania, 34.4% of the total population lives at risk of poverty or social exclusion, and in Bulgaria 32.2%. At the opposite side are Western and particularly Nordic countries, where the rate of risk of poverty or social exclusion records the lowest values among EU Member States (Czech Republic - 11.8%, Slovenia – 13.3%, Poland – 15.9%, Finland – 16.3%, the Netherlands - 16.5%, Slovakia - 16.5%, Cyprus - 16.7%, and Denmark – 17.1%).

Figure 6.18. At risk of poverty or social exclusion rate (AROPE) in EU Member States, in 2021 and 2022



Source: Eurostat, EU Survey on Income and Living Conditions (EU-SILC), <http://ec.europa.eu/eurostat/data/database>

In most European countries, children and working-age persons are more at risk of poverty or social exclusion than the elderly. The largest differences in the AROPE indicator (At Risk of Poverty or Social Exclusion) between the age group 0-17 years and the total population are observed in Slovakia, Romania, France, Spain, and Luxembourg. The situation is much better regarding the incidence of poverty or social exclusion on children in Estonia, Latvia, Denmark, Slovenia, the Netherlands, and the Czech Republic.

Table 6.3. At-risk-of-poverty rate in the EU Member States, during 2012-2022

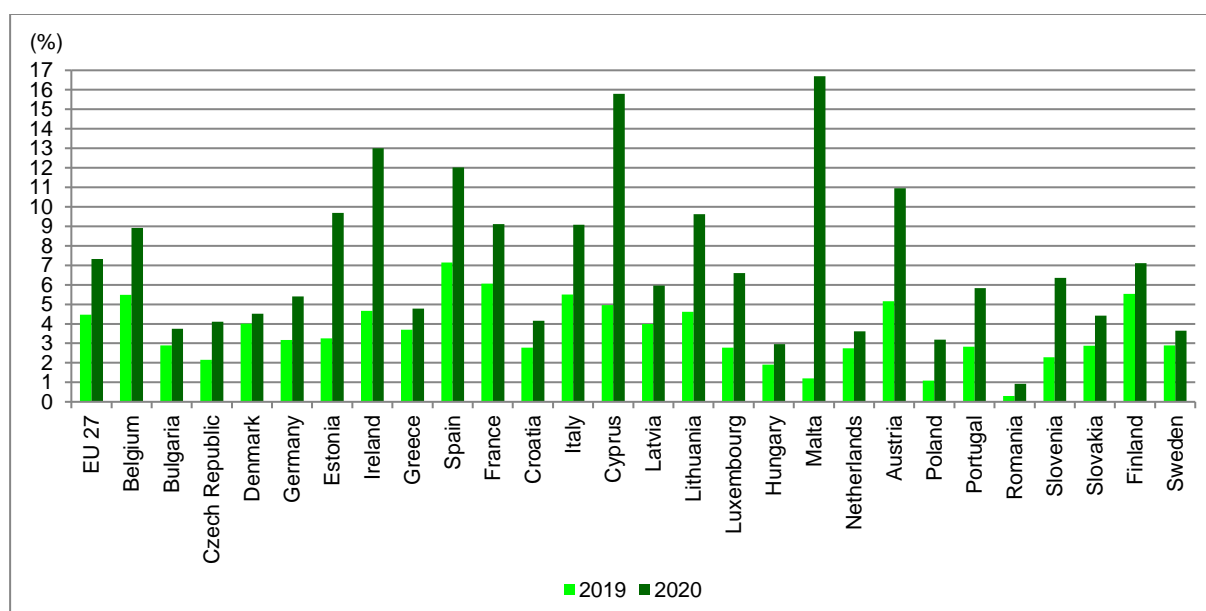
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
EU 28 (2012 - 2020)	16.8	16.7	17.2	17.3	17.3	16.9	17.1	16.8	-	-	-
EU 27 (since 2020)	-	-	-	-	-	-	-	-	16.7	16.8	16.5
Belgium	15.3	15.1	15.5	14.9	15.5	15.9	16.4	14.8	14.1	12.7	13.2
Bulgaria	21.2	21.0	21.8	22.0	22.9	23.4	22.0	22.6	23.8	22.1	22.9
Czech Republic	9.6	8.6	9.7	9.7	9.7	9.1	9.6	10.1	9.5	8.6	10.2
Denmark	12.0	11.9	12.1	12.2	11.9	12.4	12.7	12.5	12.1	12.3	12.4
Germany	16.1	16.1	16.7	16.7	16.5	16.1	16.0	14.8	16.1	16.0	14.7
Estonia	17.5	18.6	21.8	21.6	21.7	21.0	21.9	21.7	20.7	20.6	22.8
Ireland	16.3	15.7	16.4	16.2	16.8	15.6	14.9	13.1	13.8	12.9	14.0
Greece	23.1	23.1	22.1	21.4	21.2	20.2	18.5	17.9	17.7	19.6	18.8
Spain	20.8	20.4	22.2	22.1	22.3	21.6	21.5	20.7	21.0	21.7	20.4
France	14.1	13.7	13.3	13.6	13.6	13.3	13.4	13.6	14.2	14.3	15.6
Croatia	20.4	19.5	19.4	20.0	19.5	20.0	19.3	18.3	18.3	19.2	18.0
Italy	19.5	19.3	19.4	19.9	20.6	20.3	20.3	20.1	20.0	20.1	20.1
Cyprus	14.7	15.3	14.4	16.2	16.1	15.7	15.4	14.7	14.3	13.8	13.9
Latvia	19.2	19.4	21.2	22.5	21.8	22.1	23.3	22.9	21.6	23.4	22.5
Lithuania	18.6	20.6	19.1	22.2	21.9	22.9	22.9	20.6	20.9	20.0	20.9
Luxembourg	15.1	15.9	16.4	15.3	15.8	16.4	16.7	17.5	17.4	18.1	17.4
Hungary	14.3	15.0	15.0	14.9	14.5	13.4	12.8	12.3	12.3	12.6	12.1
Malta	15.1	15.8	15.8	16.6	16.5	16.7	16.8	17.1	16.9	16.9	16.7
Netherlands	10.1	10.4	11.6	11.6	12.7	13.2	13.3	13.2	13.4	14.4	14.5
Austria	14.4	14.4	14.1	13.9	14.1	14.4	14.3	13.3	13.9	14.7	14.8
Poland	17.1	17.3	17.0	17.6	17.3	15.0	14.8	15.4	14.8	14.8	13.7
Portugal	17.9	18.7	19.5	19.5	19.0	18.3	17.3	17.2	16.2	18.4	16.4
Romania	22.9	23.0	25.1	25.4	25.3	23.6	23.5	23.8	23.4	22.5	21.2
Slovenia	13.5	14.5	14.5	14.3	13.9	13.3	13.3	12.0	12.4	11.7	12.1
Slovakia	13.2	12.8	12.6	12.3	12.7	12.4	12.2	11.9	11.4	12.3	13.7
Finland	13.2	11.8	12.8	12.4	11.6	11.5	12.0	11.6	12.2	10.8	12.7
Sweden	15.2	16.0	15.6	16.3	16.2	15.8	16.4	17.1	16.1	15.7	16.0
United Kingdom	16.0	15.9	16.8	16.6	15.9	17.0	18.6	-	-	-	-

Sursa: Eurostat, EU Survey on Income and Living Conditions (EU-SILC),
<http://ec.europa.eu/eurostat/data/database>

In 2022, at-risk-of-poverty rate, calculated as an average for all Member States, at the threshold of 60% of the median disposable income per adult equivalent slightly decreased compared to the previous year. Among the EU Member States, and in Romania in particular, there was a slight decrease in the relative poverty rate in 2022 compared to 2021 (by 1.3 percentage points).

Regarding the monitoring of social protection, Eurostat, through its database⁷, provides users with detailed, comparable, and periodically updated information about the national social protection systems in EU Member States, Iceland, Norway, Switzerland, the Republic of Serbia and Turkey. Comparative tables on social protection are disseminated, accompanied by relevant metadata. This approach offers a transnational perspective on the key data corresponding to each branch of social protection. Social benefit expenditures account for over 90% of total social protection expenditures in all EU Member States. Among these, a large share is held by benefits for the elderly and healthcare, followed by benefits for family/children and unemployment. In 2020⁸, the share of unemployment expenditures in the total social benefit expenditures was 7.3% in the EU27 Member States. In Romania, the level of these expenditures is much lower (0.9%), but there are countries where the share of unemployment expenditures significantly exceeds the European average, for example, Malta (16.7%), Cyprus (15.8%), Ireland (13.0%), Spain (12.0%) and Austria (11.0%). Among the 20 Member States for which Eurostat published this indicator for 2021, notable are Malta (13.4%), Ireland (10.7%) and Lithuania (10.1%). Romania continues to record the lowest share of unemployment expenditures in the total social benefit expenditures at the EU27 level, only 0.7%, followed by Poland (1.9%) and Hungary (2.3%).

Figura 6.19. Expenditure with unemployment benefits in the total expenditure with the social benefits, in the EU Member States, in 2019 and 2020



Source: Eurostat, European System of integrated Social PROtection Statistics (ESSPROS), <http://ec.europa.eu/eurostat/data/database>

⁷ <http://ec.europa.eu/eurostat/data/database>

⁸ The year 2020 is the last year for which Eurostat has calculated the EU-27 average and data are published for all Member States.

In 2020, the total social protection expenditures⁹ accounted for 31.7% of the GDP within the EU27. As regards the share of social protection expenditures in the GDP at the member state level, in 2020, it can be observed that this varies substantially among Member States, from a share of less than 20% in the GDP in countries such as Ireland (15.5%), Latvia (17.4%), Romania (17.7%), Hungary (18.3%), Bulgaria (18.7%), Estonia (19.2%), Lithuania (19.5%), Slovakia (19.6%) and Malta (19.9%), to shares of 34%-38% in the GDP in Austria (34.0%), Italy (34.4%), and France (38.1%).

Regarding Romania, in 2021, the share of social protection expenditures in the GDP was 16.7%, down by one percentage point from the previous year.

⁹ Administrative costs and other expenditures are also included within them. The year 2020 is the last year for which Eurostat calculated the EU-27 average and data are published for all Member States.

7. CULTURE

7.1. Survey objectives

The culture of a nation can be analysed from at least two aspects: cultural heritage owned by the country and population participation in culture. On one hand, the participation in cultural life is a crucial dimension of a society, contributing to the wellbeing of individuals and to their integration in society. Therefore, “culture must be accessible to as many people as possible, and the real and potential public must be the main recipient of the cultural act. Focusing the cultural offer on the public and directing the actions of cultural operators towards it is the principle that allows the elimination of inequalities in access to culture and the democratization of participation in cultural life”¹. On the other hand, another important aspect of the culture of a country is cultural heritage. It incorporates the features of the people, being part of their past and of their history.

The main objective of statistical surveys in the field of culture is to generate information necessary for the description of cultural-artistic units network and activity and for analysing developments and trends that are manifesting from one year to another. The chapter presents statistics on the activity of libraries and museums, institutions and companies for performing arts or concerts and on the cinemas network in Romania. Another aim of this chapter is to highlight the role of information and communications technology (ICT) in culture, as part of the objectives set for the implementation of the National Strategy on the Digital Agenda for Romania².

At the same time, the data corresponding to the time period analyzed in this chapter should be treated and construed in the context of the emergence and evolution of the COVID-19 pandemic, that affected cultural life at national and international level, and the impact generated by social distancing was felt by the cultural and creative sectors as a shock wave that profoundly affected production and cultural habits. Periods during which the cultural units

¹ Source: National Institute for Cultural Research and Training - Strategy on culture and national heritage for the period 2016-2022.

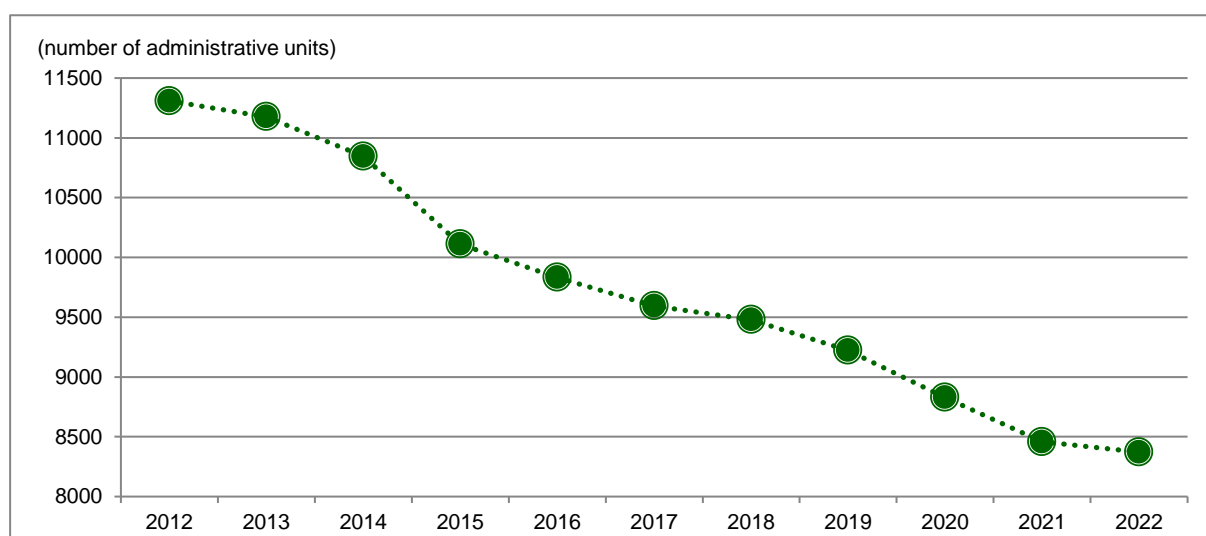
² Field of Action II - ICT in Education, Healthcare, Culture and e-inclusion (eInclusion).

carried out their activity under restricted conditions, by applying the social distancing measures imposed by the authorities to prevent the spread of the virus, have led to the drastic limitation of their total capacity, and this has been reflected in the statistical indicators presented in this paper.

7.2. Libraries network and activity

During 2012-2022, the number of libraries decreased gradually, so that in 2022 it reached 74.0% of the total number registered at the end of 2012. Compared to 2021, in 2022 the number of libraries decreased by 1.0% (86 units), mainly due to the temporary closure of some libraries. The decrease in the library network also had an impact on their activity, leading to a decrease, in 2022, of the number of lent volumes to 36.7% of the number recorded in 2012 and the number of active users to 56.5% of the total in 2012.

**Figure 7.1. Evolution of libraries number, during 2012-2022
(at the end of the year)**



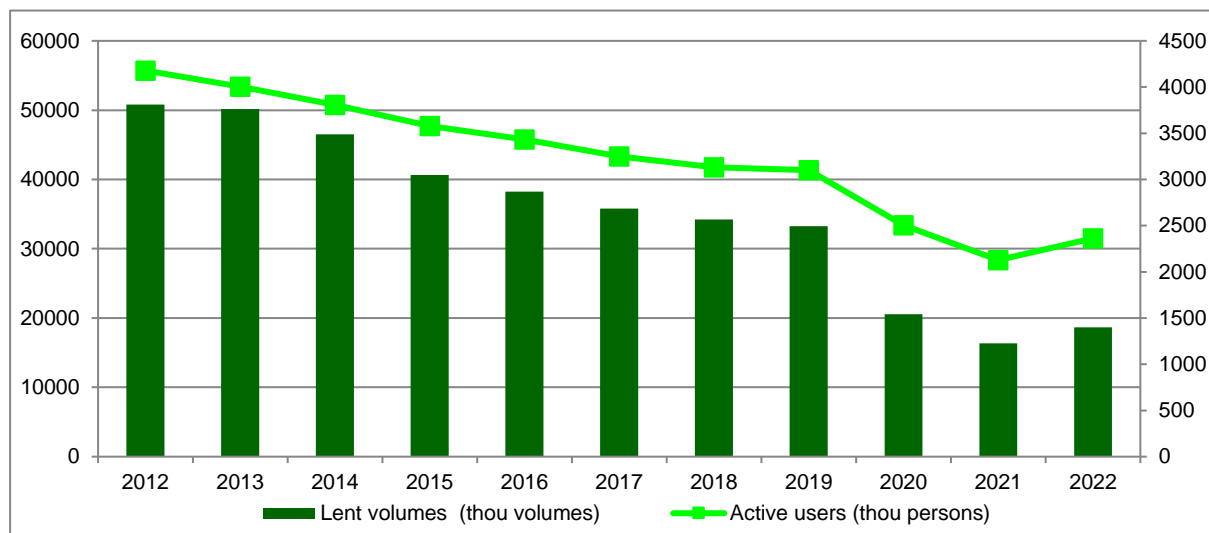
Source: NIS, Statistical survey on culture referring to "Activity of libraries".

At the end of 2022, in Romania 8372 libraries were operating that registered 2.4 million active users and 18.6 million lent volumes, an increase compared to the previous year, when the number of users and the number of lent volumes decreased significantly following the measures to prevent the spread of COVID-19.

Although increasing, in 2022 the activity of libraries did not reach the level recorded during the period prior to the COVID-19 pandemic, in 2019 the number of users reaching 3.1 million, and the number of lent volumes 33.3 million. In this context, the average number of lent volumes continued

the decreasing trend recorded in the analyzed period, in 2022, the average number of lent volumes to an active user being 7.9, compared to 7.7 volumes in the previous year.

Figure 7.2. Evolution of the number of active users and of lent volumes in libraries, during 2012-2022



Source: NIS, Statistical survey on culture referring to "Activity of libraries".

In 2022, at territorial level, although the Bucharest-Ilfov region had the largest share of the existing volumes in the national library network (22.5%), most active users (19.7% of the total existing at national level) were registered in the North-East region, where the most lent volumes were also recorded (24.2% of the total lent volumes at national level).

Table 7.1. Structure of active users, of volumes in libraries and lent volumes, by region, in 2022

Development region	Active uses	Lent volumes	Existing volumes	
			Total	out of which: new entries during the year
TOTAL	100.0	100.0	100.0	100.0
North - West	14.3	15.1	13.9	15.3
Center	11.7	11.5	11.9	11.8
North - East	19.7	24.2	16.1	21.2
South - East	11.2	11.1	9.1	8.5
Bucharest - Ilfov	9.9	7.4	22.5	15.6
South - Muntenia	14.9	13.4	10.4	12.7
South - West Oltenia	9.9	9.9	8.3	7.3
West	8.4	7.4	7.8	7.6

Source: NIS, Statistical survey on culture referring to "Activity of libraries in 2022".

In 2022 the West region had the lowest share as regards libraries activity, both in terms of the number of active users (8.4% of the total number of active users registered at national level) and the number of lent volumes (7.4%). As regards the lent volumes, although they have the most extensive collection of volumes, the libraries in the Bucharest-Ilfov region represented, along with the West region, the lowest share (7.4%) of lent volumes in the total number of lent volumes registered in 2022.

7.3. Museums network and activity - cultural heritage

The concept of cultural heritage is associated with the “historical buildings and monuments, archaeological sites, paintings, drawings or sculptures. Also, various types of works of art are the result of the human artistic creativity, such as photographs, books or musical instruments. However, cultural heritage is not limited to tangible goods, but also include intangible goods, such as traditions, music, dance, rituals, knowledge and skills that are passed from one generation to the next³. „The national cultural heritage comprises all goods identified as such, irrespective of their ownership, which are the expression of values, beliefs, knowledge and traditions that are constantly evolving; it includes all elements resulting from interaction, over time, between the human and natural factors”⁴.

A set of relevant indicators in measuring the cultural heritage, but also the cultural life of the society, refers to the number and activity of museums and public collections. During 2012-2022, with the increase in the number of museums and public collections, the interest of the population for visiting them also increased. Thus, in Romania in 2022 there were opened to the public 768 museums and public collections⁵, representing an increase of 105 units compared to 2012, that were visited by over 16 millions visitors, 59.0% more than in 2012.

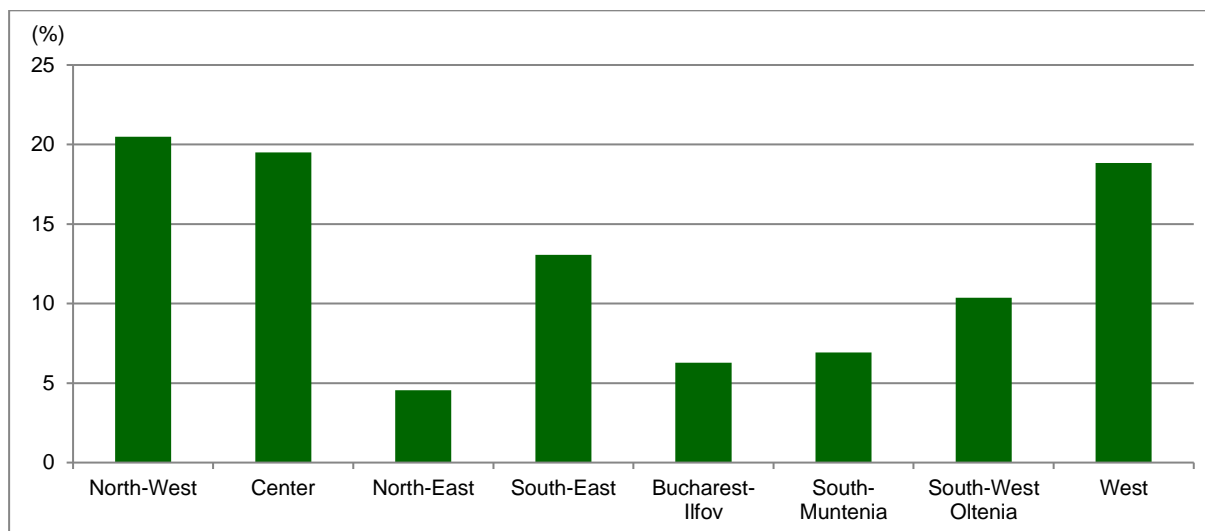
If during 2012-2019 the number of visitors to museums and public collections have followed an upward trend, the occurrence of the COVID-19 pandemic in 2020 led to a dramatic decrease in the number of visitors (-56.4% compared to 2019). In 2021 and 2022, the statistical data show a tendency for population to visit the museums, without reaching the level before the pandemic (16.0 million visitors in 2022 and 11.4 million visitors in 2021, compared to 18.2 million visitors in 2019).

³ Eurostat, *Culture statistics*, 2016 edition, <http://ec.europa.eu/eurostat/documents/3217494/7551543/KS-04-15-737-EN-N.pdf/648072f3-63c4-47d8-905a-6fdc742b8605>.

⁴ Law no. 182/2000 on the protection of mobile national cultural heritage, republished.

⁵ including subsidiaries and sections.

Figure 7.3. Distribution of exhibition area of cultural heritage ^{*)}, in museums and public collections, by development region, in 2022



Source: Statistical survey on culture referring to "Activity of museums and public collections in 2022".

Note: ^{*)} including monuments.

In 2022 the museums and public collections network (including monuments) had an occupied exhibition area of 2976638 sqm, botanical gardens, zoological gardens and aquaria totaled an area of 3072192 sqm, and an area of 491564 ha was occupied by nature reserves.

In 2022, at regional level, the exhibition area of the cultural heritage of the museums and public collections network (including monuments), was concentrated in the development regions in the western part of the country (North-West and West) representing 39.3% of the total exhibition area. The regions in the southern part of the country (South-Muntenia, South-West Oltenia and the Bucharest-Ilfov region) represented 23.6% of the total exhibition area, the Center region 19.5% of the museum exhibition area, and the regions in the eastern part of the country (North-East and South-East) covered 17.6% of the total exhibition area.

The exhibition area of natural heritage in botanical and zoological gardens, aquaria and nature reserves is concentrated in the West and North-West regions where, in 2022, was comprised 67.9% of its total area.

7.4. Institutions and companies for performing arts or concerts

The cultural activity performed over the last decade by the institutions and companies for performing arts or concerts, as a result of the public interest in our country for shows and music, has led to a growing number of cultural institutions, from 168 units in 2012 to 237⁶ units in 2022. After a period of growth in the number of cultural institutions and the performances and spectators between 2017-2019, the occurrence of COVID-19 pandemic and the restrictions that significantly affected the cultural sector have led to a dramatic decrease in the number of performances, concerts and participation of the population to these cultural events. The year 2022 marked a return of the cultural sector and, in particular, of population participation, with the number of spectators increasing from 1.5 million in 2020 to 4.2 million, without reaching the level recorded before the pandemic (8.1 million spectators).

Table 7.2. Number of institutions and companies for performing arts or concerts and of the spectators, during 2012-2022

Year	Institutions and companies for performing arts or concerts *) (units)	Shows and concerts (number of performances)	Spectators (persons)
2012	168	20018	9634453
2013	236	21528	5716715
2014	242	20786	6237216
2015	254	22538	5806605
2016	227	22356	5749193
2017	230	23498	6425153
2018	248	26214	7920508
2019	242	26422	8074487
2020	235	10009	1506244
2021	229	14492	1940084
2022	237	21474	4240489

Source: Statistical survey on culture referring to "Activity of institutions and companies for performing arts or concerts".

Note: *) including sections.

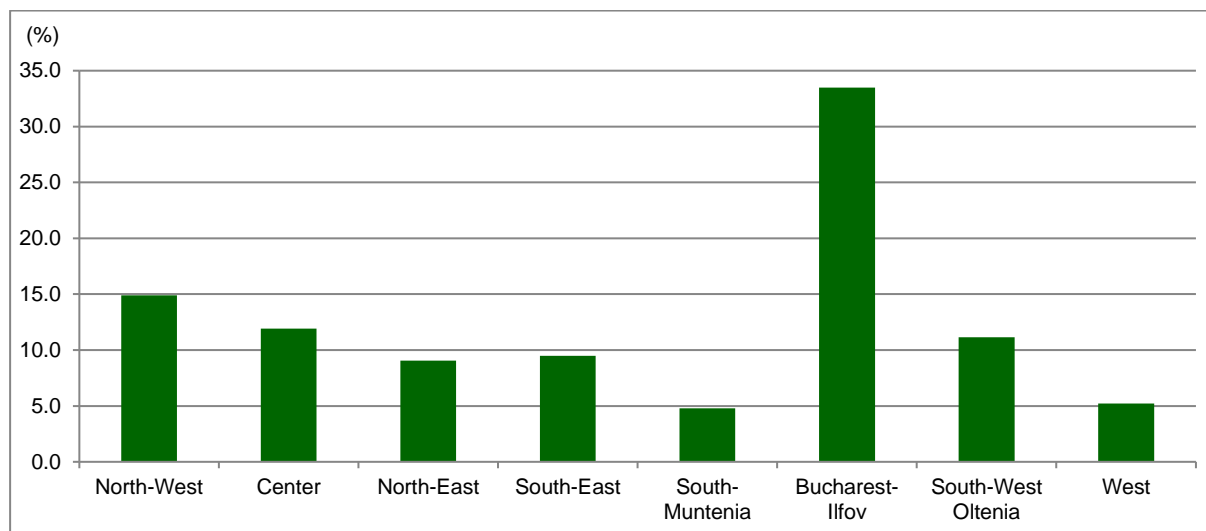
Following the same trend, the number of shows and concerts organized by the cultural institutions registered a dramatic decrease in 2020 (-62.1% compared to 2019), reaching 21.5 thou shows in 2022, representing an increase of 114.5% compared to 2020 and of 48.2% compared to 2021.

In 2022, the Bucharest-Ilfov region registered the highest share in the total number of spectators at national level (33.5%), followed by the North-West region (14.9%) and the Center

⁶ Including sections, units operating within the structure of Cultural Centers, local councils, etc.

(11.9%), while the West and South-Muntenia regions recorded the lowest percentages of the number of spectators, 5.2% and 4.8%, respectively.

Figure 7.4. Distribution of the number of spectators of the companies for performing arts or concerts, by development region, in 2022



Source: Statistical survey on culture referring to "Activity of institutions and companies for performing arts or concerts".

Note: *) including sections.

7.5. Cinemas network and activity

In general, the participation of the Romanian population in film culture has increased significantly over the last decade. This phenomenon was mainly caused by the increase of the population's interest for this form of culture.

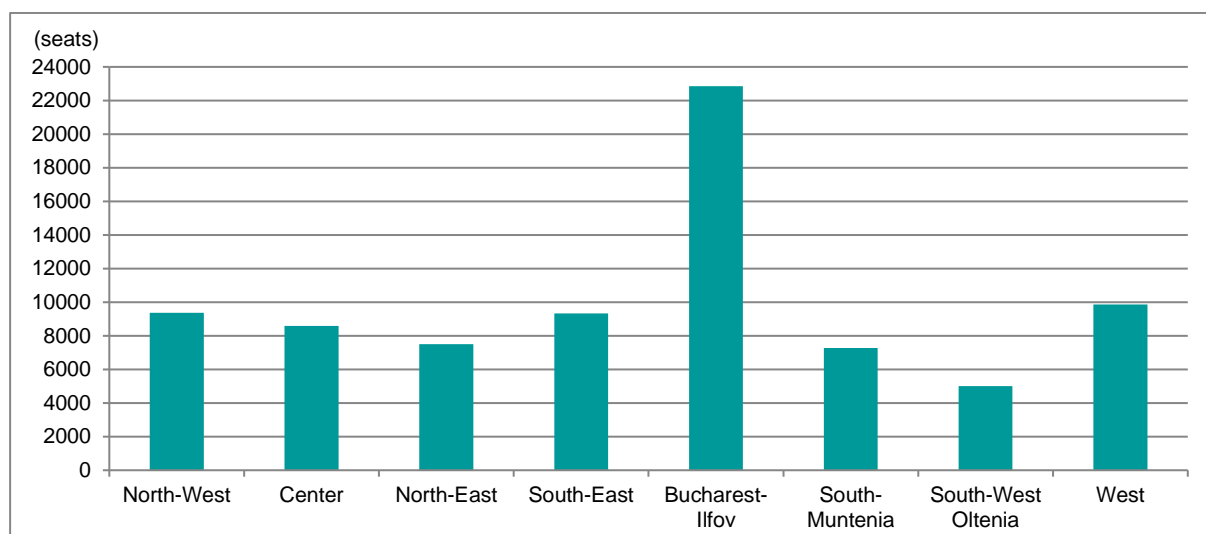
In 2022, 95 cinemas (including a mobile cinema) were operating, 14 units more than in 2012 and 5 units more than in 2021. The number of film projections presented to the public registered, in 2020, a decrease of 67.0% compared to the previous year, with the imposed restrictions related to the COVID-19 pandemic, which also led to a decrease in the number of spectators by 74.9%.

In the context of the ending of the COVID-19 pandemic, in 2021, against the background of the gradual elimination of restrictions, the activity in cinemas has undergone a revival, both by increasing the number of film projections (by 69.5%, compared to 2020) and the number of spectators (with 1.4 million spectators more than in 2020).

In 2022, the offer of the cinemas has been comparable to the period prior to the pandemic, registering a number of 641.1 thou film projections, a slightly increase compared to 2019 (638.0 thou projections), in 95 cinemas, with 3 units less than in 2019. However, the pace of growing

number of spectators to cinemas was slower, in 2022 recording a decrease of 1.9 million spectators, compared to 2019.

Figure 7.5. Seats in cinema halls, by development region, in 2022



Source: Ministry of Culture - National Center of Cinematography.

At regional level, there is an imbalance in respect of ensuring the seats in cinema halls. The emergence of the multiplex cinemas in the shopping malls in big cities, generated an unequal increase of the number of seats among the development regions in Romania. Thus, Bucharest-Ilfov region has the highest number of seats in the cinema halls, followed at a great difference by the West region.

7.6. ICT use for cultural purposes

The objective of this section is to highlight the role of information and communication technology (ICT) in culture.

According to the “Strategy for culture and national heritage 2016-2022”, “ICT is a factor for stimulating creativity and innovation, for internationalization of the cultural offer and for promoting cultural operators. The digitization of heritage has social, cultural and economic benefits and can be a solution for preserving cultural heritage for archives, libraries, museums, etc.”⁷. According to the Strategy, the funding priorities and the guidelines recommended for private cultural operators and public cultural institutions activities are as follows:

- enhancing young people access to new information and communication technologies (ICT) and their use for cultural production and consumption;

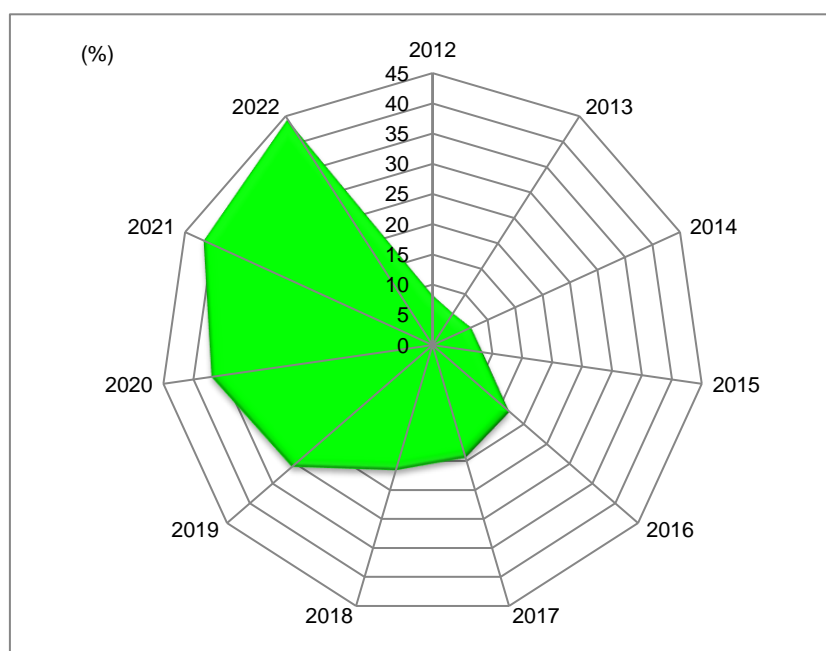
⁷ Source: National Institute for Cultural Research and Training - Strategy on culture and national heritage 2016-2022

- using the new information and communication technologies (ICT) for creation, distribution and access to culture.

The Digital Agenda for Romania⁸ envisages Romania's investments in people's digital skills and knowledge, in order to improve the citizens' quality of life. In the Field of Action "ICT in Education, Healthcare, Culture and eInclusion", the Strategy includes a set of indicators for monitoring the strategic objectives in the cultural area, such as:

- Percentage of rare digital documents in all rare documents available in libraries;
- Percentage of national heritage digitised goods in the collections of museums (with a distinction between cultural and natural goods);
- Percentage of national heritage digitised goods in the collections of museums that are uploaded on the website www.europeana.eu⁹.

Figure 7.6. Percentage of rare digital documents in all rare documents available in libraries, during 2012-2022



Source: Statistical survey on culture referring to "Activity of libraries".

⁸ Field of Action 2 - ICT in Education, Healthcare, Culture and eInclusion.

⁹ In accordance with the Guide for digitisation - the thematic pillar "Libraries" version 01 of 25.11.2009 "Europeana model is the decentralised model promoted by all European databases. The inter-relations within the system ensures the portal possibility to collect metadata related to digital documents in holders' databases and to enter them in the general index, thus making them available to users" Source: National Library of Romania.

Starting with 2016, when the number of rare digital documents doubled compared to the previous year, there is an annual increase in them from a 16.8% share in the total of rare books and periodicals, reaching a 44.3% share at the end of 2022.

“The digitisation of the collections of documents and the establishment of the National Digital Library in Romania shall ensure a better promotion of national values, a better dissemination of information and a better use, at national and international level, of special collections of rare documents.”¹⁰

“The establishment of the National Digital Library is primarily aiming at preserving and protecting the national cultural heritage existing in the libraries in the National System of Libraries, promotion of collections and extension of access to information.”¹¹

Table 7.3. Share of cultural and natural digital goods in the collections of museums and public collections^{*)} in the total cultural and natural goods, during 2016-2022

Year	Cultural and natural digital goods TOTAL (%)	out of which:	
		Cultural digital goods (%)	Natural digital goods (%)
2016	17.1	6.0	11.1
2017	17.4	12.1	5.3
2018	9.0	6.2	2.8
2019	10.9	10.8	0.1
2020	12.7	12.2	0.5
2021	13.6	13.0	0.6
2022	14.1	13.5	0.6

Source: Statistical survey on culture referring to "Activity of museums and public collections".

Note:*) Including monuments, excluding botanical and zoological gardens, aquaria, nature reserves.

Access of the population to cultural and natural goods will become easier by implementing the new ICT technologies and digitizing the most important and valuable cultural and natural goods of the museum heritage.

In 2016, out of the total 14.6 million cultural and natural goods owned by museums and public collections¹² 2.5 million goods were digitized (17.1%). Out of these goods 11.1% were natural goods and only 6.0% cultural goods.

At the end of 2022, museums and public collections owned 17.0 million more cultural and natural goods (31.6 million) than in 2016, of which 14.1% were digitized (4.5 million goods). Out of these, only 0.6% were natural goods and 13.5% were cultural goods.

¹⁰ <http://www.bibnat.ro/index/Biblioteca-Digitala-Nationala-s135-ro.htm>.

¹¹ <http://www.bibnat.ro/Biblioteca-Digitala-Nationala-s135-ro.htm>.

¹² Excluding cultural and natural goods in botanical and zoological gardens, aquaria and nature reserves.

Table 7.4. Number of cultural and natural digital goods^{*)} uploaded on the website www.europeana.eu, during 2016-2022

Year	Cultural and natural digital goods TOTAL	Number of cultural and natural digital goods uploaded on the website www.europeana.eu		
		Total, out of which:	Cultural digital goods	Natural digital goods
2016	2490917	5137	5135	2
2017	2937881	4813	4813	0
2018	2976024	11907	11907	0
2019	3549980	35724	35724	0
2020	4108776	55697	55697	0
2021	4265273	72341	72341	0
2022	4459564	71840	71840	0

Source: Statistical survey on culture referring to "Activity of museums and public collections".

Note:*) Including monuments, excluding botanical and zoological gardens, aquaria, nature reserves.

During 2016-2022 the total number of cultural and natural digital goods uploaded on the website www.europeana.eu increased almost 14 times, from 5137 to 71840.

Also, at the end of 2022, compared to 2021, there is a decrease of 0.7% of cultural and natural goods uploaded on the website www.europeana.eu.

7.7. Culture in the European context

Culture is one of the Europe's greatest assets: it is a source of values and identity and creates a feeling of belonging. It also contributes to well-being, social cohesion and inclusion. Cultural and creative sectors can trigger economic growth, job creation and international trade. Therefore, culture is gaining importance in the EU. Article 167 of the Treaty of Lisbon states that the EU must contribute to "the flourishing of the cultures of the Member States, while respecting their national and regional diversity and, at the same time, bringing to the fore the common heritage". The EU supports these objectives through the Creative Europe program and through several political actions included in the Action Plan for Culture (2023-2026). The Plan, adopted by the EU Council of Culture Ministers, sets out the main current priorities for European cooperation in cultural policy-making: empowering the cultural and creative sectors, increasing cultural participation and the role of culture in society, triggering the power of culture and strengthening the cultural dimension of the EU's external relations. The implementation of the Work Plan for Culture (2023-2026) is supported by the optimized use of quality data and statistics.

Having regard that the EU member states are responsible for their own policies for the cultural sector, the role of the European Commission is to contribute to address common challenges. They include the impact of digital technologies, changing models of cultural governance and the need to support the cultural and creative sectors in innovation.

In November 2022¹³ the EU Council agreed on the following **4 priority areas**, different but complementary in terms of their contribution to strengthening European cultural cooperation, promoting cultural diversity and providing European added value and with a view to the need for joint action in the next four years, taking into account the main challenges and taking due account of the principles of subsidiarity and proportionality:

- artists and culture professionals: strengthening the capacity for action of the cultural and creative sectors;
- culture for the people: increasing cultural participation and the role of culture in society;
- culture for the planet: harnessing the power of culture;
- culture for co-creative partnerships: strengthening the cultural dimension of the EU's external relations.

During the COVID-19 pandemic and the period after, the cultural and creative sectors (CCS) proved great adaptability and capacity for innovation. However, they have been severely affected and continue to suffer the consequences of the pandemic. More than ever, there is a need to further strengthen the resilience of CCS, support their recovery and diversity, capitalize on new trends accelerated by the pandemic (including in the digital environment) and ensure fair working conditions for all professionals in the cultural and creative sector.

Also, the EU Council requested, based on prior consultations with the Member States and stakeholders, to consider the proposal of an EU strategic framework for culture, which would reflect the guiding principles and would aim at the strategic integration of the cultural policy perspective and of the benefits of culture in all relevant EU policies, programs and initiatives. The EU work plans in the culture area will continue to identify specific actions for cultural cooperation at European level and set out priorities among them.

The guiding principles on which the EU Work Plan in the field of culture is based are the following:

- culture, including cultural heritage, has an intrinsic value and helps strengthen the European identity;
- cultural and linguistic diversity is a fundamental asset of the EU and must be respected, promoted and improved, including through mobility and the circulation of works;

¹³ Official Journal of the European Union, 2022/ C466/ 01, Council resolution on the EU Work Plan for Culture 2023-2026.

- freedom of artistic expression and creativity are fundamental to the human ability to face challenges, think critically, innovate and invent and must be encouraged and supported in all relevant ways;
- cultural diversity and intercultural dialogue are essential for the promotion and protection of human rights; encourages mutual understanding, contributes to the prevention and settlement of conflicts and promotes reconciliation, international peace and stability, any misuse of culture with the aim of spreading war propaganda and disinformation and incitement to hatred, being incompatible with the fundamental EU values and principles;
- culture makes a significant contribution to sustainable development, economy and social inclusion, strengthening territorial cohesion;
- culture has the potential to promote equality and mutual respect and to combat all forms of violence, discrimination, intolerance and prejudice;
- implementation should be supported by optimized use of quality data and statistics.

Flexibility of provisions and implementation of the EU Work Plan in the field of culture is essential in order to react to current and future challenges and a changing political environment.

These priority areas are complemented by concrete activities, with clearly defined working methods, activities based and developed on recent achievements at EU level, among others the following working methods can be used: open method of coordination (OMC), expert groups and round tables ad hoc or led by the Commission, meetings, studies, conferences, seminars, etc.

The main cultural indicators calculated by Eurostat from various sources¹⁴ refer to: the workforce in the cultural sectors, the number of enterprises in the cultural sectors, the added value and turnover of enterprises in the cultural sectors, trade in cultural goods, participation in cultural activities.

The concern for culture is best reflected by the share of employment in cultural domains. The data presented in Table 7.5 are at EU-27 level¹⁵.

In 2022, 7.7 million persons in the EU Member States were working in one of the cultural domain or had a cultural occupation.

Employment in cultural domains includes all persons who carry out economic activities that are considered cultural, regardless if they have a cultural occupation. Also, employment in

¹⁴ Eurostat: ESSnet - Culture Final report, 2012 edition specifies that the culture scope includes: Cultural heritage, archives and libraries, books and press, visual arts, performing arts, audiovisual and multimedia, architecture, crafts and handicrafts, advertising and other interdisciplinary fields and cultural activities.

¹⁵ Without the United Kingdom of Great Britain and Northern Ireland (according to the Agreement on the withdrawal of the United Kingdom from the EU, October 2019, between the EU-27 leaders and the British side, subsequently approved by the British authorities and the EU and entered into force on 1st February 2020).

cultural domains includes persons with a cultural occupation, regardless if they are engaged in a cultural or non-cultural economic activity.

**Table 7.5. Share of employed population working in cultural domains,
in 2022**

Country	Employed population in cultural domains -thou persons-	Share in the total employed population - % -
EU-27	7733	3.8
Austria	176	4.0
Belgium	210	4.2
Bulgaria	84	2.7
Croatia	52	3.1
Cyprus	18	4.0
Czechia	194	3.8
Denmark	135	4.5
Estonia	31	4.5
Finland	123	4.6
France	1142	4.0
Germany	1715	4.0
Greece	145	3.5
Hungary	164	3.5
Ireland	83	3.3
Italy	815	3.5
Latvia	35	4.0
Lithuania	58	4.1
Luxembourg	15	4.8
Malta	13	4.4
Netherlands	521	5.4
Poland	577	3.4
Portugal	198	4.0
Romania	117	1.5
Slovakia	76	2.9
Slovenia	45	4.6
Spain	733	3.6
Sweden	260	4.9

Source: Eurostat, *Culture statistics* – 2023, Table 1: Cultural employment, 2022 (% of total employment).
Note: When adding up the column related to the employed population, there may be differences from the total, due to the rounding of the number of population into thousands of persons.

The share of employed persons in culture at EU-27 level in 2022 was of 3.8% of the total number of employed persons in the entire economy of the European Union¹⁶.

The highest shares on the employed population in cultural domains were recorded by the Netherlands (5.4%), Sweden (4.9%) and Luxembourg (4.8%), the lowest shares being recorded in Slovakia (2.9%), Bulgaria (2.7%) and Romania (1.5%).

¹⁶ Eurostat, *Culture statistics* – 2023 edition.

**Table 7.6. Share of the employed population in cultural domains,
by level of educational attainment, in 2022**

	Tertiary education or more (ISCED 5-8)	Upper secondary and post-secondary non-tertiary education (ISCED 3-4)	Lower secondary education or less (ISCED 0-2)	Non-response
EU-27	60.6	31.4	7.9	0.1
Austria	63.2	33.2	3.5	-
Belgium	74.8	20.0	5.2	-
Bulgaria	62.5	35.0	-	-
Croatia ¹⁾	55.7	42.2	2.1	-
Cyprus	81.2	16.0	3.3	-
Czechia	52.2	45.8	2.0	-
Denmark	57.0	30.0	12.9	-
Estonia ¹⁾	62.3	34.4	3.3	-
Finland	62.2	31.8	6.0	-
France ¹⁾	69.5	23.2	6.8	0.5
Germany	52.5	38.3	9.2	-
Greece	58.6	37.2	4.1	-
Hungary	61.0	35.6	3.5	-
Ireland ¹⁾	74.1	20.8	-	-
Italy	47.5	37.8	14.7	-
Latvia ¹⁾	65.5	32.5	-	-
Lithuania ¹⁾	70.7	27.8	-	-
Luxembourg	82.0	13.3	-	-
Malta	49.6	40.0	10.4	-
Netherlands	61.5	29.4	8.9	-
Poland ¹⁾	60.9	37.1	2.0	-
Portugal	60.0	25.1	14.9	-
Romania	54.8	41.3	-	-
Slovakia	59.3	39.8	-	-
Slovenia ¹⁾	61.0	36.7	2.4	-
Spain	73.5	16.2	10.2	-
Sweden	65.9	27.7	6.2	-

Source: Eurostat, *Culture statistics – 2023, Cultural employment (supplementary table): Cultural and total employment by educational attainment, 2022 (% of cultural employment)*

¹⁾ "Lower secondary education or less (ISCED 0-2)" and "Non-response" are aggregated.

It is noteworthy that an indicator reflecting the concern for culture is the share of the population employed in the cultural domains, who graduated tertiary education (see Table 7.6).

In 2022, at EU-27 level, 60.6% of the population employed in the cultural domains graduated tertiary education or more. The countries with the highest share of the population with tertiary education are: Luxembourg (82.0%), Cyprus (81.2%), Belgium (74.8%) and Ireland (74.1%). The lowest shares of the population with tertiary education that is employed in cultural domains were registered in 2022 in: Germany (52.5%), Czechia (52.2%), Malta (49.6%) and Italy (47.5%). In Romania the share of the population with tertiary education that is employed in cultural domains was of 54.8%.

DATA SOURCES

Data sources for Chapter 1

Statistical survey legal population

1. Survey objectives

The measurement of legal population is necessary to meet the need for information on all persons who are "de jure" residents of Romania. Knowing the number and structure of legal population are useful for "governmental decisions making process, to inform the public", "the formation of long official statistical data series that are part of national fund of statistical data" (according to the law on official statistics in Romania).

The determination of legal population is also necessary for: providing information on detailed territorial profile level, respectively up to locality level (municipality, town, and commune), information necessary for a multitude of national strategies and policies in the administration, economic or social fields; localities ranking; providing criteria for the establishment of taxes and duties.

2. Coverage

The coverage of the survey represents all persons of Romanian citizenship who have their legal adress in Romania.

The legal population of Romania includes the persons with Romanian citizenship who have their legal adress on the territory of Romania, proven by an identity card (IC/provisional IC, IB) issued by the competent authorities of Romania (DGEP). To set up the value of this indicator, the residence, as well as the period and/or reason of absence from the legal adress are not taken into account.

3. Observation unit: person.

4. Frequency and reference period

The reference moments for statistically determining the legal population are January 1st and July 1st of each year.

The data on legal population at the moment of January 1st year are available in April and those for the population on July 1st are available in October.

5. Method and period of data registration

Data collection is carried out in the structure established by the National Institute of Statistics (for vital events) and by the Ministry of Interior (for international migration flows by change of legal address).

For the data resulting from the statistical surveys on vital events, the reference period is the month. The statistical bulletins filled in during a calendar month are submitted by the 5th of the following month to the statistical regional / county departments (in Bucharest, to statistical sector services). On the 25th of the month following that of the registration, the databases are transmitted electronically to the Directorate of Demographic Studies, Projections and Population Census, Department of demography, health, culture and justice statistics of the NIS.

DGEP and Passports General Directorate submit biannually data on internal and international migration by change of legal residence, in electronic format.

DGEP also submits annually data on persons who have acquired Romanian citizenship and have settled their legal residence in Romania and on the persons who renounced to their Romanian citizenship.

The legal population on January 1st 2023 was computed based on legal population on July 1st 2022, to which the following elements have been added:

- natural increase of the population during July 1st - December 31st, 2022 (the number of live-births minus the number of deceased); the distribution of live-birth (age 0 years) by locality was made according to the mother's legal address or, if the mother did not have the legal address in Romania, according to the father's legal address (locality); for deceased persons, the distribution was also made by their legal address.
- balance of internal migration by change in legal address during July 1st - December 31st, 2022 (the difference between the number of persons settling the legal address in a locality and the number of persons leaving it due to legal change of address);
- balance of international migration by change in legal address during July 1st - December 31st, 2022 (Romanian citizens who re-established their legal address in Romania minus Romanian citizens who established their legal address abroad).

6. Classifications in use

Nomenclature of Territorial Units for Statistics (NUTS);

The nomenclature of **ages** which includes all ages from 0 to 110 years and over; for the dissemination of data on legal population the ages (0-84 years) and the five-years age groups (0-4 years, 5-9 years, 10-14 years 80-84 years, 85 years and over) are used.

Statistical survey on usually resident population

1. Survey objectives

The measurement of usually resident population is necessary to cover the need for information on all persons who are "de facto" residents of Romania. Usually resident population is a benchmark indicator at macroeconomic level, since it is used in the production of national statistics reflecting the capacity of social and economic development of the country. Knowing the number and structure of the usually resident population is also necessary "to substantiate the governmental decisions making process, to inform the public opinion and to convey them to the international organizations", "the formation of official statistics data series that are part of national fund of statistical data" (according to the law on official statistics in Romania). The statistical indicators on the usually resident population are calculated according to the European norms, respectively the (EU) Regulation no. 1260/2013 of the European Parliament and of the Council regarding European demographic statistics and the (EU) Regulation no 205/2014 laying down uniformed conditions for the implementation of Regulation (EU) No 1260/2013, as regards breakdowns of data, deadlines and data revisions.

2. Coverage

The coverage of the survey represents all persons with Romanian citizenship, foreigners and without citizenship, who have their usual residence on Romania's territory. According to the criteria required by European regulations regarding the usual residence and the 12 months threshold, the usually resident population of Romania:

- include immigrants - Romanian citizens, foreigners and persons without citizenship who previously had the usual residence in another country and settled their usual residence on the Romania's territory for at least 12 months or with the intention of staying for at least 12 months, persons with Ukrainian citizenship who are granted a form of international protection or temporary protection have the right to stay for at least one year*
- exclude emigrants - persons who previously had the usual residence on the Romania's territory and settled their usual residence in another country for at least 12 months or with the intention of staying for at least 12 months.*

3. Observation unit: person.

4. Frequency and reference period

The reference moments for statistically determining the usually resident population are January 1st and July 1st of each year. Data on the usually resident population at the moment of January 1st, t year are available in August (provisional data) and in January, t+1 year (final data). The average usually resident population of t year (corresponding to the moment of

July 1st) can be calculated only when data on the usually resident population on January 1st, year $t+1$ are available.

5. Method and period of data registration

The current registration of migration flows by change of usual residence is carried out by police departments according to the technical norms of the Ministry of Interior.

Data on usual residence settlement on January 1st, t year are obtained by processing these individual (non-personal) records given by the General Directorate for Personal Evidence (DGEP), a structure subordinated to the Ministry of Interior.

According to the national legislation in force, the settlement of usual residence is made when persons living temporarily, uninterruptedly, for more than 15 days to a different address than the permanent residence. The County Population Record Offices process the endorsement of the usual residence establishment on the official population record form. The endorsement of usual residence settlement is granted for the requested period, but not exceeding one year, and is valid during the time when the person actually resides at that stated residence.

For the calculation of the usually resident population only those persons who have a residence visa for 1 year and change their residence from a county to another are taken into account.

The data sources used to estimate the usually resident population of Romania are:

- processed data from administrative sources: data on live births with at least one parent usually resident in Romania at the time of birth; data on deceased persons who had the usual residence in Romania; data on internal migration by change of permanent residence and internal migration by change of usual residence for 1 year;
- data sent by the national statistical offices from Italy and Spain;
- Eurostat database on population and international migration;
- results of an econometric model based on estimation techniques by small areas, to determine the size of international migration component.

For the period between the last two censuses (2002-2011 period), data refer to usually resident population, re-estimated under comparability conditions with the final results of the Population and Housing Census of 2011.

After January 1st, 2012, the usually resident population on January 1st was estimated according to the usual residence criterion, using the components method.

The resident population of Romania on January 1, 2022 was calculated starting from the population with habitual residence in Romania at the critical moment of the Population and Housing Census - 2021 (December 1, 2021).

6. Classifications in use

Nomenclature of Territorial Units for Statistics (NUTS);

The nomenclature of **ages** which includes all ages from 0 to 110 years and over; for the dissemination of data on permanent resident population the ages (0-84 years) and the five-years age groups (0-4 years, 5-9 years, 10-14 years 80-84 years, 85 years and over) are used.

Statistical survey on long-term international migration by change in usual residence

1. Survey objectives

Knowing the number of emigrants and immigrants and the structure of international migration, the evolution of the migration phenomenon is useful for calculating the usually resident population, for the substantiation of governmental decisions making process, for informing the public opinion, for statistical analysis etc.

The European Union enlargement has added a new geographical dimension to the magnitude of the migration phenomenon. It also gave an impetus to the demand for accurate, timely and harmonized statistical information.

The statistical indicators on the long-term international migration are estimated according to the European norms, respectively to the stipulations of (EC) Regulation No. 862/2007 of the European Parliament and of the Council on Community statistics on migration and international protection, the (EU) Commission Regulation No 351/2010 implementing Regulation (EC) No 862/2007 as regards the definitions of the categories of the groups of country of birth, groups of country of previous usual residence, groups of country of next usual residence and groups of citizenship.

2. Coverage

- **Long-term international migration** – refers to persons who changed their usual residence for at least 12 months in the reference period (t year) and include also persons with Ukrainian citizenship who are granted a form of international protection or temporary protection have the right to stay for at least one year

Emigrants are the persons who emigrate abroad for a period of at least 12 months;

Immigrants are the persons (with Romanian citizenship, foreign citizenship or stateless) who immigrate to Romania for a period of at least 12 months. There are included: foreign citizens and stateless who previously had the usual residence in another country and settled their usual residence on the Romanian territory for 12 months at least; Romanian citizens who previously had the usual residence in another country for at least 12 months and returned to the country for at least 12 months.

3. Observation unit: person.

4. Frequency and reference period

International migration is estimated annually, provisional data being available within 8 months after the end of the reference year and final data are available 12 months after the end of the reference year

5. Method and period of data registration

The data sources used to estimate the annual migration flows are:

- 5.1. *processed data from administrative sources (Ministry of Interior: Directorate for Personal Records - DGEP, General Inspectorate for Immigration-IGI, Passports General Directorate-DGP);*
- 5.2. *annual data provided by national statistical offices of Spain and Italy;*
- 5.3. *Eurostat database regarding the population and international migration ('mirror' statistics);*
- 5.4. *the results of an econometric model based on estimation techniques on small areas to determine the size of international migration component, which ensures the estimation of migrants' structure at territorial level.*

The method for estimating the migration flows is to aggregate and correlate information from data sources. Data on **immigrants and emigrants flows** were estimated based on multiple data sources, the main ones being: data provided by national statistical offices of Italy and Spain, the "mirror" statistics on international migration (the Romanian immigrants declared by other states being emigrants in Romanian statistics and, vice-versa, emigrants to Romania declared by the other states representing immigrants for national statistics), data from administrative sources (e.g., the number of immigrants provided by the General Inspectorate for Immigration).

In view to estimate international migration at territorial level, NIS has developed an econometric method for estimating international migration based on estimation techniques on small area, using data from two statistical sources: - a sample statistical survey - Households Labour Force Survey - which regularly collects information about persons who (immigrate, respectively) emigrate from Romania based on a sample of households, respectively an exhaustive statistical survey - The Population and Housing Census - which provides information at a certain moment in time (in this case on December 1th, 2021) on the structure of the population who (immigrate, respectively) emigrate in terms of variables of interest (gender, age, education level, residence area, etc.). The estimation method on small areas involves producing of estimators for domains where selective statistical survey's sample comprises too few statistical units, or - in some cases - they are absent. Small areas estimation "borrows" relevance and accuracy by combining data from sample surveys with additional information from other data sources (statistical or administrative exhaustive sources).

6. Classifications in use

Nomenclature of Territorial Units for Statistics (NUTS);

*The nomenclature of **ages** which includes all ages from 0 to 110 years and over; for the dissemination of data on legal resident population the ages (0-84 years) and the five-years age groups (0-4 years, 5-9 years, 10-14 years 80-84 years, 85 years and over) are used.*

Statistical survey on vital events

1. Survey objectives

The statistics on vital events are derived from exhaustive surveys based solely on administrative data. Information in this area are vital because these events are directly involved in the evolution of natural increase and therefore affect the developments and demographic changes in Romania, with serious implications on aging. These phenomena have a decisive influence on social policies, particularly in the labour market, healthcare and education.

The European regulations governing statistics on vital events are the following:

Regulation (EU) No 1260/2013 of the European Parliament and of the Council of 20 November 2013 on European demographic statistics; (EU) Commission Regulation No 205/2014 of 4 March 2014 laying down uniformed conditions for the implementation of Regulation (EU) No 1260/2013 of the European Parliament and the Council on European demographic statistics, as regards breakdowns of data, deadlines and data revisions; Commission Regulation (EU) No 328/2011 of 5 April 2011 implementing Regulation (EC) No 1338/2008 of the European Parliament and of the Council on Community statistics on public health and on health and safety at work, as regards statistics on causes of death.

2. Method of data collection

Civil status offices within the city halls of municipalities, cities and rural communes transcript the data from administrative documents into demographic statistical bulletins which are then submitted to the territorial statistical directorates. Depending on the vital event registered this transcription is performed as such: while recording live births in civil status acts based on birth certificate issued by the medical unit where the birth occurred; while recording the death in civil status acts based on the death certificate issued by the medical unit where the death occurred; while recording the marriage within the civil status acts, based on the marriage certificate issued by the civil status office of the place where the marriage occurred.

The flow of processing information on vital events and information about people who have gone through these vital events consists of the following phases: reception, integrity checking, identifying missing, inconsistent, unclear or inadequate data and correction of data,

transposition into standard IT structures, transmission to the National Institute of Statistics (NIS), processing in view to obtain aggregated data, presentation of the survey results in synthetic or detailed statistical tables, tables validation and preparation of analytical notes and methodology for the publication.

Unlike other vital events, data on **divorces** are collected through divorce statistical bulletins gathered from municipalities and towns courts and city halls.

According to Chapter VII Dissolution of marriage of the Romanian Civil Code, the dissolution of marriage is carried out by final court decisions and by the agreement of the spouses (administratively or by notarial procedure). If the spouses agree to divorce and have no minor children born in wedlock or adopted, the civil status officer or the notary public of either the place of marriage or of the last residence of the family may record the dissolution of the marriage between the spouses, issuing a divorce certificate according to the law. The petition for divorce has to be filed by the spouses together. When the divorce petition is filed at the city hall where the marriage occurred, the civil status officer, after issuing the certificate of divorce, will record the mention of divorce in the act of marriage. If the petition for divorce is filled at the city hall where the spouses had their last common residence, the civil status officer will issue the certificate of divorce and forward a certified copy of it to the city hall of the place where the marriage occurred, to be added as a mention in the marriage act. The notary public, after ruling the divorce, issues the divorce certificate and forwards a certified copy of it to the city hall of the place where the marriage occurred, to be added as a mention in the marriage act. Together with the copy of the certificate of divorce, the notary public sends to the civil status office the data required in view to issue the divorce statistical bulletin. Civil status offices within city halls transcribe the data from administrative documents into demographic statistical bulletins that are then transmitted to the territorial statistics directorates.

The territorial statistical directorates also receive divorce statistical bulletins from courts, filled in with data on marriages that were dissolved by legal means.

Regardless of vital events observed, the above data are processed by the time the event occurred and are assigned geographically according to the permanent or the usual residence of the persons that endured these vital events.

3. Frequency and reference period

Data on **vital events** (births and deaths) and those related to **marriage** and **divorce** are recorded on a monthly basis, with data for the current month that is submitted to the National Institute of Statistics within 25 days after the end of the reference month. Data processing is performed within 40 days since the end of the reference month. Annual indicators are obtained by summing up the monthly data for a calendar year.

Activity of the medical and healthcare network

1. Survey objectives

The objective of the statistical survey in the healthcare field is the production of information necessary for describing the network and activities of the medical establishments and healthcare network and to analyse the developments and trends that manifest from year to year.

The European norms governing the statistical survey on the “activity of the medical and healthcare network” (until 2020 named activity of sanitary units) are represented by the Regulation (EC) no. 1338/2008 of the European Parliament and of the Council of 16 December 2008 on Community statistics related to public health and to the health and safety at work and by its implementing Regulations: Commission Regulation (EU) no. 2021/1901 regarding statistics on health care expenditure and financing and Commission Regulation (EU) no. 2022/2294 regarding statistics on healthcare facilities, healthcare human resources and healthcare utilisation.

2. Data source

The data are obtained from an exhaustive statistical survey carried out annually by the National Institute of Statistics, based on information collected from administrative sources or directly from the medical establishments.

3. Method of data collection

Statistical data on the activity of medical establishments are collected based on the SAN statistical questionnaire - "Activity of the medical and healthcare network" by self-registration on the web portal, using an IT application developed by the National Institute of Statistics or self-registration on printed questionnaires. The questionnaire is available on the website <http://www.insse.ro/cms/ro/content/statistica-sanatatii>.

Statistical data filled-in on the printed questionnaires are submitted annually (in February for the medical and healthcare activity of previous year) to the Territorial Directorates of Statistics.

Statistical data are collected from the County Departments of Public Health, from the units of the ministries with own healthcare network and from the medical establishments in the private sector, as well as from the medical establishments with beds (hospitals, sanatoria, preventoria, etc.), as follows:

- any medical establishment with beds from the healthcare system, regardless of ownership, should fill in a SAN statistical questionnaire;

- medical establishments without beds belonging to the Ministry of Health network, as well as those in the private system, are centralized in distinct questionnaires, filled-in by County Departments of Public Health / Department of Public Health of Bucharest Municipality;
- local and county councils fill in, in a centralized manner, at locality level, distinct questionnaires for their subordinated units: units for persons with disabilities, medical offices, school/student dental offices, nurseries, as well as for the units with medical staff, operating in the field of child protection and units providing socio-medical care for the elderly persons;
- ministries and public institutions with own healthcare network, National Health Insurance House, Health Insurance House of Defence, Public Order, National Security and Judicial Authority, as well as NGOs fill in, in a centralized manner, at locality level, the data on sanitary units without beds and on own medical staff within their own network.

The information processing flow on the activity of medical establishments marks the following steps: data reception, data integrity check, identification of missing data, inconsistencies, ambiguities or discrepancies and their correction, conversion into standard IT structures, processing at the National Institute of Statistics in view to obtain aggregated data, presentation of the survey results in synthetic or detailed statistical tables, tables validation and preparation of analytical and methodological notes to elaborate the publication.

Data related to medical and healthcare establishments are processed and assigned geographically, by counties and residence area, depending on the premises of the medical establishments.

The number of general practitioner offices, family doctors offices, dental offices and specialised medical offices do not include the medical offices within other medical establishments, such as: polyclinics, civil medical societies, diagnosis and treatment centres, etc.

The medical staff was recorded only once, at the reporting medical establishment where they have their main employment contract.

4. Frequency and reference period

The statistical survey in the healthcare field is carried out on annual basis and ensures the collection of information on public and private medical and healthcare network. The collected data refer to the situation at the end of the reference year (the year previous to the one when statistical data were collected).

System of Health Accounts

1. Survey objectives

The main objective of the System of Health Accounts (SHA) is the creation of a single methodological framework for producing financial statistics in the health area, using a methodology harmonized at international level, to meet the needs of information in healthcare field. SHA methodology is the starting point of the collaboration between three international organizations in the field of health statistics: OECD, Eurostat and WHO.

The System of Health Accounts is built so as to allow the recording of data on health expenditure, according to the International Classification of Health Accounts (ICHA). Healthcare services, healthcare providers and their financing sources have been identified at national level and included in the categories of the International Classification of Health Accounts (classification of health accounts and methodological aspects of the survey can be found in the annual publication "System of Health Accounts in Romania" available on the NIS website).

The System of Health Accounts is carried out according to the System of Health Accounts (SHA) methodology and is governed by European norms, i.e. Commission Regulation (EU) no. 2021/1901 regarding statistics on health care expenditure and financing.

2. Data source

Data on healthcare expenditure were collected from administrative sources and statistics carried out within the National Institute of Statistics. The inventory of data sources is still an ongoing activity, in a continuous process of improvement.

The administrative sources of the data used are financial records and statistics of ministries and institutions with responsibilities in the healthcare field: Ministry of Health, National Health Insurance House, Ministry of Finance, Ministry of Labour and Solidarity, Financial Supervisory Authority - Insurance-Reinsurance Sector (until April 2013, the Insurance Supervisory Commission), other ministries and institutions with own healthcare network (Ministry of National Defence, Ministry of Justice, Ministry of Transports and Infrastructure, Ministry of Interior, Romanian Academy, etc.).

The statistical sources used to elaborate the SHA are the following: exhaustive statistical survey on the activity of the medical and healthcare network (SAN); Household Budget Survey (HBS); National Accounts; Structural Survey (SS).

3. Method of data collection

NIS uses financial and non-financial data from administrative sources and data from statistical surveys carried out by NIS in view to estimate healthcare expenditure and expenditure related to healthcare services provided together with social care services, according to standard methodology developed by Eurostat, OECD and WHO.

4. Frequency and reference period

The System of Health Accounts statistical survey is carried out on annual basis and has as reference period the year $t-2$ (t - current year).

Data sources for Chapter 3

Statistical surveys on education are conducted in accordance with the European norms, i.e. Regulation (EC) no. 452/2008 of the European Parliament and of the Council concerning the production and development of statistics on education and lifelong learning; Regulation (EU) no. 912/2013 of the Commission implementing Regulation no. 452/2008 of the European Parliament and of the Council concerning the production and development of statistics on education and lifelong learning, as regards statistics on education and training systems, and with the UNESCO-OECD-Eurostat-UOE methodology.

Exhaustive statistical survey on early-childhood education and development - ISCED level 01 and pre-primary education – ISCED level 02

1. **Survey objectives** consist in evaluating the participation of children aged up to 3 years and aged 3-5/6 in education, within institutions organised and accredited under the Law on education to organise and carry out early-childhood education and development/pre-primary educational programs; establishing the enrolment rate, the number of children assigned to an educator, nursery / kindergarten occupancy
2. **Coverage:** Public and private early-childhood/pre-primary education units - nurseries/kindergartens
3. **Observation unit** - school establishments (about 5,500)
4. **Frequency and reference period:** Annually
5. **Method and period of data registration:** electronically, by self-registration through the web portal, from October to November
6. **Survey questionnaires:** **sc.0.1** (early-childhood education and development) **sc.1.1** (pre-primary education)
<http://www.insse.ro/cms/ro/content/statistica-educatiei>
7. **Classifications in use:** Ethnicity classification, language taught, SIRUTA

**Exhaustive statistical survey on primary education - ISCED level 1
and lower secondary education – ISCED level 2**

1. Survey objective

Assessment of the school population aged 6/7-14 years participation in the training process within the organised framework of the institutions accredited, under the Law on Education, to organise and carry out primary and lower secondary education programs and evaluation of the final results of the previous school year

2. Coverage

Public and private primary and lower secondary schools

3. Observation unit - school establishments (about 5,000)

4. Frequency and reference period: Annually, the beginning of current school year and the end of previous school year

5. Method and period of data registration: electronically, by self-registration through the web portal, September-October

6. Survey questionnaires: **sc.2.1** (for the beginning of the school year), **sc.2.2** (for the end of the school year)

<http://www.insse.ro/cms/ro/content/statistica-educatiei>

7. Classifications in use: Ethnicity classification, language taught, foreign languages, SIRUTA

**Exhaustive statistical survey on special primary education - ISCED level 1
and special lower secondary education - ISCED level 2**

1. Survey objective

Assessment of the school population with disabilities aged 6-14 years participation in the training process within the organised framework of the institutions accredited, under the Law on Education, to organise and carry out special primary and lower secondary education programs and evaluation of the final results of the previous school year

2. Coverage

Special education units - special primary and lower secondary schools (I -VIII grades)

3. Observation unit - school establishments (about 160)

4. Frequency and reference period: Annually, the beginning and the end of previous school year

5. Method and period of data registration: Electronically, by self-registration through the web portal, September-October

6. Survey questionnaires: sc.3.1

<http://www.insse.ro/cms/ro/content/statistica-educatiei>

7. Classifications in use: Ethnicity classification, language taught, SIRUTA

<p><i>Exhaustive statistical survey on vocational education - ISCED level 3 and post-secondary non-tertiary education - ISCED level 4</i></p>
--

1. Survey objective

Assessment of school population aged 15-21 years (vocational) and 19-21 years (post-secondary) participation in the training process within the organised framework of the institutions accredited, under the Law on Education, to organise and carry out special vocational and post-secondary education programs and evaluation of the final results of the previous school year

2. Coverage

Public and private vocational and post-secondary non-tertiary education units

3. Observation unit - school establishments (about 1,400)

4. Frequency and reference period: Annually, the beginning of current school year and the end of previous school year

5. Method and period of data registration: Electronically, by self-registration through the web portal, October

6. Survey questionnaires: sc.5.1a, sc. 5.1.b (for the beginning of the school year), **respectively sc. 5.2a, sc. 5.2b** (for the end of the school year)

<http://www.insse.ro/cms/ro/content/statistica-educatiei>

7. Classifications in use: Ethnicity classification, language taught, foreign languages, qualifications, SIRUTA

<p><i>Exhaustive statistical survey on upper secondary education - ISCED level 3</i></p>

1. Survey objective

Assessment of the school population aged 15/18 years participation in the training process within the organised framework of the institutions accredited, under the Law on Education, to organise and carry out upper secondary education programs and evaluation of the final results of the previous school year

2. **Coverage:** Public and private upper secondary education settings - high schools, education institutions covering several education levels (school groups) for the IX - XII, XIII grades
3. **Observation unit** - school establishments (about 1,600)
4. **Frequency and reference period:** Annually, the beginning of current school year and the end of previous school year
5. **Method and period of data registration:** Electronically, by self-registration through the web portal, September - October
6. **Survey questionnaires:** **sc.4.1** (for the beginning of the school year), **respectively sc.4.2**, (for the end of the school year)
<http://www.insse.ro/cms/ro/content/statistica-educatiei>
7. **Classifications in use:** Ethnicity nomenclature, teaching languages, foreign languages, specialisations, SIRUTA

**Exhaustive statistical survey on Bachelor degree - ISCED level 6 and 7,
Master degree and post-graduate programmes - ISCED level 7,
PhD and advanced research postdoctoral programs - ISCED level 8**

1. Survey objective

Assessing the participation of people aged 19 and over in the training process within the tertiary education institutions organized framework.

2. Coverage

Public and private tertiary education units - institutes, universities, academies accredited or undergoing the accreditation process.

3. Observation unit - tertiary education units (about 90)

4. Frequency and reference period: Annually, the beginning of current academic year and the end of previous academic year

5. Method and period of data registration: Electronically, by self-registration through the web portal, October-November

6. Survey questionnaires: **sc 6.1a, sc 6.1b, sc 6.1c** (for the beginning of the academic year), **sc 6.2a, sc 6.2b** (for the end of the academic year)

<http://www.insse.ro/cms/ro/content/statistica-educatiei>

7. Classifications in use: Ethnicity classification, countries classification, ISCED-F (fields of study), SIRUTA

Household Labour Force Survey (LFS)

1. Survey objectives

The **main objective** of the Household Labour Force Survey (LFS) is to provide the necessary information for the evaluation of the current situation on the labour market in Romania, the measurement of the size and of the evolution of employment, unemployment and economically inactivity.

Starting with 1996, the household labour force survey is quarterly carried out, as a continuous survey, thus allowing to get short-term data on the size and structure of the labour force supply and to point out the seasonal phenomena taking place on the labour market. The methodology of the survey is harmonised with the European Union standards, precisely with the European Labour Force Survey (LFS) and the results are comparable with the member states ones.

The research is carried out in accordance with Regulation (EU) 2019/1700 of the European Parliament and of the Council of 10 October 2019 establishing a common framework for European statistics on persons and households, based on individual-level data collected from samples and the Regulation of Commission Implementing Regulation (EU) 2019/2240 of 16 December 2019 specifying the technical aspects of the data set, establishing the technical formats for the transmission of information and specifying the detailed modalities and content of the quality reports on the organization of an investigation by labor force survey¹.

2. Coverage

The survey is carried out all over the country territory.

The scope of the survey is the resident population in private households. Thus, the subjects of the investigation were the persons with habitual residence on the territory of Romania for a period of 12 months or more, members of the households in the selected dwellings.

3. Observation unit

Observation unit is person.

¹ Starting from 2021, a new framework regulation regarding European statistics on persons and households, based on individual-level data collected from samples, entered into force (Regulation (EU) 2019/1700 of the European Parliament and of the Council of 10 October 2019). This, together with the delegated and implementing regulations issued in its application, constitutes the new legal basis of the Statistical Household Labor Force Survey. These legislative changes brought a series of important methodological changes aimed at improving the comparability of results between EU member states (a new definition of employment, change in the collection method, standardized questionnaire used for data collection, etc.) and generated a noticeable impact on survey estimates. The data presented in this work for the period 2012-2020 are recalculated data (comparable over time).

4. Frequency and reference period

The survey is carried out on quarterly basis and the results are quarterly and annually released, in compliance with the European Regulations.

5. Method and period of data registration

Data were collected through the method of face-to-face interview. The registration of information in the survey questionnaires is done by interviewing the persons aged 15 years and over, at the permanent residence of the households from the surveyed dwellings.

The interviews have been uniformly spread over the quarter, the survey being a continuous one.

6. Sampling plan

The sampling plan used for LFS is a two-level one: building up, in the first level, of the Multifunctional Sample of Territorial Areas ("master" EMZOT sample); in the second level, there were selected, from EMZOT, clusters (group of three dwellings), the final sample for a quarter being of 28512 dwellings. All the households from a dwelling are included.

The sample is representative at national level and on regions. The representativeness refers both to the household's structure and to the population distribution by area, gender and age group. The structure differences occurring because of the situation on the field at the moment of the survey carrying out are cancelled by applying some adjustment proceedings according to the non-response rate by residence area and depending on the population distribution by area, gender and age group, these distributions being obtained from exhaustive sources of demographic research.

The sample is built up based on the dwellings partial rotation proceeding ("rotational scheme 2-2-2"), having as basic principle the following technique: a dwelling is surveyed for two successive quarters, it is temporarily taken out from the survey in the next two quarters, it is introduced again in the survey in the next two quarters, then is taken out for good from the survey. Therefore, a dwelling is administered for 6 quarters, being interviewed 4 times. According to the applied scheme, in each quarter there are kept in the sample 50% of the dwellings of previous quarter, 25% of the dwellings surveyed two quarters ago, while the other of 25% are totally new dwellings. Thus is kept a 50% coverage of samples from one quarter of one year to the same quarter of the previous year.

6.1. Sampling frame

In the absence of some adequate registers (dwellings register, population register etc.), the household labour force survey is based on a master sample and that means some multistage sampling plans to be applied. The Multifunctional Sample of Territorial Areas ("master" EMZOT sample) comprises 792 survey centres (primary sampling units), spread in all the counties and sectors of Bucharest municipality. Starting with 2015 the master sample EMZOT is based on the data from the Population and Housing Census of 2011.

6.2. Sampling unit

The primary sampling unit, corresponding to the first sampling stage (the selection of the master sample), was a group of census sections.

The secondary sampling unit, corresponding to the second sampling stage (the selection of the survey sample), was the dwelling.

6.3. Stratification variables

EMZOT is a stratified sample. The criteria of stratification were the county and the residence area, thus obtaining 88 layers.

6.4. Sample size and allocation

The sample volume is of 28512 dwellings/quarter (114048 dwellings by year).

According to the methodology for the household surveys carried out by NIS-Romania, a dwelling can have one or more (rare cases, however) households. All households belonging to the selected dwellings, as well as all persons aged 15 years and over, belonging to the selected dwellings, are surveyed.

Under these conditions, the households sample volume, as well as the persons sample volume, are random variables, depending of the dwellings sample selected in the second stage.

6.5. Sample extraction

For primary units extraction, the equilibrated extraction method was used for each layer, using macro SAS Cube.

6.6. Results extensions

Extinderea rezultatelor obținute din anchetă, la nivelul întregii țări, se realizează pe baza ponderilor atribuite persoanelor din gospodăriile care fac parte din eșantion și au răspuns la interviu. Pentru determinarea acestor coeficienți se parcurg următoarele etape:

calculul ponderilor de bază: ponderea de bază The extension of the results obtained from survey, at the national level, is carried out based on the weight assigned to persons from the households that are part of sample and have answered to interview. In order to determine the weighting coefficients, the following stages have been passed:

- *calculation of basic weights: the basic weight assigned to a dwelling represents the reverse of general probability to include the dwelling in the sample survey; all the households of a dwelling “borrow” the basic weight of that dwelling;*
- *treatment of total non-response: is carried out by means of homogenous response groups method, using as explanatory variables the county and the residence area; in this stage, the basic weights of respondent households are adjusted with the reverse of the response rate;*
- *adjustment of the sample and calculation of final weights: the adjustment is carried out in order to improve the estimations quality through a final adjustment of the weights in the*

previous stage; the adjustment method used is called calibration. Calibration is performed at the level of development region using as variables the population by gender and age group, the residence area and the total number of households. The use of this method entails the increase in estimations accuracy.

7. Classifications in use

Occupation: is defined and codified according to the “Classification of Occupations in Romania” (COR 2008), harmonised with international standard classification of occupations ISCO-08².

Activity: is defined and codified according to “Classification of Activities in National Economy³ (CANE-Rev. 2), harmonised with European classification of economic activities NACE-Rev. 2.

Territorial level: is codified according to the criteria of the Regulation 1059/2003, regarding a common classification of territorial statistical units and of the European regulations issued by EUROSTAT, corresponding to the Nomenclature of Territorial Units for Statistics (NUTS).

Occupational status: is defined and codified according to the international classification ICSE-93.

Education attainment: the distribution of data by the graduated level of education was done keeping in view: the graduated level of education, the correspondence between the levels of education (according to national legislation) and the levels of education defined according to International Standard Classification of Education in force at that date⁴.

In publications and other dissemination media, the data regarding the graduated level of education can be grouped as follows: **low:** without graduated school, primary, lower-secondary education; **medium:** vocational, complementary or of apprentices, specialised post-secondary or technical foremen education; **superior:** short-cycle tertiary education (colleges, sections of sub-engineers/conductors architects of tertiary education institutions) and of long-cycle tertiary education (Bachelor’s and Master’s degrees), post-university, doctoral and post-doctoral degrees.

² Until 2011, COR harmonised with international standard classification of occupations ISCO-COM (88) was used.

³ Until 2011, data were collected and disseminated as follows: until 2003 - according to CANE harmonised with NACE-Rev.1; 2003-2007 according to CANE-Rev. 1 harmonised with NACE-Rev.1.1; in 2008 data were collected and disseminated in double classification CANE-Rev.1 and CANE-Rev 2.

⁴ ISCED97 - until 2013 (inclusively), respectively ISCED 2011 starting with 2014

Labour Cost Survey

1. Survey objectives

Starting with 1994, the **Labour Cost Survey** is carried out on annual basis, having as main objective the collection of the necessary information in view to determine the average number of employees, the average earnings and also the level, structure and evolution of labour costs.

This complex survey provides the necessary elements for analysing the evolution of the labour costs various components and the correlations between them, while providing the necessary elements for the calculation of gross and net, monthly and hourly earnings, broken down by activities of national economy, enterprises ownership type and size classes, legal status, gender, macro region, development region and county.

The survey tools were developed in accordance with the European Union standards and recommendations as laid out in Regulation no. 530/1999 of the European Parliament and of the Council on concerning structural statistics on earnings and labour costs, the European Commission Regulation no. 1726/1999 implementing Regulation no. 530/1999 of the European Parliament and of the Council, concerning the definition and transmission of information on labour costs and the European Commission Regulation no. 1737/2005 amending the European Commission Regulation no. 1726/1999 concerning the definition and transmission of information on labour costs (LCS - Labour Cost Survey).

2. Coverage

CANE activities - The survey covers the units with legal status, irrespective of their ownership and legal form, which carry out, as main activity, any of the economic activities as defined by **CANE Rev.2** (Classification of Activities in National Economy), except for those corresponding to section T (Activities of private households as employers of domestic workers; activities of private households producing goods and services for own use).

Enterprise size class - The survey covers units, irrespective of their size class as defined in accordance with their number of employees. The economic units with 50 employees and over were exhaustively included in the survey. The units from the „budgetary sector” were exhaustively included in the survey, with the exception of the local public administration for which data at the level of communal local councils were collected based on a representative sample at county level (around 820 units). The data **by county broken down at division level** offer a **low degree of reliability**. The sample was designed by taking into account the need to ensure data representativeness for the following **three size classes of enterprises**: less than 10 employees; 10-49 employees; 50 employees and over.

Territorial level - Consisted from economic and social units with **legal status, irrespective of their number of employees** that were selected from all across the country, from all counties, in both urban and rural areas. Data centralisation was performed by homogenous activity⁵ and the survey results representativeness was ensured at national, development region and county levels (NUTS level 0, 2 and 3⁶).

Categories of employees

The data collected in this survey refer to the category of employees. **Employees** are all the persons having an employment contract/civil servants agreement for a definite or indefinite duration. The necessary elements for the calculation of average monthly gross and net earnings were collected per total employees and by gender.

Armed forces and assimilated (Ministry of National Defence, Ministry of Interior, Romanian Intelligence Service etc.) are excluded.

The survey also collects data on apprentices. Apprentices are all the young people without a professional qualification employed under an apprenticeship contract as it is stipulated in Law No. 53/2003 - Labour Code republished, article 208 Chapter III - "Apprenticeship at the workplace".

3. Observation unit

The selection and observation unit was the **enterprise** with legal status defined as an organizational unit producing goods or services, which benefits of autonomy in decision-making over resources.

Taking into account the units headquarters, the following situations may occur: units operating in one location inside the county mentioned in the registration certificate; units operating in several locations inside the same county mentioned in the registration certificate; units operating in one county, other than the one mentioned the registration certificate; units operating in several counties (inter-county activity), the last three categories also having to fill in an annex for their territorial sub-units.

4. Frequency and reference period

The "Labour cost survey" is carried out on yearly basis having as reference period the **calendar year**.

The reference period was chosen as to reflect all costs supported by the enterprise with the labour force.

⁵ Except for data on indirect labour expenditure and for average cost indicators, respectively the cost structure, aggregated in accordance with the main activity.

⁶ Nomenclature of Territorial Units for Statistics (NUTS).

5. Method and period of data registration

Self-registration method was used. The method involves filling in the questionnaire by the enterprises based on their primary records. The related period for self-registration (including on-line data) was **January - March** following the reference year.

Starting with reference year 2010, the National Institute of Statistics (NIS) launched a web based application for on line data processing eSOP (e-Survey Online Portal) which allows on line data collection and validation.

6. Sampling plan

The sampling technique applied was the stratified sampling and the selection method used was the simple random selection without replacement. The layers were defined by crossing the 42 counties with 20 economic activities according to CANE Rev. 2 and 3 size classes of enterprises.

6.1. Sampling frame

The sampling frame (REGIS) contains all enterprises in the statistical reference population, as well as the latest information at the time of the sample survey selection, for each unit, such as: identification items (unique identification code, address etc.); CANE Rev. 2 code; the average number of employees based on which the size classes of the enterprises are defined.

The statistical reference population contains all enterprises that carry out any economic activity (according to CANE Rev. 2) irrespective of their ownership type. Therefore, from the statistical register REGIS a selection of enterprises having legal status, active on December 31st of the year previous to the reference year, which did not state in the administrative sources the cease of their activity until November 30th of the survey reference year and whose main activity belonged to the survey coverage were extracted.

The sampling frame met the survey requirements and no under-coverage or over-coverage situations were registered.

6.2. Sampling unit: enterprise.

6.3. Stratification variables

Three stratification variables were used: county; main economic activity at section level in accordance with CANE Rev.2 and the enterprises size-class according to their number of employees: less than 10 employees; 10-49 employees; 50 employees and over

The sample layers were defined by crossing the 42 counties with 20 economic activities according to CANE Rev. 2 coded at section level (one digit) and 3 size classes of enterprises.

6.4. Sample size and allocation

The extracted sample ensured data representativeness at both national economy level and at each county level, respectively at the level of the 20 activity groups in CANE Rev. 2, coded at section level (one digit). In view to ensure data representativeness at CANE Rev. 2

division level (2 digits) the sample was analysed and completed to fulfil this condition. The sample volume includes approximately 26800 business units and public institutions. In order to improve the results quality and to increase the overall response rate, estimation methods are applied by imputing the non-response units with data obtained from administrative sources in which the respective units have reported data for the reference year.

6.5. Sample extraction

In order to ensure the sample representativeness at both national economy level and at each county level, respectively at the level of the 20 economic activity groups in CANE Rev.2, the sample extraction procedure followed the following steps:

- The units in the sampling frame were grouped by county, economic activity and size class, resulting in a matrix structure of 42x20x3.
- An optimal sample size was calculated corresponding to a significance level of 0.03 and a total response rate of 90%.
- The optimal sample size resulted was assigned to the matrix cells components 42x20x3 using the Neyman method. The Neyman allocation method was applied to ensure a proportional distribution of the sample size population that belonged to each cell and to the dispersing degree. In view to ensure a high degree of responses from the reporting units, a minimum threshold of 7 selected units (where possible) was imposed.
- All units with 50 employees and over were exhaustively observed.

6.6. Results extension

The computation of the results extension coefficients was performed according to the following steps:

- Attaching a selection weight to each sampled unit (π_{ih})
- Calculation of adjustment coefficients (c_h). The adjustment coefficients were computed at each selection cell as the inverse of the response probability. The purpose of this coefficient is to compensate the non-respondent units, under the assumption that these non-respondent units have the same behaviour with the respondent units in the same layer.

7. Survey questionnaire

The survey tools are the main questionnaire (S3-Annual Statistical Survey) and an annex (S3-Statistical Survey Annex).

In view to access the statistical questionnaire, please follow the link:

<https://insse.ro/cms/en/content/statistics-earnings>

8. Classifications in use

CANE Rev.2 – *The Classification of Activities in National Economy (CANE Rev. 2), harmonized with the European classification in the field NACE Rev. 2 approved by the NIS President Order no. 337/2007, published in the Official Gazette no. 293/03.05.2007.*

Economic activity sectors

- *Primary sector includes agriculture, forestry and fishing;*
- *Secondary sector includes industry and construction;*
- *Tertiary sector includes: The commercial services sector: wholesale and retail trade; repair of motor vehicles and motorcycles, accommodation and food service activities, transportation and storage, information and communication, financial and insurance activities, real estate activities, professional, scientific and technical activities, administrative and support service activities, other service activities; The social services sector: public administration (armed forces and assimilated are excluded), education (private sector included), human health and social work activities (private sector is included), arts, entertainment and recreation (private sector included).*

Ownership type

- *The private sector includes units under private majority ownership (private capital over 50%), entirely private ownership, cooperative ownership, communal ownership, entirely foreign ownership;*
- *The public sector includes units under entirely state ownership, state majority ownership (state capital over 50%), public national and local ownership.*

Legal status

- *Public corporation (R.A.);*
- *Economic units having the following legal status:*
„general partnership” (S.N.C.), „limited partnership company” (S.C.S.), „limited partnership company by shares” (S.C.A.), „joint-stock company” (S.A.), „private limited company” (S.R.L.);
- *Other legal forms include units having „other legal status (economic, cultural, social, public units without classified legal status)”.*

Nomenclature of Territorial Units for Statistics - NUTS

1. Survey objectives

*The main objective of the **quarterly job vacancy survey** is to provide the necessary information for the analysis of short-term developments concerning the labour demand, for the substantiation of employment policies and for monitoring the programs in this area. The survey methodology is harmonized with the European Union standards, respectively the European methodology Job Vacancy Statistics (JVS) and the survey results are comparable with the other EU member states.*

*The main indicators obtained are: **job vacancy rate; the number of occupied posts,** respectively **the number of job vacancies.***

The survey tools and methodology were developed in accordance with the Eurostat norms and recommendations. Since 2009, the quarterly job vacancy survey is carried out in accordance with EU Council Regulation No 453/2008 on quarterly statistics on Community job vacancies and its implementing regulations no. 1062/2008 as regards seasonal adjustment procedures and quality reports and no. 19/2009 as regards the definition of a job vacancy, the reference period and the schedule of data transmission to Eurostat. In Romania, the quarterly job vacancy survey is carried out in accordance with the Annual National Statistical Program, approved by the Romanian Government.

2. Coverage

CANE activities

*The survey covers all legal units, irrespective of their ownership and legal status, which carry out as the main activity any of the economic activities corresponding to A-S sections of **CANE Rev.2** (Classification of Activities in National Economy). Armed forces and assimilated (Ministry of National Defence, Ministry of Interior, Romanian Intelligence Service etc.) are excluded.*

Enterprise size class

The survey covers all active units. The sample was designed by taking into account the need to ensure data representativeness by enterprise size classes taking into account the number of employees: less than 10 employees; 10-49 employees; 50 employees and over.

The units from the „budgetary sector” were exhaustively included in the survey, with the exception of the local public administration for which data at the level of communal local councils were collected based on representative sample at county level (around 820 units).

Territorial level: the economic units were selected from **all across the country**, from all counties, both in urban and rural areas. The data representativeness was ensured at **national (NUTS0⁷)**, **macro-region (NUTS1)** and **development region (NUTS 2)** levels.

Categories of employees

The data collected refers to the category of employees. **Employees** are all the persons having an employment contract/civil servants agreement for a definite or indefinite duration. Armed forces and assimilated (Ministry of National Defence, Ministry of Interior, Romanian Intelligence Service etc.) are excluded.

Occupation groups

All **major groups of occupations** in accordance with the Classification of Occupations in Romania (COR) are included, except for major group 0 (armed forces).

Starting with 2011, the major groups of occupations are determined in accordance with the new classification of occupations in Romania (COR2008⁸), harmonised with the International Standard Classification of Occupations (ISCO08).

3. Observation unit

The observation unit was the **local unit**. If the enterprise had local units, which were situated in other counties than the one where headquarters is located and/or carried out a different economic activity than the headquarters, the enterprise should report data for each local unit. If the enterprise had no local units or were in the same county and carried out the same activity as the headquarters, only data on total unit are to be reported.

4. Frequency and reference period

The survey is carried out on **quarterly** basis and the reference period is **the last day of the middle month of the quarter** (28 February, 31 May, 31 August and 30 November).

5. Method and period of data registration

Self-registration method was used by the staff of specialised departments in the units included in the sample for filling in the survey questionnaires and the technical and methodological assistance was provided by statisticians from the regional/county statistics departments. The variables are filed in by respondents on **paper** or **on line** questionnaires.

The registration period is represented by the first **19 days of the last month of the quarter** for which data are reported.

Starting with reference year 2011, the National Institute of Statistics (NIS) launched a web based application for on line data processing eSOP (e-Survey Online Portal) which allows on line data collection and validation.

⁷ Nomenclature of Territorial Units for Statistics

⁸ In accordance with the Government Decision no. 1352/2010 regarding the approval of the structure of Classification of Occupations in Romania - base group level, according to the International Standard Classification of Occupations ISCO-08

6. Sampling plan

A stratified sampling technique was used for the sample selection. The enterprises with 50 employees and more were exhaustively surveyed, irrespective of their economic activity or their location. The sample covered the entire country and was representative at region level (NUTS 2). The public units from the public administration (O), education (P), human health and social work activities (Q) were exhaustively included in the survey, except for local public administration units, for which data at the level of communal local councils were collected based on representative sample at county level (about 820 units). The private units from the education (P), human health and social work activities (Q) were sampled.

6.1. Sampling frame

The sampling frame (REGIS) contains all enterprises in the statistical reference population, as well as the latest information such as: identification items (SIRUES code, unique identification code, address etc.); activity code according to CANE Rev. 2; the average number of employees.

The statistical reference population contains all enterprises that carry out any economic activity irrespective of their ownership type, in one of the fields specified in CANE Rev.2. Therefore, in view to establish the sampling frame from the statistical register (REGIS) a selection of enterprises having legal status and an economic activity belonging to the survey objective was extracted. The enterprises must be active at the end of the year preceding the survey reference year and did not state a cease in their activity until November 30th of the year preceding the sample extraction and whose main activity was part of the survey coverage. The sampling frame complies with the survey requirements and no under- coverage or over-coverage situations were registered.

6.3. Sampling unit: enterprise

6.4. Stratification variables - were defined by crossing the main economic activity at division level in accordance with CANE Rev.2 with the enterprises size-classes (less than 10 employees; 10-49 employees; 50 employees and over).

6.4. Sample size and allocation

The sample ensures data representativeness at both national economy level (division level CANE Rev.2) and at each county level as concerning the number of employees. The survey sample includes approximately **23000** business units and public institutions. In order to improve data quality and to increase the overall response rate, estimation methods (number of occupied posts) are applied by imputing the non-response units with data obtained from administrative sources in which the respective units have reported data for the reference quarter.

6.5. Sample extraction

The sample of enterprises has been extracted according to the sampling plan (stratified, with simple random sampling). The stratification variables are the economic activity of the enterprise (coded according to NACE Rev.2) and the size class given by the number of employees.

All sections were included in the survey (except for sections T - activities of households as employers of domestic workers and U - activities of extraterritorial organizations and bodies). Data were collected at division level (A to S sections, including O section, excluding armed forces and assimilated). The layers are defined by crossing the economic activities with the size classes. Two size classes were established: 0-9 employees, respectively 10 employees and more. The allocation by layers was achieved by using the Neyman method.

The extracted sample ensured the representativeness at national economy level. The sample size was determined by imposing an accuracy for the estimated number of employees equal to 0.02 and a confidence level of 95%.

6.6. Results extension

The computation of the final extension coefficients was performed according to the following steps:

- Calculation of a selection weight for each unit. The weight (Horvitz-Thompson weight) is the inverse of the selection probability.*
- Calculation of a non-response compensation weight. This is computed at each layer level, as the inverse of the response probability. The purpose of this coefficient is to compensate the non-respondent units, under the assumption that these non-respondent units have the same characteristics with the respondent units in the same layer. Likewise, responses and non-responses are seen as random variables*

The Horvitz-Thomson estimator is used for the estimation of data and variance, expressed as the ratio between the number of units in the sampling frame in layer h and the number of respondent units in the same layer of the sample.

The estimation is based on two assumptions: the response is a stochastic variable following a certain distribution and all units within a layer have with the same probability of response.

7. Survey questionnaire

The survey tools are the questionnaire with its annex and the related methodological notes (quarterly JVS), respectively an annex concerning the Classification of Occupations in Romania.

To access the statistical questionnaire please follow the link:

<https://insse.ro/cms/en/content/statistics-earnings>

8. Classifications in use

CANE Rev.2 - The Classification of Activities in National Economy (CANE Rev. 2), harmonised with the European classification NACE Rev. 2. CANE Rev. 2 was approved by the NIS President Order no. 337/2007, published in the Official Gazette no. 293/03.05.2007.

Classification of Occupations in Romania (COR2008)

Nomenclature of Territorial Units for Statistics - NUTS

Administrative data on unemployment
--

1. Survey objectives

To provide information regarding the number of registered unemployed and the registered unemployment rate.

2. Coverage

Total total number of unemployed registered at the National Agency for Employment.

3. Observation unit

The unit of observation is the person who has the quality of registered unemployed. Registered unemployed is the person who meets certain conditions provided by law and registered at the Employment Agency within their permanent residence or, as the case may be, its usual residence with another employment service provider operating under the law, to obtain a job.

4. Periodicity and reference period

The periodicity is annual and monthly, and the reference period is the calendar month or the previous calendar year.

5. Method and period of data registration

- Data collection is done from administrative sources from the National Agency for Employment (ANOFM) in the month following the end of the reference month for the previous month. The data refer to registered unemployed, the registered unemployment rate, non-compensated unemployed, duration of unemployment, at the national level, macro-region, development region, county, detailed by gender, education level, age groups. Starting March 1, 2002, Law No. 76/2002 regarding the system of unemployment insurance and the stimulation of employment was enforced, repealing Law No. 1/1991 with all subsequent modifications and completions. The data are transmitted to the National Institute of Statistics 45 days after the end of the reference month.
- Under the provisions of the new law, with subsequent modifications and completions, a person qualifies as unemployed if they cumulatively meet the following conditions:
 - a) Is seeking employment from a minimum age of 16 years up to the fulfillment of the retirement conditions;

- b) *Their health condition and physical and psychological capacities make them suitable for work;*
- c) *Does not have a job, does not generate income or generates income from legally authorized activities that are less than the value of the social reference indicator of unemployment insurance and the stimulation of employment in force;*
- d) *Is available to start work immediately if a job were found.*

The reference social indicator of unemployment insurance and stimulation of employment, further on referred to as reference social indicator, represents the unit expressed in lei at which monetary benefits level is reported, supported from unemployment insurance budget given both in view to assure the protection of persons within the unemployment insurance system and to stimulate certain categories of persons to get employed, as well as employers to hire persons looking for a job.

Survey on access to Information and Communications Technology (ICT) in households

1. Survey objectives

*The main objective of the **Information and Communication Technology Access Survey (ICT)** is to provide information about the population's access to various communication technologies, as well as access to the internet through any type of device, such as personal computers, laptops, tablets, including mobile phones or smartphones.*

The statistical survey is conducted in accordance with the provisions of Regulation no. 1700/2019 of the European Parliament and the Council of Europe establishing a common framework for European statistics on individuals and households based on individual data collected from samples.

2. Coverage

The ICT Access Survey targeted all individuals aged 16-74 years, of Romanian or foreign nationality with usual residence for at least 12 months in households located in selected research centers, including proportionally households from urban and rural areas.

*All members aged 16-74 years of these households who have their usual residence at the address of the dwelling in the sample **were subject to registration**, including people who were away for a prolonged period, but no more than 6 months, if they maintain ties with the household they belong to, such as students away for studies; workers away for work; persons hospitalized or temporarily in sanatoria for treatment or rehabilitation care.*

Persons living permanently in communal living units (homes for the elderly, facilities for persons with disabilities, placement centers, etc.), as well as persons who have had their

usual residence for 12 months or more in another locality (from the country or from abroad) **were not included in the research scope.**

3. Observation unit

The unit of observation for the survey is the private household, defined as follows:

- **A single-person private household** means a private household where a person usually lives alone in a separate living unit or rents, as a tenant, one or more separate rooms in a living unit, but does not form a multi-person household with other occupants of the living unit.
- **A multi-person private household** means a private household where a group of two or more persons usually live together in a living unit or part of a living unit and share the income or household expenses with other household members.

4. Frequency and reference period

Depending on the questions, the reference period used was the last 3 months or the last 12 months prior to the survey.

5. Method and period of data registration

The collection of data is done through a "face-to-face" interview at the usual residence of the observed households, using electronic questionnaires (CAPI) on tablets, with the primary role belonging to the interview operator. Usually, data is collected in April.

6. Sampling plan

6.1. Sampling frame

For designing the sampling plan and selecting the sample used in the ICT Access Survey, a 'master' type sampling base was used, constructed as a sample of geographic areas - well-defined in the territory – called Multifunctional Sample of Territorial Zones (EMZOT).

6.2. Sampling unit

The Primary Sampling Unit (PU), corresponding to the first sampling stage (master sample selection), was a group of census sections that form the research center. The Secondary Sampling Unit (SU), corresponding to the second stage of sampling (survey sample selection), was the dwelling. Each secondary sampling unit involve the inclusion in the sample of all households and implicitly all persons in the household.

6.3. Stratification variables

Stratification refers only to the first stage of sampling. Were created 88 strata, using criteria of residence area (urban or rural) and the county where a certain UP is located.

6.4. Sample extraction

In the ICT survey sample, 10188 dwellings were selected according to a systematic selection algorithm. Dwellings extracted in the second stage are assimilated to Secondary Sampling Units. From each urban research center, 12 dwellings were included in the sample, and from each rural research center, 14 dwellings.

6.5. Extension of results

The extension of the results obtained from the survey is based on the coefficients attributed to households, each household member having the same coefficient.

To determine these coefficients, the following steps are necessary:

- a) Calculation of base weights;*
- b) Treatment for total non-responses;*
- c) Adjustment of the sample and calculation of final weights.*

7. The survey questionnaire

Data collection is carried out using statistical questionnaires designed according to Eurostat Regulations and Regulation no. 1700/2019 of the European Parliament and of the Council of Europe establishing a common framework for European statistics on persons and households, based on individual level data collected from samples.

The statistical questionnaires are in electronic form (CAPI format), on a tablet and contain: the household questionnaire and the individual questionnaire for household members aged 16 - 74 years.

8. Classifications used: COR (ISCO-88); CAEN Rev.2; ISCED 2011.

Data sources for Chapter 5

Household Budget Survey (HBS)

1. Survey objectives

The Household Budget Survey provides the necessary information for the assessment of income, expenditure and consumption of the population. The collected information also allows the identification of disadvantaged households and persons, for the substantiation of appropriate social protection programs; analysis of the impact of the application of various programs in the social field, of the economic effects of the transition, in general, on the economic-social situation of the population. The survey provides the necessary information for: evaluating the average monthly income and expenditure of households, determining the weights needed to calculate the CPI according to standard classifications and evaluating the final consumption of households. The survey responds, thus, to the priority information needs of users in the social field, providing the necessary elements for the analysis of the ways and possibilities of improving the quality of life of the Romanian population.

2. Coverage

In order to provide information about all segments of the population, the survey includes all persons with usual residence for a period of 12 months or more in Romania, members of

households in the selected dwellings, who participate fully or partially in the household budget (income and/or expenditure).

The survey does not include people who live in collective housing units (residential centers for the elderly, for people with disabilities, sanatoriums, etc.).

3. Observation unit

The observation unit is the household with usual residence at the address of the sample dwelling. According to this principle, if there are several households at an address, the data collection is carried out for each household separately, in a separate questionnaire.

4. Frequency and reference period

The Household Budget Survey is organized as a continuous quarterly survey over a period of 3 consecutive months. The period for which data are recorded in the survey questionnaires (CG and JG) is the calendar month (from the first to the last day of the month).

5. Method and period of data registration

For the Household Budget Survey, data collection is carried out by statistical operators through a "face-to-face" interview for the household questionnaire and through the current self-registration method in the household diary.

Completing the data in the household questionnaire is done through discussions with each adult member of the household, and if this is not possible in all cases, the information is obtained based on the declaration of the household's head, the wife/husband or another adult member who can provide complete relations both for the other persons and for the entire household. Completing the household diary is done by self-registration by the household's head, his/her husband/wife or another person in the household who can make correct records, daily or at shorter periods of time, especially regarding current household expenses. In case that the completion of the household's diary cannot be done entirely by self-registration or when, for objective reasons (elderly persons, sick, etc.), the household requests their completion by the statistical operator, the record of data is done on the basis of an interview or, in other cases, based on personal records (notes) of household members.

6. Sampling plan

6.1. Sampling frame

For the design of the sampling frame and the selection of the sample that can be used in carrying out the Household Budget Survey, a "master" type sampling frame was used, built as a sample of geographical areas - well delimited in the territory – called the Multifunctional Sample of Territorial Areas (EMZOT).

6.2. Sampling unit

The Primary Sampling Unit (PU), corresponding to the first sampling stage (master sample selection), was a group of census sections that form the research center. The Secondary Sampling Unit (SU), corresponding to the second sampling step (survey sample selection),

was the dwelling. Each secondary sampling unit involve the inclusion in the sample of all households and implicitly all persons in the household.

6.3. Stratification variables

Stratification refers only to the first sampling stage. 88 layers were created, the stratification criteria used being the residence area (urban or rural) and the county where a certain PU is located.

6.4. Sample extraction

In the sample of the HBS survey, 9504 dwellings were selected, divided into independent monthly samples of 3168 dwellings, according to a systematic selection algorithm. The dwellings extracted in the second step are assimilated to the Secondary Sampling Units. From each research center, 12 dwellings were included in the sample quarterly, respectively 4 dwellings monthly.

6.5. Extension of results

The extension of the results obtained from the survey is carried out on the basis of the coefficients attributed to the households, each member of the household having the same coefficient.

To determine these coefficients, it is necessary to complete the following steps:

- a) Calculation of base weights;
- b) Treatment for total non-responses;
- c) Adjustment of the sample and calculation of the final weights.

7. The survey questionnaire

The observation program includes the basic characteristics, necessary to assess the standard of living, which must be recorded, characteristics that can be found in the survey questionnaires: the Household Diary (HD) and the Household Questionnaire (HQ).

8. Classifications used

- **Classification of products and services for household consumption (Classification of Individual Consumption According to Purpose – COICOP 2018)**
- **Occupation:** defined and coded according to the Classification of Occupations from Romania (COR), harmonized with the standard international classification of occupations ISCO-08;
- **Activity:** it is defined and coded according to the Classification of Activities of the National Economy (CAEN), harmonized with the European classification of economic activities NACE Rev.2.

Statistical survey on the number of pensioners and the average monthly pension

1. Survey objectives

The social insurances for pensions is one of the main areas of action in social protection. Statistical data characterizing the pension social security system are obtained through quarterly and annual statistical survey with the objective of evaluating the average number of pensioners and the average monthly pension, by pension system and pension categories, nationally and by territorial profile (county).

2. Coverage

The coverage of the statistical survey includes pensioners from the state social insurance system, pensioners from the former agricultural insurance system, social insurance pensioners from the Ministry of National Defense, the Ministry of Internal Affairs and the Romanian Intelligence Service, social insurance pensioners from the records of the State Secretariat for Cults, social security pensioners from the records of the Lawyers' Insurance House.

3. Observation unit

The observation unit is represented by the person who has the status of pensioner, according to the legislation in force.

4. Frequency and reference period

The statistical survey is conducted annually; the reference period for the survey is the calendar year.

5. Method and period of data registration

The registration period is the year following the reference year.

*The questionnaires of the statistical survey are filled in through **self-registration**.*

6. The statistical survey questionnaire

The statistical survey tools are represented by the proper questionnaire ("Statistical Survey PENSIONS - Number of pensioners and pension funds in the year...").

The research questionnaire is designed considering national and European legislation. The questionnaire is sent for consultation to the collaborating ministries. At the central level (National Institute of Statistics), the General Directorate of Social and Demographic Statistics - Directorate of Social Statistics ensures the coordination of activities for designing the methodology and statistical tool, as well as processing, analyzing, and preparing the final results for dissemination. The IT solution for the statistical survey was developed in Excel and contains: tables with keys for verifying correlations between statistical variables as well as templates for obtaining the final tables with data.

The Survey on Quality of Life (ACAV)

1. Survey objectives

The Survey on Quality of Life (ACAV), known as EU-SILC (EU Survey on Income and Living Conditions) at the European Union level, having as main objective the production of detailed statistical data that can be used to characterize the living conditions of the population. This is achieved by collecting information on various social aspects: living conditions, health status, education, employment, household facilities, and long-term goods etc. The statistical survey is carried out in accordance with the provisions of Regulation No. 1700/2019 of the European Parliament and the Council of Europe establishing a common framework for European statistics relating to individuals and households, based on data collected from samples.

2. Coverage

The Survey on Quality of Life, conducted through interviews, was addressed to all individuals aged 16 and over, of Romanian or foreign citizenship, with usual residence for at least 12 months in households located in selected research centers across all counties of the country, including a proportional representation of households from urban and rural areas.

All members aged 16 and over of these households who have their usual residence at the sample address **were subject to registration**, including those who left for an extended period, but not more than 6 months, if they maintain connections with the household they belong to, such as: students away for studies; workers away for work; persons hospitalized or temporarily in sanatoriums for treatment or rehabilitation care.

The survey did not include individuals who permanently lived in communal living units (homes for the elderly, facilities for persons with disabilities, placement centers, etc.), and persons who had their usual residence for 12 months or more in another locality (from the country or from abroad).

3. Observation unit

The survey uses the private household as the unit of observation, which is defined as follows:

- **a private household consisting of one person** means a private household in which a person usually lives alone in a separate living unit or, as a tenant, occupies one or more separate rooms in a living unit, but does not form a multi-person household together with other occupants of the unit;
- **a private household consisting of several persons** means a private household in which a group of two or more persons usually live together in a living unit or part of a living unit and share the income or expenses of the household with the other members.

4. Frequency and reference period

Depending on the nature of the questions and the characteristics of the addressed domain, there are several reference periods: the week before the interview for some questions about economic activity, the past 12 months for questions regarding the need to consult a doctor, the previous calendar year for income, etc.

5. Method and period of data registration

The collection of information is done through "face-to-face" interviews at the usual residence of the observed households, using electronic questionnaires (CAPI) on tablets, with the main role played by the interview operator. Usually, data is collected in the month of May.

6. Sampling plan

6.1. Sampling frame

The sampling frame for selective household surveys during the inter-census period is represented by the Multifunctional Sample of Territorial Areas (EMZOT), created based on the results of the Population and Housing Census (RPL 2011). It includes 792 research centers, distributed in all counties of the country and in the sectors of Bucharest (450 in urban and 342 in rural areas).

6.2. Sampling frame

The Primary Sampling Unit (PSU), corresponding to the first stage of sampling (the selection of the master sample), was a group of census sections forming the research center. The Secondary Sampling Unit (SSU), corresponding to the second stage of sampling (the selection of the survey sample), was the household. Each secondary sampling unit involves including in the sample all households and implicitly all persons in the household.

6.3. Stratification variables

Stratification refers only to the first stage of sampling. Were created 88 strata, using criteria of residence areas (urban or rural) and the county where a certain UP is located.

6.4. Sample size and allocation

The Survey on Quality of Life is a selective longitudinal survey with a rotational sample. The total survey sample is divided each year into 4 approximately equal sub-samples. Each sub-sample stays in the survey for 4 years. Every year, the oldest sub-sample, which has participated for four consecutive years in the ACAV survey, exits the study, the other three sub-samples continue to participate, and another new sub-sample enters the survey. The survey was conducted on a sample of about 9000 households from all counties of the country.

6.5. Sample extraction

The sampling plan used is a two-stage sampling plan. Corresponding to the first stage of sampling, the Primary Sampling Units are represented by so-called 'research centers' (resulting from the division of the country's territory into geographic areas), selected in the

master sample during the Population and Housing Census of 2011. The primary sampling units that currently form the EMZOT master sample number 792, spread across all counties of the country. The 792 EMZOT research centers are distributed as follows: 450 research centers in urban areas and 342 in rural areas.

In the second stage of sampling, the Secondary Sampling Units, represented by households, are selected within each primary sampling unit (research center), based on a systematic selection scheme. Each secondary sampling unit involves including in the sample all households and implicitly all persons in the household.

6.6. Extension of results

In 2022, data were estimated based on the population with usual residence in the private households of the population. The expansion of the results obtained from the survey is done based on the coefficients attributed to persons in the households of the sample who responded to the interview. Determining these coefficients requires the following three steps:

- **Calculation of base weights**

The procedure for determining the base weights is the beginning of the process of weighting data to obtain estimates of the entire population. For each dwelling included in the survey sample, a base weight (BW) will be calculated, considering the selection probabilities from the two stages of sampling.

- **Treatment of total non-responses**

To cover the percentage of households that do not respond to the interview, the next step is adjusting the base weights of the households (reweighting). Reweighting is done by forming homogeneous classes on the sample of respondents, using two variables believed to explain the presence of non-responses: residential environment (urban or rural) and county. Adjustment of non-responses is done at the stratum level.

- **Calculation of final weights**

In the final adjustment, demographic variables (population by sex and age groups), localization variables (residential environments), and the total number of households per region are used. The population structure on the mentioned variables is known from demographic sources (population with usual residence in private households available on January 1) and the number of households available on January 1.

This calibration is done using the SAS CALMAR macro.

After calibration, the estimated totals are equal to the totals in the population with usual residence in private households. At the end of this step, the final weights are obtained, which differ from one household to another, and all persons belonging to a particular household receive the final weight of the household.

In determining the sample size, the choice of the rotational scheme, and the expansion of results, the framework regulations and Eurostat recommendations were taken into account.

7. The survey questionnaire

Data collection is carried out using statistical questionnaires designed according to Doc65 Eurostat Methodology and Regulations and Regulation no. 1700/2019 of the European Parliament and of the Council of Europe establishing a common framework for European statistics on persons and households, based on individual level data collected from samples. The statistical questionnaires are in electronic format, on a tablet and contain: the household questionnaire and the individual questionnaire for household members aged 16 years and over.

8. Classifications used: COR (ISCO-88); CAEN Rev.2; ISCED 2011.

Social protection statistics (ESSPROS)

1. Survey objectives

Social protection is a fundamental component of the European model of society, Social protection systems are highly developed in the European Union and are designed to protect the population from the risks associated with unemployment, parental support, health care, disability, loss of a spouse or parent, old age, housing, and social exclusion.

Operating national social protection systems entails significant costs and the allocation of corresponding financial resources.

In the Member States of the European Union, statistical indicators on social protection are calculated using a harmonized methodology⁹ (ESSPROS – European System of Integrated Social Protection Statistics), which ensures the temporal and spatial comparability of data in accordance with the provisions of Council and European Parliament Regulation No. 458/2007 on the European system of integrated social protection statistics, which entry into force in 2007.

The general objective of ESSPROS is to provide coherent information necessary for describing and characterizing national social protection systems in terms of social benefits and their financing, under comparability conditions at the European level and harmonization with other statistics, especially with those from national accounts.

The specific objectives of ESSPROS consist of collecting information and developing statistics including: qualitative components of national social protection systems: legislation, functions, schemes; quantitative indicators regarding social protection income and expenditures.

⁹ European system of integrated social protection statistics - ESSPROS Manual and User Guidelines, 2022 edition, Eurostat, European Commission

2. Coverage

According to ESSPROS, social protection represents "all interventions undertaken by public or private bodies to protect households and individuals from the consequences of a defined set of social risks or needs, where no simultaneous arrangement of reciprocity or an individual one is involved."

The coverage of ESSPROS includes social protection offered by public administration and social benefits provided by private social protection schemes, to the extent that they have effects on benefits similar to those of social security. Social protection expenditures consist of social benefits expenditures, which are cash or in-kind transfers to households or persons to protect them from a defined set of risks or needs; administrative costs, which represent the costs of managing and administering the schemes; and other expenditures of social protection schemes, consisting of various other expenditures on social protection schemes. Social benefits cover eight major social risks, called functions: Sickness/Health care, Disability, Old age, Survivor, Family/Children, Unemployment, Housing and Social Exclusion not elsewhere classified.

3. Observation unit

The observation units are social protection systems managed by the central/ local public administration. A social protection system is a set of distinct rules, administered by one or more institutional units, ensuring the provision of social benefits and their financing, provided that it allows for the establishment of a separate account of income and expenses and provides protection against a single risk or need and covers a specific single group of beneficiaries.

4. Frequency and reference period

*Yearly periodicity and data collection covers **the reference year N-2**.*

5. Method and period of data registration

*Data for the production of social protection statistics are collected **annually, after the end of the reference year**, using combined statistical sources and administrative data, as follows: administrative sources are mainly represented by records of institutions that manage various social protection schemes: Ministry of Labor and Social Solidarity, Ministry of Health, National Health Insurances House, Ministry of National Defense, Ministry of Internal Affairs, Romanian Intelligence Service, National Agency for Employment, National Authority for the Protection of Children's Rights and Adoption, National Authority for the Protection of Persons with Disabilities, National House of Public Pension; the national accounts system; the system of health accounts; the pilot survey conducted within non-profit organizations providing social protection services in Romania.*

Activity of cultural-artistic units
--

1. Survey objectives

The objective of statistical surveys in the field of culture is to produce information necessary to describe the cultural-artistic units network and activity, as well as to analyse developments and trends from one year to another.

2. Data source

The data presented are derived from an exhaustive statistical survey carried out on annual basis by the National Institute of Statistics, based on the information collected from administrative sources or directly from all the cultural-artistic units in the category of libraries, museums and public collections, institutions and companies for arts performing or concerts, publishing houses of newspapers and magazines.

3. Method of data collection

The statistical data on cultural-artistic activity are collected on the basis of statistical questionnaires CULT 1 - "Activity of libraries", CULT 2 - "Activity of museums and public collections", CULT 3 - "Activity of institutions and companies for arts performing or concerts" and CULT 4 - "Activity of publishing houses of newspapers and magazines" by self-registration on the web portal through the IT application of the National Institute of Statistics or on paper support.

The statistical data filled in on printed questionnaires are transmitted annually (in February for the previous year) to the Territorial Directorates of Statistics by the cultural-artistic units.

The processing of information flow record the following phases: data reception, verification of integrity, identification of missing data, inconsistencies, ambiguities or mismatches and their correction, their transposition in standard IT structures, the processing within the National Institute of Statistics in order to obtain aggregated data, presentation of the survey results in synthetic or detailed statistical tables, validation of tables and drawing up methodological and analytical notes for producing the publication.

The data are processed and geographically assigned by county and residence area, depending on the headquarters of the cultural-artistic units.

The collected information refer to public and private cultural-artistic units network which have carried out cultural-artistic activity in the reference year.

The cultural-artistic units with suspended activity in the reference year (closed to the public) were not taken into account.

The staff of cultural-artistic units is to be registered only once at the cultural-artistic unit where the full-time function is declared.

The seats in own show rooms (at the end of the reference year) were recorded only once, at the basic cultural-artistic unit.

The number of visitors to the museum is registered according to the number of tickets sold or provided free of charge (including tickets at the “Night of Museums”) and the number of spectators at shows organised by institutions and companies for arts performing or concerts is recorded according to the number of tickets sold or provided free of charge.

4. Frequency and reference period

The statistical surveys in the field of culture are carried out on an annual basis. The data shows the situation at the end of the reference year (the previous year when the statistical data were collected).

Exhaustive statistical survey on the activity of libraries

1. **Survey objective** consists in the evaluation of the activity carried out by national, university, public, specialised and school libraries in the light of available equipment and human resources, as well as of the specific activity results.

2. Coverage

National libraries, university libraries, public libraries (county, municipal, town and communal), specialized libraries and school libraries (through the questionnaires in the field of education).

3. **Observation unit** – Library.

4. **Frequency and reference period:** Annually.

5. **Method and period of data registration:** Electronically, by self-registration on the web Portal or on paper support.

6. **Survey questionnaire:** CULT 1 - „Activity of libraries”.

<http://www.insse.ro/cms/ro/content/statistica-culturalii>

7. **Classifications in use:** Classification of Activities in National Economy (NACE Rev.2), Nomenclature of territorial administrative units (SIRUTA).

Exhaustive statistical survey on the activity of museums and public collections

1. **Survey objective objective** is the assessment of the activity carried out by museums and public collections.

2. Coverage

Museums (including their subsidiaries and sections) and **public collections, palaces and fortresses arranged as museums, museums within the monasteries, memorial**

houses (organized as museums), monuments, zoological gardens, caves that could be visited on a normal basis, botanical gardens, nature reserves, etc.

3. **Observation unit** - Museum, public collection.
4. **Frequency and reference period:** Annually.
5. **Method and period of data registration:** Electronically, by self-registration on the web Portal or on paper support.
6. **Survey questionnaire:** **CULT 2 - „Activity of museums and public collections”**.
<http://www.insse.ro/cms/ro/content/statistica-culturii>
7. **Classifications in use:** Classification of Activities in National Economy (NACE Rev.2), Nomenclature of territorial administrative units (SIRUTA).

Exhaustive statistical survey on the activity of institutions and companies for arts performing or concerts

1. **Survey objective** consists in the assessment of activity carried out by the institutions and companies for arts performing or concerts.
2. **Coverage**
Institutions and companies for arts performing or concerts (public or private) - theaters, philharmonics, orchestras and artistic ensembles (presenting to the public dramatic, lyrical, choreographic, entertainment, folk, variety, circus, puppet or puppet shows, concerts regardless of their kind or other types of performances), as well as other types of performing institutions operating within other cultural units or within cultural establishments subordinated to ministries and to other central and local public administration, as well as private companies for arts performing or concerts.
3. **Observation unit** - Institution of arts performing or concerts.
4. **Frequency and reference period:** Annually.
5. **Method and period of data registration:** Electronically, by self-registration on the web Portal or on paper support.
6. **Survey questionnaire:** **CULT 3 - „Activity of institutions and companies for arts performing or concerts”**.
<http://www.insse.ro/cms/ro/content/statistica-culturii>
7. **Classifications in use:** Classification of Activities in National Economy (NACE Rev.2), Nomenclature of territorial administrative units (SIRUTA).

<p><i>Exhaustive statistical survey on the activity of publishing houses of newspapers and magazines</i></p>

1. **Survey objective** consists in the assessment of the activity of publishing houses of newspapers, magazines and other periodicals.
2. **Coverage:** publishing houses of newspapers, magazines and other periodicals, as well as central and local public administration institutions, educational institutions, research, science and culture institutions, professional, political and trade union organisations, foundations, associations, etc., editing periodical specialized publications.
3. **Observation unit:** Publishing house.
4. **Frequency and reference period:** Annually.
5. **Method and period of data registration:** Electronically, by self-registration on the web Portal or on paper support.
6. **Survey questionnaire:** **CULT 4 „Activity of publishing houses of newspapers and magazines”.**
<http://www.insse.ro/cms/ro/content/statistica-culturii>
7. **Classifications in use:** Classification of Activities in National Economy (NACE Rev.2), Nomenclature of territorial administrative units (SIRUTA).

GLOSSARY

Glossary for Chapter 1

Usually resident population represents all persons with Romanian citizenship, foreigners and without citizenship, who have their usual residence on Romania's territory. Usually resident population on January 1st was determined according to international methodology and regulations in this field.

Usual residence represents the place where one person usually spends the daily rest period, without having in view temporary absences for recreation, holidays, visits to friends and relatives, business, medical treatments or religious pilgrimages. There are considered as having their usual residence in a specific geographical zone only persons who lived at that usual residence for an uninterrupted 12 months period at least before the reference moment. Usual residence can be the same with the permanent residence or can be different, in case of persons who choose to settle their usual residence in another locality than that of permanent residence from the country or from abroad.

Legal population represents the number of persons with Romanian citizenship and legal address on the territory of Romania, determined according to administrative-territorial criteria.

The legal address of the person is the address where he/she declares to have the main dwelling, registered in the identity card, as it is registered by the state administrative bodies.

The age dependency ratio is the ratio of "dependent" age persons (aged under 15 years and over 64 years) to working age persons (aged 15-64 years), calculated per 100 persons.

The demographic ageing index is the number of elderly persons (aged 65 years and over) to 100 young persons (aged under 15 years).

Population density is the number of persons per unit of land area (1 km²).

Sex ratio is obtained by dividing the number of men to the number of women; is expressed per 100 or 1000; is calculated for the entire population by age and age groups.

The average age of the population is the average of a population's ages, understanding by age that continuous demographic variable expressing the time elapsed from the date of birth of a person to a particular time of observation.

The median age of population is an indicator that divides a country's population (ranking by age) into two numerically equal parts, the median age being given by the person in middle place.

International migration includes two components: emigration and immigration. Statistically, according to the provisions of Regulation (EC) No 862/2007, we define the components of international migration as follows:

- **Emigration** means the action by which one person who previously had the usual residence on Romania's territory ceases to have the usual residence in Romania for an actual or expected 12 months period at least.
- **Immigration** means the action by which one person settles his/her usual residence on Romania's territory for an actual or expected 12 months period at least, previously having the usual residence in another country (EU member state or not).

International migration can be classified according to the type of residence on the territory of another state (legal adress or usual residence), in the following categories:

***International migration by change of legal adress** refers to persons who changed their legal adress from and to Romania.*

***Long-term temporary international migration** refers to persons who changed their usual residence from and to Romania for a 12 months period at least.*

- **Emigrants** are persons who emigrate abroad for at least 12 months;
- **Immigrants** are persons who immigrate to Romania for at least 12 months. The following are included: foreign citizens or persons without citizenship who have had their usual residence in another country and have settled their usual residence in Romania for at least 12 months; Romanian citizens who have had their usual residence abroad for at least 12 months and have returned to the country for at least 12 months.

Cause of death – illness, morbid conditions or wounds and accidental or voluntary poisonings that contributed to or produced the death. Causes of death comply with the World Health Organization's International Classification of Diseases – 10th Revision;

Data nature:

- **Absolute semi-final data on vital events** are the relevant absolute provisional data recorded in the reference year N, summed up with vital events belatedly recorded in Romania during the first month of the year N+1.
- **Absolute final data on vital events** are the relevant absolute semi-final data recorded in the reference year N, summed up with vital events belatedly recorded in Romania during the first 9 months of the year N+1.

- **Revised data on vital events** related to the months of the year N are absolute final data related to the vital events registered in the year N, summed up with the vital events belatedly recorded in the years N+1, N+2 and in the first four months of the year N+3, but which occurred in the year N.

Deceased is the person whose final functions definitively ceased after an amount of time passed from his/her birth;

Live-birth is a product of conception completely expelled or extracted from the mother's body, regardless of the pregnancy duration, who, after this separation, gives a sign of life (breathing, heart activity, pulsation of the umbilical cord or voluntary muscular contractions;

Live-birth order refers to the numerical order of a live-birth within the total number of live-births of the mother;

Mortality rate is the ratio between the number of deaths in a reference year and the population on July 1st of the reference year and is expressed by the number of deaths per 1000 inhabitants.

Birth rate is the ratio between the number of live-births in a reference year and the population on July 1st of the reference year and is expressed by the number of live-births per 1000 inhabitants.

General fertility rate is the ratio between the number of live-births in a reference year and the female population aged 15 to 49 years on July 1st of the reference year and is expressed by the number of live-births per 1000 women of fertile age (15 to 49 years).

Infant mortality rate is the ratio between the number of deaths under 1 year of age produced in a year and the number of live births of the same reference year and is expressed by the number of deaths under 1 year of age per 1000 live-births in the same year

Specific mortality rates (by sex, age-group and cause of deaths) is the ratio between the number of deaths in a reference year and the population on July 1st of the reference year, structured by the same characteristics and expressed by the number of deaths per 1000 inhabitants.

Life expectancy at birth is the average number of years an infant would live, if he/she lived all his/her life under the conditions of mortality by age from the reference period corresponding to the life table.

Natural increase is the balance between the number of live-births and the number of deaths during the reference year.

The specialised ambulatory care facility is the medical establishment with or without legal status, providing specialized healthcare assistance to outpatients. It provides preventive, curative, rehabilitative and emergency care services. Medical educational activities may be carried out within this type of medical establishment. The activity of the specialized ambulatory is coordinated by the Public Health Directorate and respects the principles of the provision of integrated medical services: primary healthcare - specialized ambulatory - hospital.

The ambulatory care facility integrated into the hospital is the sanitary unit, without legal personality, which is obligatory part of the structure of the hospital, through which specialised outpatient medical care is provided and which has specialised medical offices that correspond to the specialties of the wards and compartments with beds, as well as medical offices in other specialties, as the case may be, to ensure the assistance and proper functioning of the hospital's activity. The hospital's integrated ambulatory provides the following specialised outpatient care:

- establishing the diagnosis and treatment of patients with a referral from a family doctor or an outpatient specialist, who are in a contractual relationship with the Health Insurance House, and did not require continuous or day hospitalization;
- the monitoring and control of the patients, who were admitted to the hospital and who came to the scheduled examinations at the request of the attending doctor or with a referral from the family doctor or from an outpatient specialist, who is in a contractual relationship with the Insurance House of Health, for the conditions for which they were admitted;
- interdisciplinary consultations for patients admitted to the unit or to those admitted to other hospitals, based on the contractual relations established between the respective health units; these consultations shall be given priority over other consultations;
- establishing the diagnosis and treatment of patients who came with a referral from the family doctor or from an outpatient specialist, for the unique specialties in the respective locality, and who do not require continuous hospitalization or day hospitalization. These services are highlighted separately by the hospital's integrated ambulatory and are contracted and reported in order to be covered by the Health Insurance House.

The integrated ambulatory care facility of the hospital is coordinated by the hospital manager. The activity of the doctors in the integrated ambulatory is carried out in the integrated system and jointly uses the technical platform, in compliance with the legislation in force to prevent nosocomial infections, in order to increase the accessibility of patients to various and complete medical services. Outpatient medical services are recorded and reported

separately. The integrated ambulatory of the hospital is organized in the same building as the hospital, usually at the ground floor of the unit, or in another building belonging to the sanitary unit, respecting the organisational and functional circuits according to the law. If the hospital operates in several buildings, it will be able to organize the specialised medical offices on the ground floor of the buildings in which the wards or compartments with beds or in the spaces in which the offices are organised in the respective specialties, constituting the hospital's integrated ambulatory. The specialised medical offices are not organized in the spaces where the wards or compartments of the hospital operate.

Diagnosis and treatment centre is the medical establishment, with legal personality, providing specialised healthcare services, with responsibilities primarily in diagnosis, therapeutic recommendations and outpatient treatment.

Healthcare centre is the sanitary unit with beds providing specialised healthcare services in at least two specialties, for the population living in adjacent localities.

Specialised medical offices are medical establishments intended especially for outpatient healthcare. These medical offices provide medical treatment in the medical specialty for which they were intended. In general, these medical offices have one specialty, but in some situations they comprise several medical specialties. There are individual specialised medical offices, but also medical centers, ambulatory care facility integrated into the hospital, polyclinics, etc. in which the activity of specialised doctors is grouped into several medical offices.

Dentist offices are the units providing preventive and/or curative dental care services. There are independent dentist offices, but also dental clinics where the dentists carry out their work in several offices.

School/student medical offices are medical establishments functioning within schools and tertiary education institutions, providing general preventive, curative and emergency healthcare services to the assigned pupils or students.

Family doctors' offices provide primary healthcare services to patients insured by social health insurance system, enrolled on their own lists (free of charge) or on the lists of other family doctors (paid services) and to uninsured patients (paid services). Family doctors' offices have as legal representative/ holder, a family doctor. By way of exception, ministries and institutions with their own healthcare network may have family doctors' offices, as public health units.

Current expenditure on healthcare means the final consumption expenditure of resident units on healthcare goods and services, including the healthcare goods and services provided directly to individual persons, as well as collective healthcare services.

Therapeutical devices and other durable medical goods means medical durable goods, including orthotic devices that support or correct deformities and/or anomalies of the human body, orthopaedic appliances, prostheses or artificial extensions that replace a body part, and other prosthetic devices, including implants which replace or supplement the functionality of a missing biological structure and medico-technical devices, where the function and the mode of provision are not specified.

Average length of stay of inpatients was determined as the ratio between the total number of hospitalisation days (man-days of hospitalisation at the end of the year) and the number of persons hospitalised during the reference period.

The community pharmacy is a pharmaceutical trading company organized with the purpose of ensuring the pharmaceutical assistance of the population, by: selling and delivering at retail price of medicines with or without a prescription; preparation of magisterial and official medicines or other health products; sale of cosmetics, parapharmaceuticals, medical devices and appliances for individual use and consumables, food supplements and foods of special purpose, anodyne plants and herbal products, childcare products, articles for personal hygiene maintenance, equipment, materials or products intended for the protection or improvement of health, products for protection against sexually transmitted diseases or contraceptives, homeopathic products, aromatherapy products, other products for use in some pathologies; informing and advising patients on the correct and rational use of medicines and maintaining the health status; testing biological parameters with equipment intended for individual use by patients, as well as administering vaccines only under the conditions of established by the Minister of Health.

The community pharmacy participates in programs and campaigns to promote and protect the health of the population, in accordance with the professional competences of its staff. Pharmacies can open working points.

Healthcare providers mean the organisations and specific institutions that deliver healthcare goods and services as their main activity, as well as those for which healthcare services provision is only one among a number of activities.

Providers of ambulatory healthcare mean the units that are mainly engaged in providing healthcare services directly to outpatients, including both general practitioner offices and specialised medical offices, dental offices, outpatient medical centres, as well as providers of home medical healthcare services, medical laboratory and imaging services, ambulance and sanitary transport services.

Providers of medical goods mean the units whose main activity is the retail sale of medical goods to the general public for individual or household consumption, including fittings and repairs done in combination with sale.

Providers of preventive healthcare mean the organisations mainly providing collective preventive programmes and public health campaigns/programmes for specific groups of individuals or the population-at-large, such as health promotion and protection agencies or public health institutes, as well as specialised units providing primary preventive healthcare as their main activity.

Providers of healthcare system administration and financing mean the units that are mainly engaged in the regulation of the activities of agencies that provide healthcare services and in the overall administration of the healthcare sector, including the administration of healthcare financing.

Providers of services for the rest of the economy mean other resident healthcare providers, not elsewhere classified, including households providing home healthcare services to the family members, if these services relate to social benefits granted for this purpose, as well as all other economic sectors providing medical care as a secondary activity.

Rest of the world providers mean all non-resident units providing healthcare goods and services.

Discharged patients are persons who have been discharged after undergoing medical procedures or treatment for one night or more than 24 hours in a hospital or other institution that provides medical care to hospitalized persons. The total number of discharged patients does not include patients whose main diagnosis is included in the ICD category of External causes of morbidity and mortality (classes of disease V01-Y98) or in the Factors category influencing health status and the reasons for contacting healthcare services (classes of diseases Z00-Z99). . In 2020, the number of outpatients also includes cases with secondary diagnosis U07.1 (COVID-19 with identified virus) and U07.2. (COVID-19 with unidentified virus).

Hospital beds are beds operating based decisions made in order to hospitalise patients, for providing a diagnosis, treatment or for providing maternity and neonatology services. The number of hospital beds also includes the beds for new-borns in hospitals or obstetrics and gynaecology departments; beds for accompanying persons are not included. Hospital beds can be for continuous or day hospitalisation.

Polyclinics are medical establishments with or without legal status, providing specialty outpatient care. They operate within the public system (paid and unpaid) or within the private system, providing preventive, curative and emergency healthcare services.

Ancillary medical staff includes the following staff categories: nurse with post-secondary education, nurse with medical upper secondary education, pharmacy assistant, medical-social assistant with secondary education, nurse, educator-paediatric nurse, dental technician, midwife, medical equipment sanitary technician, emergency registrar operator,

masseur, autopsy assistant, medical registrar, medical statistician, occupational therapy instructors and other categories of health personnel with similar average education.

Pharmaceuticals and other medical non-durable goods mean pharmaceutical products and non-durable medical goods intended for use in the diagnosis, cure, alleviation or treatment of disease, including prescribed and over-the-counter medicines, where the function and mode of provision are not specified.

Hospitals are medical establishments with beds, of public utility, with legal status, providing healthcare services to inpatients or outpatients, thus participating in ensuring the population health status. Hospitals provide preventive, curative, rehabilitative and palliative healthcare services. The organizational structure of a hospital may include, as appropriate: wards, laboratories, diagnostic and treatment services, departments, technical, economic or administrative services or offices, pre-hospital services and emergency transport, emergency admission units and other structures that are approved by order of the minister of health. Hospitals may include in their structure specialised outpatient services, day healthcare services, home healthcare services and outpatient laboratory services. Hospitals are required to carry out medical education and research activities for physicians, nurses and other staff.

The healthcare units (assimilated to hospitals) providing only day care hospitalisation are health centers, medical centers, diagnostic and treatment centers, institutes, medical clinics, diagnostic and treatment centers with hospital beds, speciality centres that have approved in the operating structure a number of beds only for day care.

Healthcare services mean all the activities with the primary purpose of improving, maintaining and preventing the deterioration of the health status of persons and limiting the consequences of illnesses consequences through the application of qualified healthcare knowledge.

Curative healthcare services mean the healthcare services mainly aiming at relieving the symptoms or to reduce the severity of an illness or injury, or to protect against its exacerbation or complication that could threaten life or normal function.

Rehabilitative healthcare services mean the services aiming at stabilising, improving or restoring the affected body functions and structures, compensating the absence or loss of body functions and structures, improving activities and participation and preventing disabilities, medical complications and risks.

Inpatient healthcare services mean the treatment and/or healthcare services provided in a medical establishment to patients formally hospitalized and requiring an overnight hospitalisation.

Outpatient healthcare services mean healthcare and ancillary services provided in a medical establishment to outpatients who are not formally hospitalized and do not require an overnight hospitalization.

Day healthcare services with hospitalization mean planned medical and paramedical healthcare services provided in a medical establishment to patients who have been formally hospitalized for diagnosis, treatment or other types of healthcare services and are discharged on the same day.

Long-term healthcare services mean a range of medical healthcare and personal care services primarily aiming at alleviating pain and suffering and reducing or managing the deterioration in health status of patients with a certain degree of long-term dependency.

Home-based medical healthcare services mean the medical, ancillary and nursing healthcare services that are provided to patients at their home and involve the providers' physical presence.

Ancillary services mean the healthcare or long-term healthcare related services, not specified by function and by mode of provision, provided directly to patients, in particular during an independent contact with the healthcare system and that are not integral part of a healthcare service package, such as laboratory or imaging services or patient transportation and emergency services.

Preventive healthcare means any measure that aims to avoid or reduce the number or the severity of injuries and diseases, as well as their sequelae and complications.

Health system management and health insurance mean services that focus on the health system rather than on direct healthcare services, managing and sustaining the health system functioning, and are considered to be collective, as they are not allocated to specific individuals but are in the benefit all health system users.

Healthcare financing sources mean the types of financing sources through which people obtain healthcare services, including both direct payments of households for services and goods and third-party financing arrangements.

Public administration financing schemes mean the sources of funding for health, which include all central and local government institutions and all administrations of social security funds, at each administrative level, including non-profit institutions that are mainly controlled and financed by the public administrations.

Private sector financing sources mean the sources of funding for health that include all resident units that do not belong to the public administration sector. For the distribution of health expenditure by financing schemes, the private sector includes the following sub-sectors: private social insurance, private insurance companies (other than social), direct payments to households, non-governmental organizations providing services to the population and corporations.

Rest of the world financing sources comprises the units that are resident abroad. In the health accounts, financial flows between the national economy and the rest of the world consist mainly of transfers under international cooperation programs and of the premiums/compensations from private insurances.

Residential long-term care facilities mean the units that are primarily engaged in providing residential long-term care that combines healthcare, supervision or other types of care as required by the residents, where a significant part of the production process and of the care provided is a mix of health and social services with the health services being largely at the level of nursing care in combination with personal care services.

Glossary for Chapter 3

Enrolled population - all children in nurseries and kindergartens and students enrolled in the formal training and educational process during a school/academic year, regardless of the mode of study (full-time, evening classes, part-time classes, or distance learning), study programme or age.

Education system consists of all educational establishments and institutions of different types, levels and education and training organization forms, which ensure the carrying out of the school population educational process in all levels of education, with a view to their professional training.

Education level is an educational stage in which elementary, secondary or tertiary training is provided, according to the educational programs. In accordance with the International Standard Classification of Education (ISCED 2011) applicable since 2013, the national educational system levels are as follows:

- Early childhood education and development (ISCED level 01)
- Pre-primary education (ISCED level 02)
- Primary education (ISCED level 1)
- Lower secondary education (ISCED level 2)
- Vocational and upper secondary education (ISCED level 3)
- Post-secondary non-tertiary education (ISCED level 4)
- Tertiary education (ISCED levels 6, 7 and 8).

Previously to 2013, the statistical surveys on education used ISCED 97, namely the previous version of the International Standard Classification of Education.

Early childhood education and development corresponds to level 01 of the new International Standard Classification of Education - ISCED 2011 and includes children aged 0 to 2 years. Data are available beginning with the school year 2014/2015.

Pre-primary education corresponds to level 0 - ISCED 97 (until 2013) / level 02 - ISCED 2011 (after 2013), and usually includes children aged 3-6 years and over.

Primary education (mass education) - level 1 - ISCED 97 (until 2013) / ISCED 2011 (after 2013) whose main function is to provide elementary education and has a schooling duration of 4 years (I-IV grades) comprises usually students aged 7-10 years and over and is being carried out only full-time, being part of the compulsory education.

Secondary education

Secondary education includes lower secondary education - level 2 ISCED 97 (until 2013) / ISCED 2011 (after 2013) based on at least 4 years of education and the vocational and upper secondary education - level 3 ISCED 97 (until 2013) / ISCED 2011 (after 2013) providing general and/or specialized education.

Lower secondary education (mass education) - lower secondary education - level 2 ISCED 97 (until 2013) / ISCED 2011 (after 2013) - based on at least 4 years of education (V-VIII grades); it usually comprises students aged 11-14 years and over; this level of education is part of compulsory education.

Special primary and lower secondary education

Special primary education - level 1 ISCED 97 (until 2013) / ISCED 2011 (after 2013) - and lower secondary education - level 2 - ISCED 97 (until 2013) / ISCED 2011 (after 2013) includes the educational institutions where children and young persons with physical, sensorial and intellectual disabilities are enrolled aiming at receiving training, education and rehabilitation according to their disabilities nature and degree and at further integrating them in the active life.

Upper secondary education - high school - level 3 - ISCED 97 (until 2013) / ISCED 2011 (after 2013) – whose schooling duration is 4-5 years (IX-XII/ XIII grades) and usually provides specialized education for students aged 15-18 years and over.

Upper secondary education - vocational - level 3 - ISCED 97 (until 2013) / ISCED 2011 (after 2013) – whose schooling duration is 1-4 years and includes students usually aged 15-18 years.

Post-secondary non-tertiary education - post-secondary education, not equivalised with the first tertiary education level, level 4 - ISCED 97 (until 2013) / ISCED 2011 (after 2013) - whose schooling duration is of 2-3 years and usually includes students aged 19-21 years and over.

Tertiary education

Until 2013, according to the International Standard Classification of Education - ISCED 97, this level included education pertaining to level 5 – ISCED 97, where the prerequisite for admission was the graduation of upper secondary education and was organized as followed: short-cycle education (with a schooling duration of 2-3 academic years ended with a University College Degree), and long-cycle education (with a schooling duration of 4-6 academic years ended with a Bachelor's Degree).

Since 2013, according to the new International Standard Classification of Education - ISCED 2011, Bachelor's degree studies for levels 6 and 7 - ISCED 2011 which include Bachelor's degree with a duration of 3-4 years (level 6 - ISCED 2011) and Bachelor's degree with a duration of 5, 6 years (level 7 - ISCED 2011).

Level 7 - ISCED 2011 also includes Master's degree studies and Post-graduate studies; level 8 - ISCED 2011 corresponds to PhD and advanced research postdoctoral programs.

School-age population refers to the the population whose age is within the limits of the official age limits corresponding to each education level.

Net enrolment rate represents the total number of children/pupils/students within the official age group corresponding to education levels, as percentage of the total population of the same official age group.

Starting with the school year 2012-2013, according to the legislation in force (Education Law no. 1/2011), the age groups for the school-age population are: 3-5 years, 6-10 years, 11-14 years, 15-18 years, and 19-23 years and over.

Education unit represents the legal status administrative educational establishment, included in the National Nomenclature SIRUES, where one or more level of education are functioning whilst having a single management system. School institutions include nurseries, kindergartens, primary and lower secondary education settings, special primary and lower secondary education settings; high-schools; education settings covering more than one education level (school groups), vocational schools, foremen education schools, post-secondary non-tertiary education units, and tertiary education institutions.

Teaching staff are the natural persons who work in the educational system and teach within the educational and training process (full-time or part-time employees). Each member of the teaching staff is registered only once and only in the educational unit where his/her job title (Employment Record Book) is kept in or where he/she teaches most of his/her classes.

Graduate is the student who graduated the final school/academic year of a level of education, regardless of the fact that he/she passed or not the school-leaving examination, the Bachelor's degree examination, etc. The number of graduates refer to the end of the school/academic year (after the second examination session).

The number of degree graduates refers to all persons who have passed the final examination at the end of an education programme and have been awarded a degree (e.g. Baccalaureate, bachelor's, master's, PhD, graduate diploma, etc.).

School dropout rate is the difference between the number of students enrolled in the beginning of the school year and the number of students registered at the end of the same school year, as percentage in the number of students enrolled in the beginning of the school year. School dropout rate for primary and lower secondary education does not include the pupils enrolled in special education.

Education unit's support facilities consist of all assets subject to the management of early childhood, pre-school, primary, lower and upper secondary education units, including those pertaining to other education levels contained therein, as well as those being under the management of tertiary education institutions, such as land, buildings, halls, PCs used in carrying out of the education and training activities for school population or those goods which ensure the proper performance of the educational process.

Classroom is the room within an educational unit used for educational and training process. It can be used by two or three classes at the most, successively, during a daytime. In the undergraduate education, classrooms also include school offices. The following are specific to tertiary level of education: amphitheatres, courses and seminars rooms.

Class laboratory represents an educational unit's room, endowed with installations, equipment, instruments, substances, teaching materials for experiments and students' practical training.

School workshop represents a room endowed with devices, instruments, machinery and equipment for school experiments and practical trainings within a school.

Sport field is the area specially designed for sport activities carried out by pupils and students in educational institutions.

Swimming pool is the pool for pupils and students swimming which can be covered or not.

Early school leaving rate from education and training (18-24 years) is the share of the population aged 18-24 having only elementary (low) level of education and are not attending any form of training (formal or non-formal) of the total population aged 18-24 years.

Educational attainment of young people aged 20-24 years represents the share of youth aged 20-24 years, who are graduates of at least medium level of education in total young people aged 20-24 years.

Weight of persons aged 30-34 with superior level of education represents the share of people aged 30-34 years who have graduated tertiary education in the total population of the same age group.

Economically active population includes all persons who provide the labor force available for the production of goods and services during the reference period includes employment and unemployment.

Economically inactive population comprises people included in one of the following categories:

- a) under 15 years of age (in completed years, at the end of the reference week);
- b) aged over 89 years (in completed years, at the end of the reference week); or
- c) aged between 15 and 89 (in completed years at the end of the reference week) and who are neither employed nor unemployed during the reference week, according to the definitions of employed and unemployed.

Employment comprises all persons aged between 15 and 89 (in completed years, at the end of the reference week) which, during the reference week, fell into one of the following categories:

- (a) persons who, during the reference week, worked at least 1 hour for pay or for profit, including family workers collaborating in the family business;
- (b) persons who have a job or an enterprise and who were temporarily absent from work during the reference week, but had a formal connection with the workplace, provided that the following groups have a formal connection with work:
 - persons absent from work due to vacations, organization of working time, medical leaves, maternity or paternity leave;
 - people attending vocational training courses for the workplace;
 - people on parental leave who receive and/or are entitled to income or benefits related to work or whose parental leave should last no more than 3 months;
 - seasonal workers in the off-season, if they continue to regularly perform tasks and duties for the workplace or for the company, excluding the fulfillment of legal or administrative obligations;
 - people temporarily absent from work for other reasons, if the expected duration of the absence is a maximum of 3 months;
- (c) persons who produce agricultural goods intended for the most part for sale or exchange in kind.

Working programme of employed persons is defined as being **full-time** or **part-time** according to their statement. Generally, for employees it is considered „full-time” the programme corresponding to an entire norm, as it is stipulated by the collective employment contract and „part-time” the programme whose duration stipulated by the individual employment contract is significantly lower than the normal duration.

Status in employment represents the situation of an employed person according to the way of achieving income based on the activity carried out, namely:

- Employee - person who carries out his/her activity based on an employment contract within an economic or social unit - irrespective of its ownership type - or for private persons, getting a remuneration as salary, in cash or in kind, as a commission etc.; the "employment contract" comprises any other kind of labour agreement (in written or in verbal form), another than the employment contract / job agreement;
- Employer - person who carries out his/her occupation (trade) in his own unit (enterprise, agency, workshop, shop, office, farm etc.), for whose activity he/she has hired one or several employees;
- Self-employed - person who carries out his/her activity in the own unit or in an individual business, without hiring any employee, being helped or not by contributing family members. This status includes independent entrepreneurs (street vendors, meditations, women who look after children, carters, private taxi drivers, etc.), freelancers (traveling musicians, visual artists, lawyers), occasional day laborers, holders of management or concession contracts who they do not use employees, individual farmers or those working in agricultural associations. This category also includes members of agricultural societies or non-agricultural cooperatives who work either as an agricultural land owner in an agricultural society established according to Law 36/1991, or as a member of a craft, consumer or credit cooperative;
- Contributing family worker - person who carries out his/her activity in an economic family unit run by a family member or a relative, not receiving a remuneration as salary or payment in kind.

Unemployed, according to the international definition of ILO (International Labour Office), are persons aged 15-74 years who during the reference period fulfil simultaneously the following conditions:

- a) during the reference week they were not employed according to the definition of employed persons;
- b) were available to work, were available to take up paid employment or self-employment within two weeks after the reference week ;
- c) they were actively looking for a job, i.e. they either took concrete steps during the four-week period that ended with the reference week to look for a paid job or to carry out an independent activity, or they found a job where the activity is to start within no more than 3 months from the end of the reference week .

Activity rate represents the share of economically active persons in the age group x in total population of the same age group x.

Employment rate represents the share of employed persons in the age group x in total population of the same age group x.

Unemployment rate represents the share of ILO unemployed (according to International Labour Office criteria) in economically active population.

Incidence of long-term unemployment represents the share of long-term unemployed (12 months and over) in total unemployed.

Share of young unemployed in total young people is determined as the ratio of young unemployed aged 15-24 years in total population aged 15-24 years.

Persons available to start working, but who are not seeking for a job are persons aged 15-74 years, neither employed nor in unemployment (economically inactive persons), who wish to work, are available to start working in the next 2 weeks but did not look for a job during the 4 weeks previous to the interview.

Potential additional labour force represents the sum of two categories of persons: “economically inactive persons who seek work but are not immediately available to work” and “economically inactive persons who are available to work, but don’t seek it”.

The rate of young people neither in employment nor in education or training represents the share of young people who were neither in any education or training - formal or non-formal - nor worked, in total number of young people in the same age group.

The average annual job vacancies rate represents the ratio between the average annual number of job vacancies and total average annual number of posts (occupied and vacant, except for those blocked or meant only for promotion inside the enterprise or institution), expressed as percentage.

The number of job vacancies includes the number of paid jobs, newly created, unoccupied or which are to become vacant, for which:

1. the employer is taking **active steps** to find a suitable candidate for the respective job (examples of active steps taken by the employer: announcement of a vacancy existence by means of employment services, advertising in the newspapers, media, Internet, direct contact of possible candidates etc.);
2. the employer intends to occupy the job either immediately or within a specific period of time, established by the employer. The specific period of time refers to the maximum time the vacancy is open and intended to be occupied.

There are considered as job vacancies the posts meant for persons outside the enterprise (on which persons from inside the enterprise can also compete), irrespective of their definite or indefinite duration, full or part time program. There are not considered as job vacancies, the unoccupied posts that are: meant **exclusively** to promote persons from inside the enterprise or institution; from public administration units, blocked by a normative document.

The posts occupied by persons who are absent for a certain period of time (maternity leaves, leaves for child care, medical leaves, unpaid leave, other absences), are considered job vacancies, if the employer wishes the substitution for a definite (temporary) period and if he takes active steps to find candidates.

The average annual number of job vacancies is calculated as a simple arithmetic mean for the four quarters.

Number of occupied posts is measured by means of the indicator regarding the number of employees (except for those with suspended employment contract/civil servants agreement) at end of middle month of reference quarter. This indicator expresses the total number of persons with employment contract/civil servants agreement with enterprise or local unit, on definite or indefinite duration (including seasonal workers, manager or administrator) and which are not suspended being valid in the last day of the month for which the questionnaire is filled in. Military staff and similar (Ministry of National Defence, Ministry of Interior and Romanian Intelligence Office etc.) are excluded.

Average annual number of occupied posts is calculated as a simple arithmetic mean for the four quarters.

National Agency for Employment represents the data source for the number of registered unemployed and registered unemployment rate.

Unemployed - the person who cumulatively accomplish certain conditions:

- a) is looking for a job from the age of at least 16 years and until retirement conditions are met;
- b) the state of health and the physical and mental capacities make it suitable for performing a job;
- c) does not have a job, does not earn income or, from activities authorized according to the law, earns income lower than the value of the reference social indicator of unemployment insurance and employment stimulation, in force;
- d) is available to start work in the immediate future should a job be found.

Registered unemployed is a person who fulfills certain conditions stipulated by law and registers with the Employment Agency in whose territorial area he has permanent residence as the case may be, usual residence.

Registered unemployment rate is the percentage ratio between the number of unemployed registered at the Employment Agencies and the active civilian population (unemployed + employed population, defined according to the Labor Force Balance methodology).

Average total number of pensioners includes all the pensioners in Romania regardless of the pension system (including the social support - type pension, IOVR - invalids, orphans and war widows).

Average monthly pension is a ratio between the amounts due (according to the decisions) and the average monthly number of pensioners.

Real pension expresses the equivalent value of goods and services that can be purchased or used with the average nominal pension in a certain period of time, compared to another period, considering the evolution of consumer prices and service tariffs. The indicator is calculated for state social insurance pensioners, Ministry of National Defence, Ministry of Internal Affairs, Romanian Intelligence Service pensioners.

The real pension expresses the purchasing power of the net nominal average pension

Real pension index is calculated as the ratio between the net nominal pension index for the calculation of real pension and the consumer price index.

Glossary for Chapter 5

Household's members are considered the following: persons present, temporarily absent or left for a longer period from the household, but less than 12 months (to study in other municipalities, on holiday, to relatives, in boarding houses, in hospitals or sanatoria, assisted in shelters for victims of family violence); children under care of persons outside the household, in crèches or kindergarten, camps, etc.; persons left to work (inside the country or abroad), if they did not establish another household or have not settled their permanent residence in another locality; persons living in institutions (located in residential centres for the elderly persons, disabled persons and children; monasteries, etc.) that are part of the household, are absent during the reference month, but are not absent from the household for more than 12 months; persons deprived of liberty (in detention or arrested) who are part of the household, are absent during the reference month, but are not absent from the household for more than 12 months; children in foster care or in family placement for a period exceeding 12 months; elderly people and other dependent persons in the household; persons hosted for free or for rent charges, who are participating in household's expenditure and are living with the household's members for a period of at least 12 months or do not have another usual residence; persons employed for performing household services in the household who participate in household's expenditure and live with the members of the household for a period of at least 12 months or do not have another usual residence.

There are not considered as household members and are not subject to the Household Budget Survey: guests who are staying temporarily in the household; people who have not shared budget with the members of the household; persons who permanently live in shared housing units (located in residential centres for the elderly persons, disabled persons or children etc.).

Household: a group of two or more persons, with or without children, who usually live together, whether or not they have family ties and keep the household altogether, participating integrally or partly to the income and expenditure budget of the household. The person who does not belong to another household and who declares to live alone and manages the house by himself is considered a single person household.

Household's head: the adult person declared and recognized as such by the other members of the household. The decision belongs exclusively to the members of the household and envisages certain personal characteristics, such as: authority, age, occupation, income, the status of household's owner, etc.

Occupational status: the socio-economic situation of a person in relation to the activity carried out and the way of obtaining income.

Employee - a person employed under a labour contract, whether for a fixed or with a permanent contract in an economic or social unit regardless of ownership, in exchange for a payment in cash or in kind and other rights provided by law or established by the collective employment contract and which are subject to taxation, according to legal provisions. There are included all persons engaged in permanent, seasonal, daily, occasional or hourly based activities, apprentices, paid employees on probation, priests and pastors. The professional maternal assistant, the caregiver of the elderly persons at their home, the personal assistant or the professional personal assistant to a disabled person, employed under individual employment contract are also deemed to be employee.

Self-employed with employees - the person carrying out activities in his own unit (enterprise, firm, shop, company, farm, office, cabinet, etc.) and for whose activity he has one or more employees. There are also included those self-employed with employees who are at the same time employees of their own enterprise or are holders of management location contract or concession contracts.

Self-employed in non-agricultural activities - the person carrying out activities in his own unit without the use wage labour. This status is also assigned to persons carrying out such activities during their leisure time and, in general, to any person who perform a profession or activity generating non-salary income even if activities are casual and without continuity.

Member of a non-agricultural cooperative - the person working in units of handicrafts, consumer or credit cooperatives, earning non-salary income. This includes people working at home, on the basis of the cooperative orders.

Self-employed in agriculture - the person engaged in agricultural activities, working alone or together with the other members of the household on the agricultural land, orchards, vineyards, breeding animals, regardless of whether these are main or occasional activities carried out without continuity, but generating non-salary income.

Member of an agricultural association - the person whose activity is carried out in an agricultural association with legal status.

Unpaid family worker - the person who carries out activities in a family economic unit with agricultural or non-agricultural activity belonging to a household member or relative, giving help and for which he does not receive the remuneration in the form of salary or payment in kind (such as an employee performing the same work).

Unemployed - the person able to work, aged between 15 years and the legal retirement age, without an arrangement for carrying out an economic or social activity, is seeking for a job (including first job) and is available to start immediately work whether being or not registered at the territorial agencies for employment, receiving or not unemployment benefit.

Pensioner - the person whose main source of income is the pension acquired for work and age limit (including the work performed in agriculture), for the loss of working capacity or survivor's pension, disabled, orphan or war widow's pension.

Pupil, student - the person attending in public or private, primary, lower secondary, upper secondary, vocational, foremen, post-secondary non-tertiary, short or long cycle tertiary education, in view to acquire training or professional skills.

Fulfilling domestic tasks - the person carrying out domestic activities in the household such as: preparation of food, laundry, care of the dwelling, domestic industry non-market activities, care and education of children, etc., and does not receive salary or pension (does not earn any income).

Other categories – pre-primary children, elderly persons, people with disabilities, persons deprived of liberty (under detention or arrested, irrespective of whether carrying out an activity at the place of detention), who are not absent from the household for more than 12 months, dependent persons, etc.

Education attainment level - the educational institution (school) at the highest degree, graduated by a person, with or without diploma/license/certificate. The levels of education include: primary education; secondary education (lower secondary, vocational, complementary, apprentices, upper secondary, specialized post-secondary, technical foremen); tertiary education (short or long-cycle). The households whose head is a person without graduated studies are included under primary education group.

Total income comprises: **Money income and income in kind (evaluated in lei).**

Money income - the whole money income from different sources of origin for which there is no obligation of refunding (excluding the amounts withdrawn from CEC Bank, other banks and similar institutions, loans and credits received), such as:

Income from salaries and other salary rights – the whole monetary and in-kind income (evaluated in lei at the selling price of the unit) in the form of salaries, bonuses and allowances granted as a percentage or as lump sums for the special working conditions

(provided for by law or by collective or individual employment contracts) for both the time actually worked in normal working hours or additional time and for the not worked paid time, bonuses and benefits from the net profit, other income assimilated to salaries, actually received in the reference month, regardless the due period and withholding from wages (taxes, contributions, instalments for goods and loans etc.).

Agricultural income - represent all the money receipts from agricultural holdings and associations, from sales of agro-food products, animals and birds (poultry and pets) and from the performance of agricultural works.

Income from independent non-agricultural activities - all the money receipts from activities of trade, providing services, practicing an occupation, liberal professions and intellectual property rights.

Income from social benefits - all the money receipts from social protection benefits, namely: income from pensions, other income assimilated to pensions, sick leave and maternity allowances, benefits from the unemployment fund, family benefits and social assistance benefits and other benefits.

Property income - all the money receipts from the transfer of the use of goods, as consequence of the holding of participation titles in closed/open investment funds, deposits to CEC Bank, other banks and similar institutions (leases, rents, dividends, interests).

Income from the sale of the household's assets - all of the money receipts from the transfer of property rights on securities and social shares, from the sale of foreign currency, lands, buildings and other new or old goods which are not resulted from own production.

Income in kind (evaluated in lei) include: the equivalent value of human and fodder consumption of food and non-food products from own resources of the household (from production, stocks, labour, received as gifts, etc.). The assessment in lei is done at the average prices of purchasing products from the reference month, by development region; the equivalent value of income in kind of employees and beneficiaries of social benefits (valued at the price of sale of the day).

Disposable income is calculated as the difference between the total income and the expenditure on taxes, contributions, duties, production money income and the equivalent value of fodder consumption of food and non-food products from own resources of the households.

Disposable money income is calculated as the difference between the money income and expenditure on taxes, contributions, duties and production money income.

Total expenditure comprises:

- *Monetary expenditure;*
- *The equivalent value of the consumption of agro-food and non-food products from the household's own resources (evaluated in lei).*

Monetary expenditure - *all of the monetary expenditure, regardless of purpose (including the equivalent value of income in kind obtained by the employees and beneficiaries of social benefits, excluding the amounts deposited to CEC Bank, other banks and similar institutions, loans and credits refunded).*

The equivalent value of human and fodder consumption of agro-food and non-food products from the household's own resources - *value expression of human and fodder consumption of food and non-food products from the household's own resources (agricultural production, stocks of previous periods, products processed in the household, products received as gifts or for work, etc.).*

Total consumption expenditure – *all of the expenditure incurred for the current consumption needs (food goods, non-food goods, services) and entered for consumption, the equivalent value of human consumption of agro-food products from the own resources of household.*

- **Total expenditure for food consumption** - *the whole monetary and in kind expenditure related to covering the food needs of a household or of a person, within a certain period of time.*
- **Total expenditure for non-food goods** - *the whole monetary and in kind expenditure related to covering the non-food needs of a household or of a person, within a certain period of time.*
- **Expenditure for payment of services** - *the whole monetary expenditure made by a household or a person, within a certain period of time, for the payment of services.*

Total consumption expenditure according to the Classification of Individual Consumption According to Purpose (COICOP) comprises:

01. *Food and non-alcoholic beverages - all money and in-kind expenditure related to covering the food needs of a household for food products, non-alcoholic beverages, services for the primary processing of food products and non-alcoholic beverages.*

02. *Alcoholic beverages, tobacco - all money and in-kind expenditure for the consumption of alcoholic beverages and tobacco products, including services for the production of alcoholic beverages.*

03. *Clothing and footwear - all money and in-kind expenditure for the purchase of clothing and footwear, including materials, accessories and related services such as tailoring services, laundering, repair and rental of clothing and footwear.*

04. Dwelling, water, electricity, gas and other fuels - all money expenditure for the goods and services necessary for the use of the dwelling and housing, maintenance, repair and security of the dwelling, other housing services, rent payment, electricity, gas and other fuels.
05. Furnishings, household equipment and routine household maintenance - all money expenditure for furniture, furniture items, carpets and other floor coverings, household textiles, electrical appliances, glassware, crockery and other household items, tools and equipment for home and garden, cleaning and maintenance products of housing, including repair, installation and rental services, domestic services.
06. Health - all money expenditure for medical products, devices and medicines, medical services, laboratory services, immunization services, prevention services, long-term care services, repair and rental of medical devices.
07. Transport - all money expenditure for motor vehicles and other means of transport, vehicle parts and accessories, fuels for means of transport, repair, rental and maintenance of means of transport, public and private passenger transport services, postal and courier services, goods transport services.
08. Information and communication - all money expenditures for information and communication equipment (telephone, laptop, PC, tablets, etc.), software accessories, information and communication services (TV subscription, telephone service subscription etc.), including repairs, maintenance and rental of information and communication equipment.
09. Recreation, sport and culture - total money expenditure on durable recreational goods, other recreational equipment, gardening products, pet products and services, recreational services, cultural goods and services, books, newspapers and magazines, tourist service packages, sports equipment and services.
10. Education services - all money expenditure for preschool, primary, secondary, post-secondary, non-tertiary, tertiary education services as well as education not defined by level. Expenditures for tuition fees, degree fees, examination fees, admission fees etc. are included.
11. Restaurants, cafes and accommodation services - all money expenditure for services provided by restaurants, cafes, bars, canteens, confectionery, accommodation services (other than those of a touristic nature).
12. Insurance and financial services - all money expenditure for insurance (life and accident insurance, medical insurance, home insurance, car insurance, travel insurance, etc.), financial services.
13. Personal care, social protection and miscellaneous goods and services – all money expenditure on personal care goods and services, jewelry and watches, social protection services and other services for households not classified later.

Expenditure on unconsumed food goods and beverages - the whole expenditure for purchasing food goods which were not consumed in the reference month, remaining in stock or intended for other purposes (for processing, animal and poultry feed, given as gifts, losses).

Investment expenditure - the whole money expenditure of investment nature made by a household over a certain period of time for the purchase of buildings, construction, land, machinery and equipment of large capacity, new and old, animals for milk, breeding animals, materials (including labour) for new buildings, extensions, capital repairs, shares, currency.

Total production expenditure - the whole money expenditure incurred by a household over a certain period of time for the household's production: purchases of feed for animals and poultry, purchases of animals for meat and fur, of poultry, of sowing products, veterinary treatment of animals, other expenditures for the household's production and the equivalent value of the fodder consumption from own resources.

Taxes, contributions, dues, fees - the whole money expenditure allocated to the compulsory payments of the taxation system (taxes, contributions, dues, fees).

Real earnings index represents the ratio between the average net nominal earnings index and the general consumer price index, expressed as percentage.

The average gross monthly earnings are calculated by relating the gross sums paid from the salary funds, from the net profit and other funds, plus backdated pay arrears, to the average number of employees and to the number of the months of the year.

The average net monthly earnings is obtained by subtracting from the gross paid sums related to the average gross monthly earnings of the social security contribution paid by employees, social health insurance contribution paid by employees and related tax, the result being divided by the average number of employees and by the number of the months of the year. Until 2018, the average net earnings was obtained by subtracting from the average nominal gross earnings of tax, employees' contribution to social health insurance, employees' individual contribution to social insurance and the employees' contribution to unemployment insurance budget.

The average number of employees is calculated as a simple arithmetic mean of the sum of the daily number of employees (those with suspended employment contract/civil servants agreement excluded), over the reference period, including the week-ends, legal holidays and other non-working days, divided by the total number of calendar days (365/366 days).

In the total daily number of employees considered for the calculation of the average number are included the following categories:

- the employees with employment contract/civil servants agreement for a definite or indefinite period of time, including the employees detached to work abroad (if the unit

that detached them provided remuneration in the country, for which it transferred compulsory social contributions and tax), seasonal workers, the manager/administrator;

- the employees whose employment contract/civil servants agreement has been suspended at the initiative of the employer (in case of temporary interruption of activity) and have received an allowance from the basic salary corresponding to the job;
- the employees who are temporarily in work incapacity (medical leave, quarantine/home isolation) during the time period in which they are paid from the employer own funds;
- the employees parents, during the days off granted to them in order to supervise their children, in cases of temporary closure of educational institutions, irrespective of the funds from which they are paid;
- the employees whose working hours has been temporarily reduced, irrespective of the funds from which they are paid.

From the daily number of employees taken into consideration when calculating the average number, the following are excluded: employees on leaves without pay, on strike, owners, unpaid family workers, members of local and county councils, day labourers.

During the week-ends, legal holidays and other non-working days, the number of employees from the previous day is taken into consideration as daily number of employees, except the number of those employees whose employment contract/civil servants agreement ceased that day. If the unit established or ceased its activity during the year, the daily number of employees is taking into account only for the period in which it operated, and the resulting amount is divided by the total number of calendar days from the reference year.

Part-time employees are included in the average number proportional with the working time included in the employment contract/civil servants agreement. In the number of employees taken into consideration in the average number only the paid persons are included.

Exceptionally, when during the reference year, the amounts for prior periods are paid (backdated paid arrears as consequence of winning the lawsuits involving the money rights for the previous years), the number of beneficiaries (former employees or employees with suspended employment contract/civil servants agreement) are included in the average number of employees proportionally with the periods for which respective payments are done, so that a direct correlation between gross amounts paid and the average number of employees exists.

Gender pay gap expresses the weight assigned to the difference between men and women average gross earnings as a percentage of men's average gross earnings. It covers all the employees working in the whole economy enterprises and their average gross earnings correspond to the whole reference year. For 2010 - 2012 data were recalculated using the

results of the Labour cost survey (initially, the data source for this indicator was the Survey on earnings in October).

Tax wedge on labour cost represents the share of total tax rates and social security contributions payable by the employee and employer in total labour cost for an AW who earns 67% of the average gross earnings of the activities on industry, construction and commercial services. The tax wedge on labour cost is calculated - according to the Eurostat and OECD methodology - for an average worker (noted further on as AW) who is a full-time employee working in the activities of industry, construction and commercial services (sections B - N according to CANE Rev.2 since the reference year 2008).

Glossary for Chapter 6

The at-risk-of-poverty rate is an indicator of poverty incidence defined as the share of persons in the households whose disposable income per adult equivalent is below the at-risk-of-poverty threshold set at 60% of the median disposable income in the total population.

Within the social inclusion studies, the indicator is known as AROP.

The poverty rate is the ratio of poor people (whose income is below the established threshold) to the total population.

At-risk-of-poverty threshold which is set at **60%** of the national median equivalised disposable income, including or excluding consumption from own resources is the income based on which persons can be classified as poor (if they have an income below the threshold) or non-poor (if they have a higher income than the threshold).

Income inequality index shows how many times disposable income per adult equivalent of the richest persons (in the last quintile of the distribution of persons by income) is higher than that of the poorest persons (in the first quintile of the distribution of persons by income). The quintile is a fifth (20%) of total persons included in the distribution. Sometimes this indicator is called the "S80/S20 ratio".

The **relative median at-risk-of-poverty gap** is an indicator of poverty degree calculated as the difference between the poverty threshold and the median of poor people income or as the median of differences between the threshold and the income. In other terms, this indicator estimates the income increase a poor person should obtain in view to reach the threshold. In this sense, the median at-risk-of-poverty gap is very useful in substantiating and drawing up the social protection programmes. In specialised literature it is also known as "relative average/median distance" or "the average/median gap index"

At-risk-of-poverty rate at the thresholds of 40%, 50% and 70% of the median income are estimates of poverty incidence depending on certain thresholds ranging around the usual threshold of 60%. The estimates are based on disposable income per adult equivalent including or excluding the consumption from own resources.

At-risk-of-poverty rate anchored at a fixed moment in time is an indicator illustrating the changes over time entailed by poverty incidence, as consequence of changes occurred in the general “state-of-play” in the society welfare. The indicator defined as the share of persons whose disposable income per adult equivalent in the current year (including/excluding the consumption from own resources as appropriate) was below the poverty threshold established for a previous year (usually 3 years ago, the threshold being kept the same during this period).

At-risk-of-poverty rate before social transfers is an indicator illustrating the effect of certain social protection measures generically called “social transfers” upon the poverty incidence.

Social transfers include: pension-type income (the major component), children allowances and other family benefits, unemployment aids and benefits, allowances for sick leaves, allowances and aids for disabled persons, scholarships, invalids, orphans and war widows aids, aids for people with low income etc.

The indicator has two forms: a) at-risk-of-poverty rate before social transfers, including pensions (meaning that all social transfers received, including pensions, are subtracted from the disposable income); b) At-risk-of-poverty rate before social transfers, excluding pensions (meaning that the social transfers which are not of pension-type, these ones being kept in the income volume, are subtracted from the disposable income). In other words, in a) it is assumed that no social transfers exist in income composition, while in b) it is assumed that social transfers are represented only by pensions. As such, the pensions, as key element in the social benefits structure, influence on the alleviation of at-risk-of-poverty situation could be precisely pointed out.

Gini coefficient is an indicator of poverty severity, characterising the inequality of income or resources distribution among the members of the society. The indicator value ranges between 0 and 1 (or 0 and 100%), showing how much of the total income should be re-distributed in view to reach the situation where the income is equally shared among all the members of the society. Thus, if the value is closer to 1 (or 100%) the conclusion is a high inequality, income being concentrated among a limited group of persons, reflecting a serious issue related to the distribution of resources; should the value be closer to 0, the poverty is not too deep and a growth of the living standard could make a high number of households to leave the poverty situation. The Gini coefficient could be distinctly calculated for poor and non-poor persons, with the same meaning, but for the national set of indicators on social inclusion the estimates are done solely for the whole population. The same with other indicators, the calculation of Gini coefficient is based both on the disposable income per adult equivalent including the

consumption from own resources and on the disposable income per adult equivalent excluding the consumption from own resources.

Poverty threshold: the level of disposable income per adult equivalent (excluding the value of household consumption of own resources), compared to which persons may be seen as poor or non-poor. This is 60% of value median point in the distribution of disposable income per adult equivalent (excluding the value of household consumption from own resources). For certain analytical needs, the threshold may be also established at 40%, 50% or 70% of the median value point. Sometimes the term of “poverty line” is used. The identification of poor persons is made by comparing the disposable income per adult equivalent of each person with the level of the poverty threshold.

Various methods are used in assessing poverty depending on the phenomenon approach, on the available data sources, on the analysis needs or on national characteristics. In the case of at-risk-of-poverty approach, a method that takes into account the monetary dimension of poverty is used, being agreed by Eurostat and used in all Community countries. As such, poverty indicators can be estimated in two variants, depending on the welfare indicator used, namely the inclusion or exclusion of the equivalent value of household consumption of own resources. This may be: total disposable income or monetary disposable income. In this paper, the welfare indicator is that of monetary disposable income. The monetary disposable income represents total monetary income obtained in the household by all its members, from any lawful source (wages, self-employed activities, pensions and other social transfers, property income, etc.) minus transfers paid.

The monetary income includes gross income obtained from: wages; self-employed activities in agriculture; self-employed activities in non-agricultural activities; social benefits; property income; other income.

Transfers paid include: taxes on wages and on any kind of income, on buildings and land, means of transport etc., social insurance contributions, unemployment, health and other contributions; transfers from and to other households and individuals (alimony, annuities, various compulsory payments laid down by law by private persons and households).

Social transfers are amounts received by the population from the State in the form of social protection and comprise:

- social insurance pension (old-age and early pensions, invalidity pensions, survivors' pensions, pensions for farmers, social aid pension, invalids, orphans and war widows aids, pensions etc.);
- unemployment benefits, monthly supplementing income, compensatory payments;
- children allowances, family allowances (complementary, single-parent family allowances, new-born babies etc.);
- scholarships for pupils and students;

- special support for disabled persons;
- other allowances (for veterans and war widows, politically persecuted persons, survivors of persons deceased in the Revolution of 1989 etc.).

In view to ensure the comparability of different household in terms of size and composition, the transformation of individuals from each household into conventional units “adult-equivalent” is done by using the modified OECD scale. The disposable income of each household is related to the number of “adult-equivalent”, this obtained value being assigned to each person in the respective household.

Adult-equivalent: *conventional unit by means of which the household composition is transformed depending on the characteristics of member persons, in accordance with the concept that the collection and use of resources in a household varies from one person to another due to age, occupation, etc. The transformation is based on an equivalence scale, which in practice is the OECD modified scale, with the following coefficients:*

- 1,0 for the first adult in the household (head of household);
- 0,5 for the rest of adults (14 years and above);
- 0,3 for children up to the age of 14 years.

All persons in households included in the survey are upward ranked according to the disposable income per adult equivalent, based on which the median point of that distribution is established.

Poor persons *are those persons whose disposable income per adult equivalent are below the poverty threshold established for a certain year. The persons whose disposable income per adult equivalent are above the poverty threshold are seen as non-poor persons.*

Status in employment *represents the economic and social situation of a person depending on the activity carried out and the way of achieving income.*

Employed person - *the person who carries out economic and/or social activities entailing monetary and/or in kind income. The employed person could be employee (with an employment contract for definite or indefinite duration), employer (with his/her own unit and one or more employees), self-employed (in agricultural or non-agricultural activities carried out without hiring employees) or family worker;*

Unemployed person - *the person who does not carry out economic and/or social activities entailing monetary and/or in kind income, although due to the age and the physical capabilities he/she could be seen as able to work; this category includes unemployed, pensioners (of any type) and other economically inactive persons (fulfilling domestic tasks, pupils or students, pre-primary education children, elderly persons with no kind of pension, disabled or upheld persons etc.)*

Education level: *low level (without any completed training level, pre-primary education, primary education, lower secondary education); secondary level (vocational, upper secondary,*

post-secondary

non-tertiary or technical foremen education); tertiary (Bachelor's degree or equivalent, Master's degree or equivalent, doctoral degree, long-cycle tertiary education (4-6 years), postgraduate and post-doctoral education).

*The **at risk of poverty or social exclusion rate (AROPE)** is defined as the share of the usually resident population that is faced with at least one of the following three situations:*

- they live below at-risk-of-poverty threshold (60% of the median disposable income per adult equivalent);*
- they live in severe material and social deprivation;*
- they live in a household with very low work intensity.*

*The **severe material and social deprivation rate (SMSD)** is an indicator that shows a lack of items which are essential for a decent standard of living and which should exist at household and individual level in order to ensure an adequate life, a lack that was generated by poor financial resources. It is defined as the proportion of the population experiencing a limitation of access to at least 7 out of the 13 deprivation items.*

*The **13 deprivation items** that are considered essential for a decent standard of living and that are used to calculate severe material and social deprivation were grouped as follows:*

- **7 deprivation items at household level:***

- ✓ capacity to face unexpected expenses;*
- ✓ capacity to afford paying for a one-week annual holiday;*
- ✓ capacity to being confronted with payment arrears (on mortgage or rental payments, utility bills, hire purchase instalments or other loan payments)*
- ✓ capacity to afford a meal with meat, fish or a vegetarian equivalent at least once every two days;*
- ✓ ability to keep the home adequately warm;*
- ✓ have access to a car for personal use;*
- ✓ replacing the worn-out furniture.*

- **6 deprivation items at individual level:***

- ✓ having Internet connection;*
- ✓ replacing worn-out clothes by some new ones;*
- ✓ having two pairs of properly fitting shoes (including a pair of all-weather shoes);*
- ✓ spending a small amount of money each week on him/herself;*
- ✓ having regular leisure activities;*
- ✓ getting together with friends/family at home or elsewhere for a drink/meal at least once a month.*

Persons living in households with very low work intensity are persons (up to 64 years of age) living in households where working-age adults worked less than 20% of their work-time potential during the previous 12 months. According to the survey, working-age persons are persons aged 18-64 years who are not dependent or inactive.

Social protection represents the transfer in cash or in kind to households or individuals, with the aim of protecting them from one or more risks (needs) without there being a simultaneous arrangement of reciprocity.

Social protection scheme represents the normative act or group of normative acts elaborated and implemented by one or more institutional units, which govern social benefits and their financing. The social protection scheme aims to ensure protection against one or more risks or social needs and is addressed to a specific group of beneficiaries.

The function of social protection is defined in terms of the final goal that social protection must achieve, that is to protect individuals and families/households against the identified major social risk. The social protection benefits granted under the social protection schemes are classified according to eight social protection functions, corresponding to the eight major social risks identified by ESSPROS: Sickness/Health care, Disability, Old age, Survivors, Family/Children, Unemployment, Housing, Social Exclusion.

1. SICKNESS/HEALTH function includes: cash benefits that partially or fully compensate the individual's loss of income due to temporary incapacity for work, due to illness or accident; the value of the medical assistance provided for the maintenance, rehabilitation care or improvement of the health status of sick persons.

Social benefits from this function include: allowances for medical leaves, medical assistance in all its forms, pharmaceutical products provided free of charge.

2. DISABILITY function social benefits including: allowances in cash or in kind granted for the purpose of income compensation for persons who have not reached the standard retirement age and whose work capacity is reduced due to physical or mental disorders; rehabilitation benefits for people with disabilities; goods or services, other than medical assistance, for persons with disabilities.

3 The OLD AGE function includes social protection benefits, in cash or in kind, for old age persons ¹⁰.

The medical assistance provided to the elderly persons is only included to the SICKNESS/HEALTH CARE function.

When processing data, the age criteria is taken into account; this supposes the transfer of the social protection benefits from the DISABILITY function to the OLD AGE function if the age of beneficiaries is higher than the standard retirement age.

¹⁰ In ESSPROS acception, elderly person is any person who reached the standard retirement age

4. The SURVIVOR function includes social protection benefits, in cash or in kind, granted to persons who have not reached the standard retirement age and who have lost their spouse or close relatives and who are entitled, according to the legislation in force, to receive the benefits mentioned above .

5. The FAMILY/CHILDREN function covers social protection benefits (other than health care) through which financial and/or in-kind support is provided, in situations of: pregnancy, birth or adoption, maternity, raising and caring for children or other members of the family. Also included here are the social benefits granted to children in difficulty.

6. The UNEMPLOYMENT function includes benefits that: replace in whole or in part the income lost by a worker due to the individual and/or collective losses of gainful employment; provide an income for the graduates looking for their first job; contribute to the integration on the labour market of the unemployed persons.

7. The HOUSING function covers the social protection benefits resulting from public interventions aimed at supporting families with incomes below a certain threshold and bearing certain housing-related expenses (rents, maintenance, etc.) for them.

8. The SOCIAL EXCLUSION (not elsewhere classified) function includes social benefits in cash or in kind, dedicated to combating social exclusion and addressed to disadvantaged or marginalized groups of people from a social point of view.

Generally, the target groups are: people with low incomes, migrants, refugees, people addicted to drugs, alcoholics, victims of natural disasters, violence, etc..

This function has a residual character because it covers all social protection benefits that were not included in one of the other seven functions.

Social protection expenditure include the **expenditure on social benefits, administration cost and other expenditure** (for example: the bank interests in connection with social funds).

Expenditure on social benefits consist of social protection resources which are transferred to beneficiaries in cash or in kind (goods and/services).

Administration costs represents the expenditure related to the organisation and management of the social protection schemes.

Benefits in cash are provided to the entitled persons, as monetary amount.

Benefits in kind are provided to the entitled persons in the form of goods and services.

Benefits dependent on an income threshold are those whose granting is conditional on the beneficiary's income being below a predetermined threshold.

Benefits independent of an income threshold are those that are granted unconditionally based on the income level of the beneficiary.

Periodic cash benefits are cash benefits paid at regular intervals (such as each week, month, quarter or year).

Single benefit in cash are cash benefits paid on a single occasion, in a single amount.

Glossary for Chapter 7

Library is the specialised institution, compartment or structure whose main purposes are: establishing, organising, processing, developing and preserving collections of books, publications, other library documents and databases, in order to facilitate their use for information, research, education or recreation purposes; initiating, organizing and carrying out cultural projects and programs, including in partnership with public authorities and institutions, with other institutions or through public-private partnership; within the information society the library plays a strategic importance role.

Databases in libraries: data collections and records stored on non-volatile electronic media (hard-disk, CD-ROM, DVD-ROM, USB flash drives, diskettes or other media, such as a computer file accessed by telephone or the Internet) with an interface and common language for data retrieval and use, including information on the library collections.

Museum's natural and cultural goods are goods of exceptional historical, archaeological, ethnographical, artistic, documentary, memoir, scientific and technical, literary, cinematographic, numismatics, philatelic, heraldic, bibliophile, cartographic or epigraphic value, specimens (plants and animals) in botanical gardens, zoological gardens, aquaria and nature reserves.

E-books are digitised documents, regardless of the type of license, in which the text prevails and which can be seen in analogy with the printed document (monography). Documents digitised by libraries are also included. The use of e-books is in many cases dependent on a specific device and/or a language of reading and viewing.

Electronic collections of the libraries are all resources in electronic format in the library's collection.

The **library's collection** comprises the following categories of documents: books, serial publications, manuscripts, microforms, cartographic documents, printed musical documents, audio-visual documents, graphic documents, electronic documents/collections, photographic documents or documents multiplied by physical and/or chemical processing, archive documents, other documents regardless of the medium on which they are stored. The collections may also include other documents, not specific to libraries, historically constituted or arising from donations.

Museum collection is the total number of cultural and natural goods, established in a systematic and coherent manner by natural or legal persons governed by public or private law.

Film distribution is the activity of specialised enterprises that distributed to the national cinemas network entirely national films, co-produced films and foreign films.

Digitised documents in libraries' collections are the information units with a defined content, which have been digitised by the library or purchased in digital form as part of the library collection. E-books, electronic patents, audio-visual networked documents and other documents in digital format (reports, cartographic and musical documents in electronic format, pre-prints, etc.) are included. Databases and electronic periodicals are excluded.

Rare digital documents in libraries' collections: rare documents digitised in the library. Rare documents may be old Romanian books (edited by 1830) and foreign books (edited before 1700), the books published by famous printers, curiosities, single copies, de luxe copies, numbered copies, annotated copies or illustrated by great artists, volumes with dedications and autograph signature of authors, princeps editions, copies with artistic covers, etc. or Romanian periodicals edited by 1918, foreign periodicals by around 1870, serial publications with special graphical quality: fine paper, atypical format, special page layout, illustrations of famous artists, small number of printed copies, small number of appearances, etc. Rare digital documents are fully or partially transformed into digital format using electronic devices (scanners, cameras, etc.), so that information can be processed, stored and transmitted through digital circuits, equipment and networks, ensuring public access to the digitized content and long-term conservation.

Film exploitation is the activity of public projection of all films (entirely national, co-production and foreign) within the fixed commercial network (cinema halls) or open-air cinemas and by mobile projection groups fitted with specialised technical equipment.

Institutions and companies for arts performing or concerts are cultural units operating on the basis of Ordinance no. 21/2007, with subsequent amendments and completions by the Law no. 353/2007 and presents directly to the public artistic productions (shows and/or concerts), that can be: dramatic, choreographic, opera, operetta, folklore, variety, cabaret, circus, puppet and/or animation theatres, instrumental theater, respectively concerts of academic, symphonic, vocal-symphonic, choral, folklore, electronic).

Museum is the public or private non-profit cultural institution, at the service of society, which collects, conserves, studies, restores, communicates and exhibits for knowledge, education or recreation purposes material and spiritual evidences of the existence and evolution of human communities, as well as of the environment.

E-periodicals: periodicals published only in electronic format and/or in another format. They contain their own periodicals and the external resources for which the rights of access were purchased, at least for a certain period of time, as well as series digitised by the library.

National films production consists of all films with normal strips intended for commercial films production (films made for television or streaming services are not included); a film is

considered to be produced during a reference year if its production was finished during that year. The year of the premiere can vary and refers to the date when the film was first projected to the public.

Exhibition area (in sqm) comprises the exhibition area of museums and public collections, excluding the storage area, the annex rooms used for storage, laboratories, repair shops or workrooms and other annexes for preservation or restoration.

Active user is the person or the institution which, during the reference year, had used the library services and facilities, including the electronic ones, inside or outside the library. Both the users holding a valid permit in the reference year and users registered during the reference year (newly registered) are included. **Each person is counted only once.** The number of active users may be less than or not more than equal to the number of registered users.

Library volume is the library piece of records representing books, brochures, collections of newspapers and magazines with a minimum of 5 pages, as well as audio-visual materials (magnetic tapes cassettes, filmstrips, etc.) for all types of libraries. The number of volumes also includes photocopies and micro-formats.

The library **volume** is the physical unit for a printed document that assembles several sheets of paper under one cover, to form a whole or part of a whole.

List of figures (into text)

Figure 1.1. World population, by continent, July 1 st , 2021	10
Figure 1.2. European Union's population, January 1 st , 2022.....	11
Figure 1.3. Legal population, by sex and age, on January 1 st , 2012 and 2023.....	12
Figure 1.4. Legal population, by county, on January 1 st , 2012 and 2023	13
Figure 1.5. Legal population's density, by county, on January 1 st , 2023	14
Figure 1.6. Usually resident population, by sex and age, on January 1 st , 2013 and 2023	15
Figure 1.7. Share of population aged 0-14 years and of population aged 65 years and over in total of usually resident population, on January 1 st , during 2012-2023	17
Figure 1.8. Annual emigrants flow, by sex, during 2012-2022.....	21
Figure 1.9. Evolution of annual emigrants flow structure by sex, during 2012-2022.....	21
Figure 1.10. Number of emigrants, by county, in 2012 and 2022.....	22
Figure 1.11. Pyramid of emigration flows, in 2003, 2007 and 2022.....	23
Figure 1.12. Immigrants flow, during 2012-2022.....	24
Figure 1.13. Forecast of population changes in the EU Member States, at the horizon of 2100.....	26
Figure 1.14. Live-birth rate, during 2012-2022.....	28
Figure 1.15. Distribution of live-births, by live-birth order, in 2022.....	29
Figure 1.16. Distribution of live-births, by mother's educational level, during 2012-2022	30
Figure 1.17. Evolution of mortality rates, by residence area, during 2012-2022.....	31
Figure 1.18. Mortality rates, by cause of death and sex, in 2012 and 2022	33
Figure 1.19. Mortality rates, by cause of death and residence area, in 2012 and 2022.....	35
Figure 1.20. Evolution of the population's natural change, during 2012-2022.....	36
Figure 1.21. Population's natural change, by residence area, during 2012-2022.....	37
Figure 1.22. Life expectancy at birth, by sex, during 2012-2022.....	38
Figure 1.23. Life expectancy at birth, by residence area, during 2012-2022	39
Figure 1.24. Fertility rate, by age group of mother, in 2012 and 2022.....	40
Figure 2.1. Healthy life expectancy at birth, by sex, in Romania and EU-27, during 2012-2021	42
Figure 2.2. Incidence of some classes of diseases, declared by the family physicians, in 2022	44
Figure 2.3. Incidence of certain infectious and parasitic diseases, during 2012-2022.....	45
Figure 2.4. Rate of enrolment on a family physicians' list, during 2012-2022.....	46

Figure 2.5. Number of outpatient consultations, in the main types of healthcare units, in 2022	47
Figure 2.6. The evolution of the number of hospital beds for hospitalisation continues, during 2012-2022	48
Figure 2.7. Discharged patients by some classes of diseases, in 2022	49
Figure 2.8. Average number of inhabitants per one healthcare staff, by residence area, in 2022	51
Figure 2.9. Outpatient consultations, by residence area and development region, in 2022	52
Figure 2.10. Number of physicians, during 2012-2022	53
Figure 2.11. Main categories of healthcare staff per 10000 inhabitants, in 2022.....	54
Figure 2.12. Current healthcare expenditure, by main categories of providers, during 2012-2021	56
Figure 2.13. Structure of current healthcare expenditure, by category of services, during 2012-2021	57
Figure 2.14. The gap in life expectancy at birth between women and men in the EU27, in 2022	58
Figure 2.15. Number of active physicians to 100000 inhabitants, in some EU Member States.....	59
Figure 3.1. School population, by education level, during 2012-2022	62
Figure 3.2. Structure by school age group of the usually resident population (as at July 1 st), during 2012-2022	63
Figure 3.3. Net enrollment rate, by education level, during 2012-2022	65
Figure 3.4. Territorial distribution of net enrollment rate in primary education in 2022-2023 school year	66
Figure 3.5. Territorial distribution of net enrollment rate in lower secondary education in 2022-2023 school year	67
Figure 3.6. Territorial distribution of net enrollment rate in upper secondary education in 2022-2023 school year	68
Figure 3.7. Territorial distribution of net enrollment rate in tertiary education in 2022-2023 academic year	69
Figure 3.8. Dropout rate, by education level, during 2013-2022.....	70
Figure 3.9. Urban-rural differences in dropout rates for primary and lower-secondary education during 2013-2022	70
Figure 3.10. Early (18-24 years) school leaving rate, by sex, during 2012-2022.....	71
Figure 3.11. Structure by sex of students who passed the baccalaureate examination, during 2013-2022	73

Figure 3.12. Distribution of tertiary education graduates, by main groups of specialisations, during 2015-2022	74
Figure 3.13. Number of students to a teacher, during 2012-2022	75
Figure 3.14. Teaching staff, by education level, during 2012-2022	76
Figure 3.15. Structure of teaching staff in tertiary education, by ownership of the educational institution, during 2012-2022	77
Figure 3.16. Evolution of pre-primary, primary and lower secondary school establishments, during 2012-2022.....	78
Figure 3.17. Evolution of upper secondary units (high schools), during 2012-2022	78
Figure 4.1. Population structure, according to the participation in economic activity, during 2012-2022	84
Figure 4.2. Distribution of economically active population, by sex, during 2012-2022	84
Figure 4.3. Activity rate, during 2012-2022	85
Figure 4.4. Distribution of employment, by sex, during 2012-2022	86
Figure 4.5. Employment rate, by age group, in 2022	87
Figure 4.6. Evolution of the ILO unemployed number, during 2012-2022	88
Figure 4.7. ILO unemployment rate, by sex and by residence area, in 2022.....	88
Figure 4.8. ILO unemployment rate, by education level, during 2012-2022	89
Figure 4.9. Unemployment rate by region, in 2022	90
Figure 4.10. Registered unemployment rate and ILO unemployment rate, during 2012-2022	91
Figure 4.11. Economically inactive population, of working age (15-64 years), by sex and by age group, in 2022.....	92
Figure 4.12. The rate of young people neither in employment nor in education or training, by sex, during 2012-2022	93
Figure 4.13. Evolution of job vacancies, by sectors of national economy, 2012-2022 period	95
Figure 4.14. Average annual job vacancy rate at national economy level and in the non-agricultural activities, during 2012-2022	96
Figure 4.15. Average annual job vacancy rate, by occupation, during 2012-2022	96
Figure 4.16. Employment distribution by residence area, during 2012-2022.....	98
Figure 4.17. Employment distribution by activity sector of the national economy, during 2012-2022	98
Figure 4.18. Share of households with access internet, by area residence, in 2021 and 2022.....	100
Figure 4.19. Share of households with access to the internet, by the occupational status of the household head, in 2022	101

Figure 4.20. Employment rates in the EU Member States, in 2022.....	103
Figure 4.21. Unemployment rate in the EU Member States, in 2022	103
Figure 4.22. Share of people aged 16-74, in EU Member States, after using the internet at least once a week (including every day), in 2022 and of those who, in the last 3 months, ordered goods or services online	105
Figure 5.1. Average household total income and money income, by occupational status of the household's head, in 2022	108
Figure 5.2. Average household total income and money income, during 2012-2022	108
Figure 5.3. The growth rates of the average total income, the average money income and in kind income of the household's population, in 2022 compared to 2020.....	109
Figure 5.4. Structure of total households income, in 2022	110
Figure 5.5. Evolution of average monthly disposable income, during 2012-2022.....	111
Figure 5.6. Average monthly disposable income, according to the occupational status of the household's head, in 2022	111
Figure 5.7. Disposable money income according to the education level of the household's head, in 2022.....	112
Figure 5.8. Average disposable income per person, by household size, in 2012, 2017 and 2022	113
Figure 5.9. Average disposable money income per person, by number of children in the household, in 2012, 2017 and 2022.....	113
Figure 5.10. Average disposable income per person, by development regions and residence area, in 2022	114
Figure 5.11. Disparities from the average of the average net monthly earnings, by activity of national economy, in 2022	116
Figure 5.12. Real earnings index, during 1991-2022 (1990=100)	117
Figure 5.13. Real earnings index (previous year=100), during 1991-2022.....	118
Figure 5.14. Gender pay gap, during 2012-2022	118
Figure 5.15. Tax wedge on labour cost in Romania and in the European Union, during 2013-2022	119
Figure 5.16. Evolution of the average social insurance pension, during 2012-2022.....	120
Figure 5.17. The evolution of average monthly expenditure of households, according to the occupational status of the household's head, during 2012-2022.....	121
Figure 5.18. The evolution of the structure of average monthly expenditure of households, by types of expenditure, during 2012-2022.....	122
Figure 5.19. Loans and credits returned, amounts deposited at banks and financial institutions, by households, by the occupational status of the household's head, during 2012-2022	124

Figure 5.20. The evolution of the structure of total consumption expenditure, by components, during 2012-2022	125
Figure 5.21. The total consumption expenditure of households, according to the occupational status of the household's head, in 2022.....	126
Figure 5.22. The total consumption expenditure of households by components and residence area, in 2022	126
Figure 5.23. The structure of total consumption expenditure of households, by destination, in 2021 and 2022.....	127
Figure 5.24. Total consumption expenditure of households, by regions of development, in 2022	128
Figure 6.1. Average monetary disposable income, per person, per decile, in 2021 and 2022.....	131
Figure 6.2. The share of households that can meet their needs with the income they have, by area of residence, category, occupational status of the household's head, in 2022	131
Figure 6.3. The share of households that can meet their needs with the income they have, by category of consumption expenditure, according to the occupational status of the household's head, in 2022	132
Figure 6.4. At-risk-of-poverty threshold, during 2012-2022	133
Figure 6.5. At-risk-of-poverty rate, in 2012, 2017 and 2022	134
Figure 6.6. At-risk-of-poverty rate by age group, during 2012-2022.....	136
Figure 6.7. At-risk-of-poverty rate by main categories of population, in 2020, 2021 and 2022	136
Figure 6.8. At-risk-of-poverty rate by NUTS2 (regions), in 2020, 2021 and 2022	137
Figure 6.9. Intersection of AROPE components, in 2022.....	138
Figure 6.10. Evolution of Europe 2030 target indicators, in 2018, 2020 and 2022	139
Figure 6.11. Severe material and social deprivation rate, by income quintile, during 2019-2021	140
Figure 6.12. Evolution of social protection expenditure, during 2012-2021	143
Figure 6.13. The structure of expenditure with social protection benefits, by social protection function, in 2021	144
Figure 6.14. Distribution of social insurance pensioners, by category of pension, during 2012-2022	145
Figure 6.15. Evolution of the ratio between the average pension by category of pensioners and the average pension of social insurance (excluding the pensioners coming from the former system for farmers), during 2012-2022	145

Figure 6.16. Evolution of the average real pension index of the state social insurance pensioners (1990=100), during 1990-2022.....	146
Figure 6.17. Ratio between the average social insurance pension and the average earnings, during 2012-2022.....	146
Figure 6.18. At risk of poverty or social exclusion rate (AROPE) in EU Member States, in 2021 and 2022.....	147
Figure 6.19. Expenditure with unemployment benefits in the total expenditure with the social benefits, in the EU Member States, in 2019 and 2020.....	149
Figure 7.1. Evolution of libraries number, during 2012-2022 (at the end of the year)	152
Figure 7.2. Evolution of the number of active users and of lent volumes in libraries, during 2012-2022	153
Figure 7.3. Distribution of exhibition area of cultural heritage, in museums and public collections, by development region, in 2022	155
Figure 7.4. Distribution of the number of spectators of the companies for performing arts or concerts, by development region, in 2022	157
Figure 7.5. Seats in cinema halls, by development region, in 2022	158
Figure 7.6. Percentage of rare digital documents in all rare documents available in libraries, during 2012-2022	159

List of tables (into text)

Table 1.1. Structure of usually resident population, by age group and sex, on January 1 st , 2012 and 2023	17
Table 1.2. Average and median age of the usually resident population on January 1 st	18
Table 1.3. Demographic dependency ratio and demographic ageing index on January 1 st , during 2012-2023	19
Table 1.4. Population projections at the horizon of 2030, 2040, 2060, 2080, 2100 -ranking according to 2100-	25
Table 2.1. Healthcare expenditure, by main financing source, during 2012-2021	55
Table 3.1. Share of school population in all education levels (ISCED 0-8), in total population, in the EU Member States, during 2015-2021	80
Table 3.2. Relevant indicators on the population education level, in the EU Member States, in 2022	81
Table 4.1. Weight of ILO unemployed persons aged 15-24 years in total population aged 15-24 years, by sex and by residence area, during 2012-2022.....	90
Table 4.2. Potential additional labour force by age group, sex and residence area, in 2022	94
Table 4.3. Rate of young people neither in employment, nor in education or training in the EU Member States, during 2012-2022.....	104
Table 5.1. Average net monthly earnings, by activity (section) of national economy.....	115
Table 5.2. The monetary expenditure of households, by destination, according to the occupational status of household's head, in 2022.....	122
Table 5.3. The structure of taxes, contributions, dues and fees paid on average monthly by households, by type and by the occupational status of the household's head, in 2022	123
Table 5.4. Total average monthly consumption expenditure per person, by household size, in 2022	127
Table 6.1. At-risk-of-poverty rate by household type, during 2012-2022	135
Table 6.2. Social protection expenditure, by category of expenditure, during 2012-2021	143
Table 6.3. At-risk-of-poverty rate in the EU Member States, during 2012-2022	148
Table 7.1. Structure of active users, of volumes in libraries and lent volumes, by region, in 2022.....	153

Table 7.2. Number of institutions and companies for performing arts or concerts and of the spectators, during 2012-2022	156
Table 7.3. Share of cultural and natural digital goods in the collections of museums and public collections in the total cultural and natural goods, during 2016-2022.....	160
Table 7.4. Number of cultural and natural digital goods uploaded on the website www.europeana.eu, during 2016-2022.....	161
Table 7.5. Share of employed population working in cultural domains, in 2022	164
Table 7.6. Share of the employed population in cultural domains, by level of educational attainment, in 2022.....	165