# SOCIAL
# TRENDS

ROMÂNIA

INS

2022

# NATIONAL INSTITUTE OF STATISTICS

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# SOCIAL TRENDS

# FOREWORD

*"You can have data without information, but you cannot have information without data"*

*Daniel Keys Moran*

*"Social Trends" aims to display the evolution over time of Romanian population social life main phenomena expressed in the dynamics of population demography, employment, education level, and health, but also in the household income and expenditure, and risks poverty and social exclusion evolution. The paper also describes the international context social phenomena evolve in.*

*The crisis the coronavirus pandemic caused is a major shock to the economies of the world's states, affecting people's lives, regardless of the economic and social development level of the country they live in. What will the world look like in the post-pandemic era and what will the social trends be when the last signs of the health crisis will disappear, we shall analyze in the future, based on statistical data. Currently, however, we can see the crisis mainly as a stage of transition to a new era, thus preparing the start-up of society towards the future, where people become more aware of what the natural and social environment provides them with. The new social era brings along the modernization of communities and involves at least two actions: the need to digitize human resources, one one hand, and change in the way work is delivered, by replacing traditional arrangements with new, atypical ones, such as work from home or telework. Change is irreversible and less gradual than back in the time when we were used to the social change patterns history has encountered. The change is expected to bring added value to society, and the shifts that will take place at the social level will diffuse both into the economic and the political environment.*

*A social change major consequence is the shift in the Romanian population demographics. From the massive international migration phenomenon-marked profile in the last two decades, a potential rejuvenation of the population is taking shape. Restrictions during the pandemic are expected to slow down migration and also lead to an increase in the number of newborns.*

*Another social change result is deepening social inequality and causing imbalances by areas of residence or other geo-demographic criteria, especially in local communities and groups showing weak capacity for adaptation and innovation.*

*With reference to education, online school has produced and continues to produce fundamental changes in the education system, in pupils and students - learning related - behaviors – as well as in the teachers habits, in terms of the type and quality of teaching. The rapid taking-up of educational technologies, the change in the "screen time" spending habits, the accelerated diversification of digital platforms types the pupils use are among the main trends in the "new education". However, the digitalisation of education must be seen as an opportunity for change, in the sense of adapting the school curriculum so that pupils and students are prepared for innovation, transformation and adaptation to an unpredictable socio-economic environment. Moreover, national education systems, those in our country included, have already adopted the "hybrid teaching" term. In this regard, the European Union calls on the Member States that digital education should never permanently replace in-person learning, especially where access to technology is limited, and it should only be used in times of hardness, such as pandemics, or in a way complementary to in-person, face-to-face learning. Based on official statistics, the European Union will carry out an in-depth assessment of the crisis effects on the right to education and will propose recommendations to the Member States grounded on the results of the said analysis.*

*Therefore, we are in the midst of a change-over in the services provision and the birth of new industries. Digital platforms are being used more and more, and the data provided by official statistics is growing at an unprecedented pace, becoming an integral part of the daily lives of most people everywhere. The growing role of data in the economic, social and political spheres will influence governments to place increasing value on official statistics. The "Social Trends" current edition confirms once again the significant role and the need for statistical data used in the society dynamics analysis and the impact the socio-demographic and economic factors have on the latter. In order to provide you with as many arguments and answers as possible to the questions and challenges related to the evolution of Romanian society over time, we invite you to read "Social Trends", which is an information and warning tool for social phenomena and their impact on the economic environment and beyond.*

*Tudorel ANDREI*

*President*
*National Institute of Statistics*

# CONTENT

Annexes         *- tables included only on the CD-ROM*

# *ABBREVIATIONS AND ACRONYMS*

| | |
|---|---|
| **HBS** | Household Budget Survey |
| **LFS** | Household Labour Force Survey |
| **EFTA** | European Free Trade Association |
| **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 |
| **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 |
| **ILO** | International Labour Organisation |
| **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 Nations[1] estimations, the world's population on 1 January 2020 was 7.8 billion inhabitants that is an

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[1] *World Population Prospects: https://population.un.org/wpp/Download/Standard/Population/*

increase of 0.8 billion compared to 2010 and of 1.7 billion compared to 2000. Asia has the highest share in total world population (59.5%), with 4.6 billion inhabitants, while Africa was the next most populous continent with 1.3 billion inhabitants (17.2%). Europe occupies third place with a share of 9.6%.

**Figure 1.1. World population, by continent, January 1ˢᵗ, 2020**
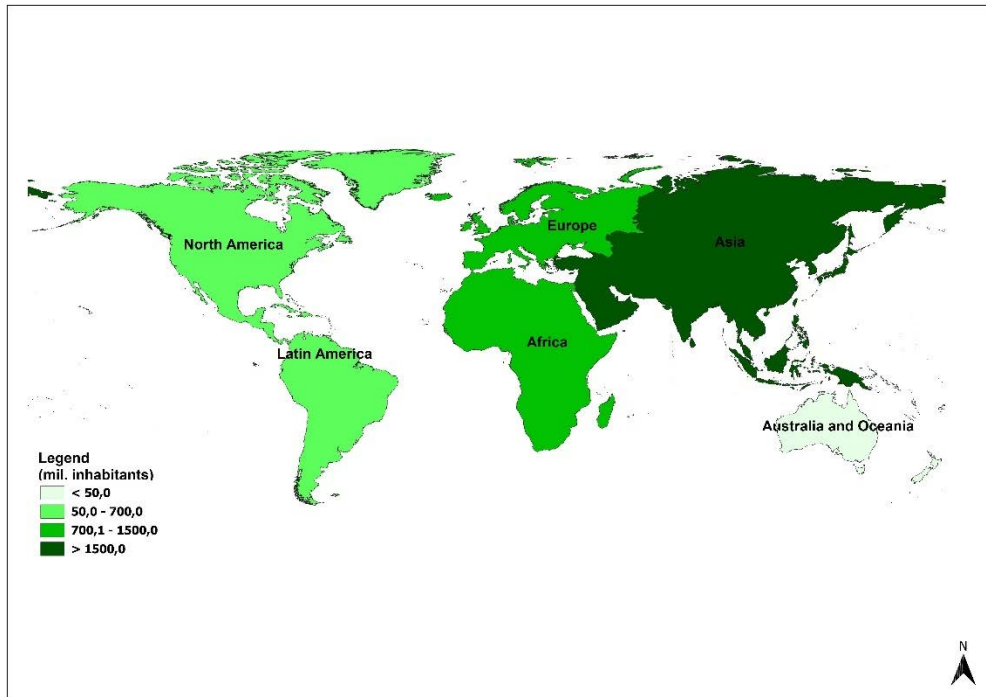


Source: NIS calculations, based on United Nations data

Recent demographic developments show that the EU's population is increasing, while the age structure shows an increasingly sharp ageing. In 2019, the UN[2] estimates projected the population of the whole European continent for 2020, to 747,6 million inhabitants.

According to Eurostat data, on January 1ˢᵗ, 2020, the usually resident population of the European Union (consisting of 27 countries[3]) reached 447.3 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 (15,0%), Italy (13,3%), Spain (10,65) and Poland(8,5%). In the top of the EU member states, characterized by the number of inhabitants, are Romania (4.3%) and the Netherlands[4] (3.9%).

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[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, 2020**
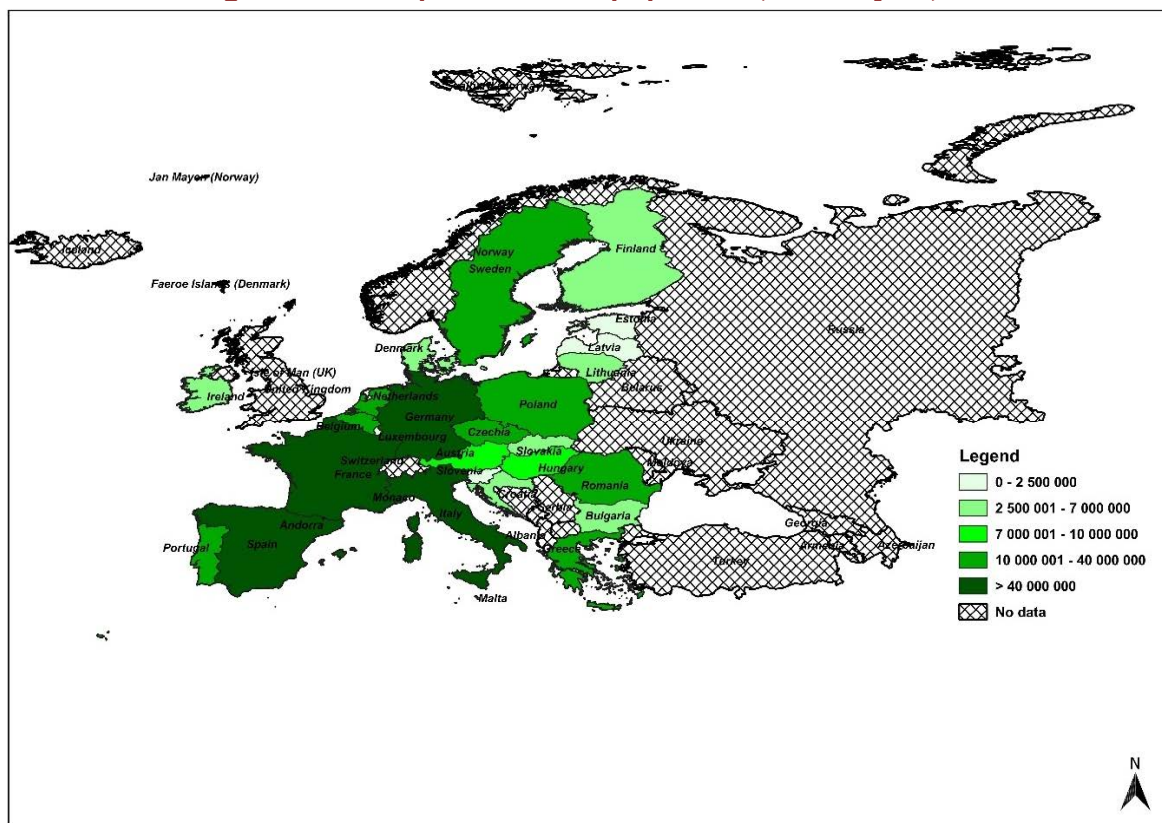
Source: NIS calculations, based on Eurostat data

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 adress 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.

On January 1st, 2021[5], the legal population of Romania was 22.09 million people, decreasing compared to the previous year with 103 thousand persons. Female population is more numerous (51.2%) than the male population (48.8%).

The average age of the legal population is 42.0 years, 0.2 years higher than on January 1, 2020. The median age is 42.2 years, increasing by 0.4 years compared to January 1st, 2020.

**Figure 1.3. Legal population, by sex and age, on January 1st, 2000 and 2021[p]**
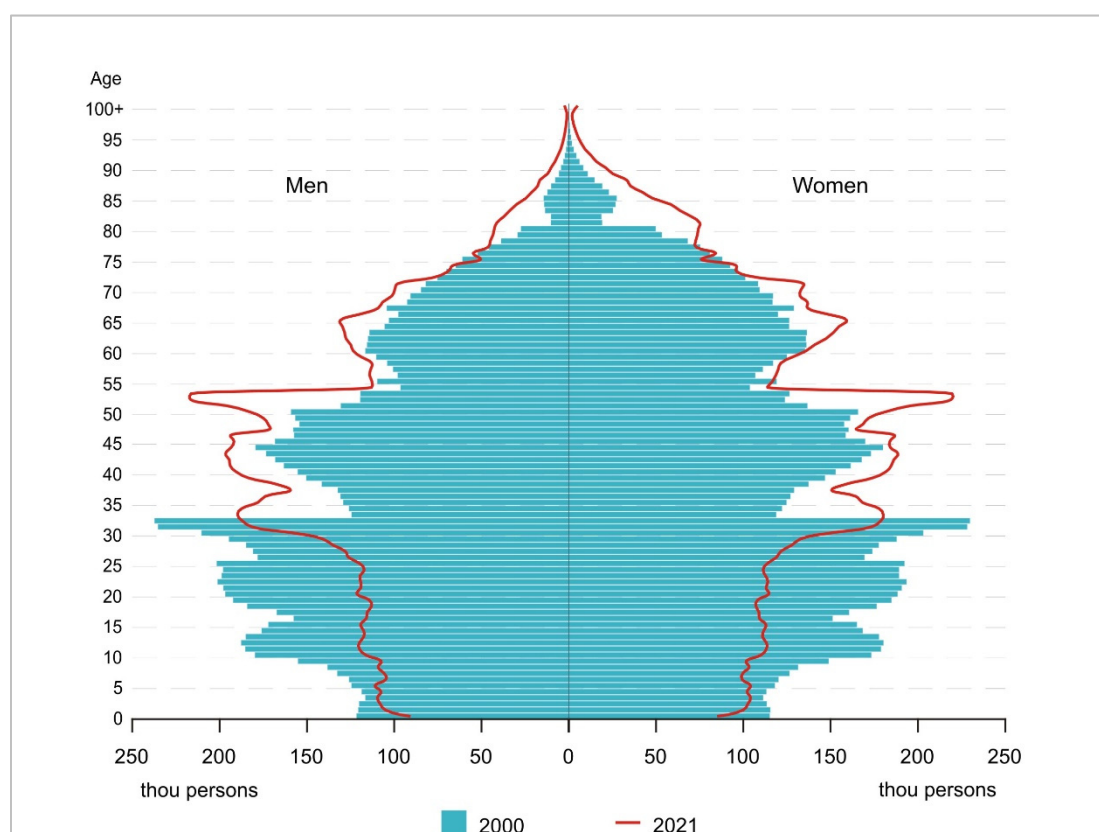


Source: NIS, Statistical survey on legal population

Note: p – for 2021, provisional data

On January 1, 2021, the largest share in the total population was held by the age group 40-44 years (8.6%). Among males, the share of this age group was 9.0%, and among females 8.2%. The share of the 0-4 age group was 4.6%, lower than that of the 5-9 age groups (4.7%), 10-14 years (5.2%) and 15-19 years ( 5.1%).

On January 1st, 2021 the sex ratio was 95 men to 100 women, decreasing compared to January 1st, 2000 (96 men per 100 women). Until the age of 52, the number of men was higher than the number of women. From that age on, the number of women exceeded the one of men (except the age of 52).

[5] *Provisional data; to be reviewed in February 2022*

The legal population in the urban area was 12442 thousand people, a slight decrease compared to January 1, 2020 (0.6%).

**Figure 1.4. Legal population, by county, on January 1st, 2000 and 2021ᵖ**
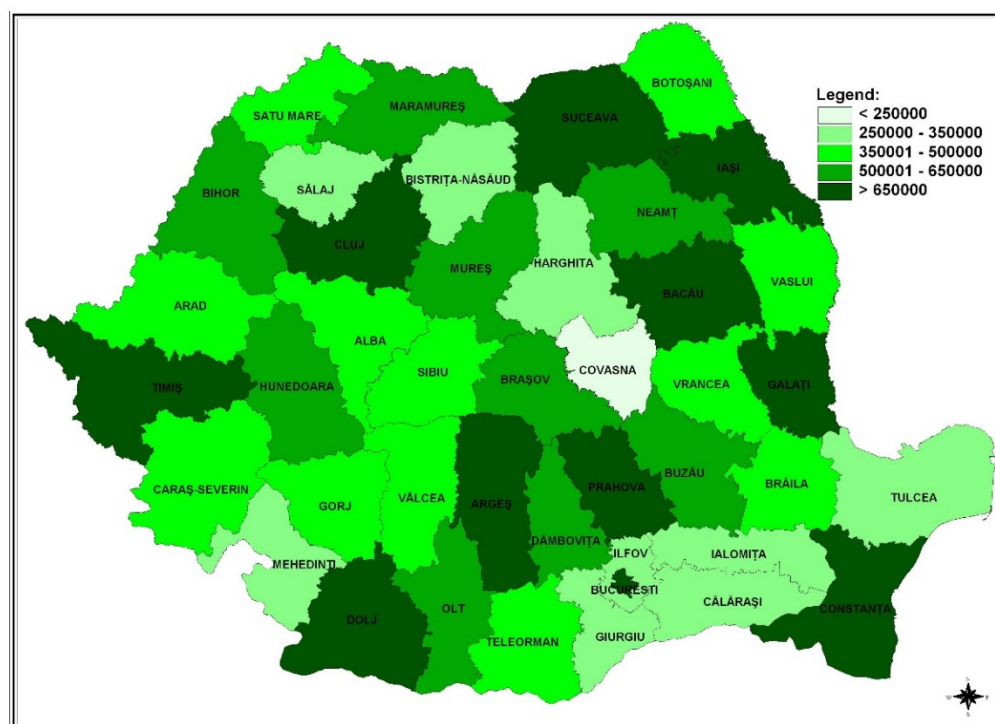
**2000**
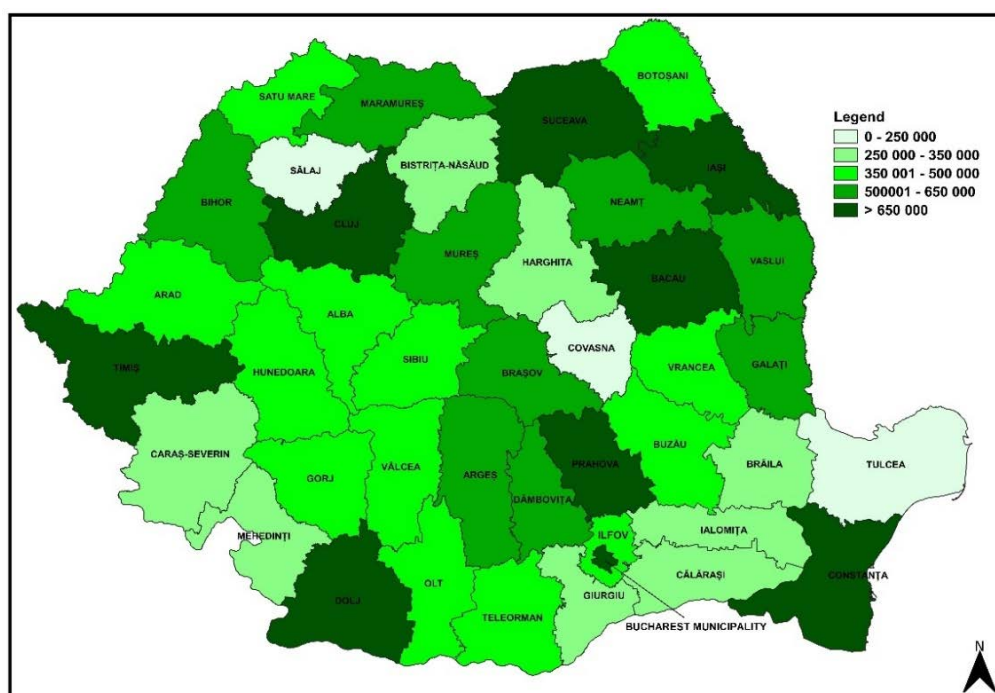


**2021ᵖ**



Source: NIS, Statistical survey on legal population

Note: p – for 2021, 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 adress in Romania (9.8%). In 2021, the counties with numerous population are Iași (4.4%) 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 2021 was 92.7 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, 2021p**
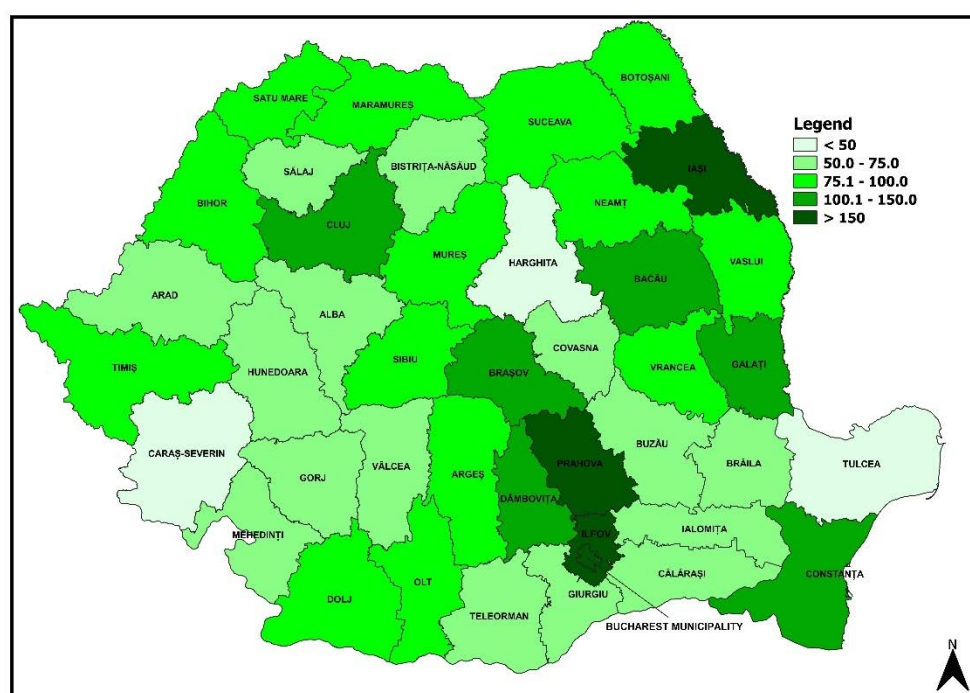


Source: NIS, Statistical survey on legal population

Note: p – for 2021, 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 (9004 inhabitants/km²) is nearly a hundred times greater than the density calculated at national level. The lowest population density on January 1st, 2021 was in Tulcea County (27.3 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 19.2 million inhabitants. The major milestones which pointed out the markedly reduction of the usually resident population were the Censuses of 2002 and 2011, a period when the population declined by almost 1.6 million people. On January 1$^{st}$, 2021, the provisional data also shows the continuing downward trend of the usually resident population (19.2 million inhabitants).

The same with the legal population, the female usually resident population is greater than the male usually resident population (51.0%).

**Figure 1.6. Usually resident population, by sex and age, on January 1$^{st}$, 2003 and 2021$^{p}$**
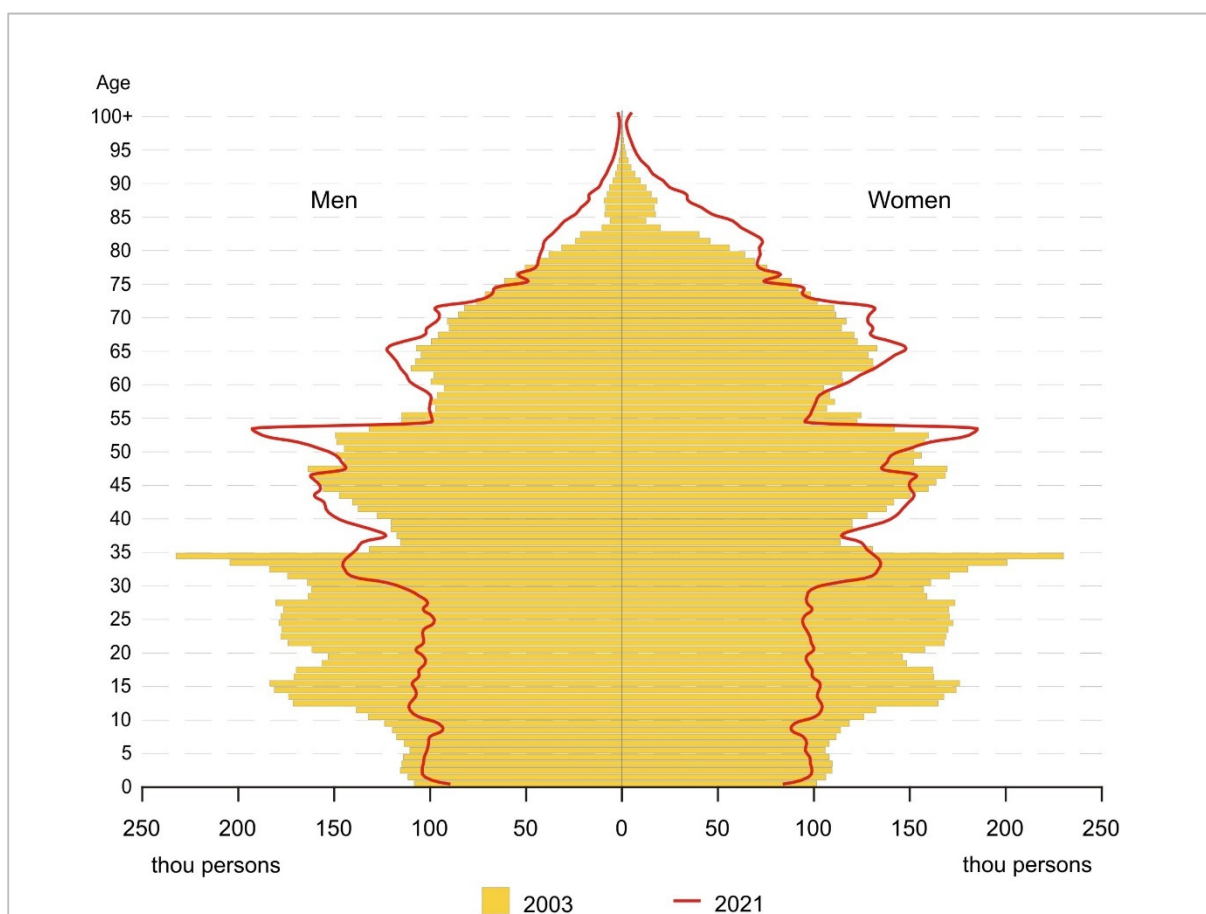


Source: NIS, Statistical survey on usually resident population

Note: p – for 2021, provisional data

On January 1st, 2021, the age structure of the usually resident population shows that the largest weights are those of persons aged 50-54 (8.2%), respectively 40-44 years (7.9%) and 45-49 years (7.7%).

### 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 2005 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 (16.3%) being surpassed by the share of the elderly population of 65 years and more (16.6%). For Romania, the year of change in the ratio between the proportion of young and elderly people has been 2009.

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).

*16*

**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 2008-2021ᵖ**
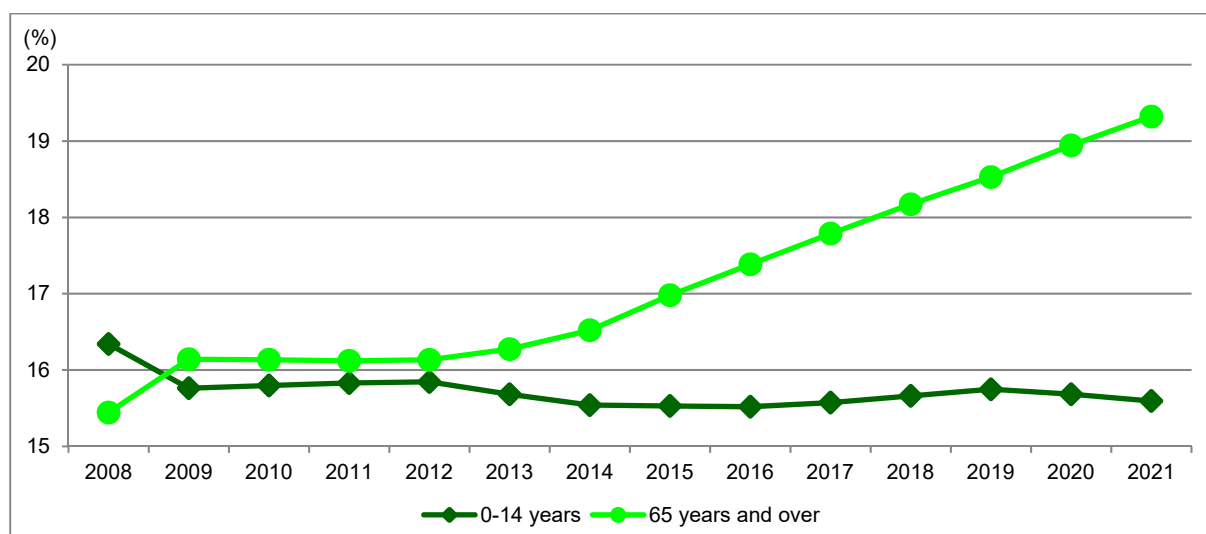
During 2008-2021, the usually resident population aged 0-14 years showed a continuous decrease in the share of the total of population, so that on January 1st, 2021 accounted for 15.6% (16.4% of the male population and 14.8% of the female population), while the population of 65 years and over increased, being 19.3% of the total of usually resident population (15.9% for men and 22.6% for women).

**Table 1.1. Structure of usually resident population, by age group and sex, on January 1st, 2008 and 2021ᵖ**

| Age groups | Total | | Male | | Female | |
|---|---|---|---|---|---|---|
| | 2008 | 2021 | 2008 | 2021 | 2008 | 2021 |
| **Total** | **100** | **100** | **100** | **100** | **100** | **100** |
| 0- 4 years | 5.1 | 5.1 | 5.4 | 5.4 | 4.9 | 4.9 |
| 5- 9 years | 5.2 | 5.0 | 5.5 | 5.2 | 5.0 | 4.7 |
| 10-14 years | 6.0 | 5.5 | 6.3 | 5.8 | 5.7 | 5.2 |
| 15-19 years | 6.3 | 5.3 | 6.6 | 5.6 | 6.0 | 5.1 |
| 20-24 years | 7.2 | 5.2 | 7.6 | 5.5 | 6.8 | 5.0 |
| 25-29 years | 7.0 | 5.3 | 7.3 | 5.6 | 6.7 | 5.0 |
| 30-34 years | 8.0 | 7.0 | 8.3 | 7.4 | 7.6 | 6.6 |
| 35-39 years | 7.0 | 6.8 | 7.3 | 7.2 | 6.8 | 6.4 |
| 40-44 years | 7.8 | 7.9 | 8.1 | 8.3 | 7.4 | 7.6 |
| 45-49 years | 6.1 | 7.7 | 6.2 | 8.1 | 5.9 | 7.3 |
| 50-54 years | 6.7 | 8.2 | 6.8 | 8.6 | 6.7 | 7.9 |
| 55-59 years | 6.4 | 5.3 | 6.3 | 5.4 | 6.5 | 5.2 |
| 60-64 years | 5.8 | 6.4 | 5.5 | 6.1 | 6.1 | 6.7 |
| 65-69 years | 4.6 | 6.3 | 4.2 | 5.7 | 5.1 | 6.9 |
| 70-74 years | 4.4 | 5.0 | 3.7 | 4.3 | 5.0 | 5.7 |
| 75-79 years | 3.4 | 3.2 | 2.7 | 2.5 | 4.0 | 3.8 |
| 80-84 years | 1.9 | 2.7 | 1.5 | 1.9 | 2.4 | 3.4 |
| 85 years and over | 1.1 | 2.1 | 0.7 | 1.5 | 1.4 | 2.8 |

The usually resident population structure by age groups shows a decrease in the weights of the age groups up to the age of 30, as a result of the low birth rate and the emigration of young people. The groups most affected are 20-24 years (2.0 percentage points), respectively 25-29 years (1.7 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, 2021, 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 3.4 years. The rural population, more aged, has an average age of 42.5 years, 0.2 years more than urban population (42.3 years).

Median age is also increasing for both sexes, both in Romania (with 0.7 years, 2021 against 2019) and at EU level (by 0.7 years, 2020 against 2017). Half of the people from urban area in Romania were younger than 43.0 years (in 2021).

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

-years-

| Year | ROMANIA | | UE27 | |
|---|---|---|---|---|
| | **2019** | **2021ᵖ** | **2017** | **2020 *)** |
| **Average age** | | | | |
| **Both sexes** | 42.1 | 42.4 | 42.4 | 43.3 |
| Male | 40.4 | 40.7 | 41.1 | 41.9 |
| Female | 43.7 | 44.1 | 43.7 | 44.7 |
| Urban | 41.9 | 42.3 | | |
| Rural | 41.4 | 42.5 | | |
| **Median age** | | | | |
| **Both sexes** | 42.4 | 43.1 | 43.2 | 43.9 |
| Male | 40.9 | 41.5 | 41.7 | 42.4 |
| Female | 44.1 | 44.8 | 44.7 | 45.4 |
| Urban | 42.4 | 43.0 | | |
| Rural | 42.5 | 43.2 | | |

Source: NIS calculations, based on Eurostat data

Note: p – for 2021, provisional data; *) 2020 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 120.8 (as of January 1st, 2020) to 123.9 elderly people per 100 young people (as of January 1st, 2021).

## Table 1.3. Demographic dependency ratio and demographic ageing index on January 1st 2010-2021p

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Demographic ageing index | 102.1 | 101.8 | 101.8 | 103.8 | 106.3 | 109.3 | 112.1 | 114.4 | 116.3 | 117.7 | 120.8 | 123.9 |
| Demographic dependency ratio | 46.9 | 47.0 | 47.0 | 47.0 | 47.2 | 48.2 | 49.0 | 50.0 | 51.1 | 52.1 | 53.0 | 53.6 |

Source: NIS, Statistical survey on usually resident population

Note: the indicators are calculated to 100 adults, respectively to 100 children;

p – for 2021, provisional data.

The demographic dependency ratio was on January 1st, 2021, of 53.6 elderly persons to 100 adults, up from January 1st, 2010 (46.9).

The sharpening of demographic ageing is further substantiated by the increase in the period of 2010-2021 of the demographic ageing index: 123.9 elderly persons (aged 65 and over) to 100 children (0-14 years) on January 1st, 2021 as against 102.1 on January 1st, 2010.

## 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 2019 almost 3 million migrants have left an EU(28) 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, 22 have a higher share of immigration than emigration, being seen as importing countries, but in Bulgaria, Latvia, Poland, Lithuania, 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 2020, the majority of EU citizens living in other EU Member States were Romanian citizens (3.1 million or 23.0% of all EU citizens living in another EU country), followed by Polish citizens (1.6 million or 11.5%), Italians (1.4 million or 10.7%) and Portuguese (964 thousand or 7.1%).

On January 1st, 2020[6], 26,2 millions were born in another EU Member State than the one where they were resident. The number of persons born in other EU Member States was higher than the number of persons born outside of the EU-28 in Luxembourg (47%), Malta (20%), Cyprus (18%), Austria (17%), Estonia (15%), Latvia (14%). The lowest percentages were observed in Poland, Romania and Slovakia (all 1%).

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 2003-2020[7], 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] The data for 2020 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 2003-2020ᵖ**
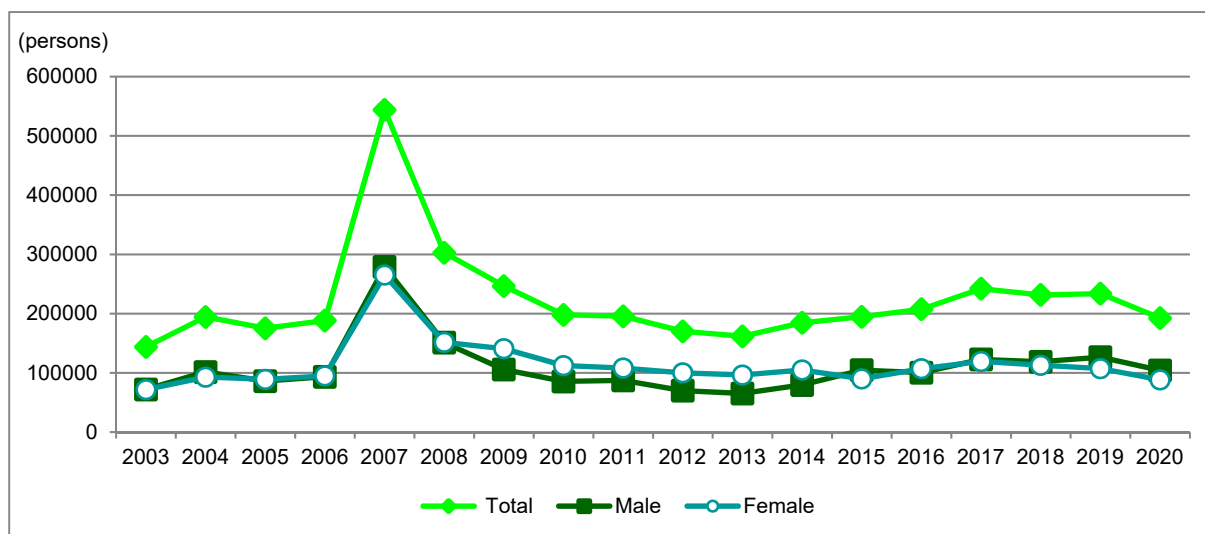
International migration has affected both sexes, but in different proportions: until the year 2008, the emigration was balanced by gender, but in 2009-2014 the share of female immigrants was always higher than the male share. Since 2015, the situation was reversed (except 2016), so that in 2020 the share of male immigrants was 54.1%.

**Figure 1.9. Evolution of annual emigrants flow structure by sex, during 2003-2020ᵖ**
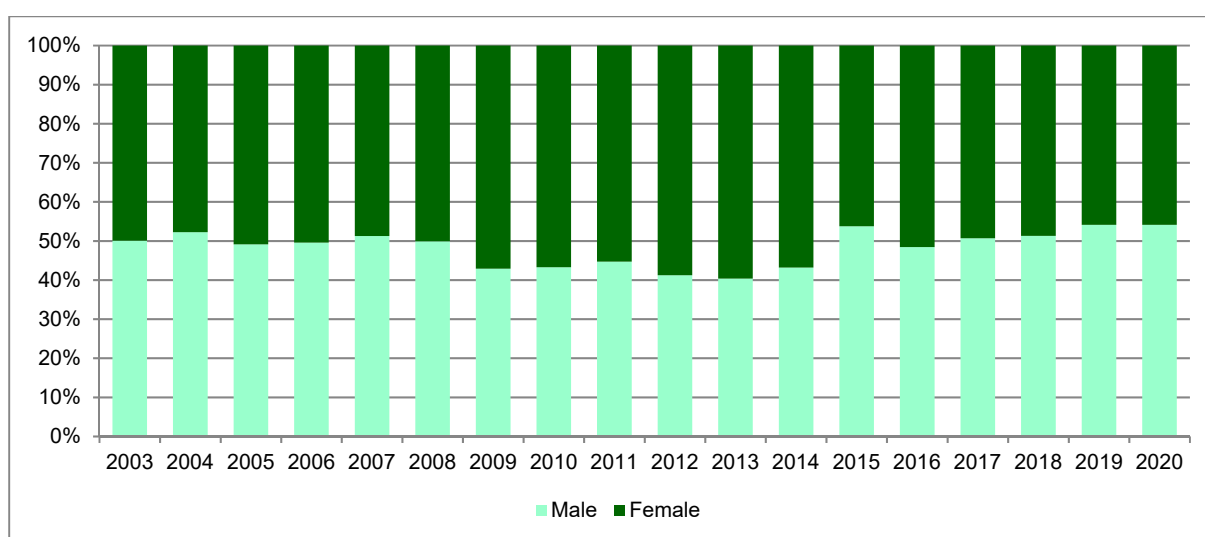
The distribution of emigrants at territorial level indicates the existence of some emigration basins, particularly in counties where the population is very large. For example, a large number of emigrants are recorded in Bucharest, but also in Prahova, Iași, Constanţa, Timiș, Cluj, Dolj and Suceava counties (more than 7000 persons in 2020).

**Figure 1.10. Number of emigrants, by county, in 2014 and 2020[P]**

**2014**
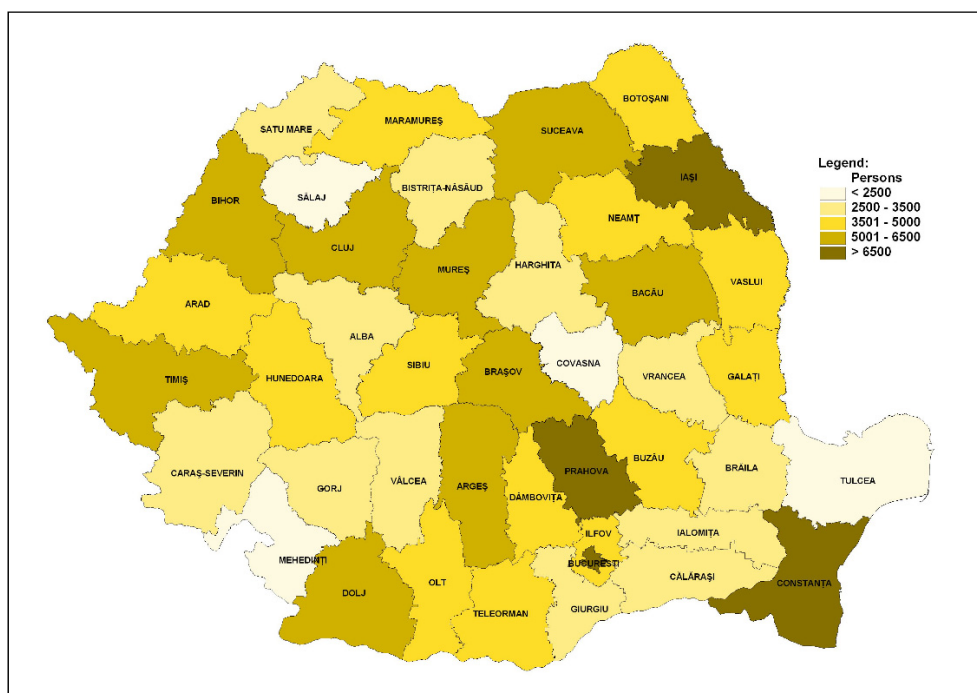


**2020[P]**
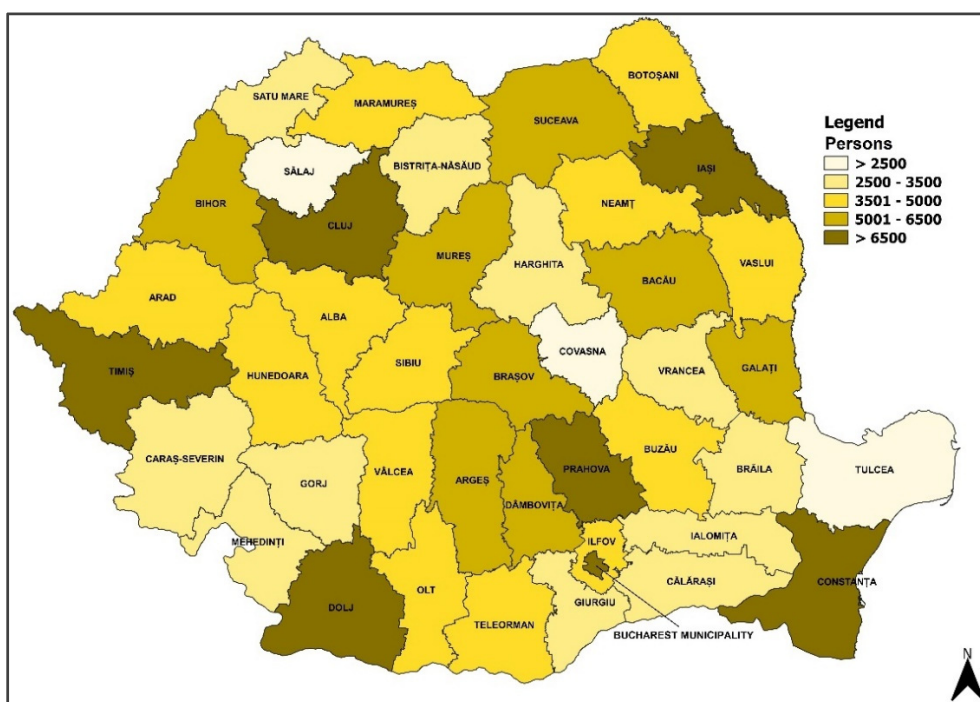


Source: NIS, Statistical survey on long-term international migration

Note: p – for 2020, provisional data

The dominant age of emigrants is in the range of 25 to 29 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 2020ᵖ**
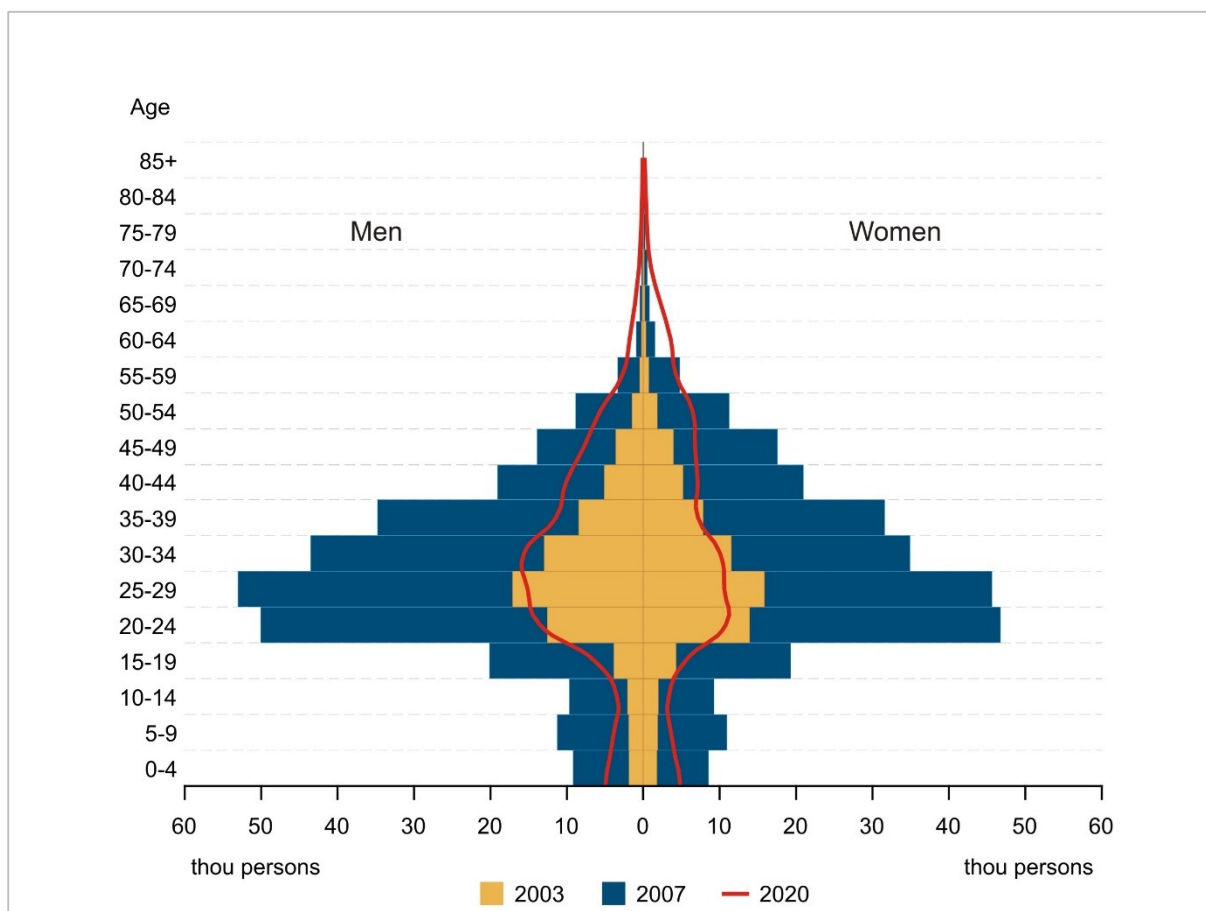


Source: NIS, Statistical survey on long-term international migration

Note: p – for 2020, provisional data

An unprecedented specific of international migration is circular migration or inter-state populations exchange, where the nationality or the legal adress 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 2003-2020ᵖ**
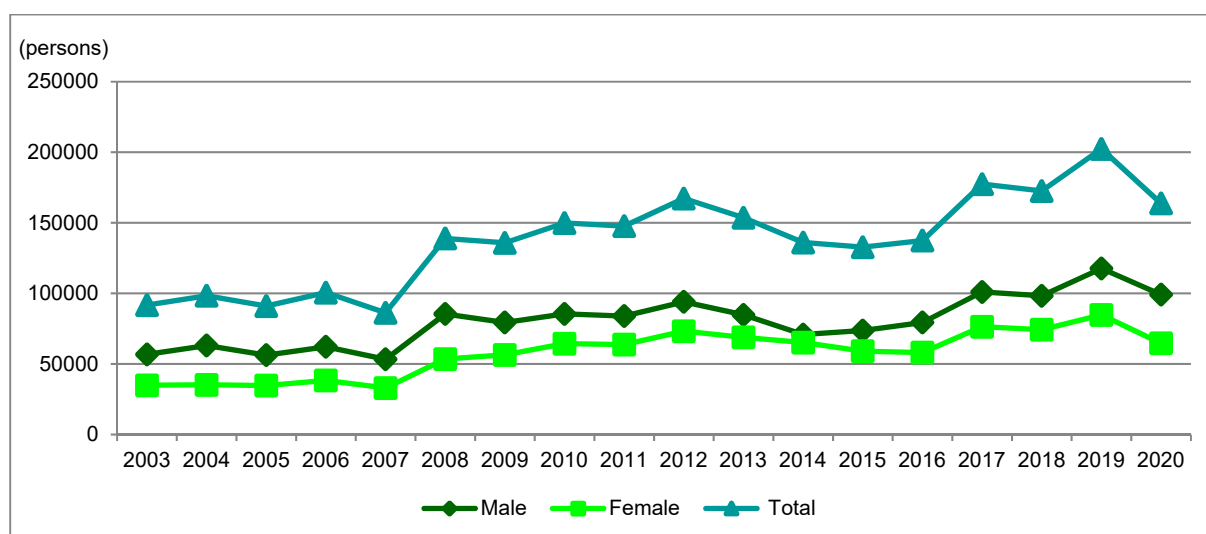


Source: NIS, Statistical survey on long-term international migration

Note: p – for 2020, provisional data

Over the period 2003-2020, the immigrants' flows had certain peculiarities: 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. In 2020, the immigrants flow has been estimated at 163.8 thousand persons, 60.5% being male.

## 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 February 2021, based on observed data from 2019. The time horizon of the projections is 2019-2100.

Population projections provide data on 31 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 416.07 million inhabitants.

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

-thousands persons[8]-

| | 2030 | 2040 | 2060 | 2080 | 2100 |
|---|---|---|---|---|---|
| **EU-27** | 449122 | 446755 | 432474 | 419260 | 416074 |
| Germany | 83454 | 83178 | 81843 | 82025 | 83202 |
| France | 68749 | 69802 | 69681 | 69425 | 69652 |
| Italy | 59943 | 59375 | 55990 | 52793 | 51416 |
| Spain | 48746 | 49377 | 48385 | 46299 | 45789 |
| Poland | 37018 | 35662 | 32520 | 29296 | 27655 |
| Netherlands | 17970 | 18186 | 18015 | 18020 | 17967 |
| Sweden | 11099 | 11693 | 12708 | 13353 | 13660 |
| **Romania** | **17808** | **16576** | **14541** | **13110** | **12781** |
| Belgium | 11758 | 11895 | 11866 | 11837 | 11854 |
| Czechia | 10762 | 10625 | 10414 | 10097 | 10207 |
| Austria | 9149 | 9292 | 9293 | 9233 | 9237 |
| Hungary | 9619 | 9441 | 9117 | 8789 | 8714 |
| Greece | 10303 | 9911 | 9038 | 8324 | 8143 |
| Portugal | 10089 | 9787 | 8911 | 8193 | 7981 |
| Ireland | 5504 | 5905 | 6399 | 6554 | 6611 |
| Denmark | 5964 | 6056 | 6123 | 6197 | 6247 |
| Bulgaria | 6450 | 6017 | 5333 | 4842 | 4738 |
| Finland | 5519 | 5426 | 5151 | 4922 | 4716 |
| Slovakia | 5441 | 5312 | 4954 | 4517 | 4346 |
| Croatia | 3828 | 3612 | 3195 | 2907 | 2776 |
| Slovenia | 2106 | 2082 | 1989 | 1903 | 1888 |
| Lithuania | 2576 | 2340 | 1960 | 1739 | 1680 |
| Estonia | 1308 | 1282 | 1225 | 1167 | 1145 |
| Cyprus | 963 | 1013 | 1074 | 1110 | 1118 |
| Latvia | 1713 | 1536 | 1275 | 1117 | 1082 |
| Luxembourg | 693 | 739 | 783 | 787 | 781 |
| Malta | 589 | 635 | 694 | 706 | 689 |

Source: Eurostat, Population projections at national level: https://ec.europa.eu/eurostat/web/population-demography-migration-projections/population-projections-data

[8] *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 2021, in the classification according to the size of the population of the European Union, the first 7 countries are Germany, France, Italy, Spain, Poland, Romania and the Netherlands, in 2100 the ranking of the countries will change significantly. However, Germany will remain in the first three places, with a population forecast for the year 2100 at 83.2 million inhabitants, the second place will be France with a population estimated at 69.7 million inhabitants and Italy will be placed on the third place with 51.4 million inhabitants. It should be noted that Eurostat's projections do not include the population of the United Kingdom, which has left the EU in 2020. This has led all countries to rise in the ranking by population size by one place. Romania's projected population will be estimated at 12.8 million inhabitants, down by about 6.4 million compared to 2021. According to the demographic projection made by Eurostat at the horizon of 2100, our country will be ranked 8th in the ranking of EU countries by population, preceded by Netherlands and Sweden*.

**Figure 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
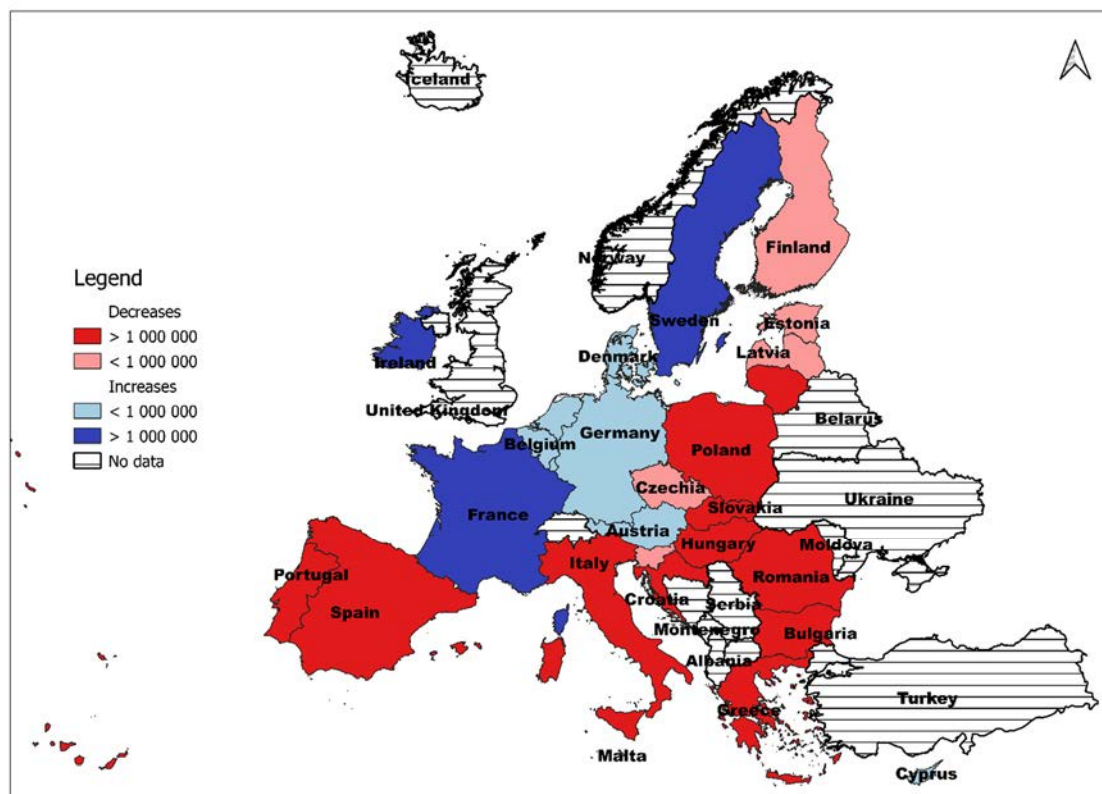
Romania's population decline will be accompanied by changes in the age structure of the population. The young population aged 0-14 will decrease substantially in the period 2021-2100, of about 1.2 million persons, and the share of young persons in the total population

will decrease from 15.5% (in 2021) to 13.5% (in 2100). The working age population of 15-64 will decrease by 2100 by 5.4 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 65.0% in 2021 to 64.2% in 2032, after which it will start to decrease sharply, in 2100 reaching 54.8% of the total population. The population aged 65 and over, is expected to increase from 3.7 million persons in 2021 to 4.0 million persons in 2100. The share of the elderly population in the total population will increase sharply from 19.5% (in 2021) to 31.7% (in 2100) which will lead to an increase in the degree of demographic aging of the Romanian population. The total dependency ratio of the young and elderly population will increase from 54 young and old persons (in 2021) to 82 young and old persons (in 2100), compared to 100 adults aged 15-64. Compared to 2021, when there were 1.9 times more persons aged 15-64 than young and old persons combined, in 2100, the proportion will decrease to 1.2 times.

## 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.

The evolution of vital events in 2020 was directly influenced by the evolution of the pandemic generated by the COVID-19 virus.

## 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 rate[9] 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 2020 marks a significant decrease in the number of live births, being registered 178.6 thousand live births with their legal address or usual residence in Romania, the lowest number of live births from 1930 to date. Compared to 2010, the number of live births was lower by 33.6 thousand live births and by 24.5 thousand fewer live births compared to 2019. In 2020, in urban areas, the number of live births was higher than in rural areas (with 11.8 thousand live births).

In the period 2010-2020, the birth rate had an oscillating evolution, noting a sharp decrease between 2010 and 2011 (from 9.4 live births per 1000 inhabitants to 8.7 live births per 1000 inhabitants). Subsequently, the oscillations continued almost sinusoidally, the period 2012-2018 registering a minimum birth rate of 9.1 live births per 1000 inhabitants in 2014 and a maximum of 9.7 live births per 1000 inhabitants in 2017 and 2018, followed by a decrease in the birth rate which, in 2020, in the context of the evolution of the COVID-19 pandemic, dropped to 8.1 live births per 1000 inhabitants.

**Figure 1.14. Live-birth rate, during 2010-2020**
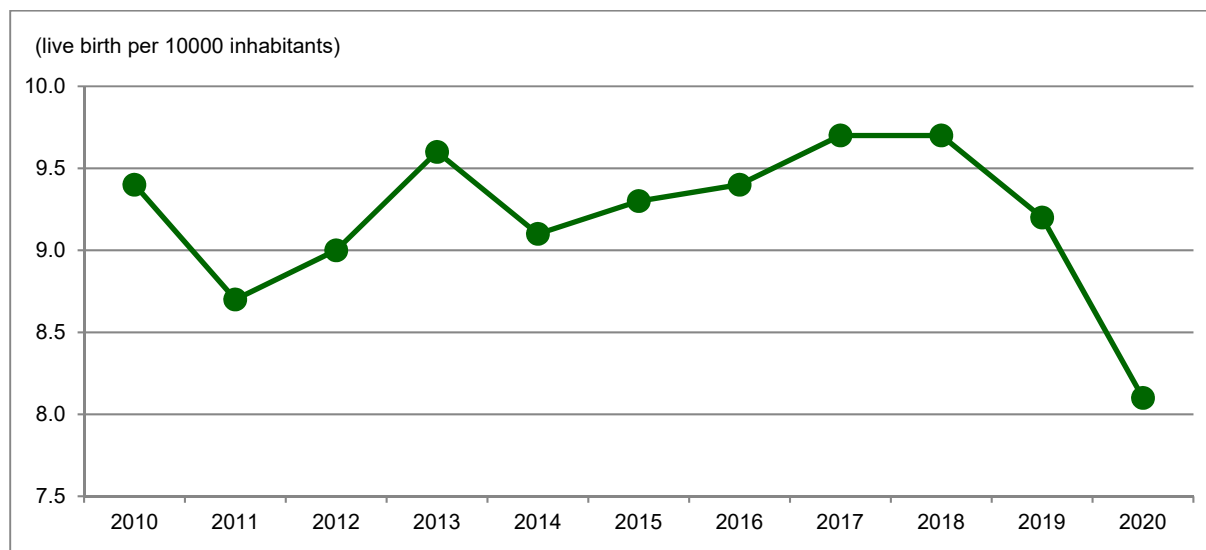


Source: NIS, Demographic statistics
Note: See footnote no. 9.

[9] *Until 2011, the number of live-births also included the live-births whose mothers had their legal address in Romania. Since 2012, it also includes the live-births whose mothers had either their legal address or usual residence in Romania. For the period 2015-2018, the data were revised according to the revisions schedule of the NIS. The data for 2020 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.*

The study of nuptials is also of great importance in demography, because 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 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 have the material resources to live a decent life as a couple. 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 in recent years, which means that this decision no longer depends so much on the marital status, by the opinion or reproch 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 (50.7% and 31.6%, respectively, in 2020).

**Figure 1.15. Distribution of live-births, by live-birth order, in 2020**
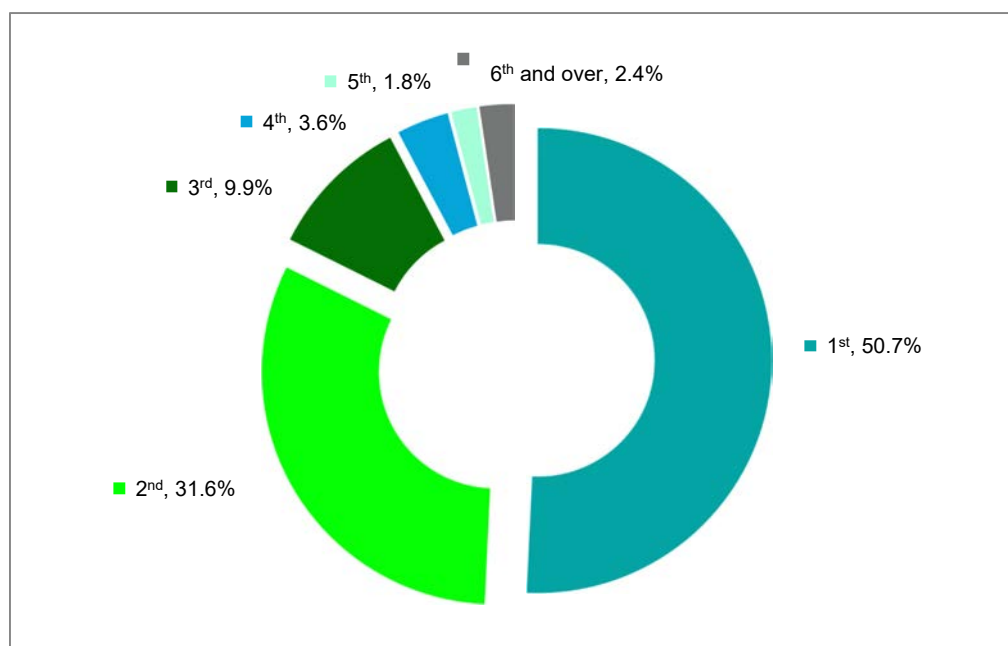


Source: NIS, Demographic statistics

Note: For 2020 includes the live-births whose mothers had the legal address or usual residence in Romania and data are semi-final.

Only 1.8% of live births in 2020 are children of rank V. Compared to 2010, the number of live births of rank VI and over decreased, their share being in 2020 of 2.4% (with 0.3 percentage points lower than in 2010). 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 2010-2020**
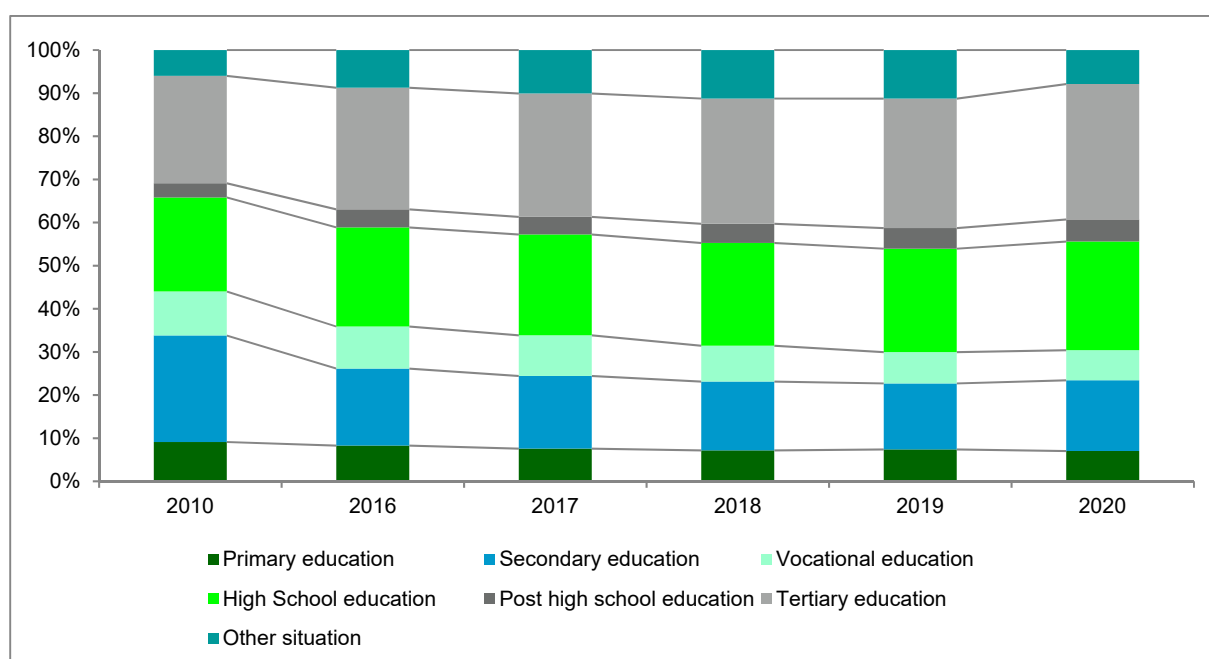


Source: NIS, Demographic statistics

Note: Until 2011, the number of live-births also included the live-births whose mothers had the legal address in Romania. Since 2012, it also includes the live-births whose mothers had the legal address or usual residence in Romania. For the period 2015-2018, the data were revised according to the revisions schedule of the NIS. The data for 2020 are semi-final.

The distribution of live births by mother's level of education shows a 6.5 percentage point increase in the share of live births with mothers with tertiary education in 2020 compared to 2010, while the share of live births whose mothers most high school graduates dropped from 33.8% in 2010 to 23.4% in 2020. Between 2010 and 2020, about a quarter of live birth mothers had a high school education level.

### 1.6.2. Mortality rate and infant mortality rate

- **Mortality rate**[10]

In the context generated by the COVID-19 pandemic, which largely affected the vulnerable and old age population, in 2020 there were 297.3 thousand deaths, the highest number of deaths recorded after 1947.

In the period 2010-2020, the general mortality rate in Romania remains at a relatively constant value, with values ranging between 11.2 deaths per 1000 inhabitants in 2011 and 12.0 deaths per 1000 inhabitants in 2018. The increase of number of deaths in 2020 led to an increase in the overall mortality rate to 13.4 deaths per 1000 inhabitants. The number of deaths was higher in rural areas, but the gap between the two residence areas shows a continuous trend of narrowing.

**Figure 1.17. Evolution of mortality rates, by residence area, during 2010-2020**
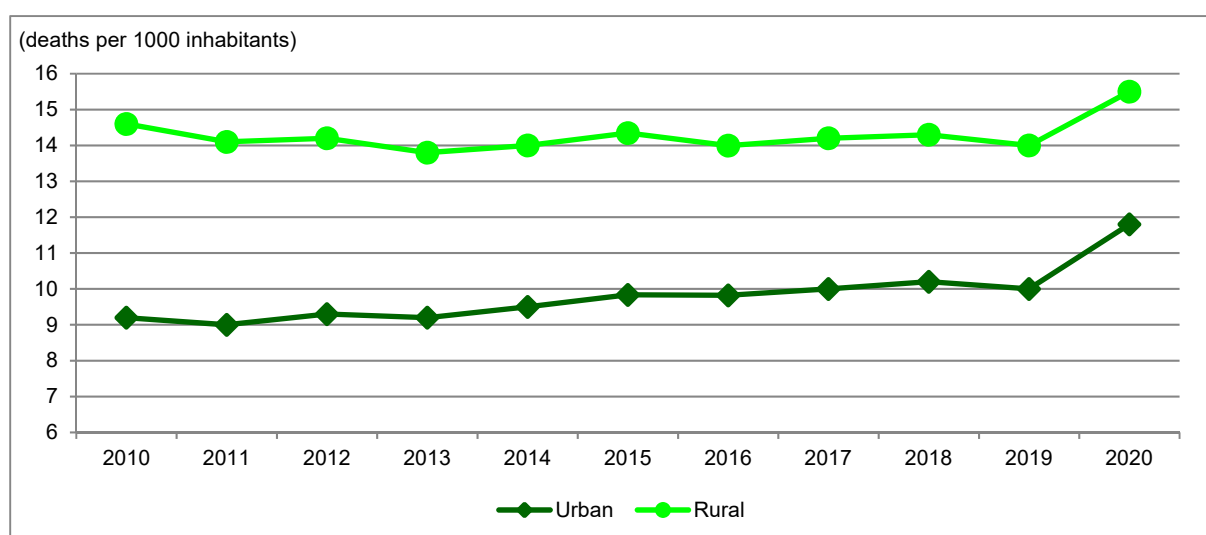


Source: NIS, Demographic statistics

Note: See footnote no. 10.

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[10] *Until 2011, the number of deaths also included the deceased people who had their legal address in Romania. Since 2012, it also includes the deceased persons who had either their legal address or usual residence in Romania. For the period 2015-2018, the data were revised according to the revisions schedule of the NIS. The rate for 2020 are provisional. The mortality rates were calculated based on the legal population on July 1st of the reference year.*

In the context of the COVID-19 pandemic, compared to 2010, in 2020 there were significant increases in deaths caused by some diseases, which led to changes in the structure of deaths by causes of death.

Thus, in 2020, compared to 2019, in the context of the COVID-19 pandemic, the share of deaths caused by respiratory diseases increased 1.9 times and 2.6 times compared to 2010, but the share of circulatory diseases decreased, that of tumors, that of diseases of the digestive system and that of traumatic injuries, poisonings and other consequences of external causes, compared both to 2019 and to 2010.

In Romania, in 2020, 92.6% of all deaths are caused by five large groups of diseases that have caused the leading cause of death[11]: 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 analyzed 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 2010-2020 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 than men. In 2020, compared to 2010, the mortality rate due to circulatory diseases increased by 43.4 deaths per 100000 inhabitants for men and by 36.8 deaths per 100000 inhabitants among women. In the period 2010-2020, the highest level of mortality due to circulatory system diseases was reached in 2020, for both men and women: 717.1 deaths per 100000 inhabitants in men and 752.4 deaths per 100000 inhabitants in 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

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

consequences) of external causes) are closely related to individual and collective habits and behaviors.

The trend in tumor mortality rates has been on the rise, both among men and women, with higher mortality rates of 12.6 deaths per 100000 inhabitants in 2020 compared to 2010 in the case of men and with 14.5 deaths per 100000 inhabitants among women.

However, the most significant increase in mortality rates in the context of the COVID-19 pandemic was in respiratory diseases, with a higher mortality rate among men than among women. Mortality due to this cause has increased in the case of men, from 73.4 deaths per 100000 inhabitants in 2010 to 215.7 deaths per 100000 inhabitants in 2020, and in the case of women from 40.6 deaths per 100000 inhabitants in 2010 to 134.6 deaths per 100000 inhabitants in 2020.

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 2020, the mortality rate due to this cause was 91.8 deaths per 100000 inhabitants for males and 47.6 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 2010-2020.

**Figure 1.18. Mortality rates, by cause of death and by sex, in 2010 and 2020**
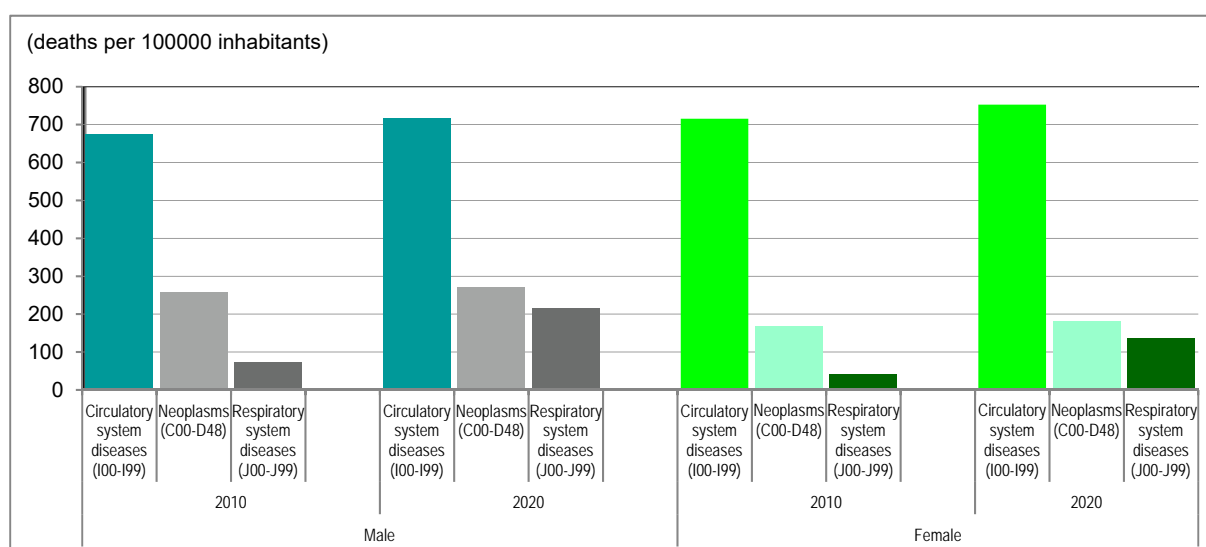


Source: NIS, Demographic statistics

Causes of death, according to the International Classification of Diseases - 10th revision, 1994 - World Health Organisation.
Note: For 2020 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.

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. Statistics on mortality rates by the five main causes of death and by area of residence in the period 2010-2020 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. In the period 2010-2020, mortality rates due to circulatory system diseases increased in urban areas (from 503.5 deaths per 100000 inhabitants to 587.0 deaths per 100000 inhabitants) and a decrease in rural areas (from 946.0 deaths per 100000 inhabitants per 926.9 deaths per 100000 inhabitants).

After circulatory system diseases, tumors are the second leading cause of death in Romania. In the period 2010-2020, by residence area, the intensity of mortality due to this cause increased from 207.5 deaths per 100000 inhabitants (in 2010) to 228.0 deaths per 100000 inhabitants (in 2020) in urban and from 216.0 deaths per 100000 inhabitants (in 2010) to 220.6 deaths per 100000 inhabitants (in 2020) in rural area. Mortality rates due to respiratory diseases, the third leading cause of death in Romania, increased in the period 2010-2019, both in urban area (by 27.5 more deaths per 100000 inhabitants) and in rural area (by 17.7 more deaths per 100000 inhabitants), but a significant increase in 2020 caused by the COVID-19 pandemic, from 43.3 deaths per 100000 inhabitants in 2010 to 177.7 deaths per 100000 inhabitants in 2020 in urban area and from 74.0 deaths per 100000 inhabitants in 2010 to 169.7 deaths per 100000 inhabitants in 2020 in rural area.

- **Infant mortality rate**[12]

In the period 2010-2020, infant mortality registered a continuous decreasing trend. However, for Romania, this issue remains a priority in the field of public health policies, given the still very high level of this rate (6.1 deaths under the age of 1 year per 1000 live births in 2020). 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 2010-2020, the sharpest reduction in the infant mortality rate was recorded in the case of deaths caused by respiratory diseases (from 2.8 deaths under 1 year of age per 1000 live births in 2010, to 1.4 deaths under 1 year of age per 1000 live births in 2020), the 2020 COVID-19 pandemic affecting very few children in this age group.

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[12] *Until 2011, the number of deaths under 1 year of age also included the deceased persons under 1 year of age who had their legal address in Romania, respectively the live-births whose mother had her legal address in Romania. Since 2012, it also includes 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 2015-2018, the data were revised according to the revisions schedule of the NIS. The data for 2020 are semi-final.*

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 2010-2020 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 34.4% in 2010 to 38.8% in 2020, and the share of deaths under 1 year due to birth defects, deformities and chromosomal abnormalities increased from 24.8% in 2010 to 25.1% in 2020.

### 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[13]. During 2010-2020, the natural change was permanently negative. The natural change improved in 2013, but in recent years the trend is again unfavorable, the value of the indicator evolved from -35.5 thousand persons (in 2013), to -57.2 thousand persons (in 2019), and by 2020, the COVID-19 pandemic will mark it, the high number of deaths and a low number of registered births, causing a negative increase twice as high as in the previous year, of -118.7 thousand persons.

**Figure 1.20. Evolution of the population's natural change, during 2010-2020**
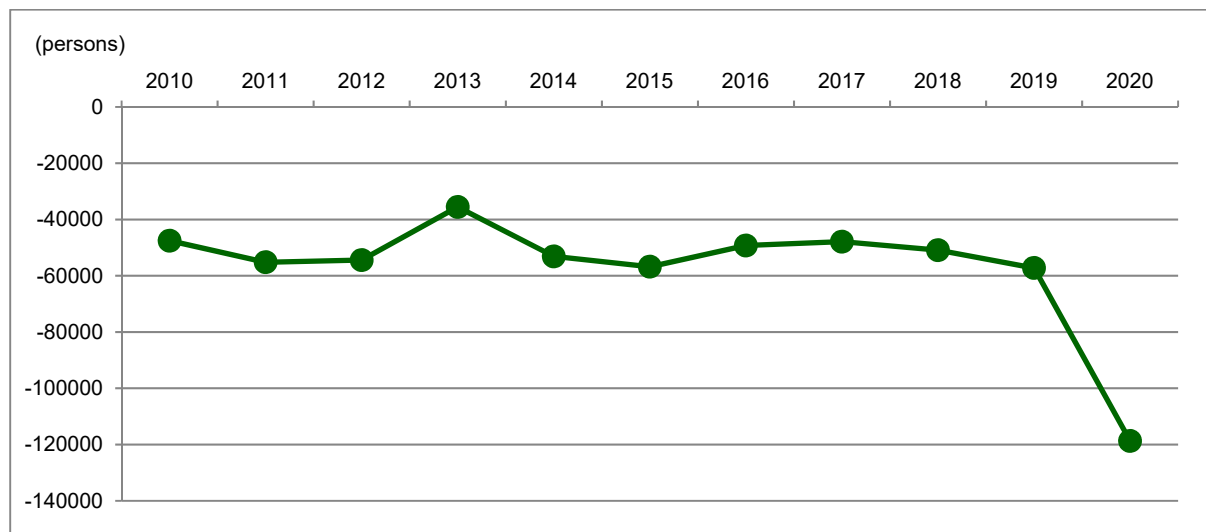


Source: NIS, Demographic statistics

In the period 2010-2020, the natural change was negative in both urban and rural area, except for the years 2010 and 2013, when a positive natural change was registered in urban area. In

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[13] *Until 2011, the number of deaths under 1 year of age also included the deceased persons under 1 year of age who had their legal address in Romania, respectively the live-births whose mother had her legal address in Romania. Since 2012, it also includes 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 2015-2018, the data were revised according to the revisions schedule of the NIS. The data for 2020 are semi-final.*

2020, the decreasing trend of natural change is maintained for both residence area, the absolute difference of natural change, between them, was 13.4 thousand persons and lower in urban area. The negative influence of the COVID-19 pandemic is also visible by residence area, in 2020 the negative natural change being higher than 3.9 times in urban area and 1.5 times in rural area, compared to values recorded in 2019.

**Figure 1.21. Population's natural change, by residence area, during 2010-2020**
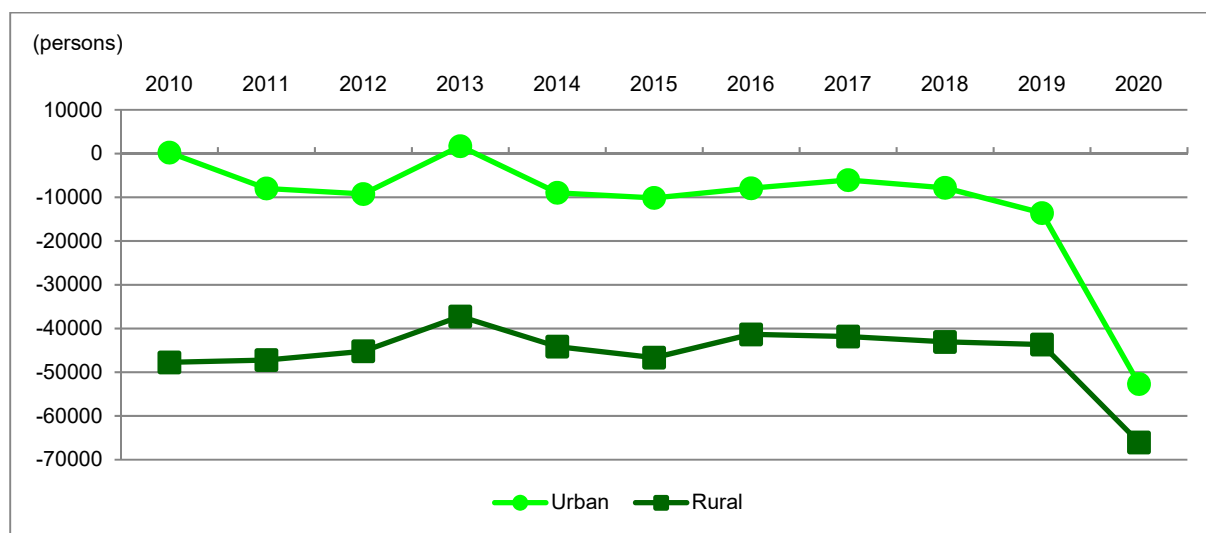


Source: NIS, Demographic statistics

Note: Until 2011, the number of deaths under 1 year of age also included the deceased persons under 1 year of age who had their legal address in Romania, respectively the live-births whose mother had her legal address in Romania. Since 2012, it also includes 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 2015-2018, the data were revised according to the revisions schedule of the NIS. The data for 2020 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.) from the point of view of general living standard.

Life expectancy at birth (or average life expectancy) of the Romanian population[14] has increased slightly in recent years for both sexes, both in urban and rural area. The indicator shows higher levels for women.

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[14] For the period 2015-2018 the data were revised according to the revisions schedule of the NIS. The data for 2020 are semi-final. Life expectancy at birth was calculated based on the legal population, the deceased persons (who had their legal address in Romania until 2011 and who had either their legal address or usual residence in Romania since 2012) and internal migration with the change of residence.

**Figure 1.22. Life expectancy at birth, by sex, during 2010-2020**
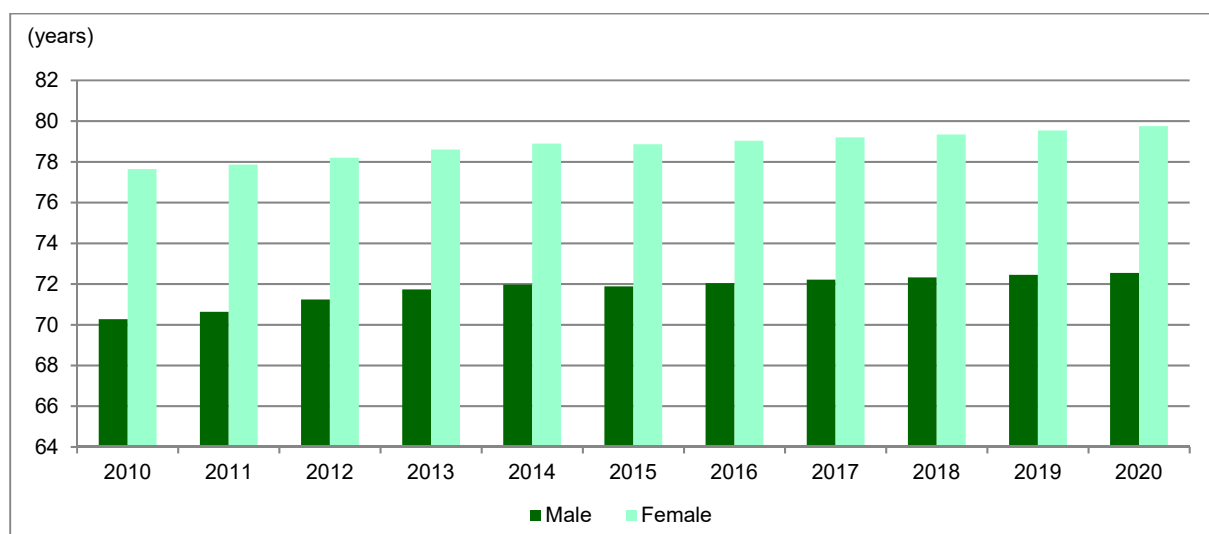


(years)

Source: NIS, Demographic statistics

Note: For the period 2015-2018 the data were revised according to the revisions schedule of the NIS. The data for 2020 are semi-final. Life expectancy at birth was calculated based on the legal population, the deceased persons (who had their legal address in Romania until 2011 and who had either their legal address or usual residence in Romania since 2012) and internal migration with the change of residence.

In 2020, the life expectancy at birth was 76.11 years for the entire population, 2.21 years longer than in 2010. For the entire period analyzed, there is a difference of 7 years between the average lifetime of women and men, in favor of women (79.75 years compared to 72.54 years, in 2020). By area of residence, there are also differences in the size of this indicator, life expectancy at birth being higher in urban areas. In 2020, the average life expectancy of persons in urban area was 77.44 years, 3.03 years longer than in rural area. In 2020, the lowest life expectancy was calculated for men in rural area (70.69 years).
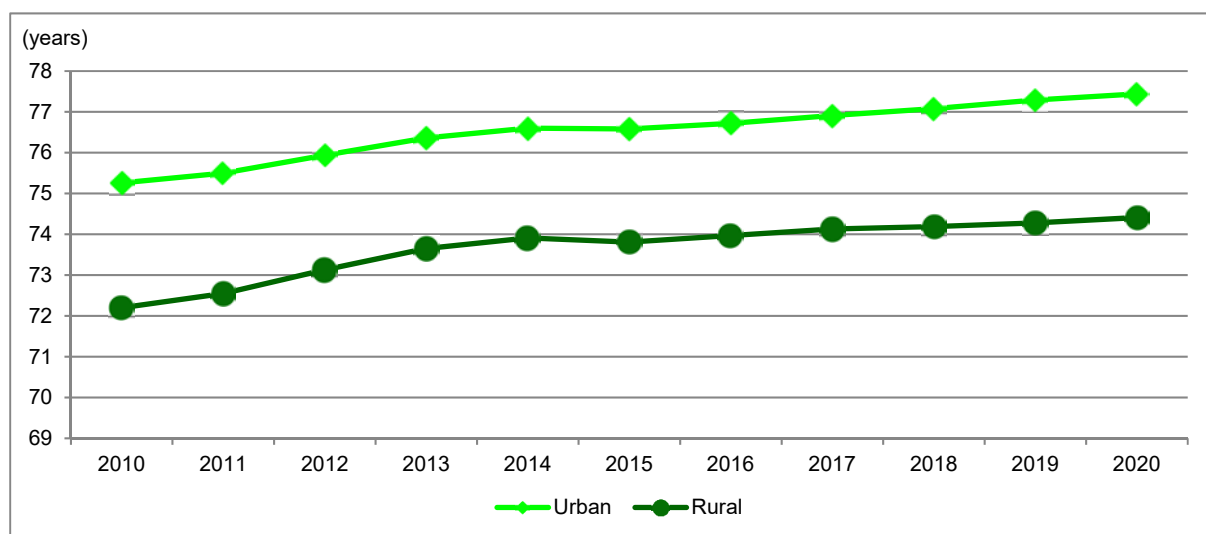
Source: NIS, Demographic statistics

Note: For the period 2015-2018 the data were revised according to the revisions schedule of the NIS. The data for 2020 are semi-final. Life expectancy at birth was calculated based on the legal population, the deceased persons (who had their legal address in Romania until 2011 and who had either their legal address or usual residence in Romania since 2012) 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 rate[15].

The fertility rate values decreased in the period 2010-2012, from 37.2 live births per 1000 women of fertile age (in 2010) to 35.6 live births per 1000 women of fertile age (in 2012). The year 2013 marks a return of the fertility rate, registering 38.2 live births per 1000 women of fertile age, followed by a period of decline, the largest decrease being recorded in the context

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[15] *Live births per 1000 women of fertile age (15-49 years).*
*Until 2011, the number of live-births also included the live-births whose mother had her legal address in Romania. Since 2012, it also includes the live-births whose mother had her legal address or usual residence in Romania. For the period 2015-2018, the data were revised according to the revisions schedule of the NIS. The data for 2020 are provisional. The calculation of fertility rates used the legal female population aged 15-49 years on July 1st of the reference year.*

of the COVID-19 pandemic, in year 2020, when the fertility rate was 34.0 live births per 1000 women of fertile age.

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, both in 2010 and in 2020. There is a trend to flattening in the distribution of fertility rates by age group, from 76.4 live births per 1000 women of fertile age (for the 25-29 age group) in 2010, to 78.3 live births per 1000 women of fertile age in 2020.

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 2010 and 2020**



Source: NIS, Demographic statistics

# *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, but are far from creating the framework for an efficient system, in accordance to the motto of the National health strategy 2014-2020 which is "health for prosperity".

The health of a country's population is monitored on the basis of the morbidity indicators. 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 analyze 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 State[1]. Healthy life expectancy at birth[2], in Romania, in 2019, was 59.9 years for men and 60.6 years for women and the life expectancy at birth, in 2020, was 70.5 years for men and 78.4 years for women. Thus, though life expectancy at birth for men in 2020 was 7.9 years lower than life expectancy of women and healthy life expectancy at birth for men in 2019 was 0.7 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 2011-2019**



Source: Eurostat, 2020, http://ec.europa.eu/eurostat/data/database.

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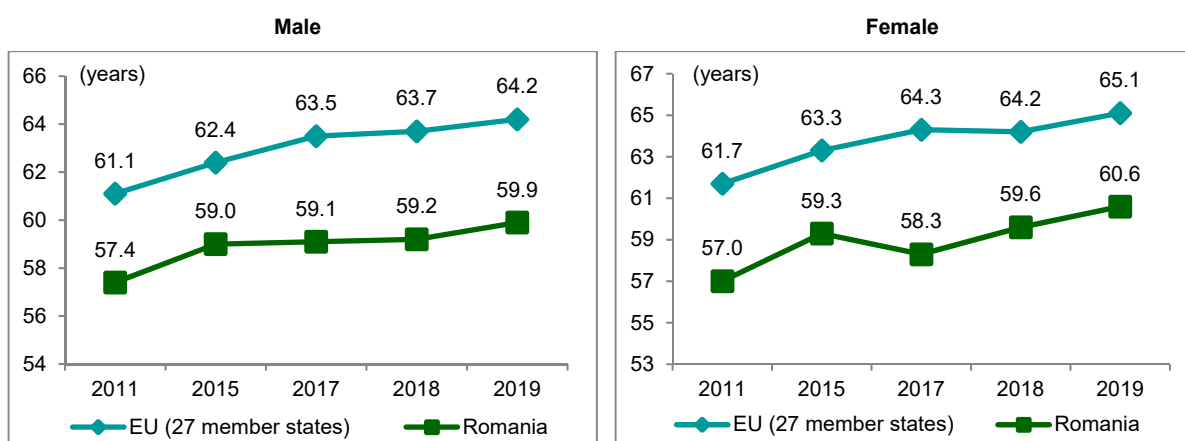
[1] *At national level, life expectancy is calculated on the basis of demographic (death) and population data from 3 consecutive years, on the basis of statistical data on deaths of persons who have their legal address or usual residence in Romania and the data on population by legal address on 1st January, 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 expectancy[3] at the age of 65 was, in Romania, in 2019, of 6.7 years for men and 6.5 years for women, significantly below the values of this indicator at EU-27 level, respectively of 10.4 years for women and 10.2 years for men. In 2019, Sweden and Malta had, in the case of healthy life expectancy at the age of 65, the largest values both for men (15.9 years, respectively 14.4 years) and women (16.6 years and 15.1 years respectively).

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 doctor. Thus, the primary medicine provided by family doctors 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 doctors, their incidence, by disease classes, shows an oscillating evolution during 2010-2020, the total number of new cases registering a maximum in 2011 (80.6 thousand new cases per 100 thousand inhabitants) and a minimum in 2020 (67.3 thousand new cases per 100 thousand inhabitants). One of the lowest incidence during this period was recorded in 2020, 8.8% lower as compared to 2019.

However, the data for 2020 must be seen in the context of the COVID-19 pandemic, of the measures taken by central and local authorities to prevent the spread of the virus, but also the measures that each person has tried to take maintaining social distance, but also avoiding or postponing to visit a doctor if the health problem was not a medical emergency.

The most common diseases for which the population visits the family doctor, 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 2010-2020, with some exceptions (2011 and 2015), from 33935.3 cases per 100 thousand inhabitants in 2010, to 21508.1 cases in 2020, while the incidence of digestive diseases registered in 2018 a decrease of 3.8%, for the first time after 3 years, followed by an increase of 8.4% in 2019, compared to the previous year (9178.5 new cases per 100 thousand inhabitants), then by another decrease in 2020 (8941.3 new cases per 100 thousand inhabitants*).*

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[3] *According to data published by Eurostat.*

**Figure 2.2. Incidence of some classes of diseases, declared by the family doctors, in 2020**



(new cases per 100000 inhabitants)
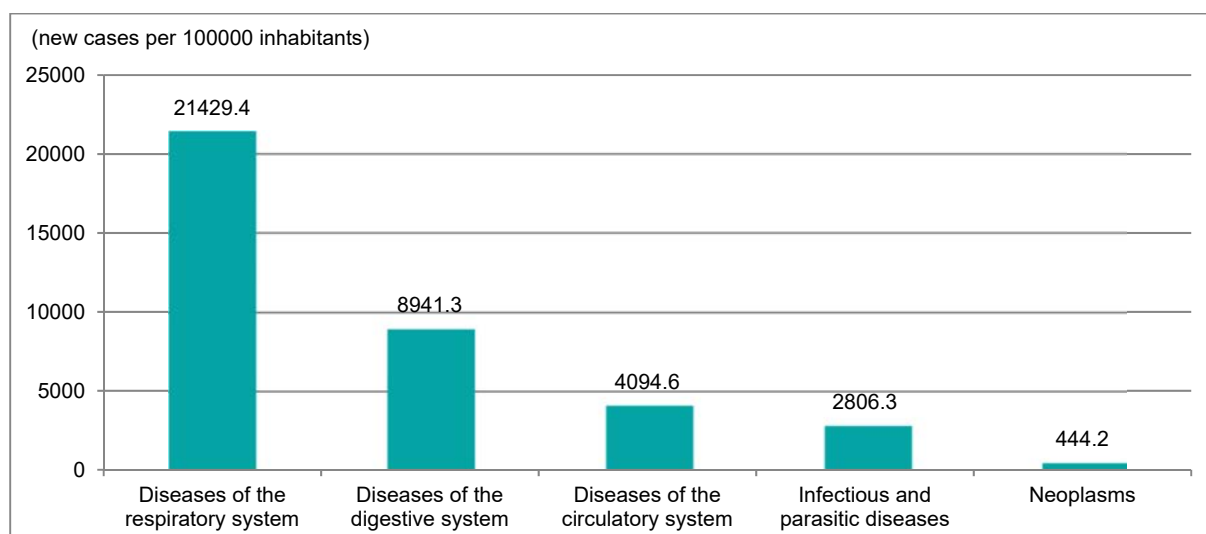
Source: Ministry of Health - National Institute of Public Health

Note: The indicators were calculated using the usual resident population on 1$^{st}$ July of each year, estimated under comparability conditions with the final results of the 2011 Population and Housing Census. The data are provisional.

As regards infectious and parasitic diseases, the data shows an oscillating trend of incidence during 2010-2020, with a maximum of 3030.8 new cases per 100 thousand inhabitants recorded in 2011 and a minimum of 2434.8 new cases in 100 thousand inhabitants recorded in 2018. The year 2020 is placed in the same range, with an incidence of 2806.3 new cases recorded per 100 thousand inhabitants.

**Figure 2.3. Incidence of certain infectious and parasitic diseases, during 2010-2020**



(new cases per 100000 inhabitants)
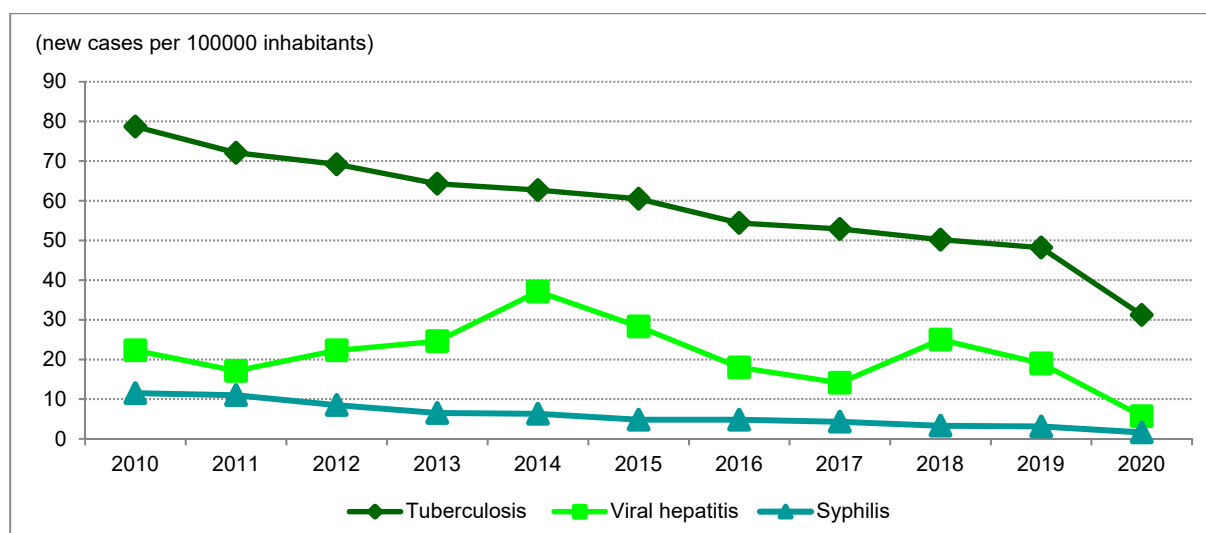
Source: Ministry of Health - National Institute of Public Health and the "Marius Nasta" Pneumophtisiology Institute

Note: The indicators were calculated using the usual resident population on 1$^{st}$ July of each year, estimated under comparability conditions with the final results of the 2011 Population and Housing Census. The data for 2020 are provisional.

During 2010-2020 there was a decrease of incidence of new cases of tuberculosis, from 78.7 to 31.1 new cases per 100 thousand inhabitants, respectively of syphilis cases, from 11.5 to 1.6 new cases per 100 thousand inhabitants. The frequency of new cases of viral hepatitis during the same period had an osccillant development, with a maximum of 37.1 new cases per 100 thousand inhabitants recorded in 2014 and a minimum of 5.7 new cases per 100 thousand inhabitants recorded in 2020. Over the last years, the incidence of viral hepatitis per 100 thousands inhabitants had a decreasing trend starting with 2018, when the incidence registered a new increase, reaching 25.0 new cases per 100 thousand inhabitants. The minimum incidence in 2020 can be explained by restrictive travel measures and intensified measures for infection prevention in the context of the COVID-19 pandemic.

It is noteworthy the significant increase in new cases of congenital malformations, deformities and chromosomal abnormalities, from 33.3 cases per 100 thousand inhabitants in 2010, to 62.1 cases in 2019, decreasing to 51.7 cases in 2020, as well as of certain diseases whose origin is in the perinatal period, from 15.0 cases per 100 thousand inhabitants in 2010, to 20.8 new cases in 2019, decreasing to 19.2 cases in 2020. Over the last years the number of new cases of neoplasms recorded annually has evolved significantly, from 337.6 cases per 100 thousand inhabitants in 2010, to 558.1 cases in 2019. In 2020, the incidence of cases of neoplasms recorded a decrease (459.2 cases per 100 thousand inhabitants), reaching below the level of the year 2014 (458.7 cases per 100 thousand inhabitants).

## 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 doctors' lists.

### 2.3.1. Outpatient 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 doctors.

**Figure 2.4. Rate of enrolment on a family doctors' list, during 2010-2020**
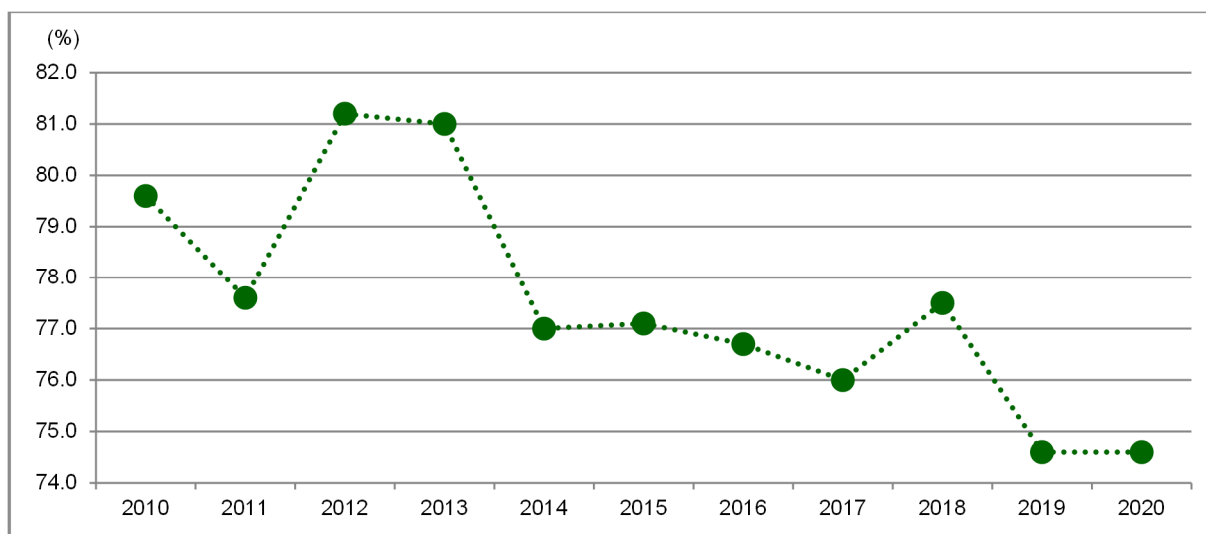
Note: Rates have been calculated using the legal population on 1st July of each year. The data for 2020 are provisional.

The rate of population enrolment on family doctors' lists has decreased over the last years, the highest rate of enrolment at the family doctors[4] during 2010-2020 has been recorded in 2012 (81.2%) and the lowest in 2020 (74.6%).

In 2020, at territorial level, the enrollment rate on the family doctor's list[5] ranged between a minimum of 61.4% in the North-East region and a maximum of 77.3% in the South-Muntenia region. In the Bucharest-Ilfov region, the enrollment rate on the family doctor's list was 74.3%. 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 2010, in hospital integrated ambulatory care facilities and in the specialised ambulatories, over 15 million consultations were provided, their number gradually decreasing in the next period, the average number of consultations during 2011-2018 was of 12.6 million per year. In 2019, 13.5 million consultations were provided in these facilities, and in 2020, in the context of the COVID-19 pandemic, when the population addressed the healthcare system in case of medical emergencies, rather than for preventive medical procedures, the population was provided with a number of 10.5 million consultations, representing a decrease of 22.3% compared to 2019.

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[4] The rate of enrolment on the family doctor list refer to the legal population in Romania and, at national level, include CASAOPSNAJ insured persons.
[5] The rate of enrolment on the family doctor list at territorial level, in 2019 and in 2020, do not include CASAOPSNAJ insurance holders for whom no data are available at territorial level.

**Figure 2.5. Distribution of outpatient consultations in the main types of healthcare units, in 2020**
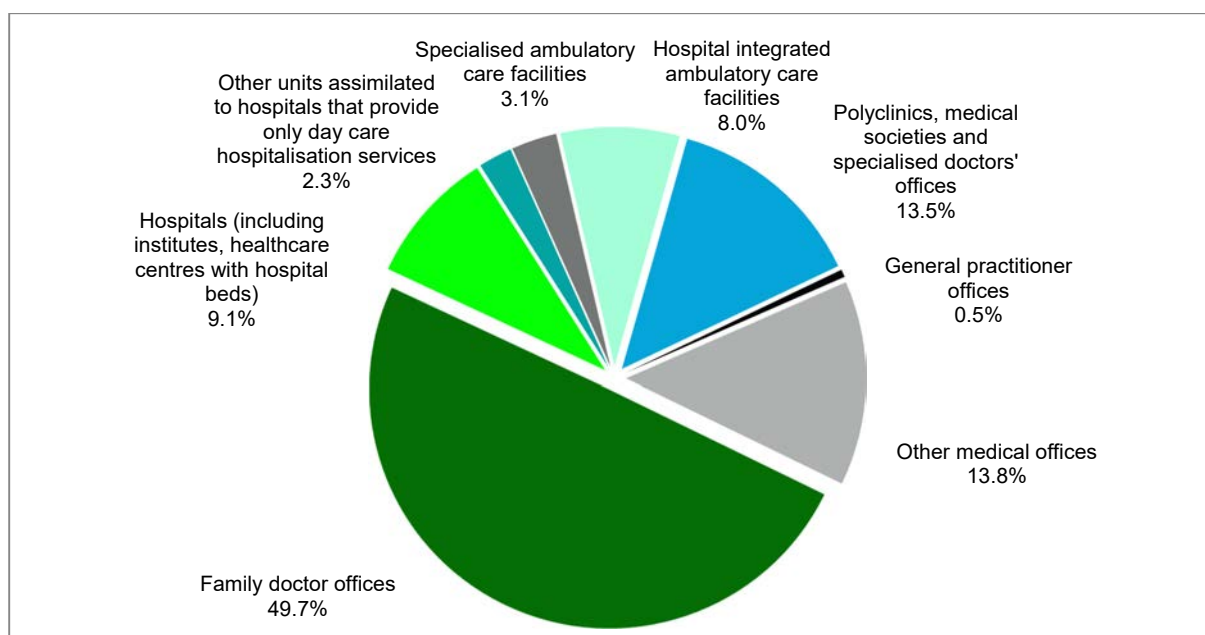


Source: NIS, Statistical survey "The activity of the medical and healthcare network"

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 specialised offices has decreased, from 14.3 million consultations in 2010, to 12.8 million consultations in 2020, recording the lowest values during 2014-2020 (12.1-12.4 million consultations). Also, outpatient services are provided to the population in other categories of healthcare units, such as specialised medical centers, diagnosis and treatment centers, multifunctional centers, balneary sanatoria or hospitals.

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 7.9% in 2010 and reached 11.6% in 2019, and in 2020 in the context of the pandemic it has decreased to 9.1%. The decrease observed in 2020 was due to the special attention paid by the healthcare system in hospitals to limit the spread and to treat COVID-19.

## 2.3.2. Healthcare services provided in hospitals

Healthcare services provided by hospitals are as 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, 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. In 2010 hospitals (both public and private) had 132.0 thousand beds for continuous hospitalisation, but the further restructuring of the healthcare system, mainly in the public system, led to the restructuring of the number of hospital beds, so that in 2012 hospitals had 129.6 thousand beds for continuous hospitalisation. Gradually, the network of hospitals and units assimilated to hospitals that provide continuous hospitalisation services has diversified, new smaller units with a small number of continuous hospitalisation beds being established, so that after 2012 the number of hospital beds has been slightly increasing every year, reaching in 2020 a number of 134.7 thousand beds for continuous hospitalisation, 2.7 thousand more compared to 2010.

**Figure 2.6. Evolution of the number of hospital beds, during 2010-2020**
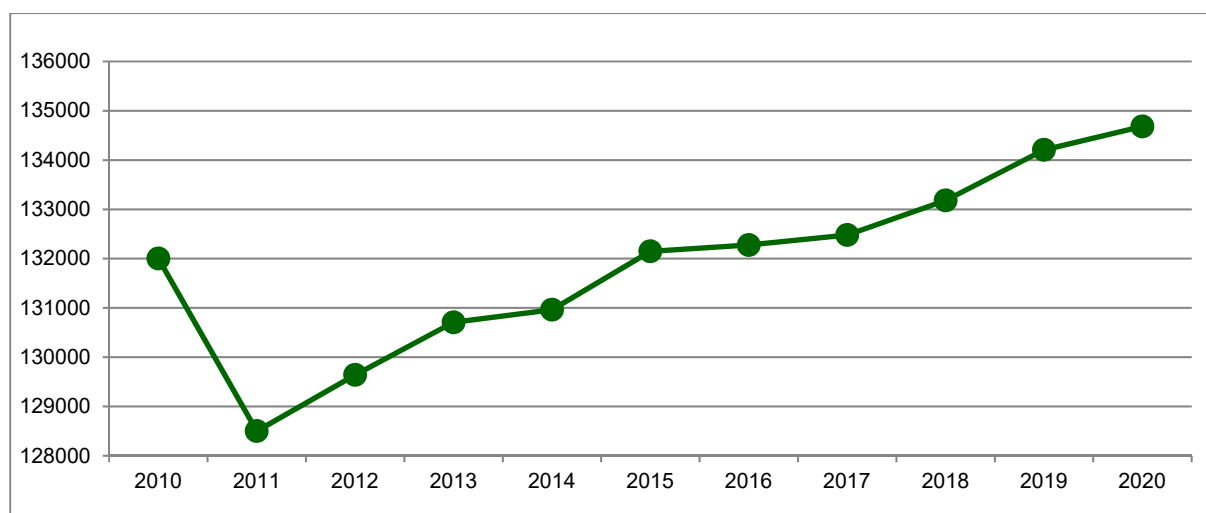


Source: NIS, "Activity of Sanitary Units" statistical survey. Starting with 2020, statistical survey "The activity of the medical and healthcare network"

As in the previous years, in 2020 a large number of beds is recorded for the specialities[6] internal medicine (25.6 thousand beds) and surgery (22.8 thousand beds), followed by psychiatry and neuropsychiatry beds (17.1 thousands beds) and obstetrics and gynaecology (8.6 thousand beds).

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[6] *1) Internal medicine includes beds for: internal medicine diseases (including beds for non-tuberculosis pulmonology diseases), endocrinology, occupational diseases, cardiology, rheumatology, diabetes mellitus, nutrition and metabolic diseases, gastroenterology, haematology and nephrology; 2) Surgery includes beds for: general surgery, maxillofacial surgery, infant surgery, plastic and reconstructive surgery, cardiovascular surgery, neurological surgery, thoracic surgery, endocrine surgery, oncological surgery, orthopedics-traumatology and urology; 3) The paediatric beds includes beds for paediatrics, distrophy (paediatric recovery) and non-tuberculosis pulmonology in paediatrics medicine; 4) Tuberculosis and pulmonary diseases includes beds for non-tuberculosis pulmonology diseases from TB wards and TB pulmonology beds; 5) The psychiatry and neuropsychiatry includes beds for psychiatry, neuropsychiatry and neuro-psycho-motor recovery; 6) Other medical specialties include beds for the chronically ill, geriatrics and gerontology, general medicine and other wards.*

Compared to 2010, in 2019 an increased number of beds were made available to patients for continuous hospitalisation in the following specialties:  A.I.C. (Anaesthesia and Intensive Care) (427 more beds), oncology (503 more beds), surgery (936 more beds) and recovery, physical medicine and balneology (2.4 thousand more beds).

In 2020, the structure of specialty beds has been significantly changed as a result of the measures taken for treating the COVID-19 patients, by redistributing the necessary beds, especially to the infectious diseases specialty. For handling the pandemic, in 2020, the specialties for which hospitals have allocated more beds for continuous hospitalisation, both compared to 2010 and 2019, are infectious diseases (more than 1.4 thousand beds, compared to 2010 and with 1.6 thousand beds, compared to 2019) and  A.I.C. (968 more beds, compared to 2010 and 541 more beds, compared to 2019).

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 2020**
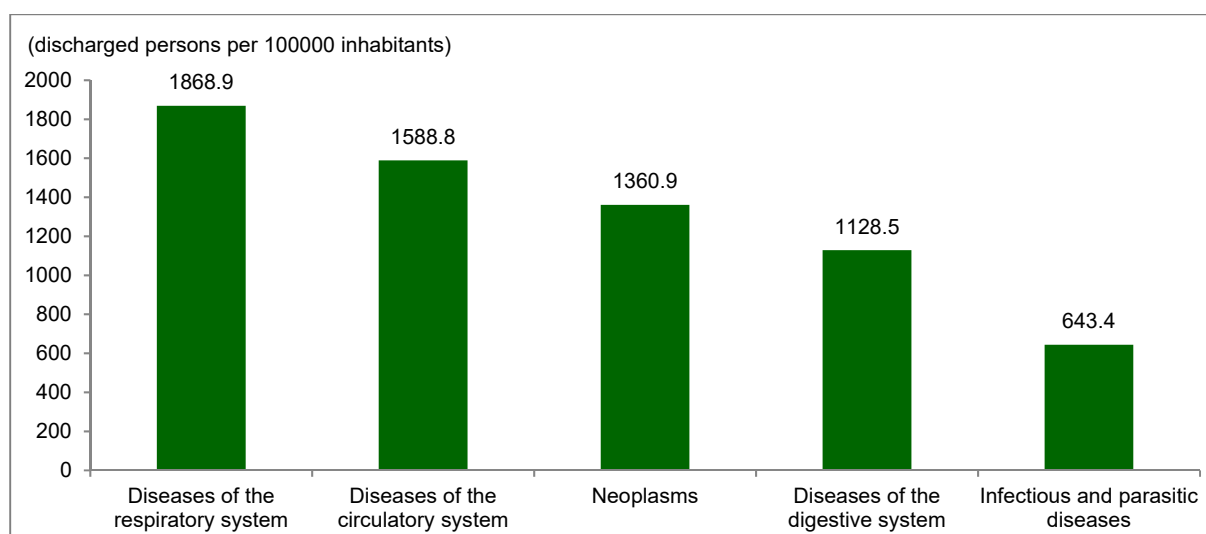


Source: National School of Public Health, Management and Professional Development

Note: The indicators were calculated using the usual resident population on 1st July of each year, estimated under comparability conditions with the final results of the 2011 Population and Housing Census. Data are provisional. Data refers to patients discharged from continuous hospitalisation.

From data on the number of outpatients (excluding day cases) 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 2010-2020 most of them were treated being diagnosed (main diagnoses) with diseases of the circulatory, respiratory and digestive systems. At the same time, neoplasms represented the third diagnosis among patients discharged from the continuous hospitalisation, in 2020 this diagnose had a frequency of 1.4 thousand patients discharged per 100 thousand inhabitants, decreasing by 36.6%

compared to 2019. In 2020 the number of patients discharged, whose main diagnosis were respiratory diseases, was 1.9 thousand persons per 100 thousand inhabitants, and in the case of circulatory diseases 1.6 thousand persons per 100 thousand inhabitants.

The average length of hospitalisation has increased during the analysed period, from 7.4 days in 2010, to 7.9 days in 2020, considering that over the last years it has decreased from 7.5 days to 7.2 days, the shortest hospitalisation length during 2010-2019. Taking into account the main causes of illnesses that determine discharging, the class of diseases with the highest average lenght of hospitalisation is that of infectious and parasitic diseases, the average length of hospitalisation decreasing, however, in this period from 12.5 days of hospitalisation in 2010 to 11.4 days of hospitalisation in 2020). This indicator should be analyzed in the context of the pandemic, when access to healthcare facilities was done according to stricter medical criteria, the intensified actions of informing the population about addressing, firstly, to the family doctor or specialist to allow the access to hospitals only in severe cases, which require a longer period of hospitalisation, has changed the behavior of the population who, in order to protect themselves from COVID-19 disease, have often preferred to postpone some medical interventions that required hospitalisation and rules on physical distance were imposed.

### 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, be it in any way.

Since 2020 up to present, inequalities remained in terms of access of the population to healthcare services between the residence areas (rural and urban), as well as inequalities between different development regions. The indicators that can highlight disparities in the access to healthcare services are the number of inhabitants to a health professional and the number of outpatient consultations, by residence area and in various development regions.

In 2010, on average there were 1677 inhabitants to a physician[7] in the rural area, almost 7 times more than in the urban area. In 2020, the number of inhabitants to a physician in the rural area was 1591 inhabitants, representing a decrease of over 5% compared to 2010 and

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[7] *Dentists excluded*

an increase of 1,2% compared to 2019. Although the situation has improved, the population access to physicians in the rural area has not evolved at the same level as in the urban area where, compared to 2010, the number of inhabitants to a doctor decreased by over 26% (from 234 inhabitants to a doctor in 2010, to 172 inhabitants in 2020) and compared to 2019 by 5%. A similar situation is recorded also for dentists where, in 2010, the number of inhabitants to a dentist was 961 inhabitants in urban area and over 6 times higher in rural area (5738 inhabitants). The situation has evolved positively in both residence areas, but disparities remain significant. Thus, in 2020, there were 635 inhabitants to a dentist in urban area and in rural area 4113 inhabitants, that is over 6 times higher.

Disparities also remain in terms of the number of pharmacists and ancillary healthcare staff, in 2020 the number of inhabitants to a pharmacist in rural area being 4 times higher than in urban area, while the number of inhabitants to an ancillary healthcare professional is 7 times higher in rural area, compared to urban area.

**Figure 2.8. Average number of inhabitants per one healthcare staff, by residence area, in 2020**
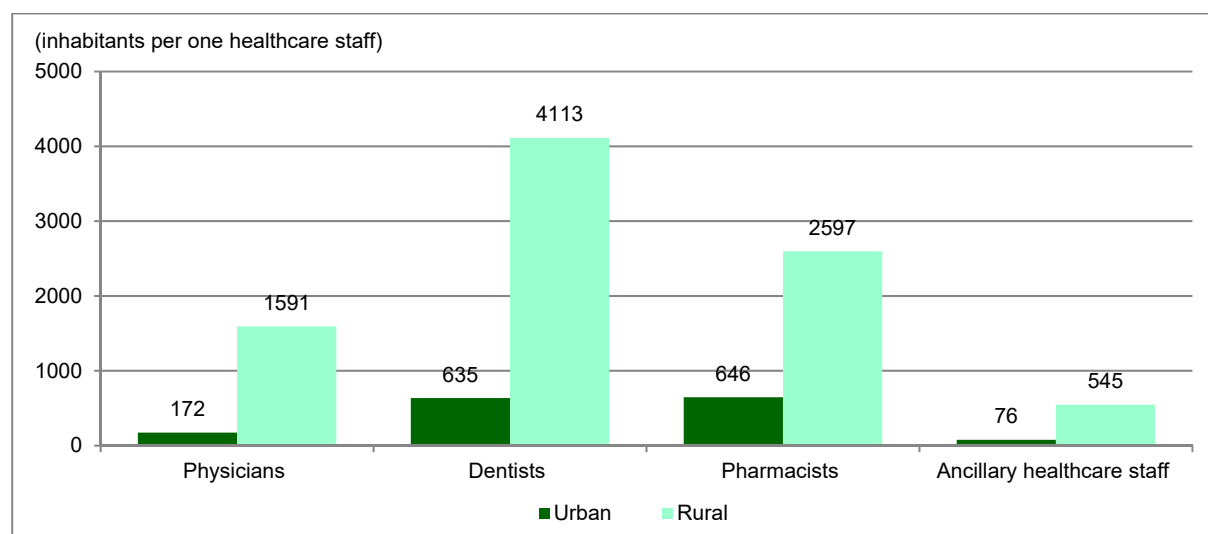


Source: NIS, statistical survey "The activity of the medical and healthcare network"

Note: The indicators were calculated using the usual resident population on 1st July of each year, estimated under comparability conditions with the final results of the 2011 Population and Housing Census. Data are provisional.

The disparities between residence area can be also observed for consultations provided as outpatient services. In 2020, the number of consultations provided to patients with legal address in the urban area was about twice as high, provided that the number of persons with legal address in the rural area is almost as numerous as in the urban area.

The population access to healthcare services differ - between urban and rural area – and at territorial level. Thus, in 2020, in all regions of the country the number of outpatient consultations provided to persons with usual residence in urban area was higher. It is however

worth mentioning the South-Muntenia region, where disparities between the residence area in 2020 were only 6.0 percentage points in favour of the urban area. It should also be noted that, although the largest disparities by residence area in 2020 were recorded in the Bucharest-Ilfov region, this is an exception, given that the rural area is only in Ilfov county, which is not a large county in terms of population.

**Figure 2.9. Outpatient consultations, by legal address area and development region, in 2020**



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 result from the fact that the private sector can offer high quality services and technical performance, being mainly influenced by the increased demand for healthcare units and by the development of private health insurance segment purchased by population or paid by employers. More and more patients choose private healthcare establishments, either through services reimbursed by the National Health Insurance House, or by means of private healthcare insurance, or even by direct out-of-pocket payments.

However, although subject to an exponential increase in recent years, the private healthcare system is, in terms of size, behind the public healthcare system.

In 2020, there were 535 hospitals in our country, most of them in the public sector (70.3%). However, the number of public hospitals decreased from 428, as recorded in 2010, to 376 in 2020. At the same time, the number of hospitals in the private sector has increased significantly, and their typology is more diversified, leading to the need for their separate identification in the public statistics. Thus, in 2020, in the private sector were registered 148 healthcare units, assimilated to hospitals, equipped with a small number of beds for day hospitalisation, which offered only day hospitalisation services for a variety of medical specialties.

## 2.4.2. Healthcare staff[8]

The number of physicians increased continuously during 2010-2020, the increase being of 25.9%, from 52.2 thousands physicians in 2010 to 65.7 thousands in 2020. In the context of the evolution of the COVID-19 pandemic during 2020, the overburdening of hospitals and medical staff, the number of physicians has increased by 2437 compared to 2019, the most obvious increases being directly correlated with the pandemic and highlighted by the increases in the number of 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 2010-2020
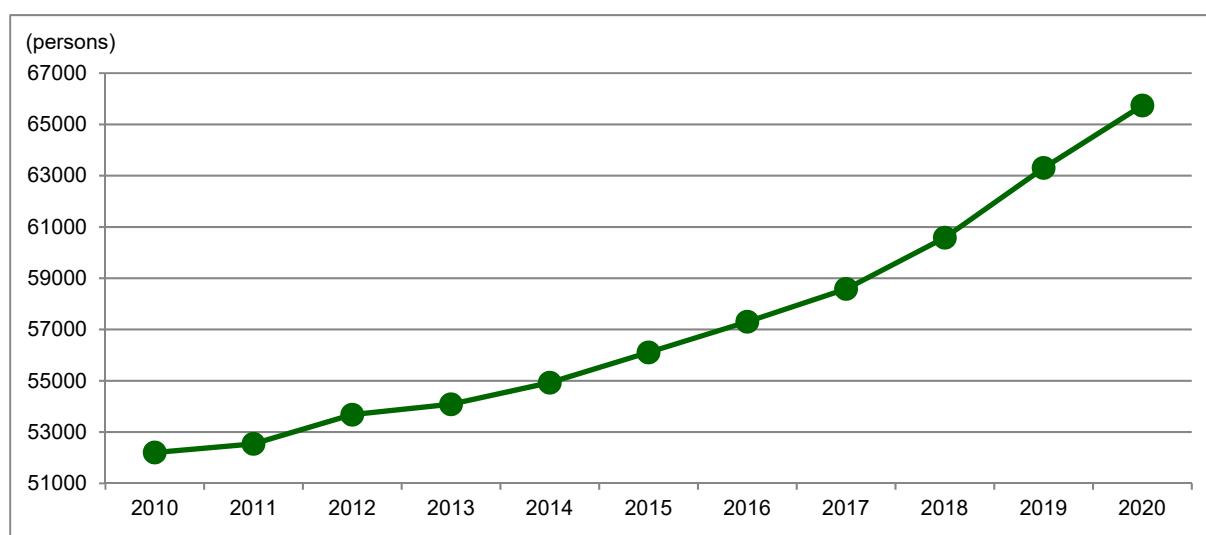


Source: NIS, "Activity of Sanitary Units". Starting with 2020, statistical survey "The activity of the medical and healthcare network"

[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 2020, family doctors represented 18.9% (12424 persons) of the total number of physicians (65740 persons).

The number of dentists increased during 2010-2020, from 13.0 thousands dentists in 2010 to 18.5 thousands in 2020. Another significant increase during 2010-2020 has been recorded among pharmacists, their number reaching 19.5 thousands in 2020, an increase with 7.6% compared to the previous year.

The evolution of the number of ancillary healthcare staff had also an increasing tendency, from 126.7 thousand persons in 2010, to 152.7 thousand persons, in 2020.

During 2010-2020, the number of healthcare staff per 10,000 inhabitants increased from 25.8 physicians, 6.4 dentists, 6.7 pharmacists and 62.6 ancillary healthcare professionals in 2010, to 34.1 doctors, 9.6 dentists, 10.1 pharmacists and 79.3 ancillary healthcare professionals in 2020.

**Figure 2.11. Main categories of healthcare staff per 10000 inhabitants, in 2020**



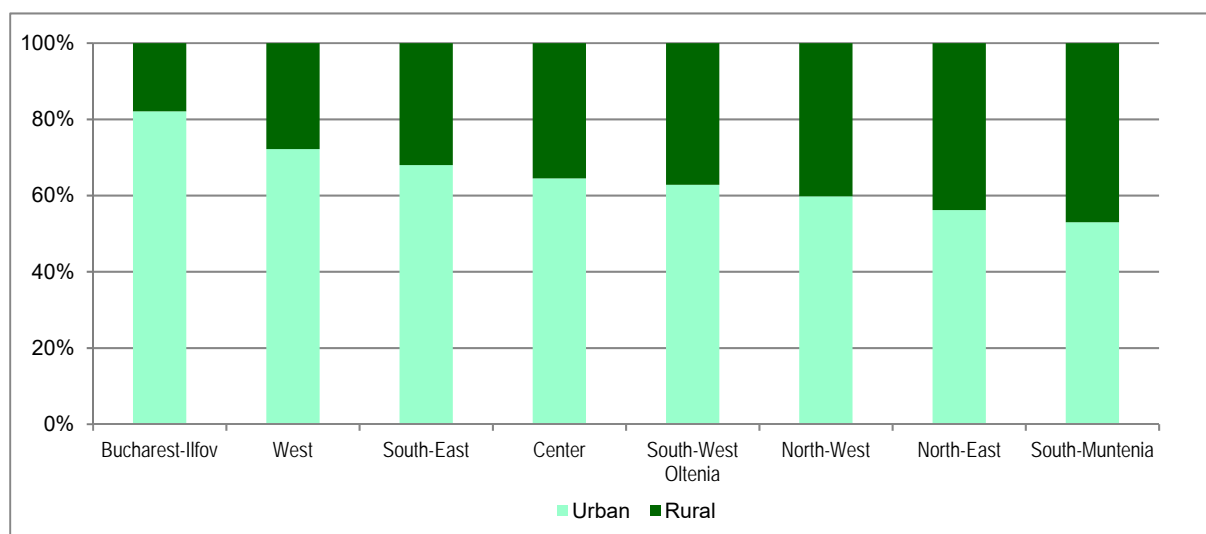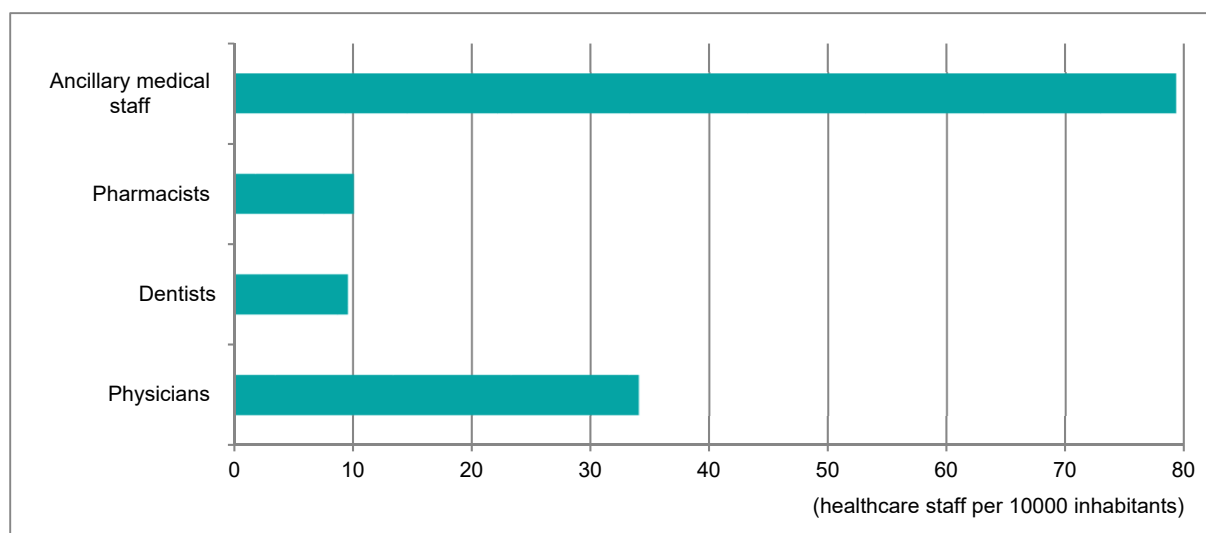Source: NIS, statistical survey "The activity of the medical and healthcare network"

Note: The indicators were calculated using the usual resident population on 1st July of each year, estimated under comparability conditions with the final results of the 2011 Population and Housing Census. Data are provisional.

The expanding demand for private healthcare services entailed the increased need for medical staff, a need met by recruiting staff, employment of part-time specialists or even by the migration of healthcare professionals from the public to the private sector.

## 2.4.3. Expenditure of the healthcare system

The healthcare system capacity to meet the citizens healthcare needs is limited by various factors, out of which under-funding is just one of the most discussed. During 2011-2019 the current expenditure in the healthcare system increased by 131.3%, reaching 60.8 billion lei in 2019. Current healthcare expenditure is financed from various sources, the main source being

the schemes of public administration and the funding schemes based on compulsory contributions to the health insurance scheme. During 2011-2019 the share of the public financing schemes in the financing of the healthcare system has increased from 75.3% in 2011 to 80.4% in 2019.

**Table 2.1. Healthcare expenditure, by main financing source, during 2011-2019**

-million lei-

| Healthcare financing sources - HF | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| **Government schemes and compulsory contributory healthcare financing schemes** | **19775.8** | **21548.0** | **26179.2** | **26566.8** | **27479.9** | **29928.4** | **34755.4** | **42194.5** | **48900.8** |
| - Government schemes | 2579.1 | 2795.4 | 4264.3 | 4442.9 | 4755.8 | 5003.2 | 6843.5 | 8485.7 | 9385.7 |
| - Compulsory contributory healthcare insurance financing schemes | 17196.6 | 18752.6 | 21914.9 | 22123.8 | 22724.1 | 24925.2 | 27911.9 | 33708.8 | 39515.1 |
| **Voluntary healthcare payment schemes** | **123.4** | **181.9** | **160.0** | **232.0** | **245.1** | **350.4** | **379.9** | **429.3** | **411.7** |
| - Voluntary health insurance schemes | 40.5 | 60.7 | 60.7 | 78.3 | 98.8 | 181.3 | 240.5 | 288.4 | 268.5 |
| - Non-profit institutions serving households (NPISH) financing schemes | 50.1 | 94.2 | 72.1 | 115.5 | 125.3 | 143.6 | 93.2 | 91.9 | 96.9 |
| - Enterprises financing schemes | 32.8 | 27.1 | 27.3 | 38.2 | 21.1 | 25.4 | 46.3 | 49.0 | 46.3 |
| **Household out-of-pocket payment** | **6379.4** | **6282.7** | **6657.5** | **6831.6** | **7495.6** | **7930.3** | **9053.5** | **10297.1** | **11475.0** |
| - Out-of-pocket payments, excluding co-payments | 5005.2 | 4771.4 | 5130.9 | 5131.1 | 5719.5 | 5929.3 | 6953.3 | 8084.3 | 9176.8 |
| - Cost-sharing, with third payers | 1374.3 | 1511.3 | 1526.6 | 1700.5 | 1776.1 | 2001.0 | 2100.2 | 2212.9 | 2298.2 |
| **Current healthcare expenditure** | 26278.7 | 28012.6 | 32996.8 | 33630.4 | 35220.7 | 38209.1 | 44188.8 | 52920.9 | 60787.5 |

Source: NIS, System of Health Accounts in Romania

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 expenses for the purchase of medical goods and services increased by 79.9% over the last nine years, from 6.4 billion lei in 2011, to 11.5 billion lei in 2019, but their share in the total of current expenses has decreased from 24.3% in 2011, to 18.9% in 2019.

Insufficiently developed in our country, voluntary healthcare payments schemes are financing an insignificant share of the population's healthcare costs, representing 0.7% of total current expenditure in 2019.

During 2011-2019, from the healthcare service providers point of view, the most important healthcare expenditures were registered for services provided in hospitals (45.2% in 2019), followed by those for the suppliers of medical goods (26.2%) and for providers of outpatient services (15.5%).

**Figure 2.12. Current healthcare expenditure, by main categories of providers, during 2011-2019**
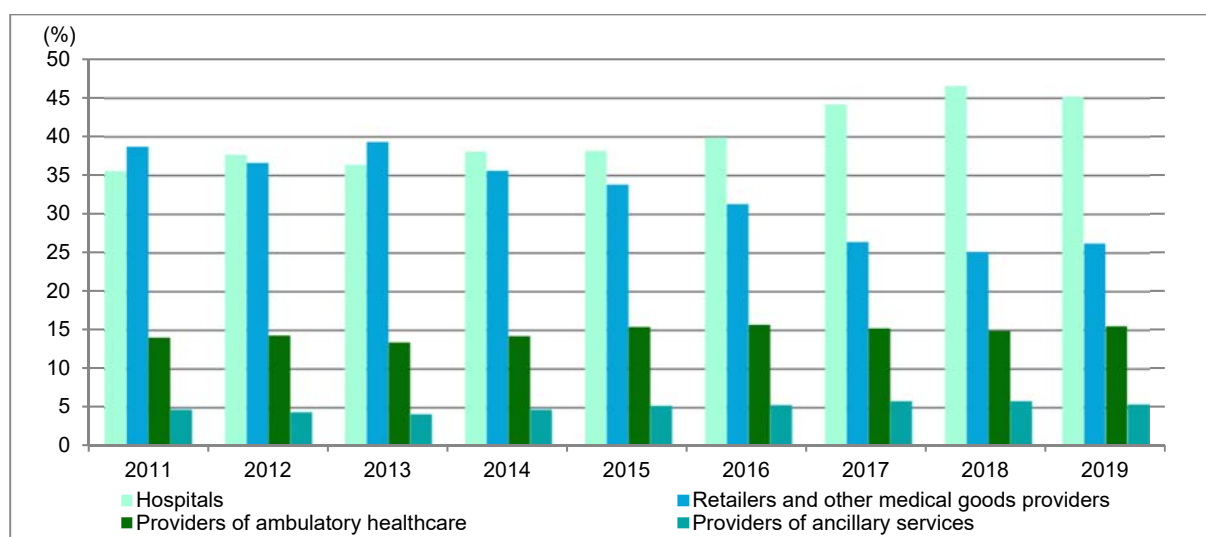


Source: NIS, System of Health Accounts in Romania

In 2019, the largest amounts in the national healthcare system were spent in general hospitals and in pharmacies, hospitals health expenditure were 34.3% of the total current healthcare expenditure, whereas the pharmacies had a share of 24.9%. The share of expenditures in specialized hospitals (other than psychiatric hospitals) has evolved during this period from 4.8% in 2011 to 9.3% in 2019, an important role being played by the development of the private sector. Medical offices accounted for 8.3% of the total current healthcare system expenditures and have used the largest share of healthcare system funds among outpatient service providers (53.7% in 2019).

In 2019 the administration of the national healthcare system, through the institutions of healthcare system administration and financing, accounted for 3.0% of the total current expenditure in the healthcare system.

As regards the expenditure for healthcare services, during 2011-2019, the curative care services accounted for the biggest part of the total current expenditure, their share increasing from 43.0% in 2011 to 54.1% in 2019. Expenditure on medical goods (medicines and medical

devices) also represents an important share in current healthcare expenditures, their share decreasing from 39.5% in 2011 to 26.9% in 2019.

In the total current expenditure, in 2019, the most significant amounts were recorded for the inpatient curative services provided in the healthcare units with beds (33.4%), for prescription-only medicines delivered by open-circuit pharmacies and pharmacies within the healthcare units (17.4%) and for outpatient curative services provided in medical and dental practices (11.9%). By contrast, the preventive services represented only 1.5% of the current expenditure on healthcare.

**Figure 2.13. Structure of current healthcare expenditure, by category of services, during 2011-2019**
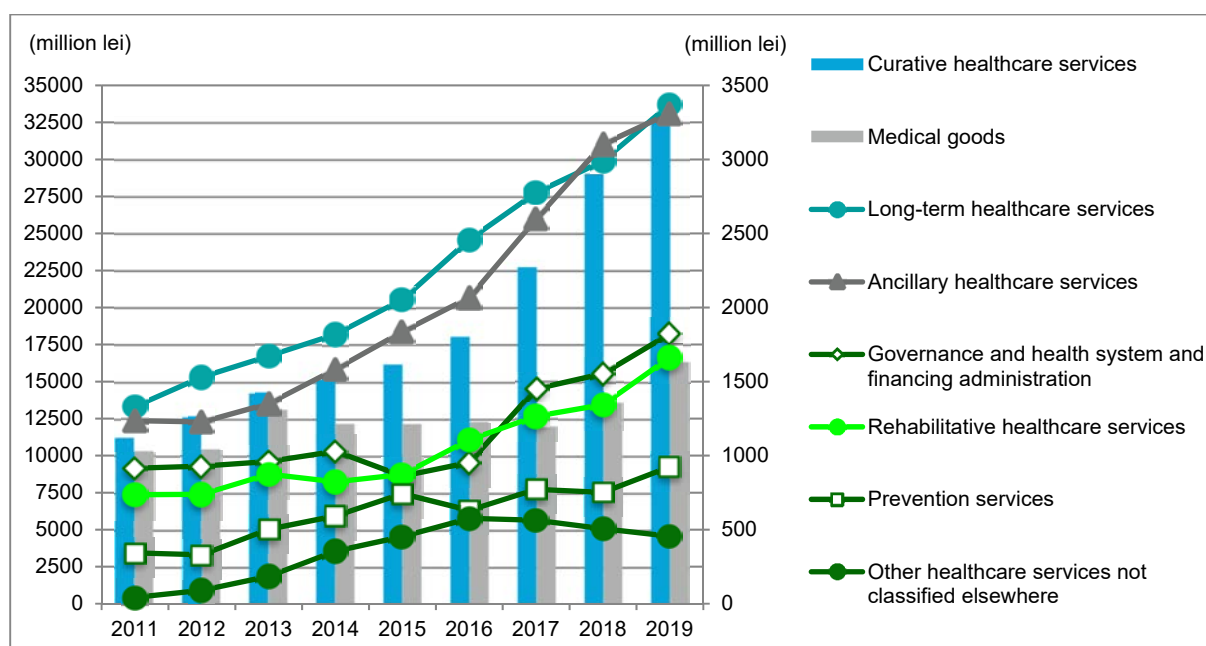


Source: NIS, System of Health Accounts in Romania

In 2019, among the curative services, the highest expenditures were recorded for inpatient services (61.8%) and among medical devices and goods, the highest share (95.7%) was held by pharmaceuticals and other medical non-durable goods.

## 2.5. Health - approach in the international context

The healthcare systems all over the world are organised and financed in many different ways. Financial and non-financial indicators can be used to assess the way in which a healthcare system aims to meet the basic needs of the population in terms of medical assistance, by quantifying financial, human and technical resources in the healthcare domain. In general, countries with advanced economies allocate considerable resources to finance healthcare, as a prerequisite for sustainable long-term development. Good health status leads over time to

increased labour participation and productivity, therefore representing one of the main drivers of economic growth. The level and efficiency of healthcare resources, which depend primarily on the quality of the public policies applied, determine the extent to which the health of a country's population can be improved.

The World Health Organisation (WHO) is an international organisation who have the duty to maintain and coordinate the health situation of the world populations, being responsible for the management of health issues at global level, the establishment of the agenda in health related survey, the setting up of norms and standards, the development of evidence based policies. In this regard, WHO launched the strategy "Health 2020" which applies in 58 countries in Europe, including Romania. The strategy sets up certain targets for 2020: reducing mortality, increasing life expectancy, reducing inequalities, welfare gains and universal coverage in the healthcare services schemes.

In 2019[9], life expectancy in Romania was 5.7 years less compared to the average of EU27 Member States. According to Eurostat, in 2019 (the latest year available for EU27) the average life expectancy in the European Union was 81.3 years. In 2020, life expectancy in Romania was 74.2 years, a decrease compared to 2019, when it was 75.6 years. Together with the Baltic countries and Bulgaria, Romania ranks among the countries with the lowest life expectancy at birth in EU27. Within this group of countries Bulgaria has the lowest life expectancy at birth (73.6 years), followed by Romania (74.2 years), Lithuania (75.1 years), Latvia and Hungary (75.7 years).

The highest values for life expectancy at birth in 2020 were recorded in Malta (82.6 years), Italy, Spain and Sweden (82.4 years), France and Cyprus (82.3 years) and Finland (82.2 years). As opposed to 2019, when in most Member States life expectancy at birth increased between 0.1 and 0.5 years, in 2020 due to the COVID-19 pandemic, it decreased between 0.2 and 1.6 years in 22 countries. In Romania, life expectancy at birth in 2020 decreased by 1.4 years compared to 2019, when the second consecutive year of growth was recorded (0.3 years compared to 2018).

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

**Figure 2.14. Gender gap in life expectancy at birth between women and men in the EU27 Member States and United Kingdom, in 2020**
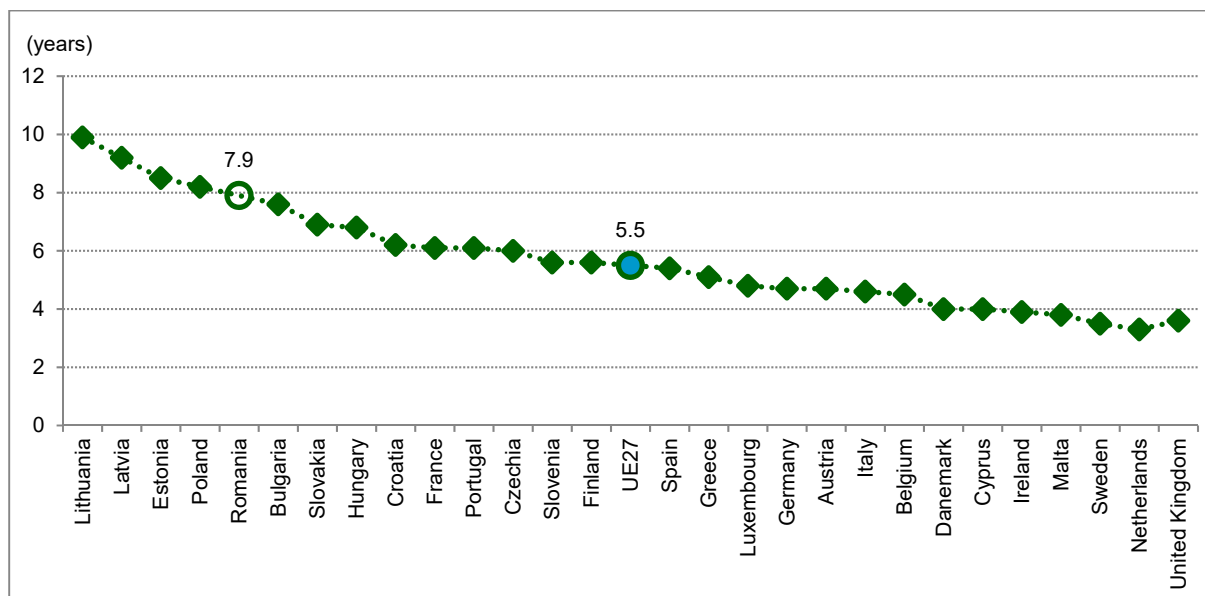


Source: Eurostat, 2019, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_mlexpec&lang=en

Note: The reference year for the EU (27 countries) data is 2019 for Germany and Ireland, and 2018 for the United Kingdom, according with the last years published by Eurostat.

Inequalities between women and men in terms of life expectancy at birth are very different across countries, more marked in Baltic countries (9.9 years in Lithuania, 9.2 years in Latvia and 8.5 years in Estonia). In 2020, in Romania, women lived on average 7.9 years more than men.

One of the key indicators for measuring the capacity of healthcare systems to cope with the population needs for healthcare is the total number of physicians, expressed per 100 thousand inhabitants[10]. Although in Romania the indicator values increased slightly in recent years (325 physicians per 100 thousands inhabitants in 2019, compared to 244 physicians per 100 thousands inhabitants in 2010 and 291 in 2016), the number of physicians is still low to cover the healthcare needs of the population in our country, as compared to other European States. Lower values of this indicator were recorded in Belgium (316 physicians per 100 thousands inhabitants in 2019). In 2019, the highest levels of the indicator were recorded in Greece (616 physicians per 100 thousands inhabitants).

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[10] 2019 is the latest year for which Eurostat has published data on „the number of active physicians per 100000 inhabitants".

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



Source: Eurostat, http://ec.europa.eu/eurostat/data/database
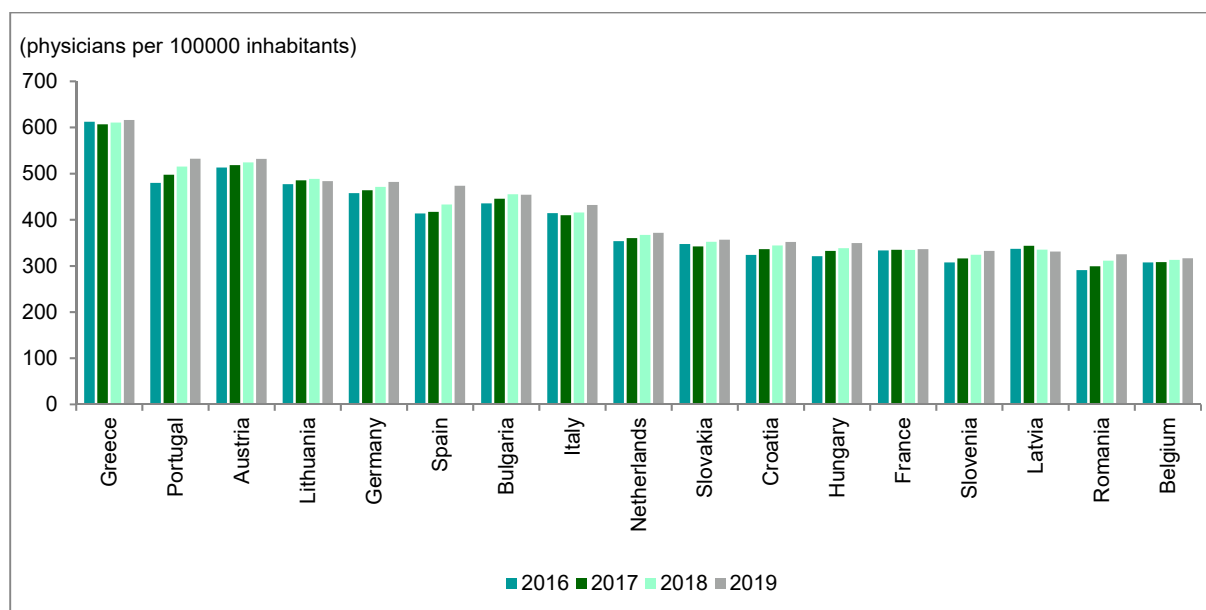
The financing of healthcare expenditure is carried out, in almost all the countries of the European Union, primarily through public administration and additionally through the private sector. According to Eurostat data, in 2019 healthcare related expenditure in Romania accounted for 5.7% of GDP[11], compared to the states with the largest amounts spent on healthcare, such as France and Germany, where the share was over 11.0%. As in other Member States, in Romania the balance is tilted to a significant extent toward the public sector, with 80.5% of current expenditure in 2019, the main source of funding for public expenditure on healthcare being the schemes of compulsory contributory healthcare insurance. In this context, increasing the funding of healthcare expenditure from the private resources appears to be a normal and a viable solution for (partly) solving structural problems existing in the healthcare systems in Romania, but also in other Member States of the European Union.

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

# 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, during 2010-2020 the school population in Romania decreased continuously from 4.2 million persons in 2010 to 3.5 millions in the school year 2020-2021. 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.

The educational process specific activities related to the school/academic year 2020-2021 started under the conditions the context generated by the Covid-19 pandemic has imposed.

Thus, at the beginning of the school/academic year, each of the educational settings/institutions opted for one of the three operating scenarios or a mixed scenario, in accordance with the Minister of Education and the Minister of Health joint order no. 5487/1494 / 01.09.2020.

In the 2020-2021 school/academic year, 15.0% of the total school population were pupils in early-childhood education and development and pre-primary education, 69.0% were enrolled in pre-university education, and 16.0% were tertiary education students.

**Figure 3.1. School population, by education level, during 2010-2020**
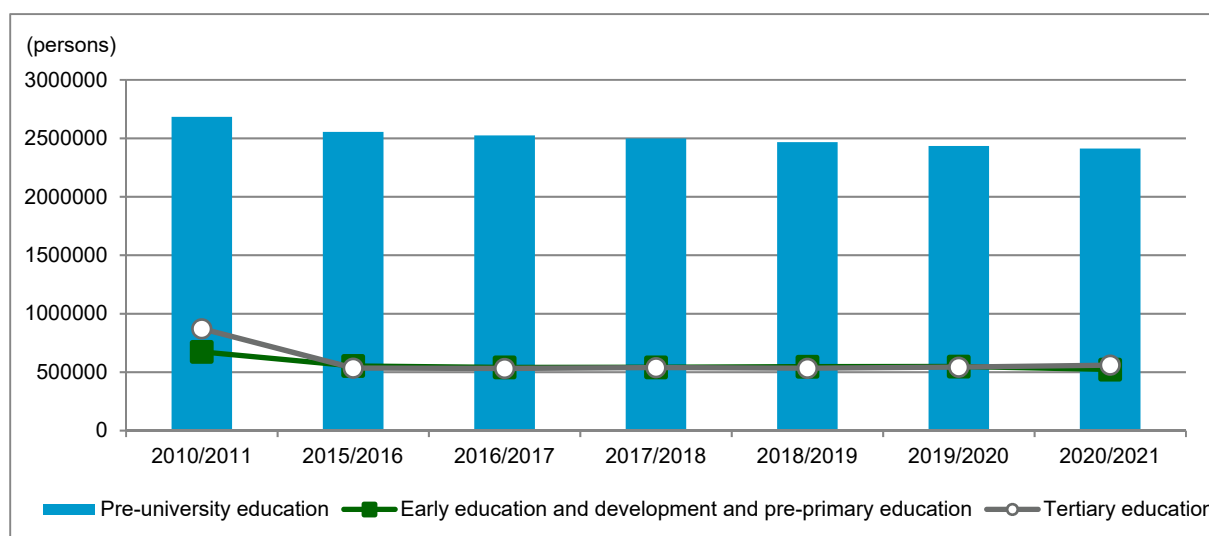


Source: NIS, Statistical surveys on education

The comparative analysis of the school population in the school year 2020/2021 compared to 2010/2011 school year shows that, in relative terms, the largest decrease in the school age population (- 35.7%) was recorded in tertiary education. Furthermore, pre-primary education has a number of children 25.0% lower compared to 2010, while the school population in pre-university education[1] has decreased by 10.1%.

In the 2020/2021 school year, 65.9% of the total students in pre-university education were enrolled in primary and lower secondary education[2], 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[3], 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.

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[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
[3] Law on Education no. 1/2011 as subsequently amended and supplemented
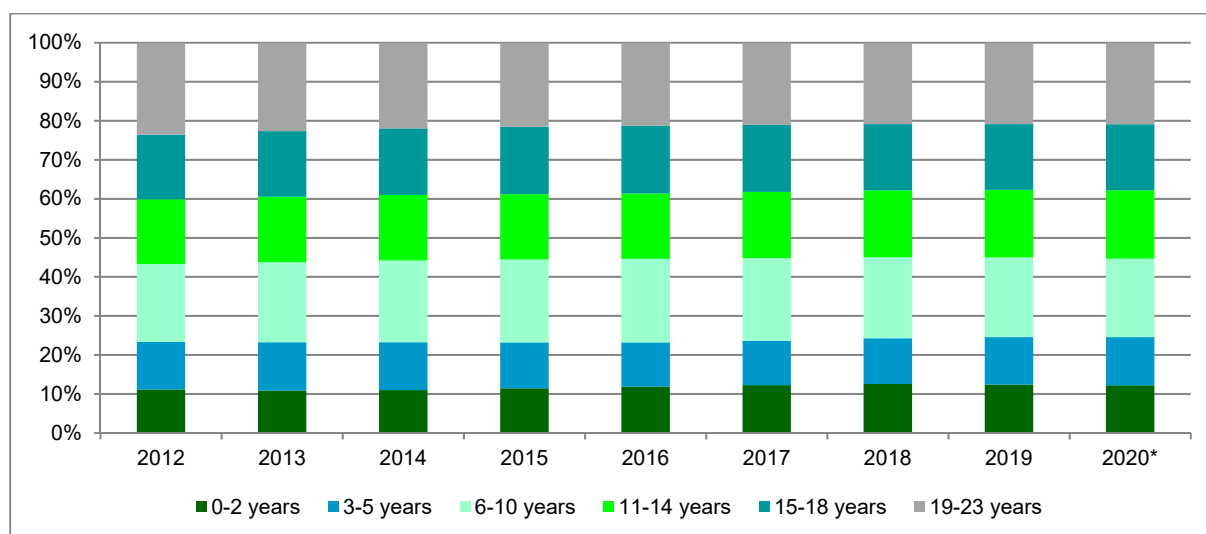
Source: NIS, Statistical surveys on education

* Provisional data

As of 2014, statistics on education also include the age group 0-2 years, specific to early-childhood education and development. The number of children attending early-childhood education and development programs (in nurseries) in the school year 2020/2021 accounted for 2.9% of those aged up to two years.

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, over the last 25 years, a constant priority within policies and strategies in the field of education. However, implementation thereof was different over time and took place in subsequent stages. The Law on education, although exhaustive and detailed, fails to regulate all aspects of the educational system, in particular as regards the assessment of the system and the milestones of scientific survey. On the other hand, the volatility of the system has led to uncertainties and/or gaps in enforcing certain procedures as regards the quality of education or that of educational establishments' management.

Furthermore, the schools of arts and crafts dissolution (in 2009) made almost impossible the continuation of studies for a significant number of pupils who have completed the 8th grade (lower secondary education), particularly in rural areas, where the network of upper secondary

school units (high schools) is much less developed in comparison with urban areas. The phenomenon had a strong impact in the national economy, the dissolution of handicrafts-oriented curricula representing, in the long term, a shortage of labour force for an occupational segment on the labour market.

Starting with the school year 2011-2012, vocational education was reinstated, with a two-year duration. This measure has been promoted through a National Programme and sought to offer an alternative for those who wanted to follow a route of education and practical training in a specialised programme for accelerated professionalization, developed in close partnership with the business environment. Enrolment in this education form was possible after the completion of the 9th grade. 6-month duration stages of practical training were also introduced for students who completed the 10th grade of the upper secondary education and wanted to acquire a level 2 vocational qualification.

Amendments 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. Moreover, subsequent to such legislative changes, the 3-year duration vocational education was established.

In Romania, education is provided mostly through the public system, the private schools network being still insufficient, particularly in pre-university education. 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 quality of an educational system must be propagated to the labour market and, further on, reflected in the development level of the national economy and society. In our country, the lack of a functional monitoring system as regards the relationship between educational supply and current and future labour market demand has led to significant dysfunctions in the educational system: obsolete or limited specialisations, dereliction of training professionals in certain areas (of interest) and overcrowding of some others, underemployment, etc.

## 3.3.1. Enrolment 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). Enrolment in formal education is the trigger in developing one 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 2000-2020, enrolment in formal education developed differently for all education levels and for most levels in a disadvantageous way. In primary and lower secondary education, for example, the non-enrolment phenomenon obviously became sharper, the net rate of enrolment in education showing a downward trend, from 92.3% in the school year 2000/2001 to 81.4% in the school/academic year 2020/2021.

The situation is different in the pre-primary education, in the sense that enrolment rate for this level of education increased from 66.1% in the 2000/2001 school year to a maximum of 82,32% in 2017/2018. Subsequently, the indicator showed a decreasing trend, reaching 75.6% in the 2020/2021 school year.

**Figure 3.3. Net enrolment rate, by education level, during 2000-2020**
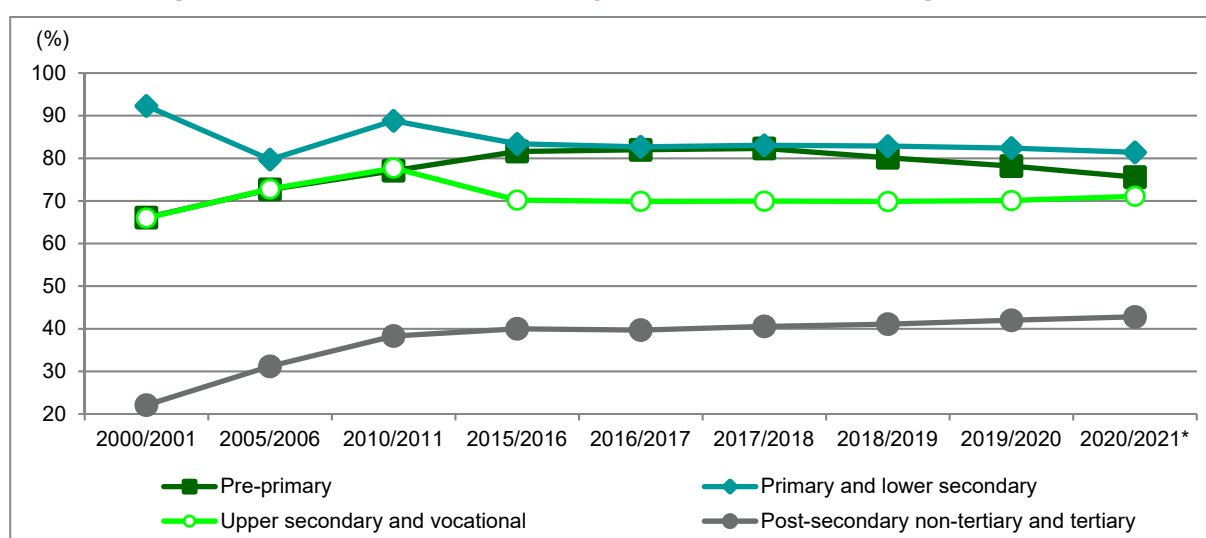


Source: NIS, Statistical surveys on education

Note:
- For the calculation of net enrolment rate, the usually resident population as at July 1st of each year was used.
- For the 2000/2001 school year, the permanent resident population as at July 1st 2000 was used, calculated based on the components method, using administrative sources for external migration.
- Since 2002, the usually resident population as at July 1st of each year was used, estimated under comparability conditions with the final results of Population and Housing Census - 2011.
- 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 included the number of children in nurseries, a new age group for children aged 0-2 years being established.

In post-secondary non-tertiary education as well as in tertiary education, though the net enrolment rate almost doubled during the analysed period, the value for the indicator remains at low levels (42.8% in the 2020/2021 school/academic year). In what concerns the two levels of education (post-secondary non-tertiary and tertiary education), the main reason for the low enrolment 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 enrolment territorial distribution for each of the education levels illustrates significant differences between counties. The highest net enrolment rate in the school/academic year 2020/2021 is recorded in Bucharest (94.2%), and Cluj is the next in the hierarchy (91.2%). At the other end of the scale, the lowest enrolment rates were recorded in Ilfov (37.0%), Ialomița (46.2%) and Vaslui (47.4%) counties.

Argeș, Bucharest, and Gorj are among the counties registering a primary education enrolment rate above 90%, namely: 90.8%, 90.7%, and 90.4%, respectively.

**Figure 3.4. Territorial distribution of net enrolment rate in primary education in 2020/2021 school year**
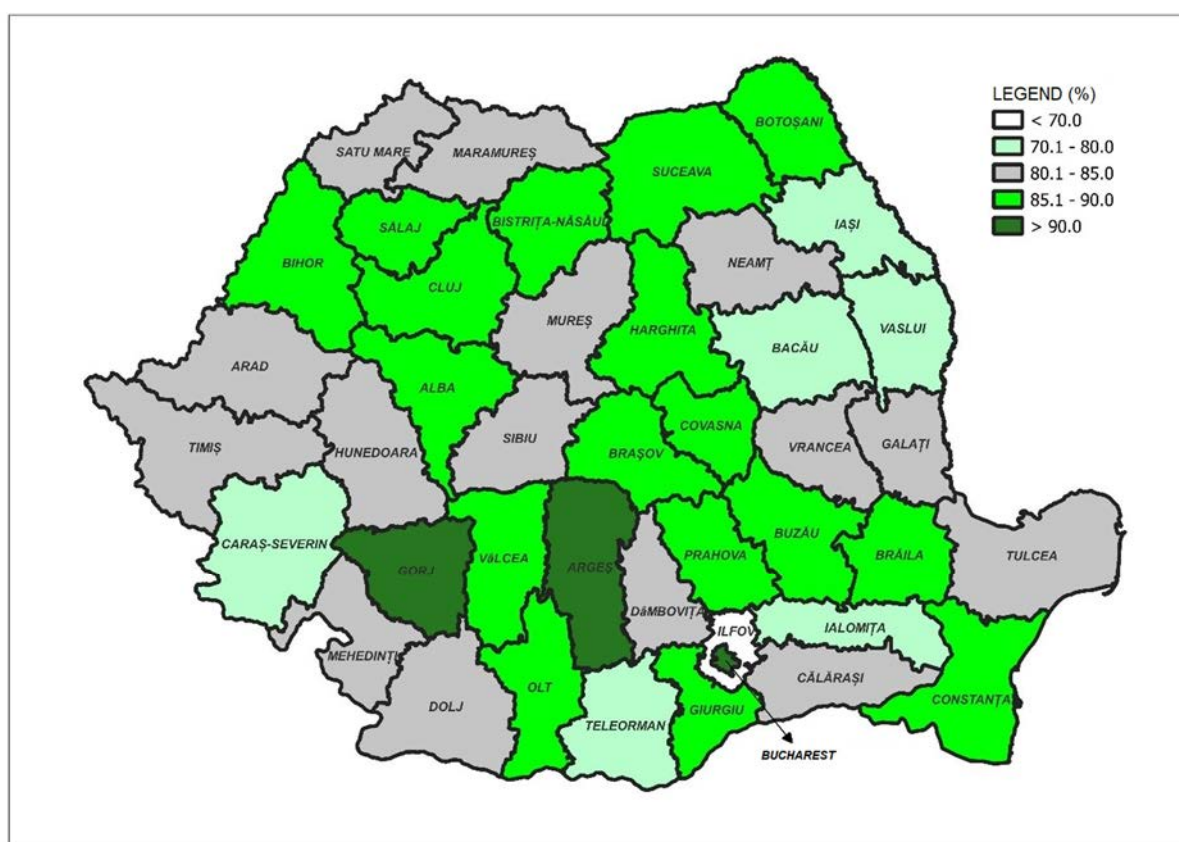


Source: NIS, Statistical surveys on education

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

The net enrolment rate in lower secondary education points out territorial disparities. In the 2020/2021 school year the lower secondary education net enrolment rates exceed 85% in Bucharest and Arges counties.

**Figure 3.5. Territorial distribution of net enrolment rate in lower secondary education in 2020/2021 school year**
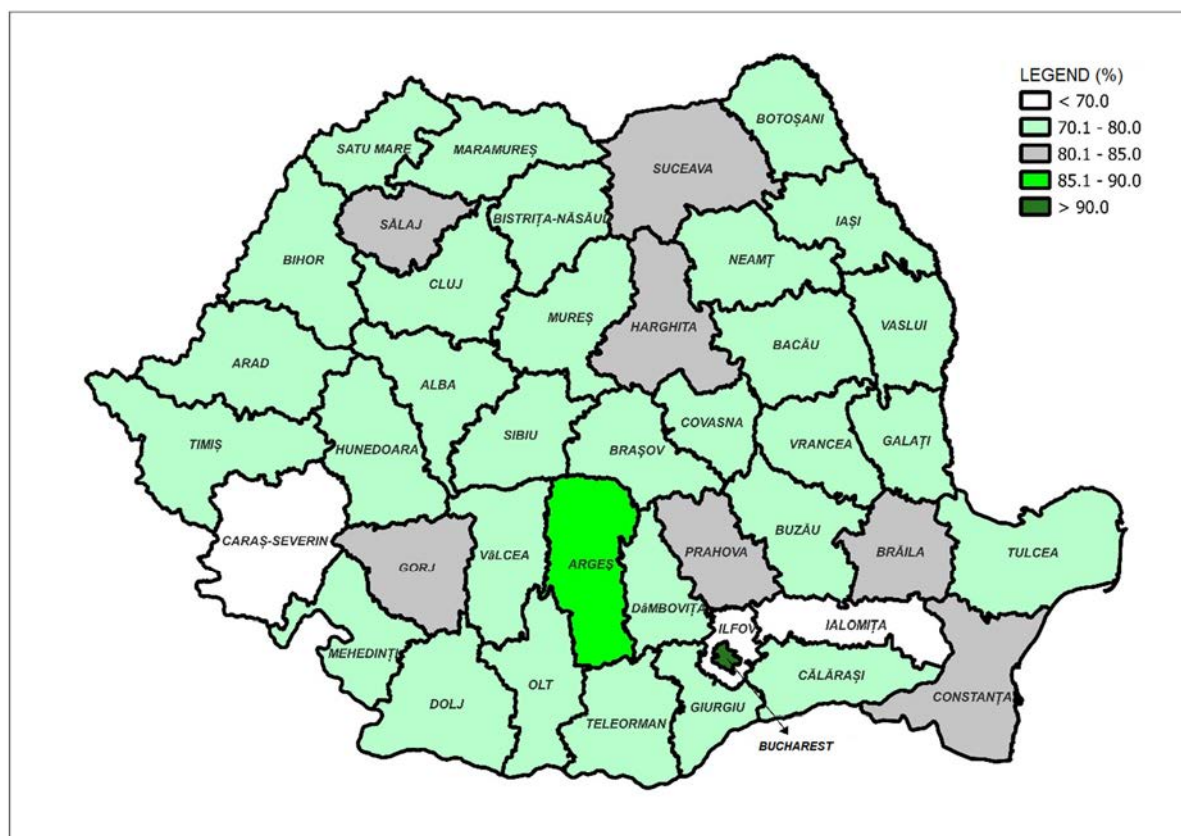


Source: NIS, Statistical surveys on education

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

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

**Figure 3.6. Territorial distribution of net enrolment rate in upper secondary education in 2020/2021 school year**
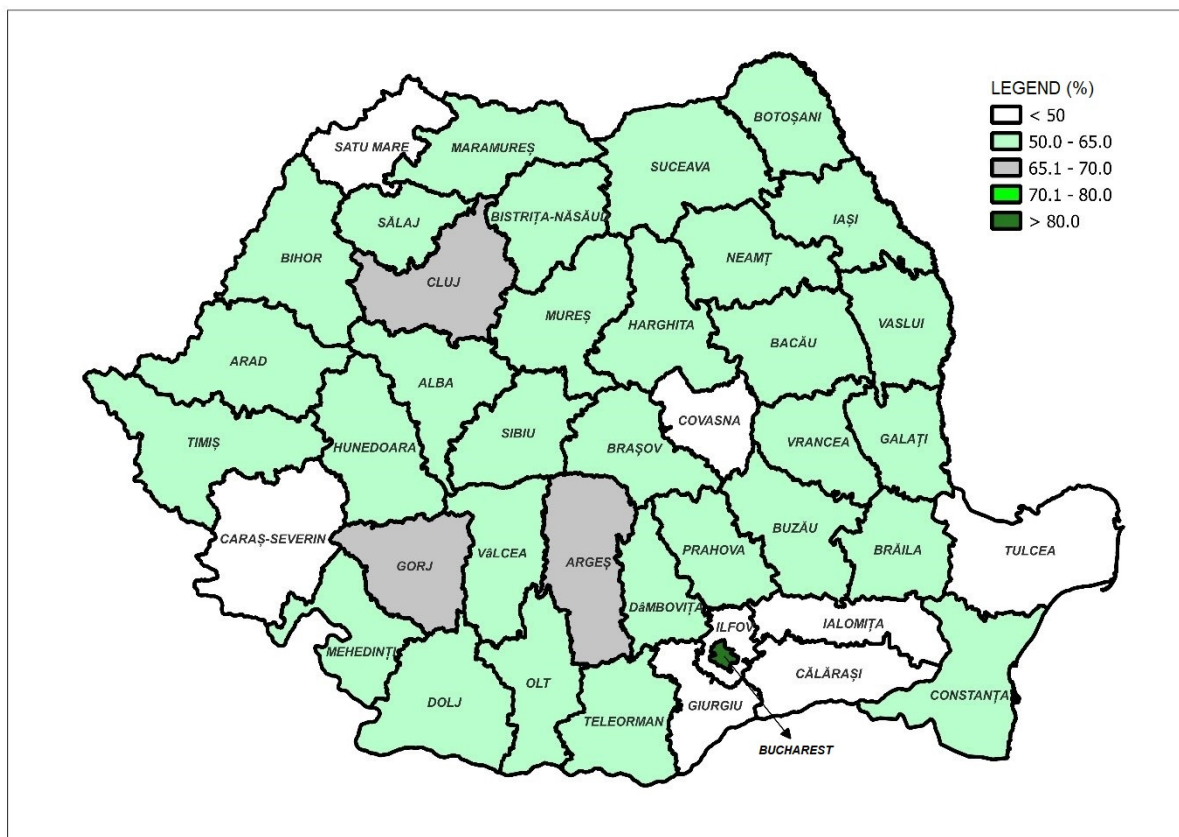


Source: NIS, Statistical surveys on education

Note: For the calculation of net enrolment 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 enrolment rates exceeding 75.0%.

**Figure 3.7. Territorial distribution of net enrolment rate in tertiary education in 2020/2021 academic year**
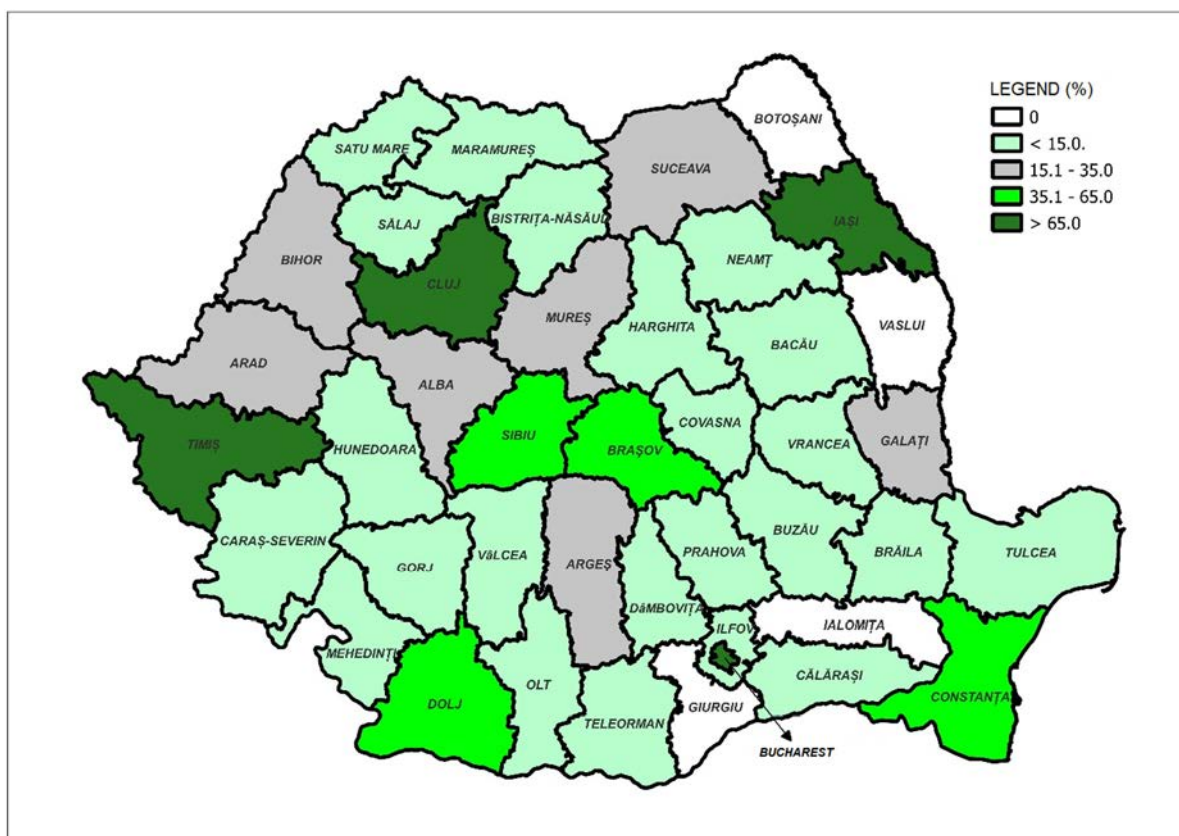


Source: NIS, Statistical surveys on education

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

Although social policies and strategies for the enrolment of the largest possible number of children of school age in national education system were implemented at national level, a significant share thereof remains outside the system. A statistical indicator that points out the lack of enrolment is the dropout rate. The dropout evolutions over recent years highlight Romania's vulnerability as regards the access to education.

**Figure 3.8. Dropout rate, by education level, during 2001-2020**
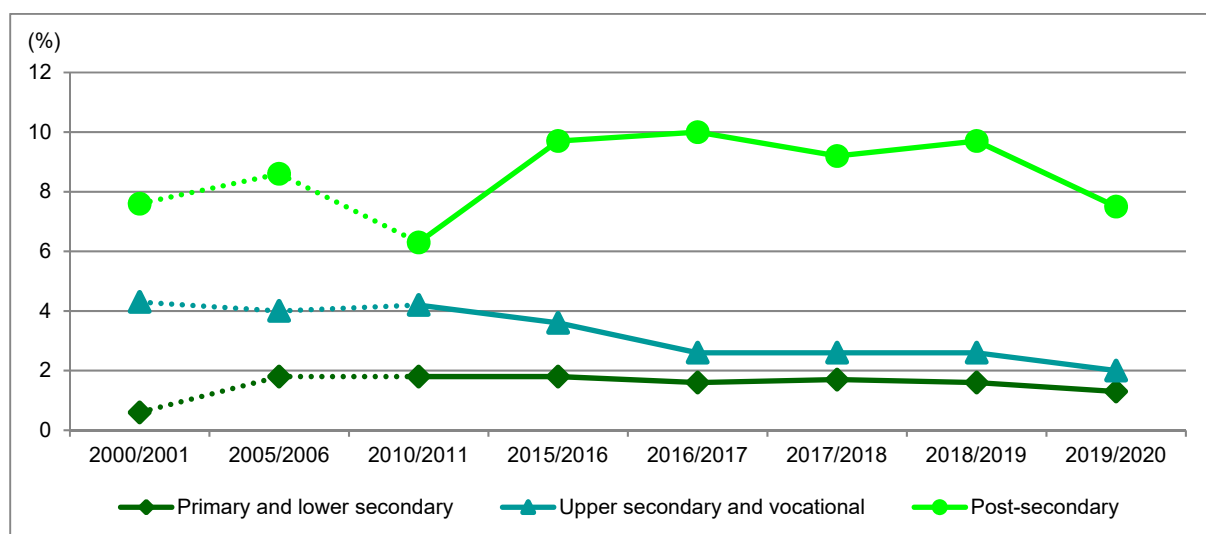


Source: NIS, Statistical surveys on education

Note: Dropout rates for primary and lower secondary education are calculated without including the number of pupils in special education; the dropout rate in vocational education in 2010 (2010/2011 school year) is high due to legislative changes. For the same reason, during next years, this indicator comprises both vocational and upper secondary 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 2001-2020**
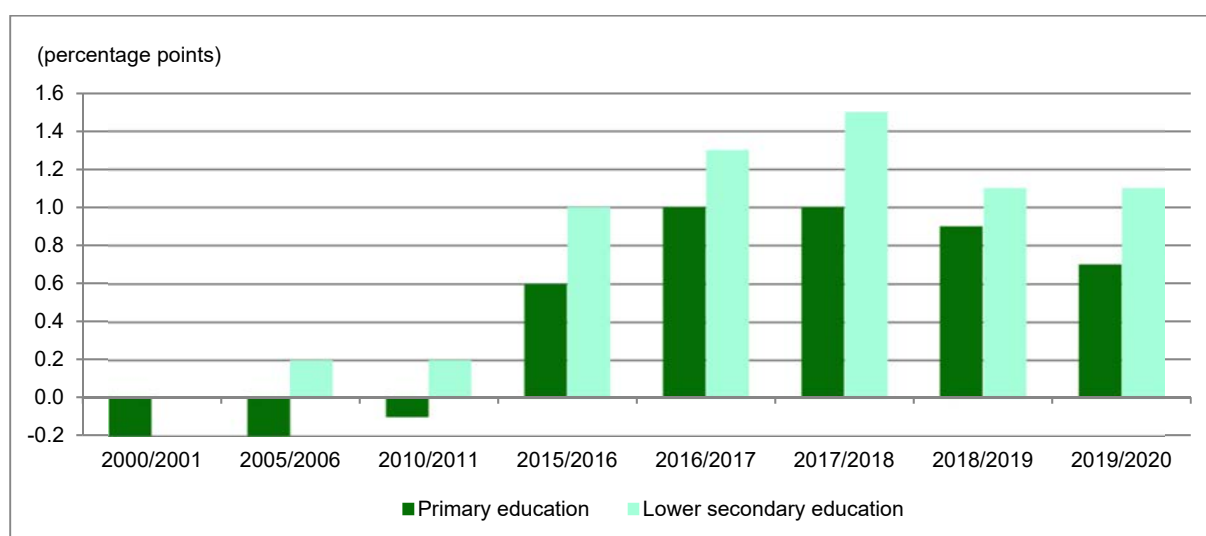


Source: NIS, Statistical surveys on education

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 enrolment throughout a school cycle (1st to 4th grade, 5th to 8th grade) and the calculation of losses recorded during this period as a result of dropouts, repetition of school years or other causes (expelling, death, etc.). The cohort analysis is an alternative way of assessing the dropouts, as the current method (known as the Entry-Exit method) observes early leavers recorded during a school year exclusively.

Early school leaving rate among young people is another relevant indicator [4] 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 2020, whereas Europe 2020 target is set at 11.3%. For the period 2010 to 2020, the year 2019 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 2010-2020**
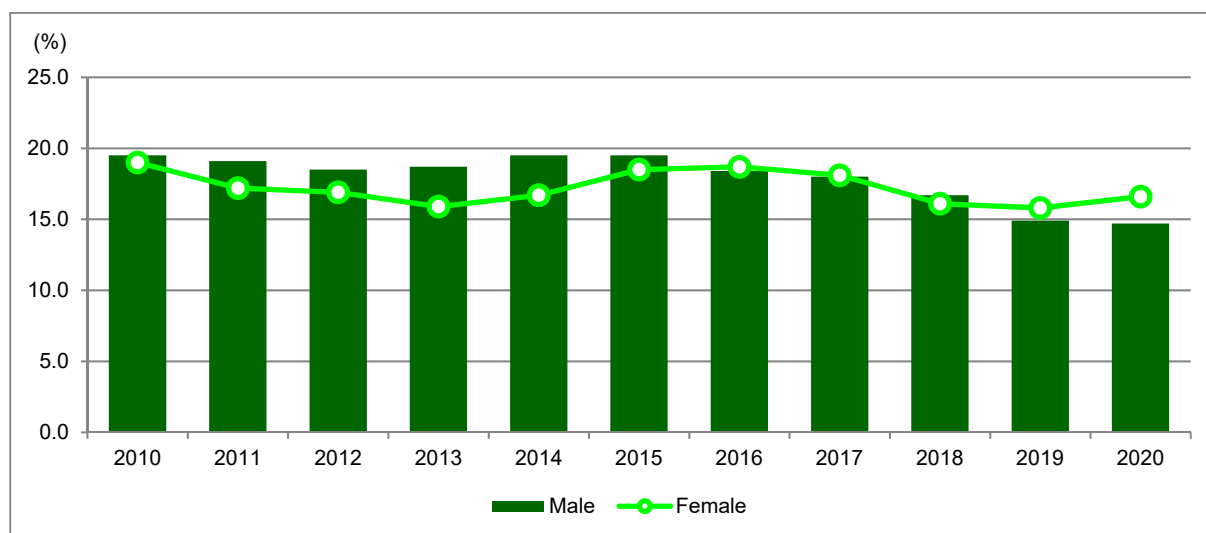


Source: NIS, Household Labour Force Survey (LFS)

[4] *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 assessment of the educational process quality is carried out based on indicators developed by the Romanian Agency for Quality Assurance in Pre-University Education (ARACIP) for non-tertiary education and by the Romanian Agency for Quality Assurance in Higher Education (ARACIS) for tertiary education. The said are public institutions of national interest and were established with the aim to ensure the quality of education in all education levels. ARACIP and ARACIS are developing the methodologies and standards for the various types of non-tertiary and tertiary education programmes and providers.

Based on the statistical data, the educational process quality assessment within the national educational system is based on the educational activity main outcomes using a set of statistical indicators that reflect the results in the baccalaureate examination, students' promotion and school records.

The period 2001-2020 was marked by two distinct stages in the evolution of the number of pupils who passed the baccalaureate examination. The increase over the period 2001-2008 (with a peak of 200 thousand persons in the 2007/2008 school year) was followed by a sharp drop by more than half in the 2015/2016 school year (96 thousand persons). The distribution by sex maintains the same evolutionary trend, the share of female students who have passed the baccalaureate examination being always higher than the one of male students.

**Figure 3.11. Structure by sex of students who passed the baccalaureate examination during 2011-2020**
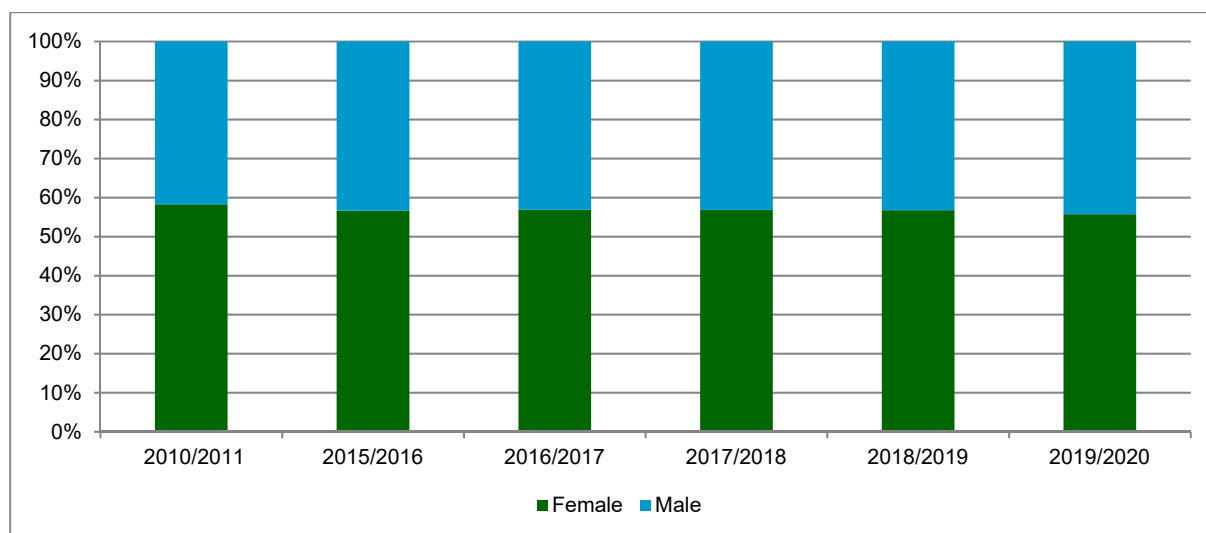


Source: NIS, Statistical surveys on education

In direct correlation with upper secondary school graduates who have passed their baccalaureate examination, tertiary education graduates followed the same trend over time, and the peak was registered in the 2007/2008 academic year. During the next period, both education levels (upper secondary and tertiary) showed decreasing trends in the number of graduates, except for higher education degree graduates, whose number increased by 4.4% in 2019/2020, as compared to the previous year. The sharpest downfall occurred at the end of the 2013/2014 academic year, when the number of graduates has decreased by 40.8% compared to the peak year 2007/2008. In the academic year 2019/2020, the number of tertiary education degree graduates decreased by 3.2 thousand persons compared to the 2014/2015 academic year.

**Figure 3.12. Distribution of tertiary education graduates, by main groups of specialisations, during 2015-2020**
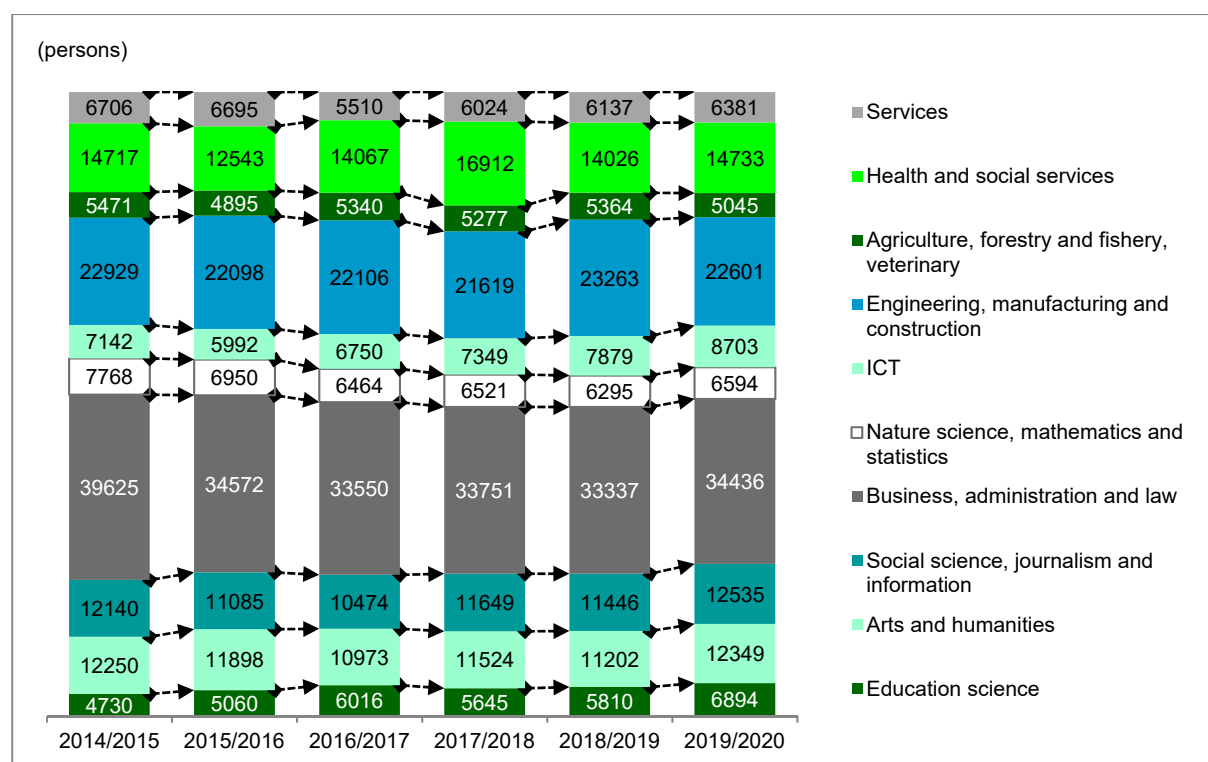


Source: NIS, Statistical surveys on education

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 2019/2020 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 15.1% as compared to the 2014/2015 academic year. Significant reduction in the number of degree graduates in the 2019/2020 academic year compared to the 2014/2015 academic year was also recorded for the "Business, Administration and Law" specialisation (by 13.1%).

Another relevant indicator reflecting the educational process quality is the number of Bachelor's degree students per teacher in tertiary education.

A return to normal values occurred after a period when the pace of growth in the number of students was much higher than that of tertiary education teachers and when the number of students per teacher was obviously above the critical quality values[5] (with a peak in the 2007/2008 academic year of 28 students/teacher).

**Figure 3.13. Number of students to a teacher, during 2000-2020**
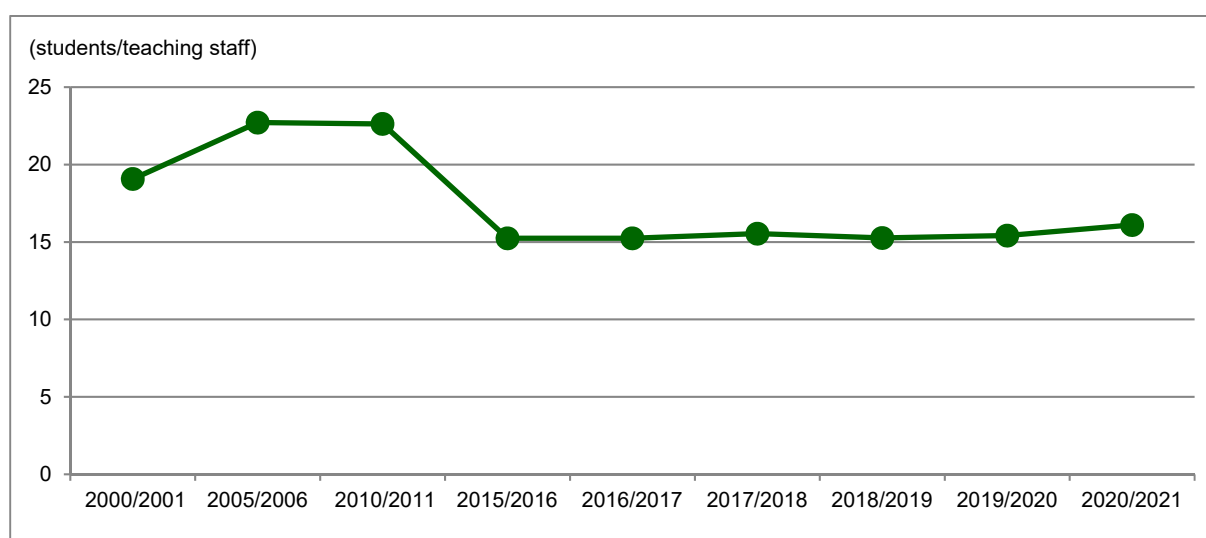


Source: NIS, Statistical surveys on education

In the academic year 2020/2021, the ratio was 16 students to one Bachelor's degree academic teacher, thus continuing the constant trend which started back in the 2013/2014 academic year.

[5] *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/).*

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## 3.4. Resources of the system

### 3.4.1. Teaching staff

To a large extent, the outcomes of the educational process are generated by the teaching staff's size and professional abilities. The education system personnel consists of teaching staff, support teaching staff, and administrative staff, maintenance and operational staff. According to the Teaching staff Regulations, teaching staff includes persons in the education system responsible for the process of training and education.

Teaching staff consists of early childhood teachers, pre-primary teachers, primary teachers, schoolmasters, foremen instructors, university teachers, assistant professors, teaching assistants, military foremen, university lecturers, associate lecturers and university professors. During 2000-2020, along with the decrease in the number of pupils enrolled, the number of pre-university education teaching staff from all levels has also diminished. Lower secondary education faced the sharpest decrease in teaching staff, in the 2020/2021 school year, namely up to 32.0% as against the level recorded in 2000. Furthermore, primary and upper secondary (high school) education have suffered significant losses in the number of teachers (-22.0%, and -16.3% respectively).

**Figure 3.14. Teaching staff, by education level, during 2000-2020**
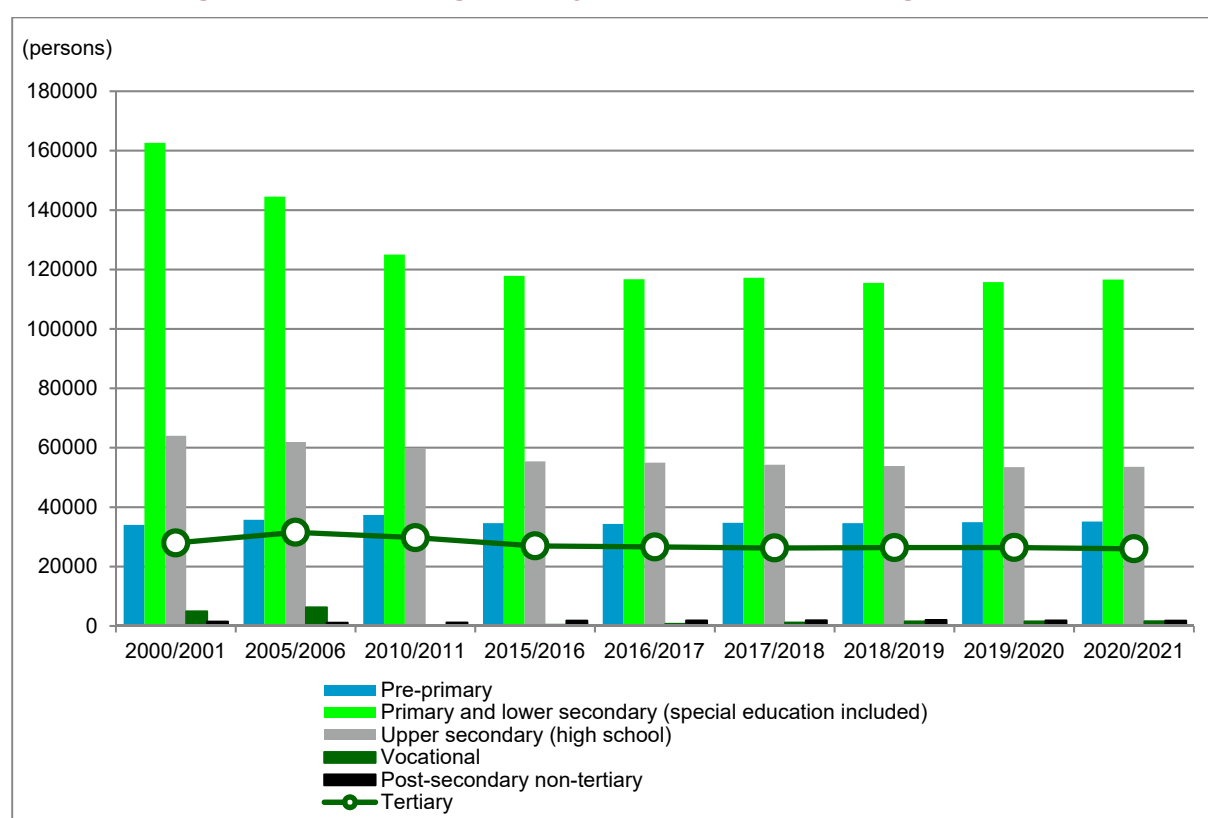


Source: NIS, Statistical surveys on education

In the 2020/2021 academic year, 26.0 thousand of tertiary education teaching staff were employed, 2.0 thousands less than in 2000.

During 2000/2010, the share of male teaching staff was much higher than that of females, but the tertiary education teachers' gender balance evened during the 2015/2016 academic year. The 2020/2021 academic year is the fifth in a row marking a change of situation, the female teachers numerically outnumbering male teachers, with 1.1 thou persons.

**Figure 3.15. Structure of teaching staff in tertiary education, by ownership of the educational institution, during 2000-2020**
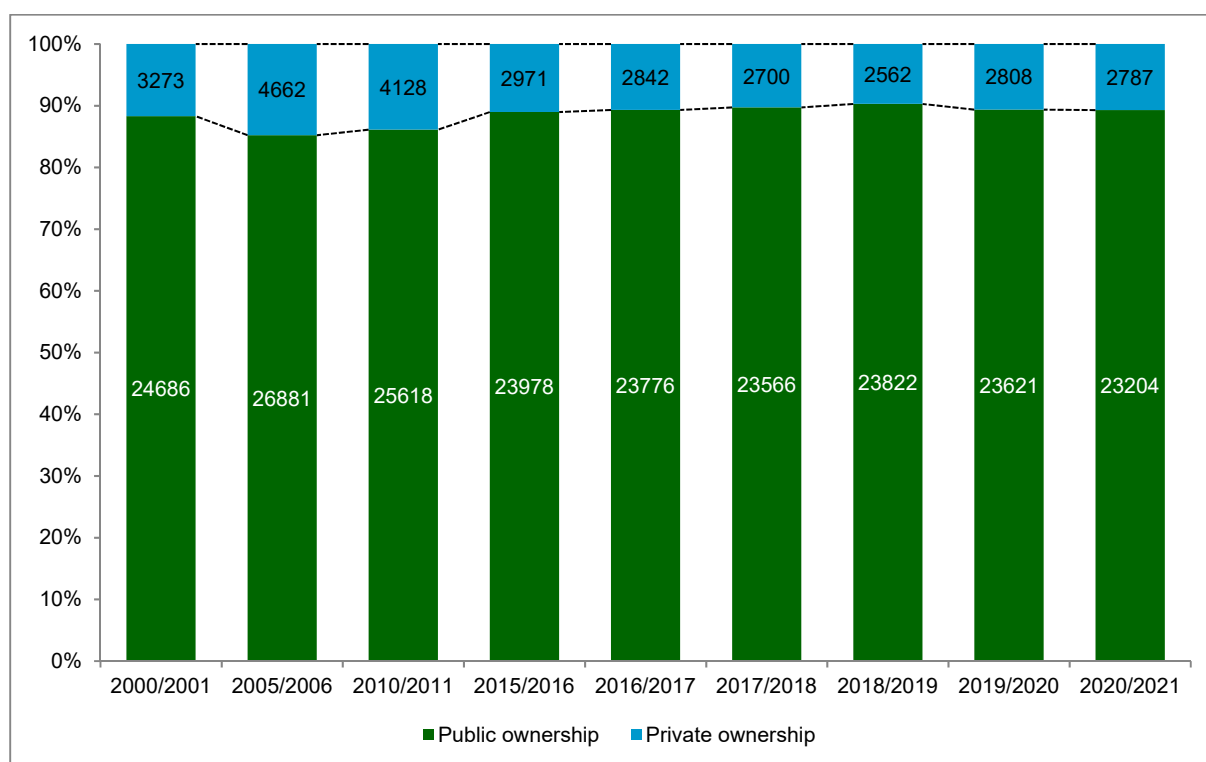


Source: NIS, Statistical surveys on education

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. A number of teaching staff over 8 times higher than in the private sector were employed in public tertiary education in the 2020/2021 academic year.

## 3.4.2. Infrastructure of the national educational system

The continuous decline in the school population has led to the restructuring of the schools network and as such, during the period 2000-2020, the educational units showed a decrease to one-third (28.5%).

The reduction trend in the schools number is also reflected in primary and lower secondary education levels, in the sense that some schools changed 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 units during 2000-2020**
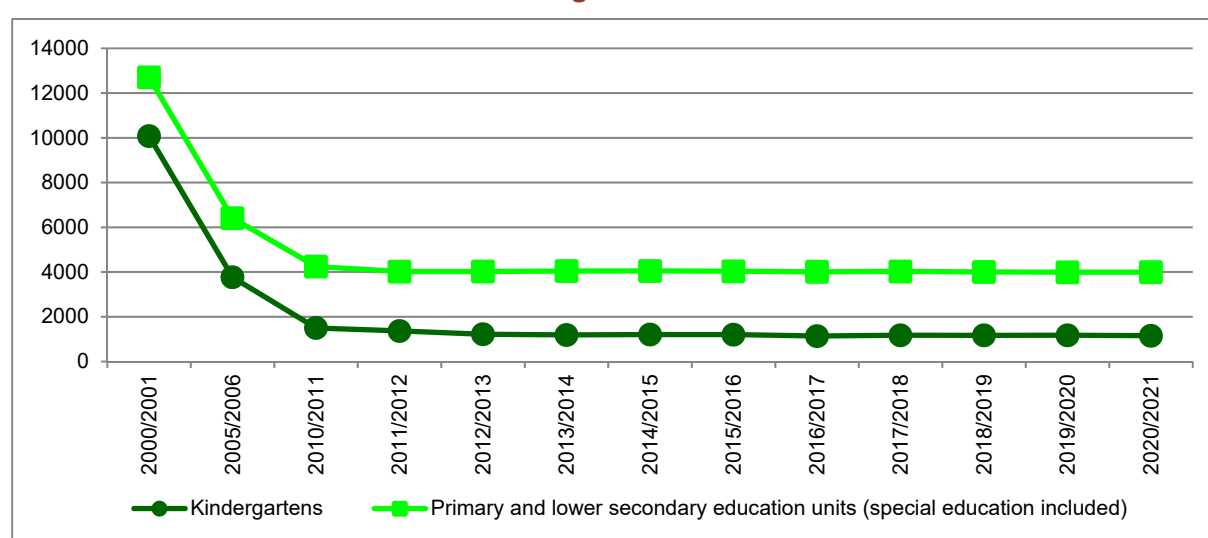


Source: NIS, Statistical surveys on education

Note: Statistical data on the number of school units 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 units), 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 more than three times in the number of primary and lower secondary schools is noted in the 2020/2021 school year as compared to the school year 2000/2001, whilst the number of high schools (upper secondary schools) increased by 6.9%.

**Figure 3.17. Evolution of upper secondary units, during 2000-2020**
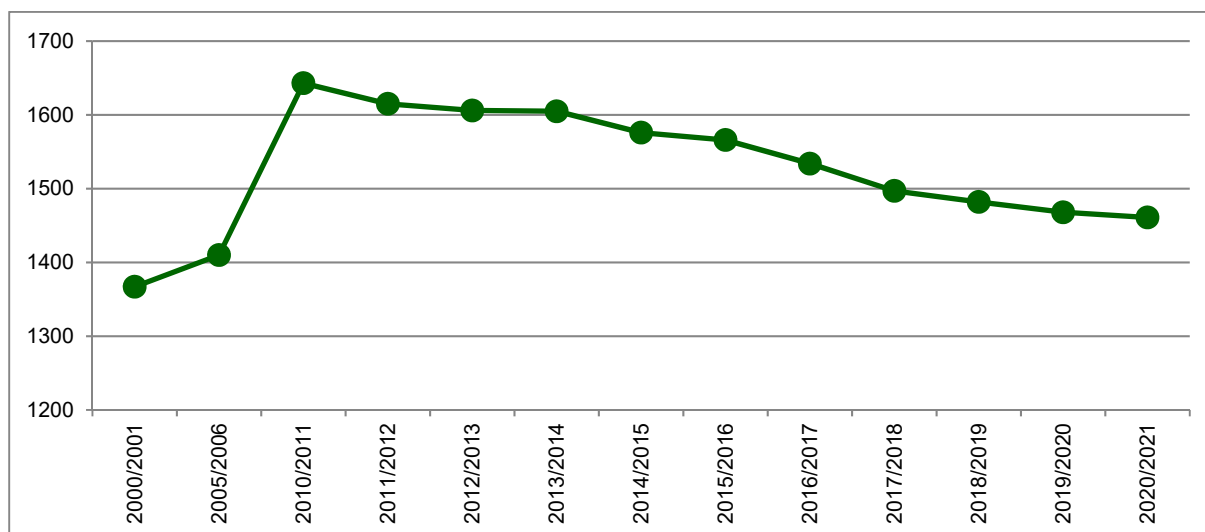
In the period 2000 to 2020, tertiary education lost a total of 37 academic institutions. In the 2020/2021 academic year, tertiary education comprises 89 universities, out of which 54 in the public sector.

Regarding the support facilities the educational units/institutions used during the school/academic year 2020/2021, the same were supplemented as a result of the measures taken by the central and local authorities in the context of the Covid-19 pandemic, so that to cover on a large scale, as wide as possible, in territorial terms, the need for access and participation in the instructional and educational process. Thus, the IT equipment intended for use by the school population and the teaching staff in the online learning system, in addition to the computers within the educational units/institutions, also included the tablets/laptops, as well as the smart boards certain education units/institutions have purchased or received.

## 3.5. Education in international context

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.

Data for the EU-28[6] indicate approximately 122.1 million pupils and students enrolled in the overall educational system, in all education levels in the year 2019.

**Table 3.1. Share of school population in all education levels (ISCED[7] 0-8), in total population, in the EU Member States, during 2015-2019**

-%-

| | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Belgium | 26.9[1] | 26.8[1] | 26.9[1] | 31.3 | 31.3 |
| Bulgaria | 17.8 | 20.7 | 20.4 | 20.4 | 20.2 |
| Czechia | 20.3 | 23.7 | 23.5 | 23.0 | 23.0 |
| Danemark | 26.9 | 31.5 | 30.9 | 30.6 | 30.1 |
| Germany | 19.7 | 23.3 | 23.4 | 23.4 | 23.7 |
| Estonia | : | 27.2 | 27.1 | : | : |
| Irleland | 27.4 | 29.2 | 30.7 | 33.0 | 31.8 |
| Greece | 20.3 | 22.8 | 23.2 | 23.0 | 24.1 |
| Spain | 20.9 | 24.8 | 24.7 | 24.7 | 24.6 |
| France | 23.0 | 27.0 | 27.0 | 27.0 | 27.0 |
| Croaţia | 18.8 | 21.9 | 22.4 | 22.3 | 22.2 |
| Italy | 18.0[1] | 20.5 | 20.5 | 20.5 | 20.6 |
| Cyprus | 20.3 | 24.2 | 24.9 | 24.9 | 25.1 |
| Latvia | 20.2 | 20.3[1] | 25.4 | 25.9 | 26.2 |
| Lithuania | 21.7 | 25.8 | 25.8 | 25.7 | 25.2 |
| Louxembourg | 19.1 | 21.9 | 21.6 | 21.4 | 21.2 |
| Hungary | 19.4 | 22.4 | 22.4 | 22.3 | 22.1 |
| Malta | 18.5 | 19.9 | 19.4 | 18.9 | 18.4 |
| The Netherlands | 24.7 | 27.5 | 27.6 | 27.0 | : |
| Austria | 19.9 | 23.2 | 23.2 | 23.1 | 23.1 |
| Poland | 21.1 | 23.9 | 24.0 | 24.0 | 24.0 |
| Portugal | 19.8[1] | 22.0 | 21.9 | 22.7 | 19.3[1] |
| Romania | 18.7 | 21.1 | 21.0 | 21.1 | 21.0 |
| Slovenia | 19.6 | 24.0 | 24.1 | 24.1 | 24.1 |
| Slovakia | 19.0 | 21.7 | 21.5 | 21.3 | 21.3 |
| Finland | 25.9 | 30.7 | 30.8 | 30.9 | 30.4 |
| Sweden | 26.0 | 32.4 | 33.2 | 33.2 | 32.9 |
| United Kingdom | 23.0 | : | 26.7 | 26.3 | 23.0[1] |

Note: ":" No data available
[1] Total school population does not include children enrolled in early childhood education and development programs, nor the children in pre-primary education.
Source: Eurostat, http://ec.europa.eu/eurostat/data/database

In Europe, young people aged 15 to 17 years are often faced with the choice of remaining in education, going into vocational training, or looking for a job. Full-time compulsory education lasts, on average, 9 or 10 years in most of the EU Member States and is generally completed at the end of lower secondary education.

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[6] According to Eurostat, http://ec.europa.eu/eurostat/statistics-explained/index.php/Education_statistics_at_regional_level/ro
[7] Acording to ISCED 2011

## Table 3.2. Relevant indicators on the population education level, in the EU Member States, in 2020

-%-

|  | 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 | 9.9 | 84.3 | 41.0 |
| Belgium | 8.1 | 85.7 | 47.8 |
| Bulgaria | 12.8 | 85.4 | 33.3 |
| Czechia | 7.6 | 87.4 | 35.0 |
| Denmark | 9.3 | 76.1 | 49.8 |
| Germany | 10.1 | 79.2 | 36.3 |
| Estonia | 7.5 | 87.7 | 44.3 |
| Ireland | 5.0 | 94.9 | 58.1 |
| Greece | 3.8 | 94.9 | 43.9 |
| Spain | 16.0 | 75.9 | 44.8 |
| France | 8.0 | 89.7 | 48.8 |
| Croatia | 2.2 | 97.2 | 34.7 |
| Italy | 13.1 | 83.3 | 27.8 |
| Cyprus | 11.5 | 88.4 | 59.8 |
| Latvia | 7.2 | 88.0 | 49.2 |
| Lithuania | 5.6 | 90.1 | 59.6 |
| Luxembourg | 8.2 | 75.4 | 62.2 |
| Hungary | 12.1 | 85.7 | 33.2 |
| Malta | 12.6 | 85.1 | 39.8 |
| Netherlands | 7.0 | 83.1 | 54.0 |
| Austria | 8.1 | 86.1 | 41.6 |
| Poland | 5.4 | 89.9 | 47.0 |
| Portugal | 8.9 | 85.3 | 39.6 |
| Romania | 15.6 | 83.0 | 26.4 |
| Slovenia | 4.1 | 92.8 | 46.9 |
| Slovakia | 7.6 | 89.7 | 39.7 |
| Finland | 8.2 | 89.1 | 49.6 |
| Sweden | 7.7 | 83.1 | 52.2 |

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

At EU27 level, the average value, in 2020, of the early school-leaving rate for young people (18-24 years) was 9.9%, with the highest value in Spain (16.0%), 5 times higher than the lowest figure among the Member States, namely Croatia (2.2%). The share of young people leaving the education system has a high value in Romania (15.6%), placing our country the second lowest in the hierarchy of the EU27.

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 (84.3%) and at a significant distance to the Member State that is on the last place, Luxembourg (75.4%). Romania is among the disadvantaged countries (83.0%).

The share of people aged 30-34 years with tertiary education follow the same direction, six of the EU Member States being remarked due to the values of this indicator exceeding 50%: Lithuania, Luxembourg, Cyprus, Ireland, Netherlands and Sweden. At the other end of the scale, with differences of more than 10 percentage points below the EU27 average level (41.0%), are Italy and Romania.

# *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 2020 economically active population of Romania was of 8973 thousand persons, with 392 thousand persons less compared with 2010. The reduction of the economically active population is a direct consequence of the downward trend of population at national level, but also of the changes in its age structure.

**Figure 4.1. Population structure, according to the participation in economic activity, during 2010-2020**
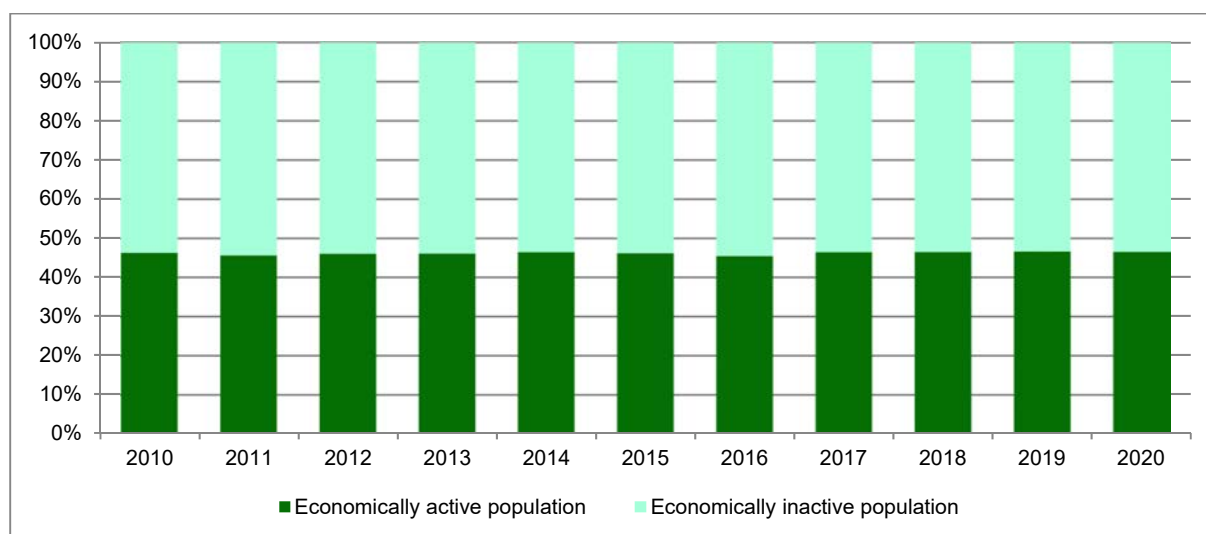


Source: NIS, Household Labour Force Survey (LFS)

A characteristic of the economically active population in Romania is the greater presence on the labour market of the male population. In the period 2010-2020, the economically active male population was always higher than the economically active female population, continuously increasing, with shares ranging from 55,9% to 57,6%.

**Figure 4.2. Distribution of economically active population, by sex, during 2010-2020**
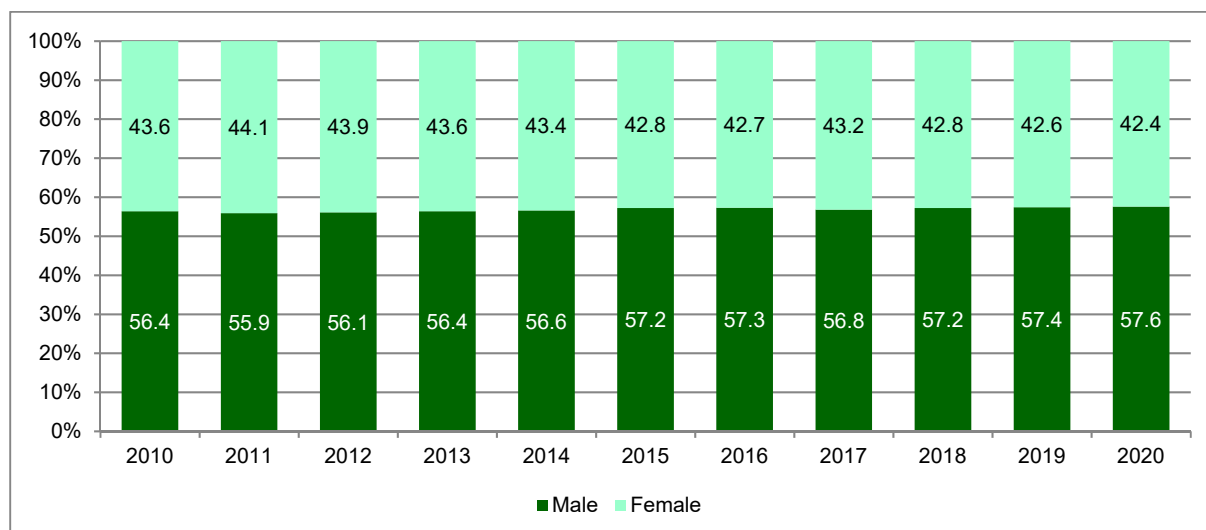


Source: NIS, Household Labour Force Survey (LFS)

In Romania, the majority of the economically active population lives in urban area. During 2010-2020 period, the economically active population distribution by residence area had developed differently from one stage to the other, yet with small amplitude variations.

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The largest difference between the two residence areas was of 10.6 percentage points in 2016, while the lowest was of 7,8 percentage points in 2010.

The activity rate calculated for the population of 15 years and over was 55,1% in 2020. For the working age population (15-64 years), the activity rate was in 2020 of 69,2%, with 4,3 percentage points higher than in 2010.

**Figure 4.3. Activity rate during 2010-2020**
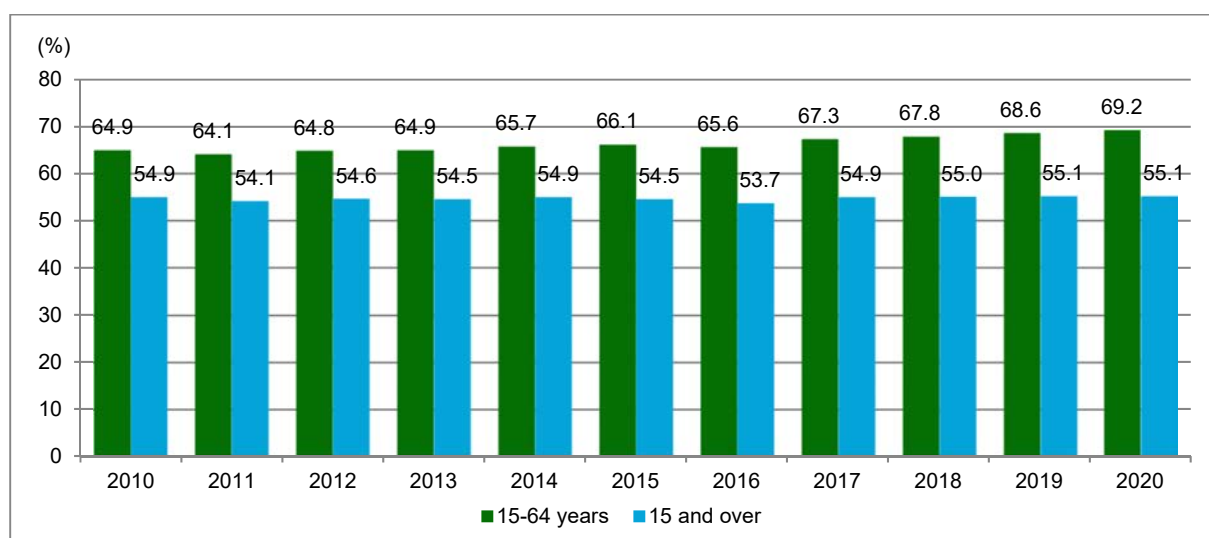


Source: NIS, Household Labour Force Survey (LFS)

In the case of working age population (15-64 ani), the activity rates are higher for men, the gender gap being, in 2020, of 19,4 percentage points.

There are also differences in activity rates by residence area. For the working age population, during 2010-2015, , the differences between the activity rates by residence area were in favour of the rural area. Since 2016, the situation was reversed. In 2020, the activity rate of the working age population in urban area was by 2,3 percentage points higher than in rural area.

### 4.2.2. Employment

Another relevant indicator for monitoring the labour market developments is employment. In 2020, employment was 8521 thousand persons, decreasing in the last decade with over 19 thousand persons, on average, annually.

The same as the economically active population, male employment has a larger share (57.4%, in 2020) 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 2010-2020**
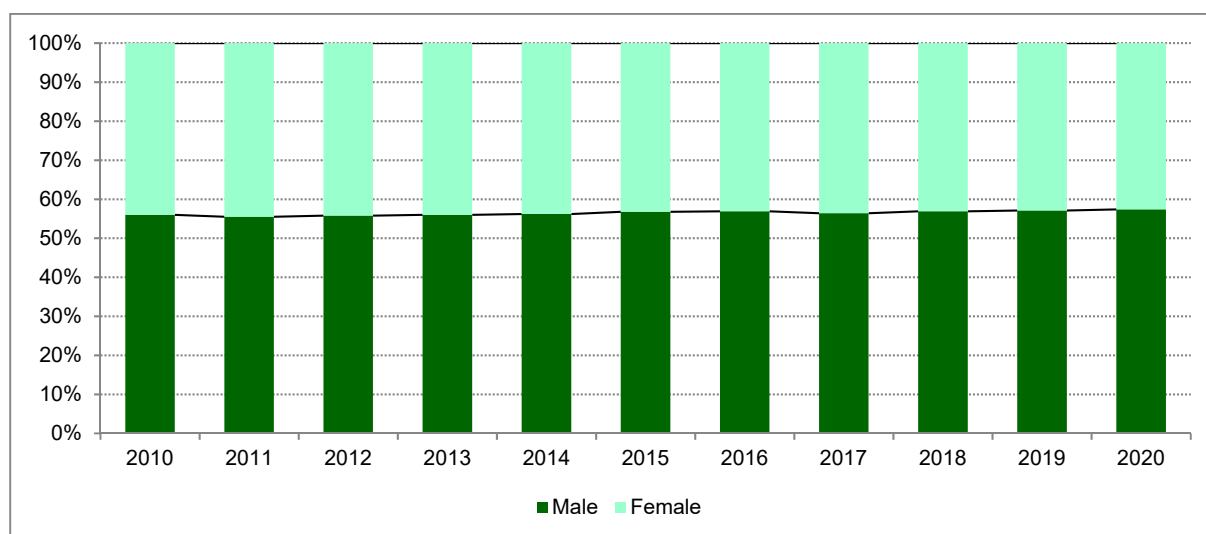


Source: NIS, Household Labour Force Survey (LFS)

By residence area, the gap between urban and rural employment tends to increase in recent years. In 2020, the difference was of 10.4 percentage points in favour of the urban area, compared to 5.6 percentage points in 2010.

The employment rate for the working age population (15-64 years) was, in 2020, of 65.6%. This indicator had higher values for men (74.4%, compared to 56.5% for women) and for persons from urban area (67.1%, compared to 63.8% in rural area).

The analysis of employment by education level reflects the fact that tertiary education entailed the highest value of the employment rate for the working age persons (88.8%, compared to 68.1% for the secondary education, respectively 43.4% for the low level of education). In 2020, the lowest employment rate for the working age persons (15-64 years) was recorded in urban area, for people with a low level of education (27.3%).

Youth employment is low in Romania, despite the improvement over the last four years. In 2020, the employment rate among young people (15-24 years) was 24.6%, by 0.3 percentage points higher than in 2010. At the other end of the scale, the employment rate of elderly people (55-64 years) was 48.5%, 7.8 percentage points higher as compared to 2010. 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 (83.3%, în anul 2020).

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**Figure 4.5. Employment rate, by age group, in 2020**
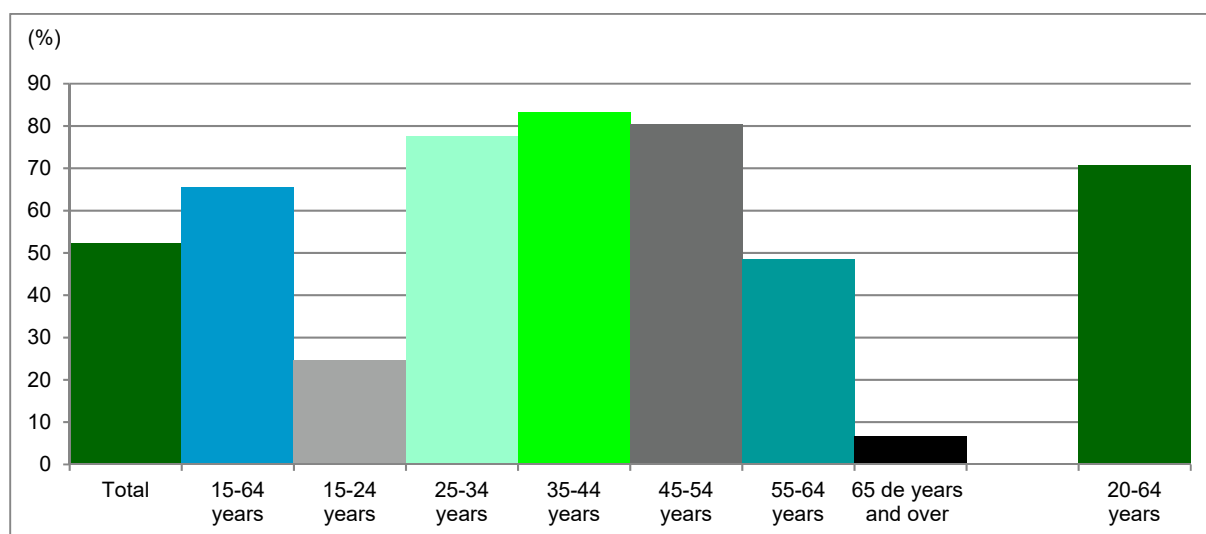


Source: NIS, Household Labour Force Survey (LFS)

In 2020, the employment rate of the population aged 20-64 years was 70.8, 0.8 percentage points over the national target of 70% set in the context of the Europe 2020 Strategy.

## 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 2010-2020, being, by the effects of the economic crisis which arose during 2009-2011 and the employment policies over several shorter periods of time and in the last year by the effects of the COVID-19 pandemic. After a  period of relativ stability - during 2010-2015 -  when the number of unemployment stood a little over 600 thousand, begining with 2016 the number of unemployemet decreased continuously and significantly reaching 353 thousand persons in 2019, approximately 300 thousand persons less than in 2010. 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 452 thousand people, by 99 thousand people more than the previous year.

**Figure 4.6. Evolution of the ILO unemployed number, during 2010-2020**
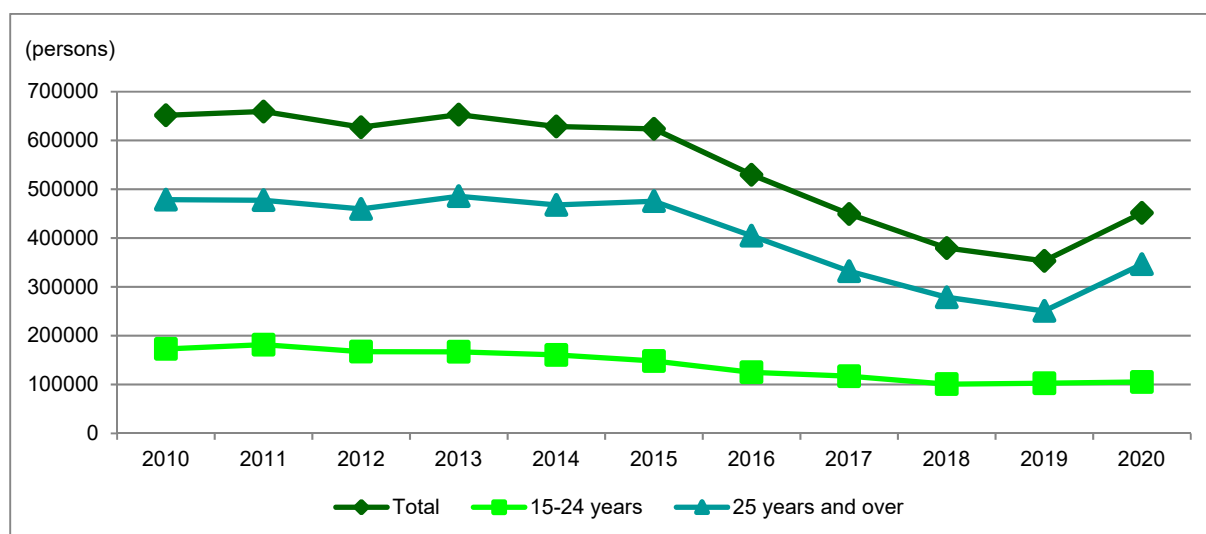


Source: NIS, Household Labour Force Survey (LFS)

Unemployment is measured in relative terms based on the unemployment rate. This indicator reflects the trends recorded by the unemployed population during 2010-2020. The year 2020 marks an increase in the unemployment rate compared to 2019 (5.0% in 2020, from 3.9% in 2019).

The gender gap between the two unemployment rates was, in 2020, of 0.6 percentage points (5.3% for men compared to 4.7% for women), and of 1.4 percentage points by residence area (4.4% in urban area compared to 5.8% in rural area).

**Figure 4.7. ILO unemployment rate, by sex and by residence area, in 2020**
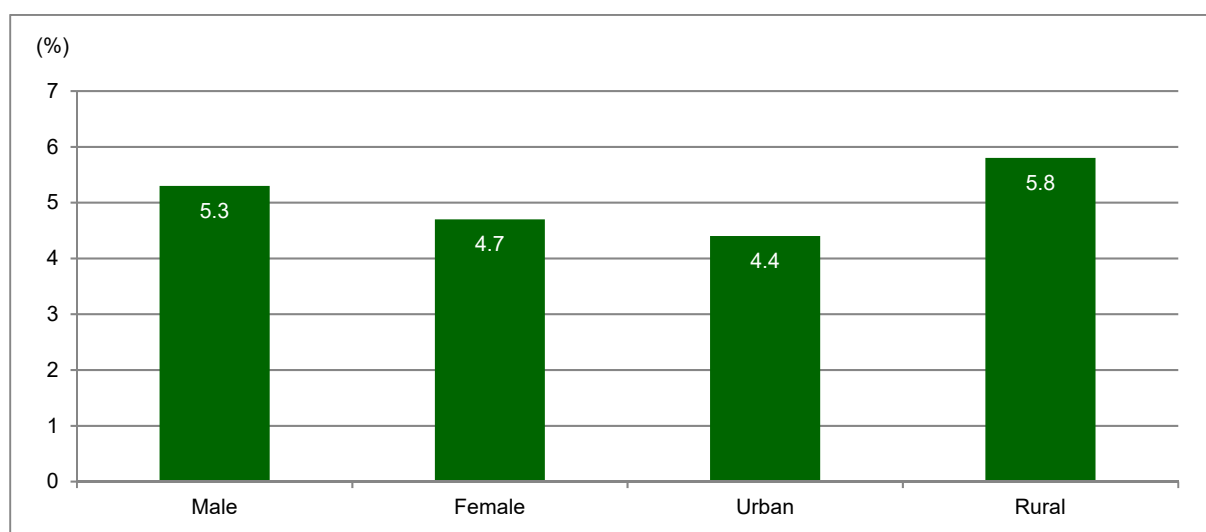


Source: NIS, Household Labour Force Survey (LFS)

The unemployment rate among young people (15-24 years old) followed during the period 2010-2020 a similar trend to that of the indicator calculated for the general population (15 years and over), its level being much higher. In 2020, the youth unemployment rate was 17.3%.

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 2020, the ILO unemployment rate for persons with medium education was 5.1%, respectively 8.1% for the low education level, significantly higher compared to the rate recorded for unemployed people with superior education (2.2%).

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 5.8%, reached in 2014).

**Figure 4.8. ILO unemployment rate, by education level, during 2010-2020**
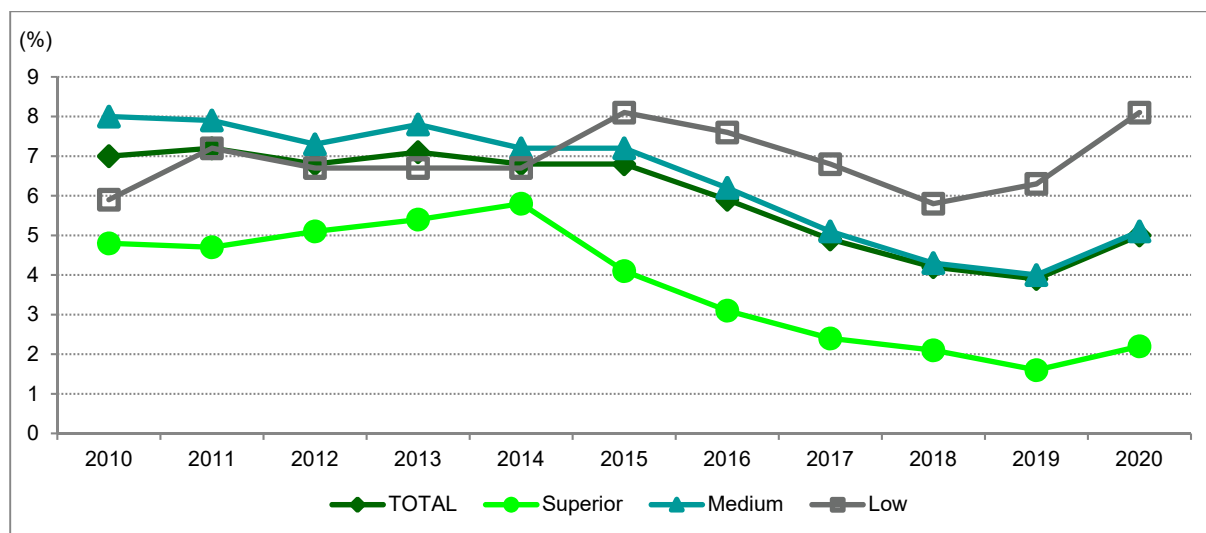


Source: NIS, Household Labour Force Survey (LFS)

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. The period in which the number of unemployed remained at relatively constant or decreased values was, in general, accompanied by the increase of the average duration of unemployment, the maximum value of the period reaching in 2016 (14.6 months). In 2020, due to the significant number of newly unemployed people, the average duration was reduced to 10.1 months

A quite similar situation as regards the evolution of the unemployment average duration is also recorded among the young persons of 15-24 years. However, the average duration of the ILO unemployment among persons aged 15-24 years is lower than the one calculated for the population of 15 years and over, being directly correlated with the youth high flexibility in entering or leaving the labour market.

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 2020, of 29.9%. Long-term unemployment was more significant for men (33.0% compared to 25.1% for women) and in rural area (31.1% compared to 28.6% in urban area).

For young people (15-24 years), the incidence of long-term ILO unemployment was, in 2020, of 47.2%. 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 2010-2020**

-%-

|  | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total** | **6.9** | **7.3** | **6.9** | **7.1** | **7.1** | **6.8** | **5.8** | **5.5** | **4.8** | **5.0** | **5.2** |
| Male | 8.1 | 8.5 | 7.9 | 8.1 | 8.2 | 7.6 | 6.7 | 6.3 | 5.6 | 5.8 | 6.3 |
| Female | 5.7 | 6.1 | 5.9 | 6.1 | 5.9 | 5.9 | 4.8 | 4.7 | 3.9 | 4.1 | 3.9 |
| Urban | 7.6 | 8.1 | 7.6 | 7.7 | 7.5 | 6.4 | 5.0 | 4.5 | 4.0 | 4.1 | 4.2 |
| Rural | 6.1 | 6.4 | 6.1 | 6.5 | 6.7 | 7.2 | 6.5 | 6.4 | 5.5 | 5.7 | 6.0 |

Source: NIS, Household Labour Force Survey (LFS)

In 2020, the number of ILO unemployed aged 15-24 years accounted for 5.2% of the total population of this age group, with a higher gender gap: 6.3% for men and 3.9% 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 2020, the ILO unemployment rate reached the highest values in the regions South-East (7.4%) and Center (7.1%), while the lowest were recorded in North-East (3.0%) and North-West (3.8%).

**Figure 4.9. Unemployment rate by region, in 2020**
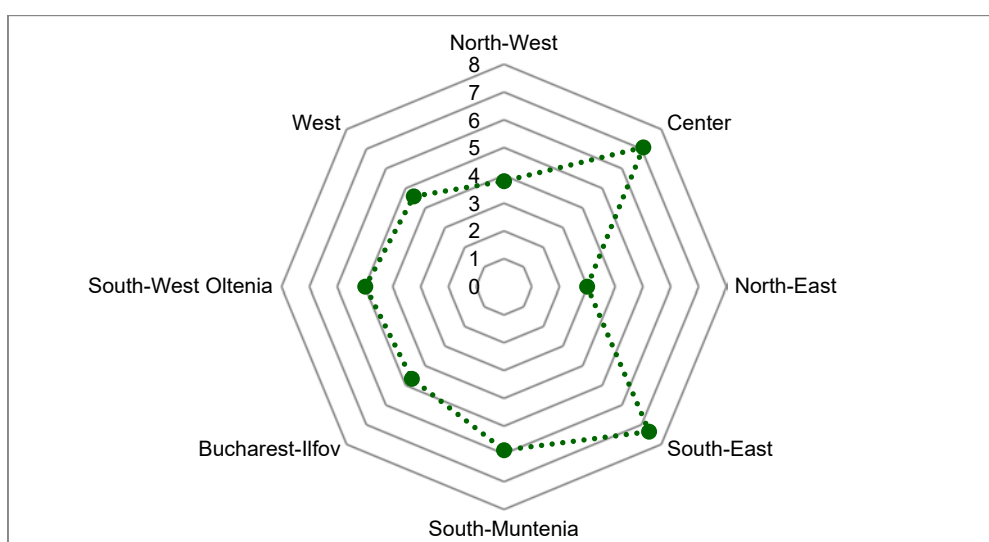


Source: NIS, Household Labour Force Survey (LFS)

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 Center (9.5%), and the lowest, again in rural areas, but in the North-East region (2.8%).

## 4.3.2. Registered unemployment

Depending on the objectives pursued in terms of measuring the size and intensity of job vacancy, several unemployment rates are concomitantly used, being calculated on the basis of different methodologies. Besides the ILO unemployment rate, calculated on the basis of statistical data provided by the statistical survey on employment, the registered unemployment rate is calculated on the basis of data from administrative sources (collected by NEA). The differences between the two values of the unemployment rates result from differences in coverage, but also from the application of different calculation methodologies.

**Figure 4.10. Registered unemployment rate and ILO unemployment rate, during 2010-2020**
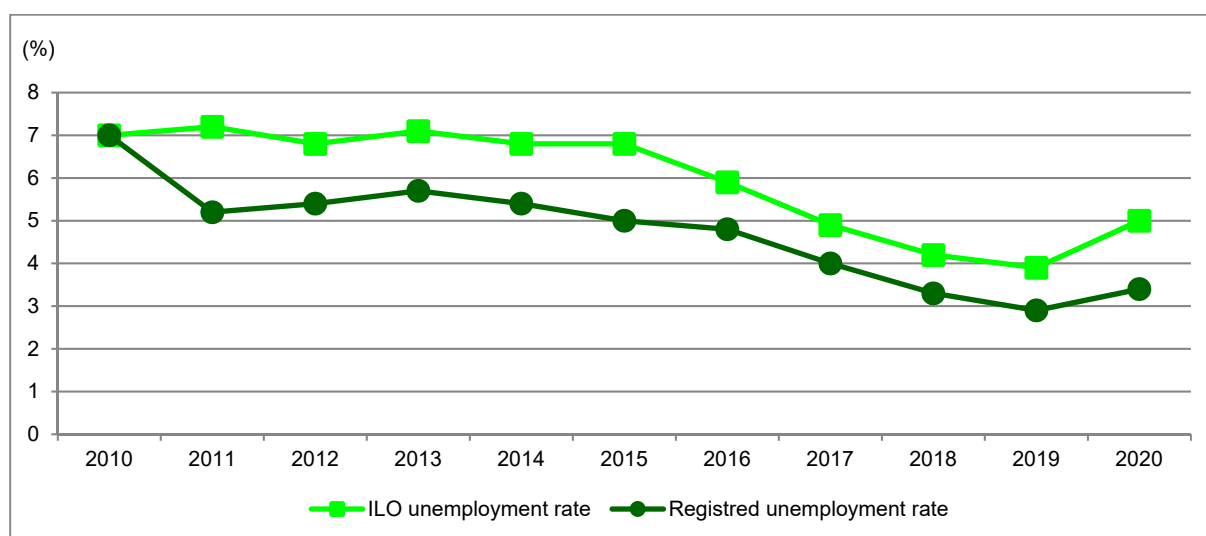


Source: 1. NEA - for the registered unemployment rate; 2. NIS, Household Labour Force Survey (LFS) - for the ILO unemployment rate

## 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 (2010-2020).

In 2020, the economically inactive population amounted to 10.3 million persons and accounted for 53.5% of total population. 70.8% of the economically inactive persons were aged for at least 15 years. The majority of economically inactive persons (53.0%) 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 2020, 58.6% 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 2020**
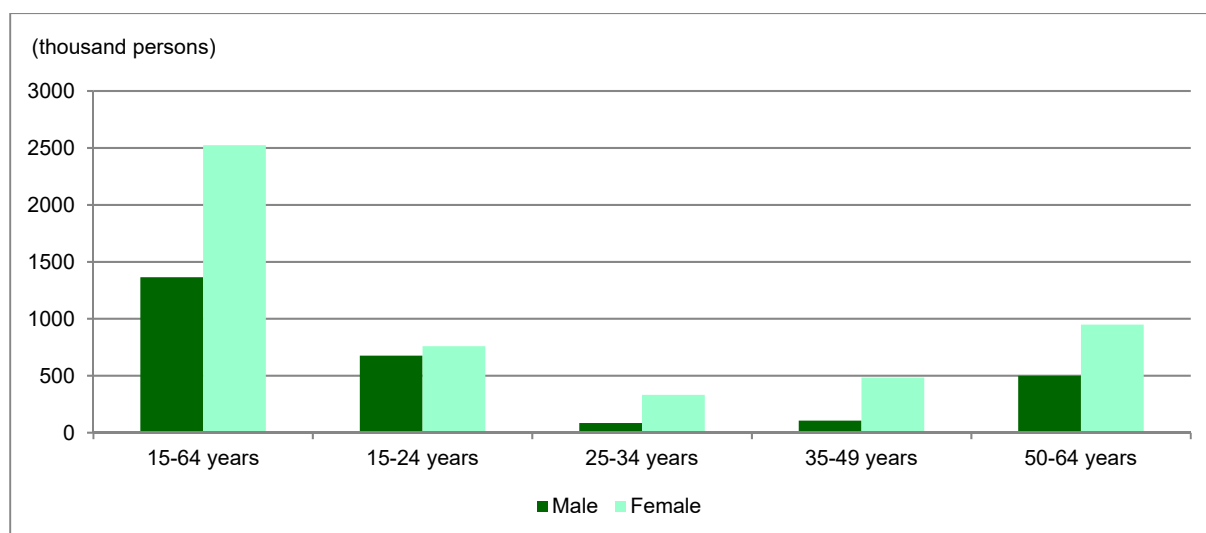


Source: NIS, Household Labour Force Survey (LFS)

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. Discouraged population

Among the inactive people, the discouraged[1] population segment is outlined, representing 0.5% of the total inactive population aged 15 and over (2020). In the period 2010-2020, with the exception of 2011 and 2016, the number of discouraged population decreased year by

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[1] The definition of discouraged population is to be found in the Glossary.

year, reaching 37 thousand people in 2020 (compared to 201 thousand people at the beginning of the period).

People in the age group 45-54 were the most affected, people in this age group representing, in 2020, 23.1% of all discouraged people.

**Figure 4.12. Evolution of discouraged population structure, by age group, during 2010-2020**
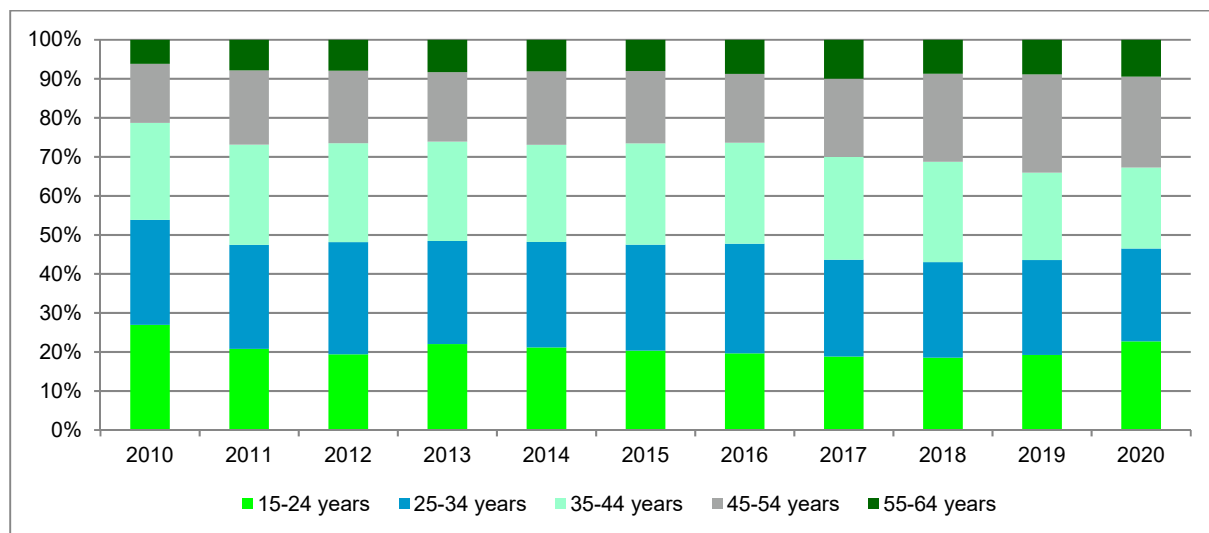


Source: NIS, Household Labour Force Survey (LFS)

In recent years, there has been a trend towards the age groups balancing as regards the phenomenon of discouragement on the labour market, the elderly population 55 and over remaining yet the least affected.

## 4.4.3. 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 4.13. Rate of young people neither in employment nor in education or training (NEET), by sex, during 2010-2020**
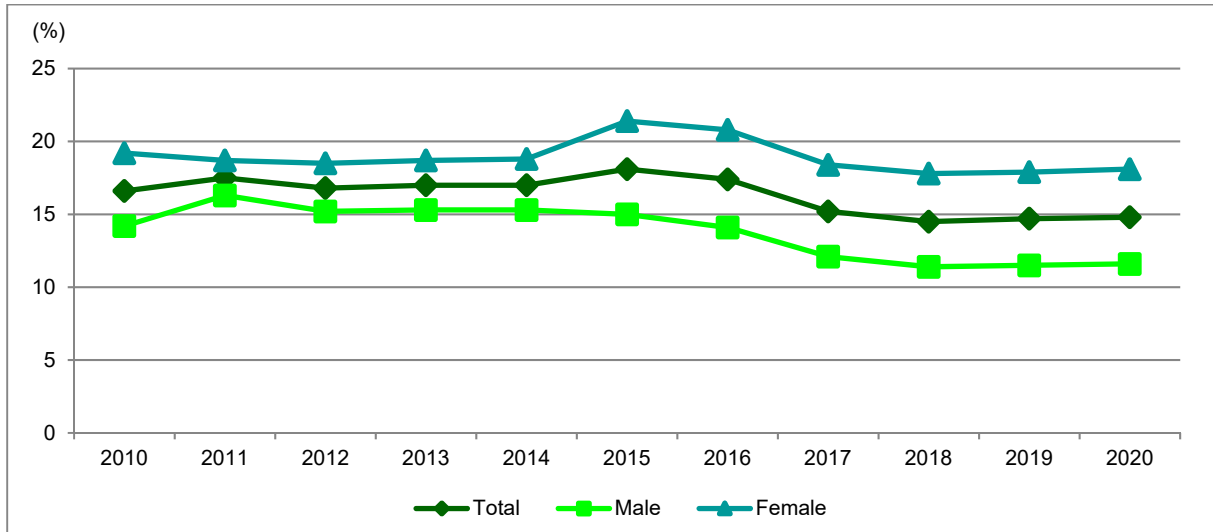


Source: NIS, Household Labour Force Survey (LFS)

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 2020, the rate of young people neither in employment nor in education or training was 14.8%, the young people in rural area (18.3%) and female population (18.1%) being the most affected.

## 4.4.4. 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 2020, out of the economically inactive population aged 15-74 years, 118 thousand persons represented potential additional labour force. Out of them, 59.0% were women and 58.1% were in rural area.

**Table 4.2. Potential additional labour force by age group, sex and residence area, in 2020**

| | Total | Male | Female | Urban | Rural |
|---|---|---|---|---|---|
| **POTENTIAL ADDITIONAL LABOUR FORCE - TOTAL** (thousand persons) | **118** | **48** | **70** | **49** | **69** |
| | - as % of total - | | | | |
| 15-24 years | 27.5 | 32.7 | 23.8 | 25.6 | 28.8 |
| 25-34 years | 20.2 | 17.1 | 22.3 | 21.0 | 19.5 |
| 35-44 years | 19.3 | 16.5 | 21.2 | 19.2 | 19.4 |
| 45-54 years | 21.7 | 19.2 | 23.5 | 21.2 | 22.1 |
| 55 years and over | 11.3 | 14.5 | 9.2 | 13.0 | 10.2 |

Source: NIS, Household Labour Force Survey (LFS)

In 2020, the distribution by age group of people in the potential additional labour force points out higher shares for people aged 25-44 years (39.5%).

## 4.5. Job vacancies

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

During 2010-2020, 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 2010 there were the fewest job vacancies (24.2 thousand job vacancies). In the period 2013-2018, there was a steady increase in labor demand in almost all economic sectors. In 2019, the average annual number of job vacancies decreased by about 11% as compared to 2018. This decrease was accentuated during 2020, mainly 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.

Thus, in 2020, the average annual number of job vacancies was 37.7 thousand, with about 30% less than the previous year. Most of the job vacancies (14.1 thousand) were found in the activities of the commercial services sectors, and almost one third of them 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 vacancies).

**Figure 4.14. Evolution of job vacancies, by activity sector of national economy, during 2010-2020**
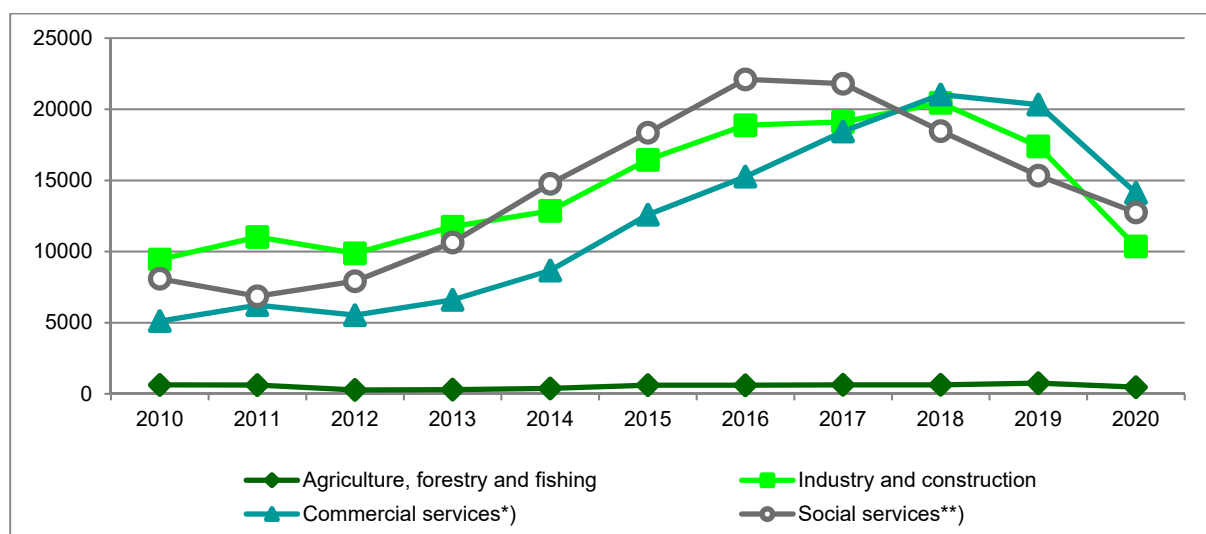


Source: NIS, Job vacancies survey

*) 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 3.5% private sector included), human health and social work activities (about 10.5% private sector included), arts, entertainment and recreation (about 54.2% private sector included).

The social services sector held about one third of the total number of job vacancies, these being mainly in public administration, respectively in human health and social work activities. In the secondary sector (industry and construction) there were 10.4 thousand job vacancies, most of which were observed in the manufacturing industry (over 70%).

In 2020, the average annual job vacancy rate was 0.77%, decreasing with 0.32 percentage points as against 2019, respectively with 0.47 percentage points as against 2018. By comparison with 2010, the average annual job vacancy increased by 0.18 percentage points. In 2020, the highest values of the average annual job vacancy rate were in public administration, other service activities (1.96% each), respectively human health and social work activities (1.52%). At the opposite side, the lowest value of the average annual job vacancy rate was found in accommodation and food service activities (0.06%).

Figure 4.15. Average annual job vacancy rate at national economy level and in the non-agricultural activities, during 2010-2020
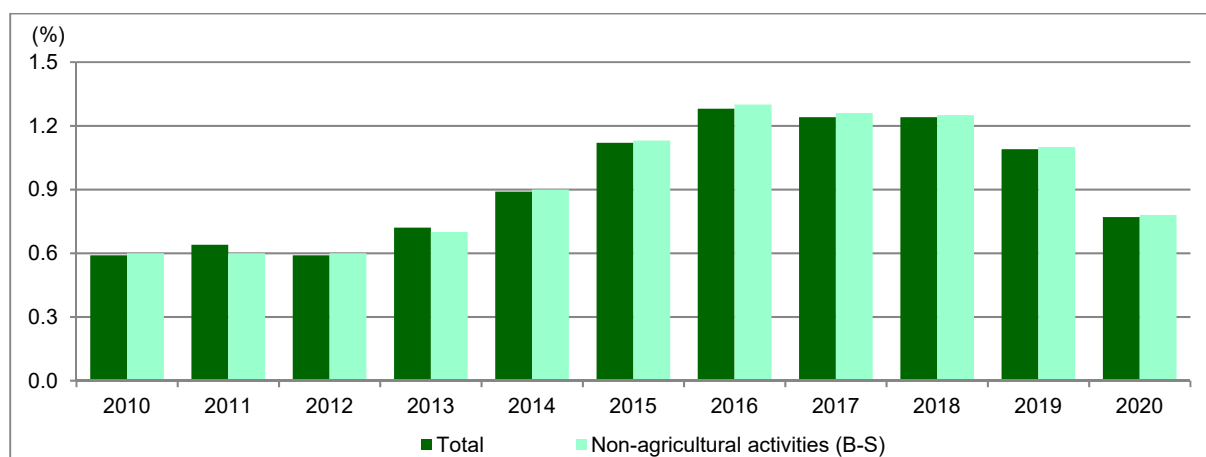


Source: NIS, Job vacancies survey

The highest demand for paid labour force is in occupations that include professionals. In 2020, the number of job vacancies in this major group of occupations (MG2) was 9.4 thousand, followed by the major group of occupations of service and sales workers (MG5) with 5.9 thousand job vacancies, respectively the major group of elementary occupations (MG9) with 5.2 thousand vacancies.

Figure 4.16. Average annual job vacancy rate, by occupation, during 2014-2020
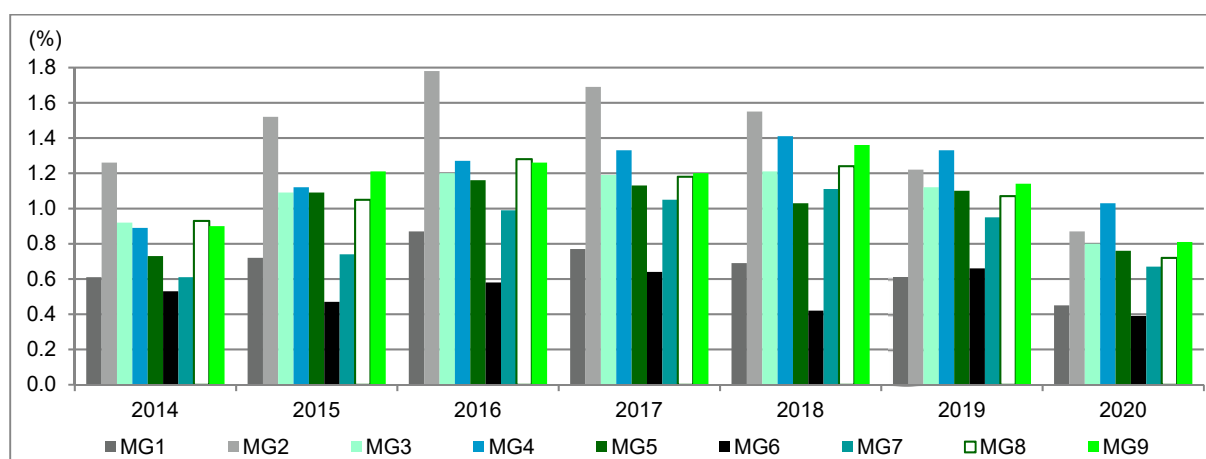


| | | | | |
|---|---|---|---|---|
| MG1 | Managers | | MG6 | Skilled agricultural, forestry and fishery workers |
| MG2 | Professionals | | MG7 | Craft and related trades workers |
| MG3 | Technicians and associate professionals | | MG8 | Plant and machine operators and assemblers |
| MG4 | Clerical support workers | | MG9 | Elementary occupations |
| MG5 | Service and sales workers | | | |

Source: NIS, Job vacancies survey

As a result of the economic situation created in the context of COVID-19 pandemic, all major groups of occupations registered decreases of the average annual number of vacancies compared to the previous year, and the most significant was among the occupations related to professionals (MG2), with 3.8 thousand vacancies.

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 2010-2020 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 2020 there were, on average, 8.3 jobs to 100 unemployed persons (about 50% 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 (76.2% in 2020) with an upward trend of this share (in 2010, it was 64.8%).

Entrepreneurship is still not very developed in our country, employers share being only 1.2% 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 82.9% of people are working in the private sector. Furthermore, the largest share in employment is that of male population (57.4%), although in Romania female population[2] numerically prevails the male population (51.1%, in 2020).

Another aspect of the national employment pattern is the downward trend in the share of rural area in total employment, its share in total employment decreasing from 47.2% in 2010 to 44.8% in 2020.

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[2] *Usually resident population.*

**Figure 4.17. Employment distribution by residence area during 2010-2020**
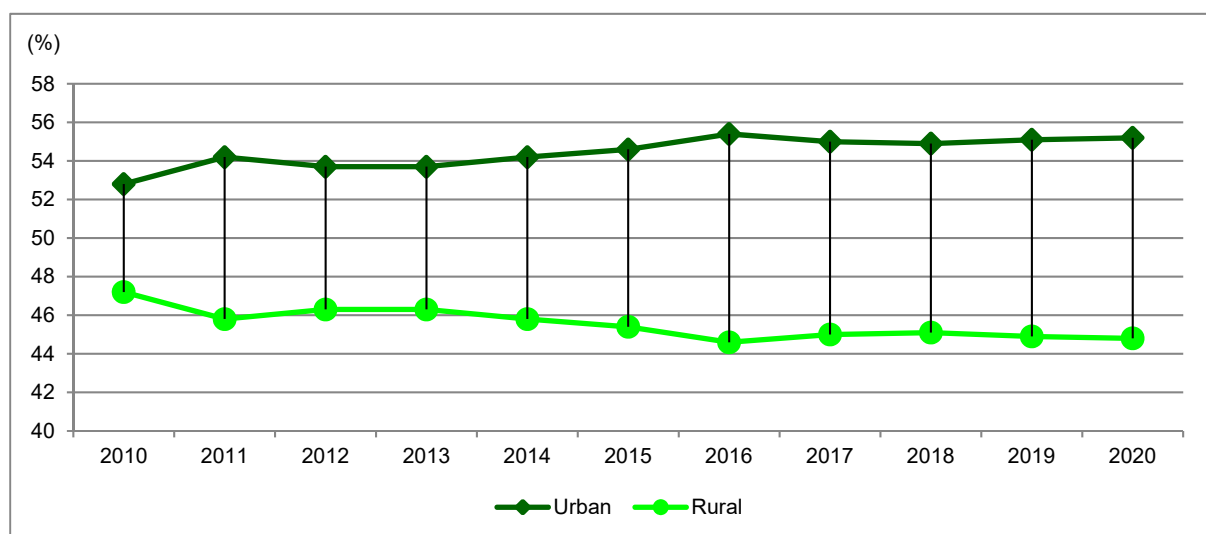
The distribution of employment by activity of the national economy, in 2020, indicates that 20.5% of all employed persons were concentrated in the agricultural sector, 29.7% in industry and construction and 49.8% in services. Over the last ten years, the share of employment in agriculture declined, mainly in favour of services.

**Figure 4.18. Employment distribution by activity sector of the national economy, during 2010-2020**
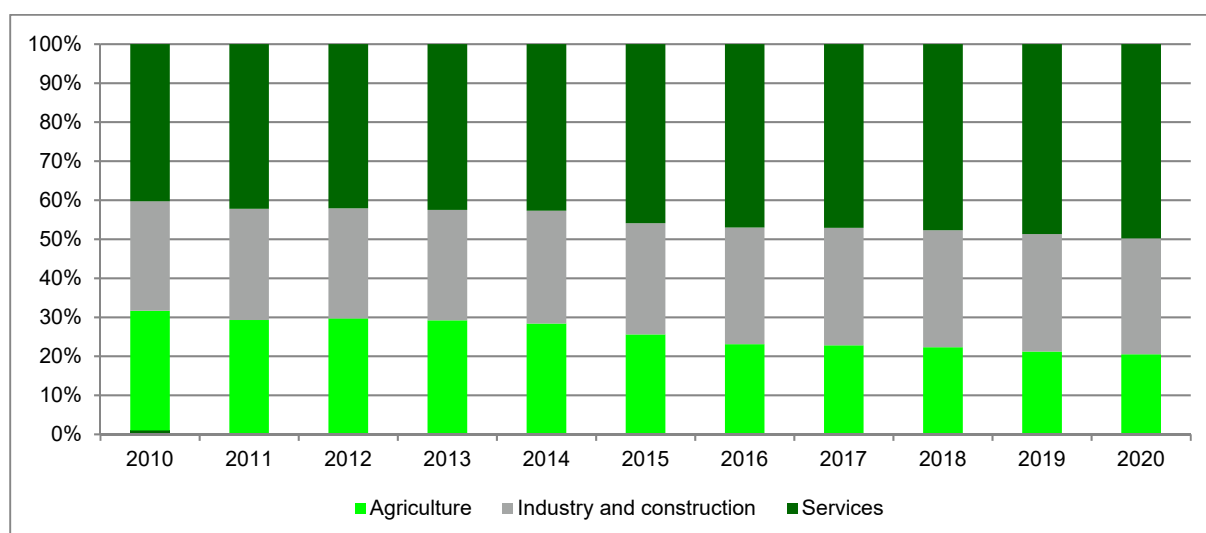
In rural area, the prevalent activity is agriculture (41.6%), while in urban area services ranks first (65.6%) in the employment structure by activity of the national economy.

Strictly referring to employees, distinct employment patterns emerged at national level. Although services holds the majority for both men and women, 73.3% of employed women work in services, while male employees in services hold a share by 20.9 percentage points lower. Regarding industry and construction, 43.3% of male employees were employed in this sector as compared to 25.4% 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 2020, 5.1% of male employees were aged between 15 and 24 years, while the share of the employed young girls aged 15-24 was 4.6%).

## 4.7. Information and Communication Technology

To support Europe's economic recovery, but especially for ensuring smart and sustainable growth and promoting social inclusion, the European Union has developed the Europe 2020 Digital Agenda with the main objective of establishing a Digital Single Market. In 2015, the "National Strategy on the Digital Agenda for Romania 2020" was launched in our country.

The concrete measures provided in the Strategy will entail the assurance of citizens and organisations access to electronic public services (eGovernment services); improvement of the access to the Internet by increasing the coverage of electronic communications networks of high-speed broadband; increasing the use of the Internet; promotion of electronic commerce; increasing cross-border electronic public services; increasing the digital content and the development of ICT infrastructure in the fields of education, health, and culture sectors; supporting the growth of the added value generated by the ICT sector by supporting R & D and innovation in the sector.

The targets set and assumed by Romania in the context of the Europe 2020 Digital Agenda objectives, as well as the current situation in our country are detailed below:

| Specific objective 2020 Europe 2020 Digital Agenda /ICT Survey indicator | EU target | RO target 2020 | RO situation 2020 |
|---|---|---|---|
| Fixed broadband coverage (total population) (Share of households with access to the internet via fixed broadband connection) | 100% (2013) | 100% | 67% |
| Individuals ordering goods or services online (Share of individuals who have ordered online goods or services for personal use, in the last 12 months) | 50% (2015) | 30% | 38% |
| Individuals who are regular Internet users (at least once a week), per total population (Share of individuals who are regular Internet users – at least once a week, including every day use) | 75% (2015) | 60% | 76% |
| Individuals who are regular Internet users, among the disadvantaged people (disadvantaged persons using the Internet at least once a week) | 60% (2015) | 45% | 33%(2015) |
| Individuals who have never used the Internet (Share of persons who have never used the Internet) | 15% (2015) | 30% | 14% |
| Individuals using eGovernment services (Share of individuals interacting online with public authorities, in the last 12 months) | 50% (2015) | 35% | 13% |
| Individuals submitting completed forms to public authorities (Share of individuals submitting completed forms to public authorities, over the Internet, in the last 12 months) | 25% (2015) | 20% | 7% |

Source: Reports CE, 2015 - Digital Agenda Scoreboard key indicators
      (http://digital-agenda-data.eu/datasets/digital_agenda_scoreboard_key_indicators/visualizations)
NIS, Survey on population access to information technology and communications (ICT)

In 2017, the average speed of the internet has increased worldwide by 15%, up to 7.2 Mbps. South Korea remains in the first place at medium speed, of 29 Mbps, while Singapore on the first place in the ranking of maximum speeds - 184.5 Mbps. In the same year, according to the latest ranking published by Akamai[3] Romania holds the 13th position in terms of the average speed of the Internet and the 12th position in the ranking of maximum speeds (95.0 Mbps).

In the next section of the paper, we will analyse some aspects related to internet access af some households and individuals in Romania, based on the results of the information and communications technology in households

In the last years, an increase in the number of households in Romania which have access to a internet is observed, though the value of the indicator is below the average of the European Union Member States; in 2020 the share of households (with at least one person aged 16-74) who had access to the internet was 86% (compared to 91% in the EU27).

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[3] *https://www.akamai.com/kr/ko/multimedia/documents/state-of-the-internet/q1-2017-state-of-the-internet-connectivity-report.pdf*

The significant increase in this indicator is worth mentioning compared to 2019 (2 percentage points higher), but especially to 2006 (6 times higher).Therefore, the Internet is gaining more and more users in Romanian households, regardless of the age, sex, level of education or occupational status of the person who runs the household and regardless of the environment of residence of which the household is part.

**Figure 4.19. Share of households with access internet, by area residence, in 2019 and 2020**
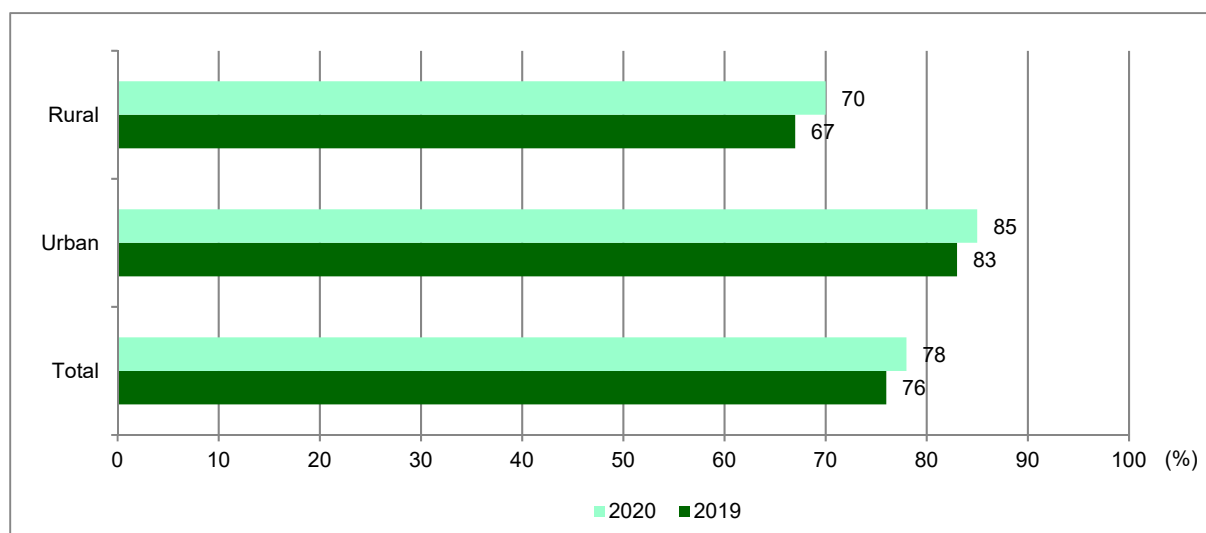


Source: NIS, Survey on population access to information technology and communications (ICT)

By area of residence, it is obvious that the Internet is used more in households in urban areas (85%) compared to those in rural areas (70%).

Another relevant indicator for monitoring household information technology is the share of households with internet access. In 2020[4], 67% of households with at least one person aged 16-74 in our country were connected to the Internet, with a fixed broadband connection.

As the level of education of the head of the household increases, so does the interest in exploiting the Internet. Thus, in 2020, more than 9 out of 10 households run by people with a higher level of education were connected to the Internet, and of those run by people with high school education, almost 7 out of 8 had this information technology at home.

The households of employees with internet access hold the highest share in this type of households (98%). The households headed by pensioners are the other end of the scale (57%).

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[4] Since 2014, the data were estimated based on the usually resident population on January 1st and are not comparable to the series published for previous periods.

**Figure 4.20. Share of households with access to the internet, by the occupational status of the household head, in 2020**



Source: NIS, Survey on population access to information technology and communications (ICT)

In general, households with young peaple have access more frequently to the Internet (99% for households with people aged 16-24 years and 95% for those with people aged 25-34 years).

In 2020, 86% males and 83% females between the ages 16-74 used the internet in the past 12 months.

As regards the persons aged 16-74 years who have accessed the internet in 2020, their share in the total population of the same age in Romania is 85% (78% in the last three months). There are also people who use the Internet more frequently: 79% are daily users of the internet, while those accessing the internet at least once a week, but not every day, account for 18% in the total persons age 16-74 years who use the internet.

The last few years have marked an increase in the use of the internet for online commerce. In 2020, 22% of people aged 16-74 ordered goods or services online, in the last 3 months.

**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 decrease in the average employment rate for the european countries, occurred in the context of the global financial and economic crisis of 2008, interrupted its course in 2014 – the first post-crisis year in which there was a significant increase in the employment rate. In the years that followed, the employment rate continued to increase, reaching a peak of 68.4% in 2019. In 2020, the employment rate in the EU27 for people aged 15-64 was 67.6%, down 0.8 percentage points from the previous year.

**Figure 4.21. Employment rates in the EU Member States,**

**in 2020**



Source: Eurostat, http://ec.europa.eu/eurostat/data/database
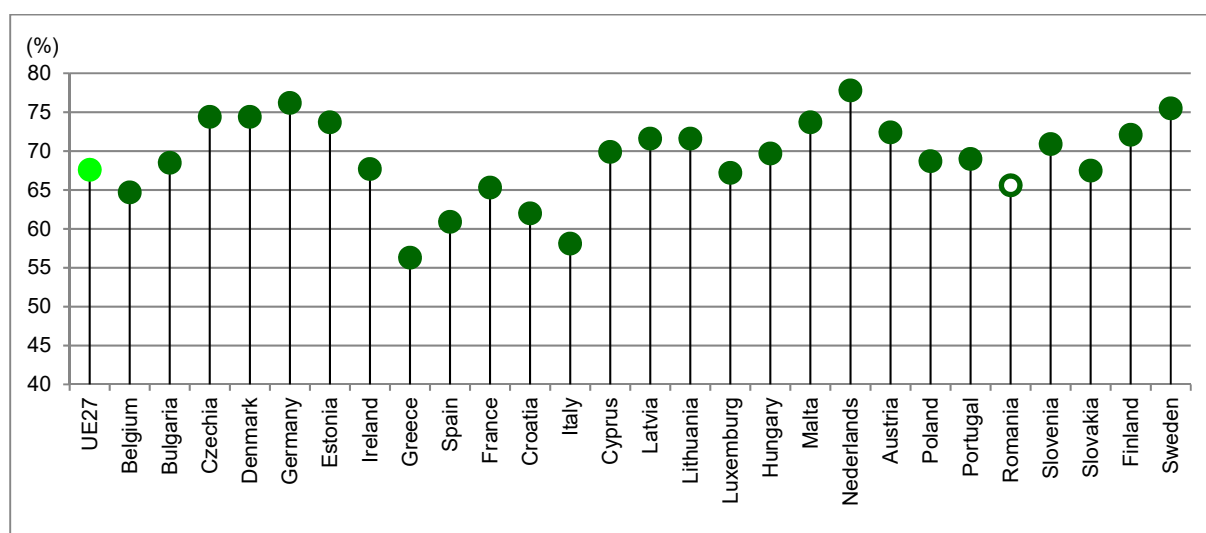
In 2020, among the EU Member States where the employment rates reached the highest values are in  Netherlands (77.8%), Germany (76.2%) and Sweden (75,5%). At the other end of the scale, employment rates were below 60%, the lowest rates being recorded in Greece (56.3%) and Italy (58.1%).

In 2020, the average unemployment rate for the EU27 was 7.0%, but the highest values were observed in Greece (16.3%) and Spain (15.5%).

**Figure 4.22. Unemployment rate in the EU Member States, in 2020**



Source: Eurostat, http://ec.europa.eu/eurostat/data/database
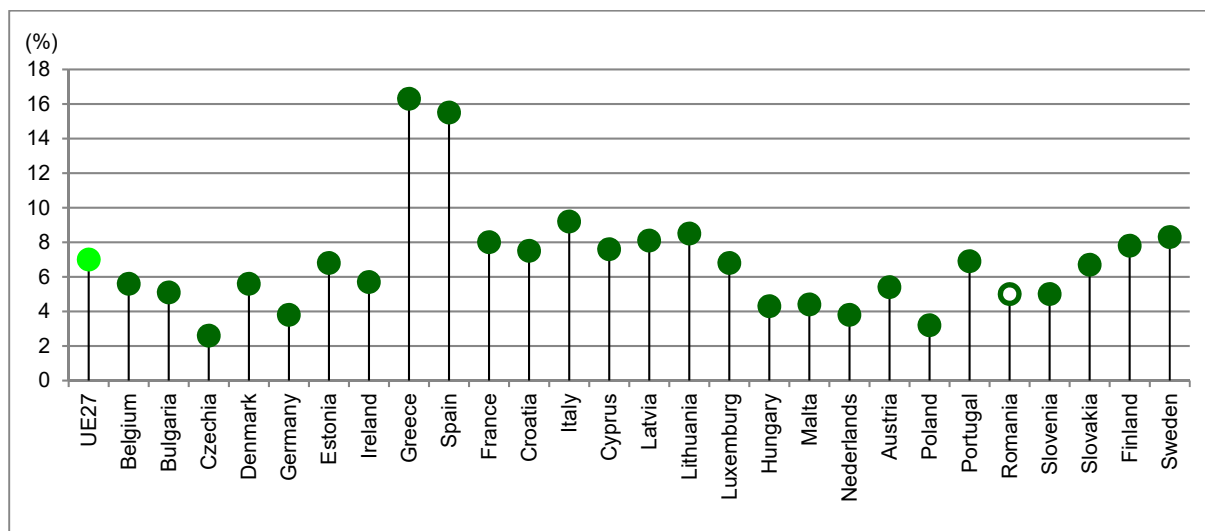
Although the average for the 27 Member States show no significant differences by gender (unemployment rates for women exceeds that of men by 0.5 percentage points), at national levels high gaps are observed in the unemployment rates for men and women. For example, in some Member States, the unemployment rate for men exceeds the values calculated for female population (by 2.0 percentage points in Latvia, 1.6 percentage points in Lithuania and in Romania by 0.6 percentage points). There are States where the unemployment rate is higher for female population (by 6.2 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 2010-2020**

(%)

| | 2010 | 2012 | 2014 | 2016 | 2018 | 2020 |
|---|---|---|---|---|---|---|
| EU 27 since 2020 | 12.7 | 13.1 | 12.6 | 11.7 | 10.5 | 11.1 |
| Belgium | 10.9 | 12.3 | 12.0 | 9.9 | 9.2 | 9.2 |
| Bulgaria | 21.0 | 21.5 | 20.2 | 18.2 | 15.0 | 14.4 |
| Czechia | 8.8 | 8.9 | 8.1 | 7.0 | 5.6 | 6.6 |
| Denmark | 6.9 | 7.3 | 6.4 | 6.7 | 7.7 | 7.4 |
| Germany | 8.3 | 7.1 | 6.4 | 6.7 | 5.9 | 7.3 |
| Estonia | 14.0 | 12.2 | 11.7 | 9.1 | 9.8 | 8.9 |
| Ireland | 19.4 | 19.2 | 15.3 | 12.6 | 10.1 | 12.0 |
| Greece | 14.8 | 20.2 | 19.1 | 15.8 | 14.1 | 13.2 |
| Spain | 17.8 | 18.6 | 17.1 | 14.6 | 12.4 | 13.9 |
| France | 12.7 | 12.5 | 11.2 | 11.9 | 11.1 | 11.4 |
| Croatia | 15.7 | 16.6 | 19.3 | 16.9 | 13.6 | 12.2 |
| Italy | 19.0 | 21.0 | 22.1 | 19.9 | 19.2 | 19.0 |
| Cyprus | 11.7 | 16.0 | 17.0 | 16.0 | 13.2 | 14.4 |
| Latvia | 17.8 | 14.9 | 12.0 | 11.2 | 7.8 | 7.1 |
| Lithuania | 13.2 | 11.2 | 9.9 | 9.4 | 8.0 | 10.8 |
| Luxembourg | 5.1 | 5.9 | 6.3 | 5.4 | 5.3 | 6.6 |
| Hungary | 12.6 | 14.8 | 13.6 | 11.0 | 10.7 | 11.7 |
| Malta | 9.5 | 10.8 | 10.3 | 8.8 | 7.3 | 9.3 |
| Netherlands | 4.8 | 4.9 | 5.5 | 4.6 | 4.2 | 4.5 |
| Austria | 7.4 | 6.8 | 7.7 | 7.7 | 6.8 | 8.0 |
| Poland | 10.8 | 11.8 | 12.0 | 10.5 | 8.7 | 8.6 |
| Portugal | 11.4 | 13.9 | 12.3 | 10.6 | 8.4 | 9.1 |
| Romania | 16.6 | 16.8 | 17.0 | 17.4 | 14.5 | 14.8 |
| Slovenia | 7.1 | 9.3 | 9.4 | 8.0 | 6.6 | 7.7 |
| Slovakia | 14.1 | 13.8 | 12.8 | 12.3 | 10.2 | 10.7 |
| Finland | 9.0 | 8.6 | 10.2 | 9.9 | 8.5 | 9.3 |
| Sweden | 7.7 | 7.8 | 7.2 | 6.5 | 6.0 | 6.5 |

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

In 2020, 11.1% 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 Italy (19.05), Romania (14.8%), Bulgaria (14.4%), Spain (13.9%) and Greece (13.2%), where the NEETs rate is well above the EU average.

## 4.8.2. ICT in the international context

The Internet and the digital technologies are transforming our world. However, due to the existing online barriers, the people access to certain goods and services may be limited. In this context, the European Union aims, through the Europe 2020 Digital Agenda, to the creation and development of a digital single market. This market could contribute to the European economy growth, boosting jobs, investments, competition and innovation. It can expand markets and foster better services at better prices/costs, transform public services and create new jobs.

With such a market, Europe could maintain its position as a world leader in the digital economy. ICT indicators of the Digital Agenda Europe 2020 have their own projections and target values and for the Member States. Romania is in line with the Digital Agenda, through the adoption of the National Strategy on the Digital Agenda for Romania 2020. Achievering of joint goals of the Digital Agenda Europe 2020 requires combined efforts of the Member States. In this context, Romania should maximise the impact of public policies and investments in ICT as means to transform the Romanian economy.

The comparisons with other EU Member States show that Romania is in line with the digital development, but not in the forefront of the countries where households have access to the Internet, ranking the a 22[5] among the Member States.

**Figure 4.23. Level of Digital Agenda target indicators in the EU Member States, in 2020**



Sursa: Eurostat, http://ec.europa.eu/eurostat/data/database

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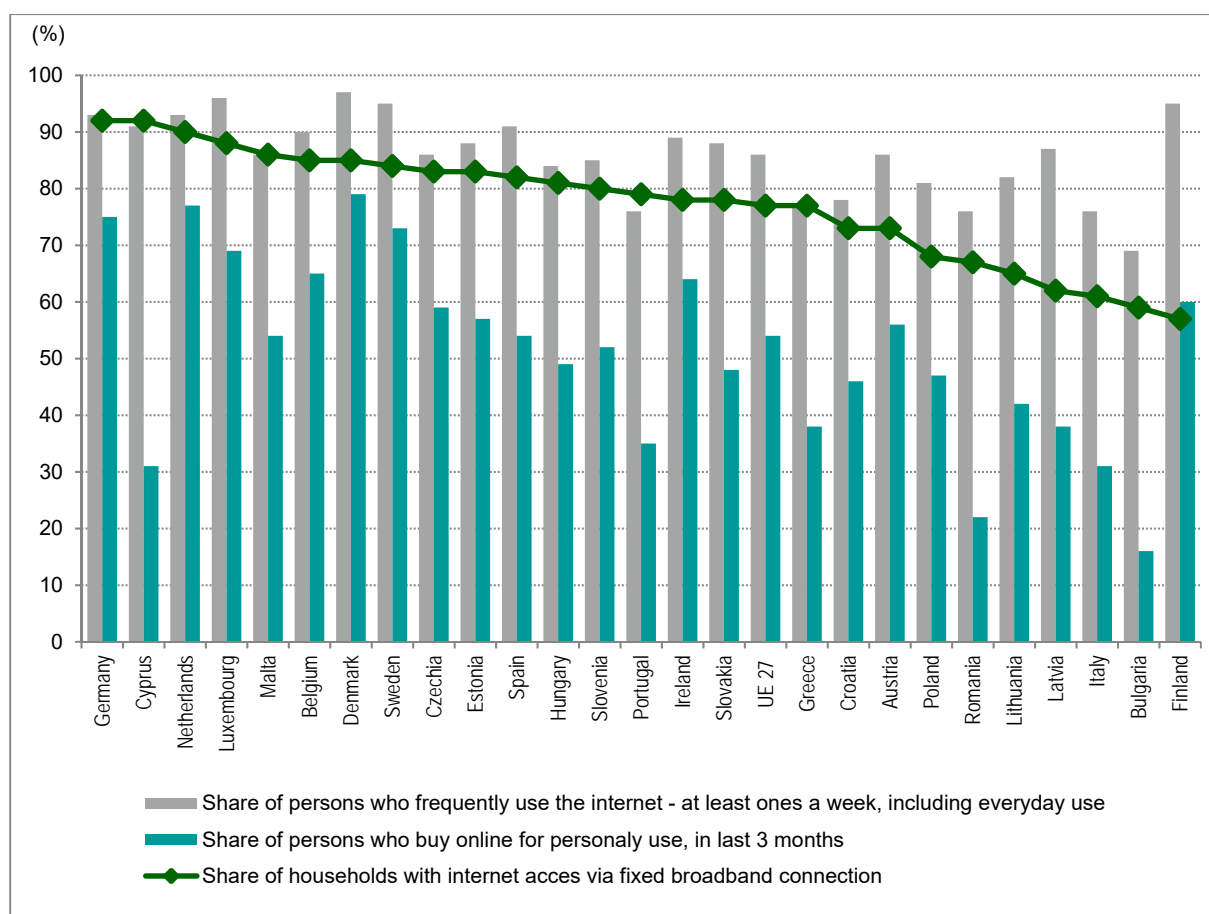
[5] Between the Member States of EU 27, France doesn't have available data of 2020.

Romania, along with Portugal and Italy, ranks penultimate among EU member states in terms of regular internet use - at least once a week, including every day (76% of all 16 to 74 year olds). In the ranking of states where the population ordered goods or services for personal use, Romania is the penultimate position (22%), being placed ahead of Bulgaria, at a difference of 6 percentage points.

In the context above mentioned, investments in ICT should be a priority in Romania, this being the main lever for convergence to the strategic targets of the Europe 2020 Strategy. The association of the strategic objectives of Europe 2020 with the specific targets in the ICT field could lead to the development of our country's economy in general and of the digital economy, in particular, through deep changes at the national level on several levels: legislation, innovation, procedural changes, changes in the population behaviour etc.

# 5. POPULATION INCOME AND EXPENDITURE

## 5.1. Survey objectives

An analysis of the level and evolution of population income and expenditure is of particular importance for national macroeconomic policy making, since it provides information on the level of social and economic development, living standards, the level of civilisation and cultural development, consumption patterns and structural changes in aggregated demand. Moreover, the importance of survey also stems from the fact that the data on population income, expenditure and consumption are used in the calculation of certain synthetic indicators of major importance at national and regional level, such as, for example, the consumer price index and the macro-economic aggregates (national accounts). The data presented in this chapter include the income and expenditure of households, as well as households' consumption by type and destination and the socio-economic characteristics of the population in Romania. The chapter also provides comparative trends of the indicators for the period 2010-2020.

## 5.2. Population income

### 5.2.1. Households income

According to the results of the household budget survey, in the year 2020[1], the average total monthly household income amounted, in nominal terms, to 5216.4 lei, with 965.1 lei higher than in 2018, representing an increase of 22.7%.

Monetary income was, as monthly average, 4840.2 lei per household, increasing with 919.8 lei compared to 2018, while the income in kind was 376.2 lei per household (with 45.3 lei higher compared to 2018). The households of employees have, on average, the highest monthly

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[1] Since 2014, the results of the household budget survey have been estimated based on the usually resident population and are not comparable with previous data series.

income (7569.0 lei), compared with the households of self-employed in non-agricultural activities (3490.0 lei), farmers (3151.5 lei), unemployed (2919.8 lei) or pensioners (3297.1 lei).

**Figure 5.1. Total income and monetary income of the population, by occupational status of the household head, in 2020**
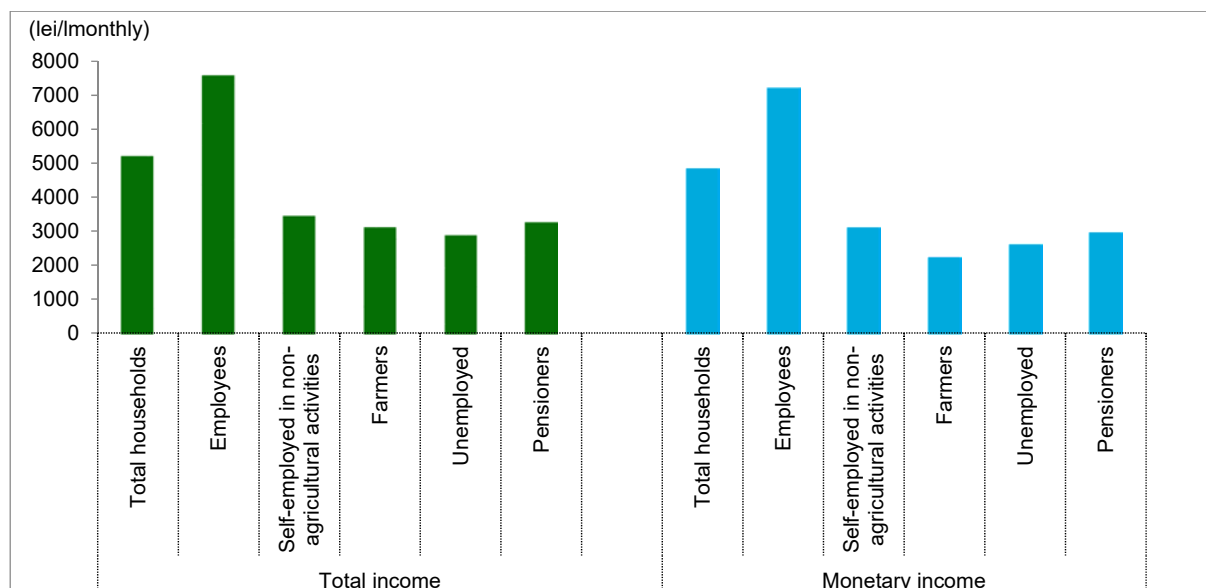


Source: NIS, Household Budget Survey (HBS)

In the period 2011-2020, total income of the population increased, on average, by 8.8% annually, while the monetary income had an average annual growth rate of 9.9%.

**Figure 5.2. Total income and monetary average income of the population, during 2010-2020**
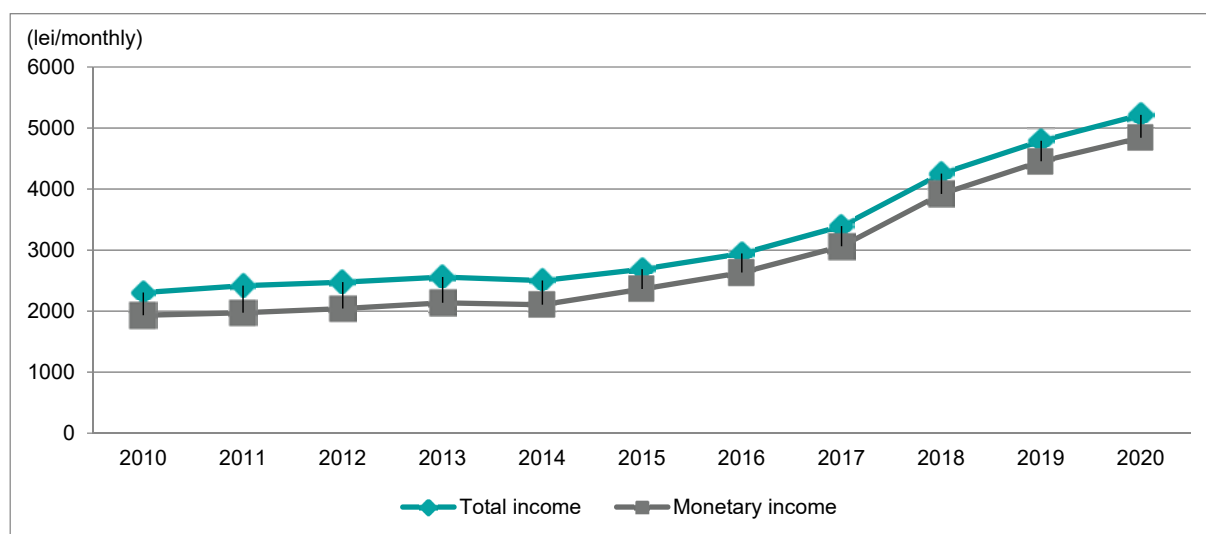


Source: NIS, Household Budget Survey (HBS)

It is worth mentioning that, in the last two years, monetary income increased more than total income, and the income in kind increased for all social categories. Therefore, in 2020, the households total income were higher by 22.7%, and the monetary income by 23.5%, compared to 2018. These higher increases in total income are the consequence of substantial increases of the monetary income (by 23.5%) and also of income in kind (by 13.7%). The income in kind increased for all social categories.

**Figure 5.3. Growth rates of total, monetary and in kind income of the population, in 2020 compared to 2018**
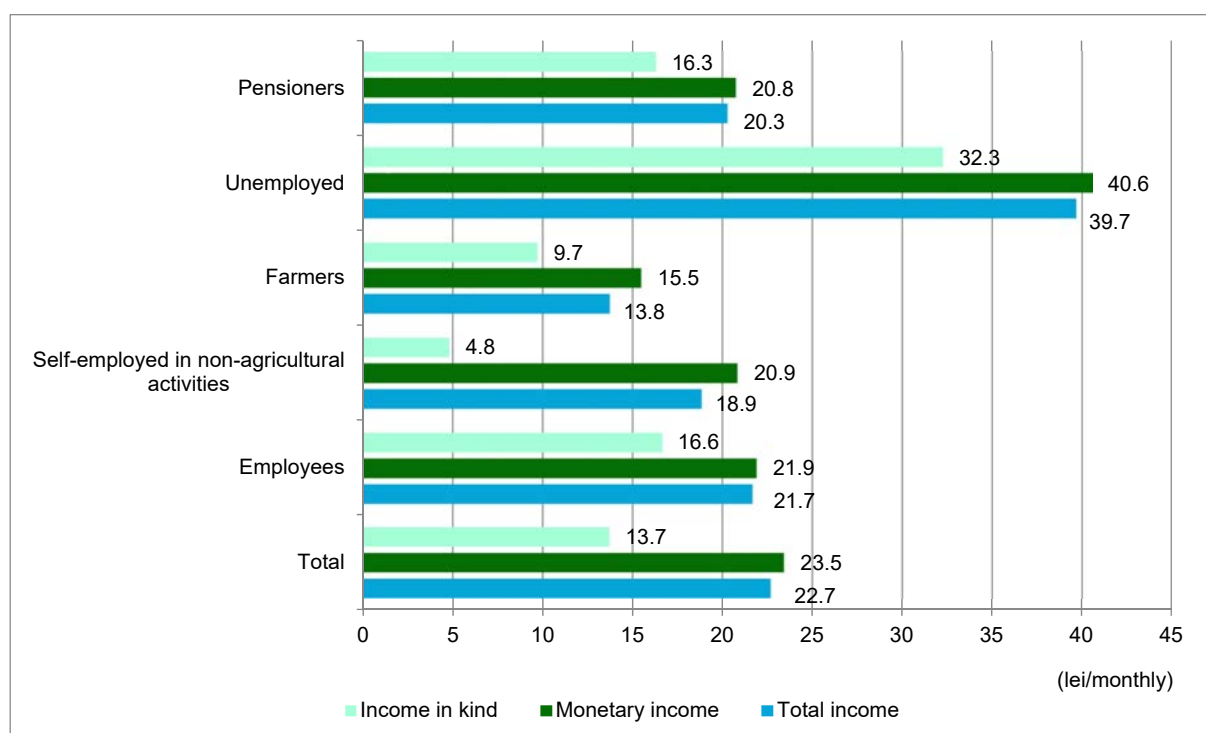


Source: NIS, Household Budget Survey (HBS)

It should be noted that employees income represent in a very high proportion (95.5%), monetary income, while for farmers the monetary income is 70.7% of the total income of the household.

In 2020, the salaries and other related income represented the most important source of income, accounting for the highest share in the total income of households (68.2%). The total household income also received the contribution of income from social benefits (19.0%), agriculture (1.7%), independent non-agricultural activities (1.8%) and from property and from asset sales of household wealth (1.1%).

**Figure 5.4. Structure of total population income (%), in 2020**



Income from independent non-agriculture activities 1.8%

Income from agriculture 1.7%

Income from social benefits 19.0%

Income in kind 7.2%

Other income 1.0%

Property income 0.1%

Income from sale of household's assets 1.0%

Income from salaries and other income associated 68.2%
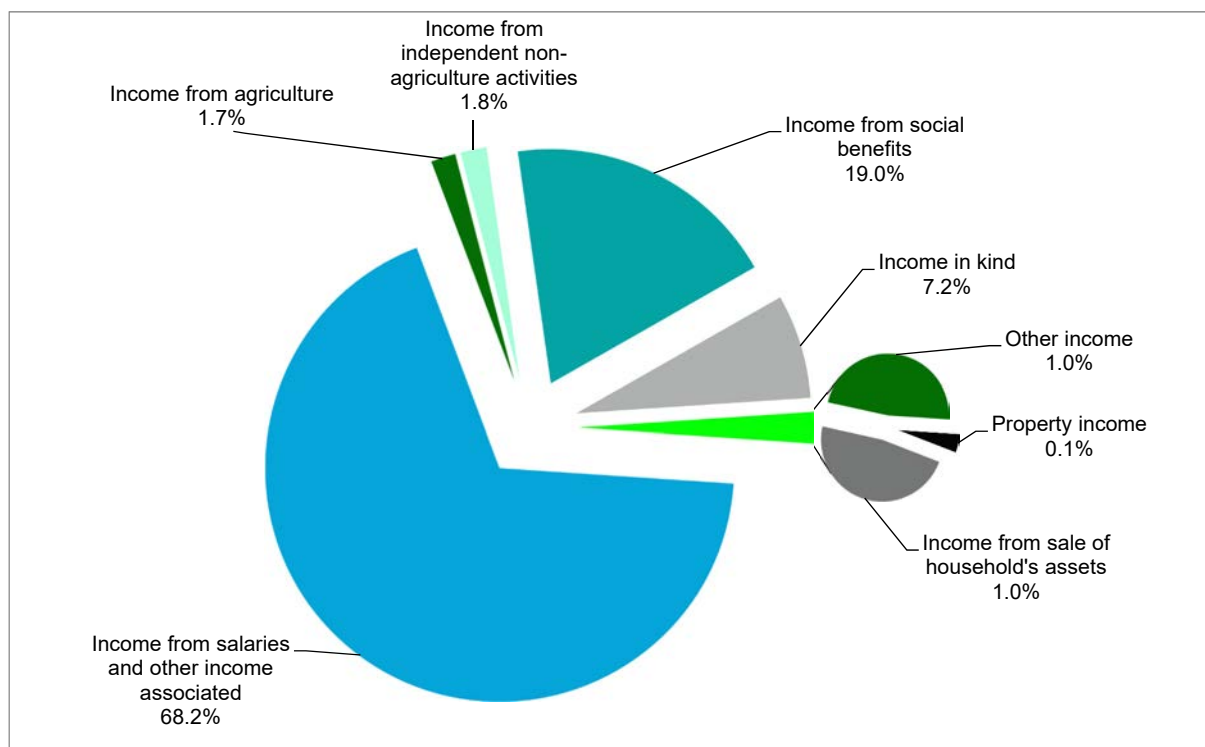
Source: NIS, Household Budget Survey (HBS)

Although decreasing by 0.6 percentage points compared to 2018, income in kind continues to hold an important share in total household income in Romania (7.2%), and among them the income from the equivalent value of agro-food products consumption from own resources (84.9%) is to be highlighted.

It is worth mentioning that the structure of total income of the Romanian population differs significantly between the two residence areas. In urban area, 75.3% of the household income came from gross wages and other remuneration and 17.6% from social benefits. In the rural area, the main source of household income is also from gross wages 55.5%, followed by income from social benefits (21.6%), complemented by income in kind which account for 12.7% of total income in rural area.

## 5.2.2. Individuals income

The monthly average disposable income on a person, in 2020, was 1414.18 lei, the evolution being on an upward trend in the last 10 years, with an annual average increase of 21.7 lei.

**Figure 5.5. Evolution of monthly average disposable income, during 2010-2020**
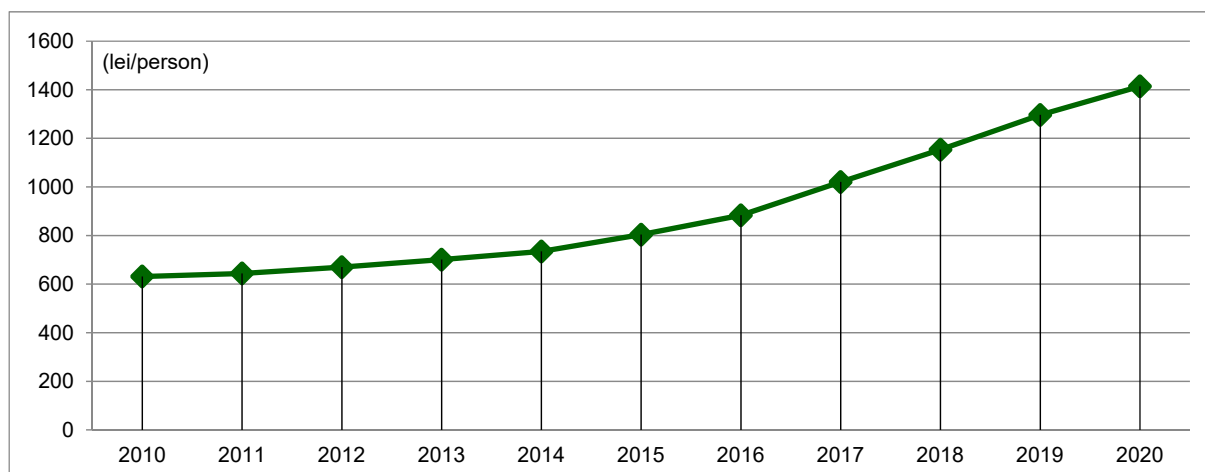


Source: NIS, Household Budget Survey (HBS)

In 2020, the households of employees have recorded the highest level of disposable income of 1632.5 lei per person, at the other end of the scale being the households of unemployed (726.4 lei) and of farmers (749.0 lei).

**Figure 5.6. Disposable income,**

**by occupational status of the household head, in 2020**
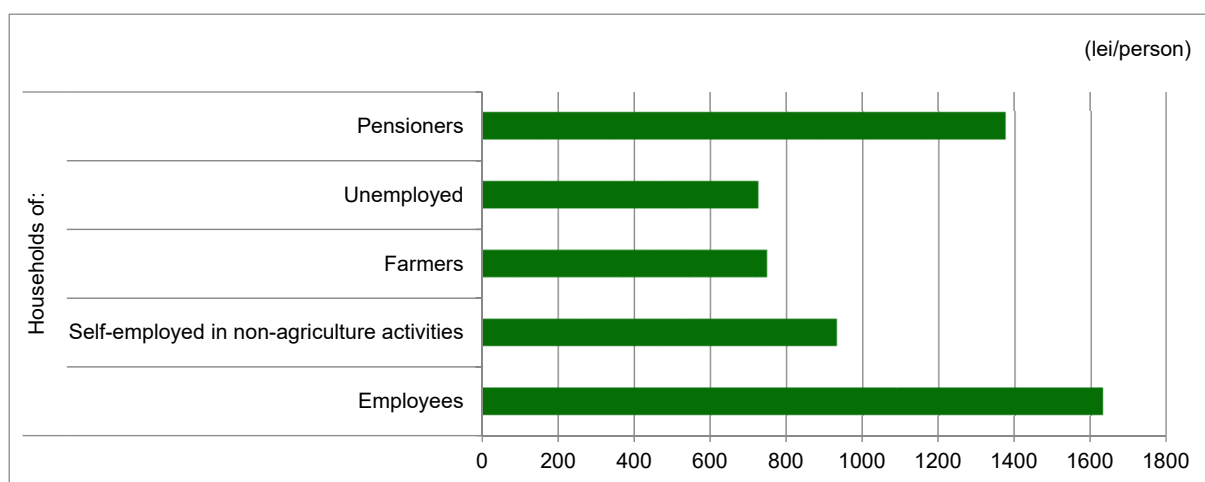


Source: NIS, Household Budget Survey (HBS)

The education attainment of the household head is a factor that influences the size and structure of disposable income. The higher the education level of the household head, the higher the median disposable income per person in a household, with an increased share of the monetary income. The disposable monetary income in households with tertiary education level were, in 2020, 2163.3 lei/person, with 859.8 lei higher than the average of all households in the country and 1.9 times higher than those of households with secondary level of education.

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**Figure 5.7. Monetary disposable income by the education level of the household head, in 2020**
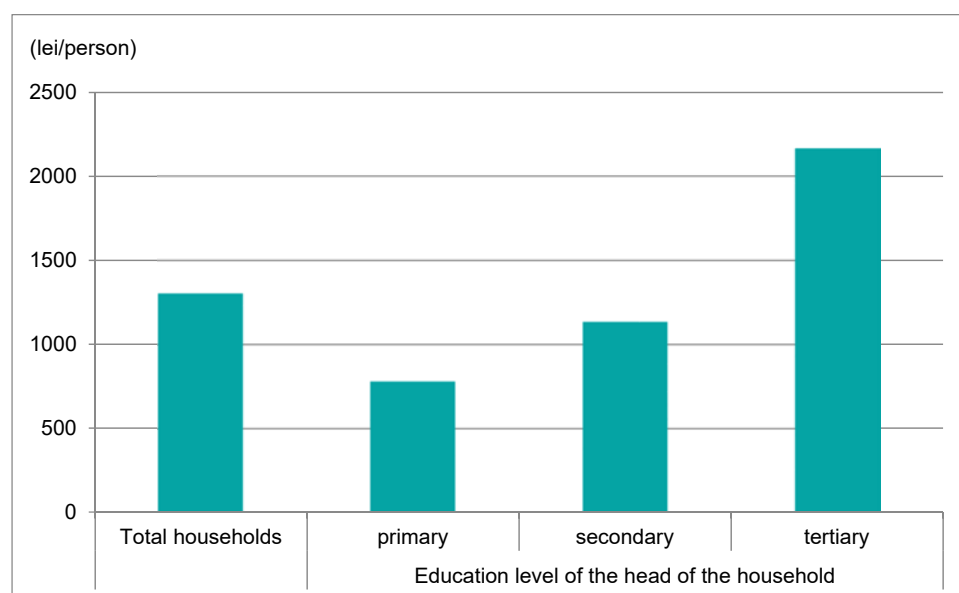


Source: NIS, Household Budget Survey (HBS)

Although the average disposable income per person had an upward evolution over time, their level varies from one household to another, depending on the number of the household members. The higher the household size, the lower the level of disposable income per person and the growth over time is slower. In our country, in 2020, the average disposable income of households consisting of at least six members stood at 47.4% of the average disposable income for the single-person households. Likewise, the disposable income are inversely proportional to the number of children in the household: the more children there are in the household, the lower the average disposable income per person. For households without children, the average disposable income per person is almost one third higher (28.4%) compared to those with children.

**Figure 5.8. Average disposable income per person, by household size, in 2010, 2015 and 2020**
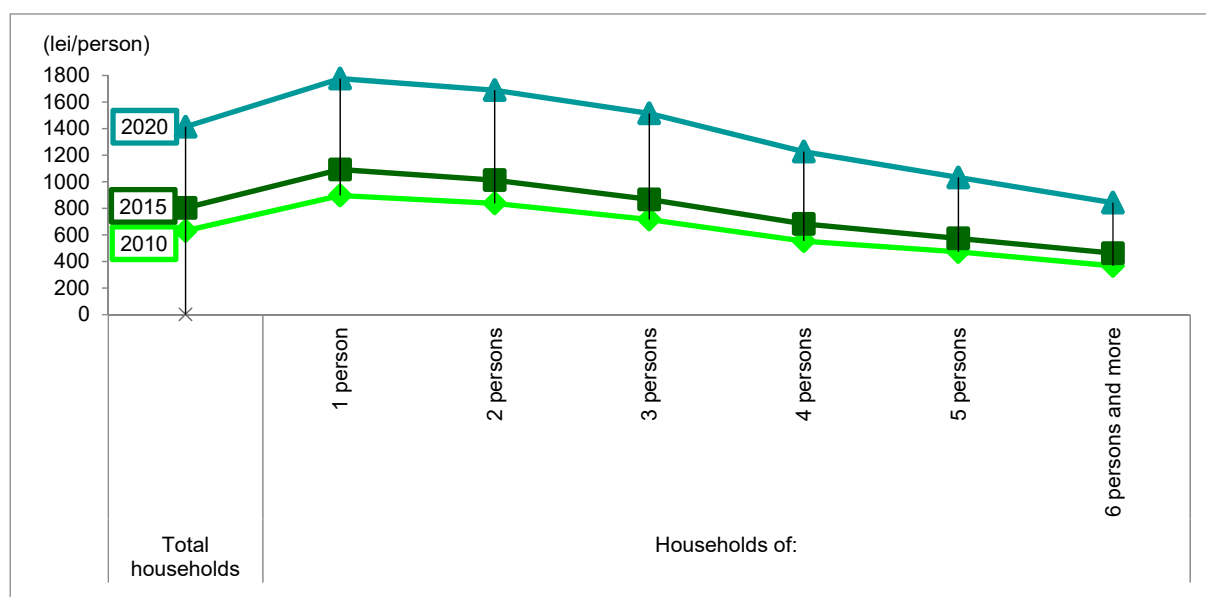


Source: NIS, Household Budget Survey (HBS)

**Figure 5.9. Average monetary disposable income per person, by number of children in the household, in 2010, 2015 and 2020**
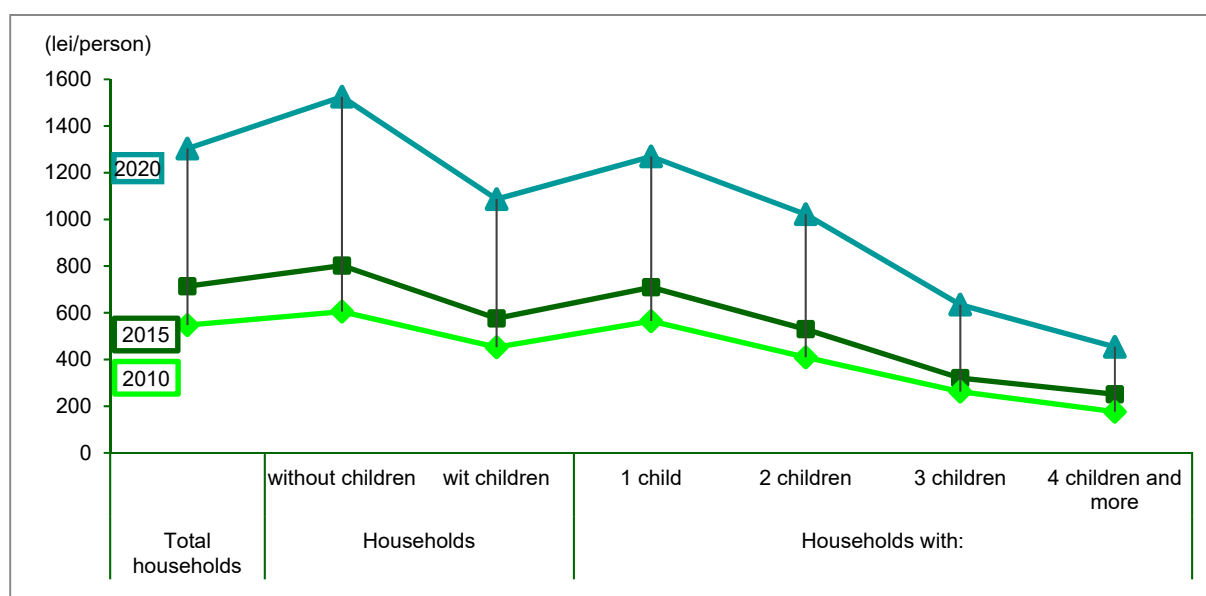


Source: NIS, Household Budget Survey (HBS)

The concentration of economic growth drivers in certain geographical areas and urban centres in the country entailed disparities in the individuals' income, both between development regions and between the residence areas. Thus, in 2020, the urban/rural ratio of average disposable income per person was 1.5.

Source: NIS, Household Budget Survey (HBS)

At territorial level, almost half of the development regions are characterised by an average disposable income of the population above the national average (North-West, Centre and Bucharest-Ilfov). Bucharest-Ilfov is in the top regions in terms of average disposable income, which is 1.9 times higher than in the region at the other end of the scale, 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.

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In 2020, due to changes occurred in the national salary policies, an increase of 231 lei was noticed in the nominal average net monthly earnings, as against 2019. 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 the period 2000-2020, with an average rate of 14.5%.

The average net earnings vary significantly from one activity of the national economic to another: in 2020, the highest values were in information and communication (6191 lei), financial and insurance activities (5315 lei), as well as in public administration (5212 lei). At the opposite side are the activities related to accommodation and food service activities (1762 lei), respectively other service activities (2024 lei), which had the lowest earnings.

**Table 5.1. Average net monthly earnings, by activity (section) of national economy**[2]

-lei-

| Activities of national economy (section level) | 2000 | 2005 | 2010 | 2015 | 2018 | 2020 |
|---|---|---|---|---|---|---|
| A Agriculture, forestry and fishing | 163 | 527 | 1024 | 1371 | 2138 | 2412 |
| B Mining and quarrying | 368 | 1246 | 2435 | 3454 | 3789 | 4552 |
| C Manufacturing | 197 | 653 | 1237 | 1704 | 2342 | 2757 |
| D Electricity, gas, steam and air conditioning supply | 382 | 1348 | 2671 | 3077 | 3815 | 4832 |
| E Water supply; sewerage, waste management, remediation activities | 204 | 669 | 1256 | 1575 | 2221 | 2648 |
| F Construction | 186 | 628 | 1125 | 1422 | 1924 | 3065 |
| G Wholesale and retail trade; repair of motor vehicles and motorcycles | 150 | 575 | 1166 | 1588 | 2228 | 2609 |
| H Transportation and storage | 254 | 840 | 1557 | 1863 | 2450 | 2907 |
| I Accommodation and food service activities | 138 | 455 | 786 | 1080 | 1565 | 1762 |
| J Information and communication | 414 | 1463 | 2687 | 3822 | 5202 | 6191 |
| K Financial and insurance activities | 525 | 2063 | 3200 | 4004 | 4532 | 5315 |
| L Real estate activities | 195 | 629 | 1182 | 1516 | 2125 | 2524 |
| M Professional, scientific and technical activities | 273 | 939 | 1915 | 2748 | 3462 | 4143 |
| N Administrative and support services activities | 148 | 467 | 940 | 1427 | 2077 | 2457 |
| O Public administration *) | 305 | 1164 | 1968 | 2893 | 4407 | 5212 |
| P Education | 205 | 829 | 1380 | 1886 | 2821 | 3574 |
| Q Human health and social work activities | 175 | 669 | 1226 | 1656 | 3388 | 4003 |
| R Arts, entertainment and recreation | 186 | 714 | 1103 | 1385 | 2236 | 2723 |
| S Other services activities | 147 | 459 | 824 | 1297 | 1752 | 2024 |

Source: NIS, Labour cost survey

*) excluding armed forces and assimilates
**) Data on the average nominal earnings for the period 2000 - 2007 were estimated based on the conversion matrix from CANE Rev.1 to CANE Rev.2.

In 2020, the relative differences in the average net earnings, as against the national average (3217 lei), shows also, disparities between the activities of national economy. On the positive

[2] According to CANE Rev.2

side, with the highest values, are the economic activities related to information and communication, financial and insurance activities, respectively public administration.

**Figure 5.11. Disparities above the average of the average net monthly earnings, by activity of national economy, in 2020**



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

Source: NIS, Labour cost survey

*) excluding armed forces and assimilates

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

For 1991-2020 period, the real earnings index values (1990=100) registered large variations, between 56.2% (in 1997) and 225.0% (in 2020).

**Figure 5.12. Real earnings index, during 1991-2020 (1990=100)**
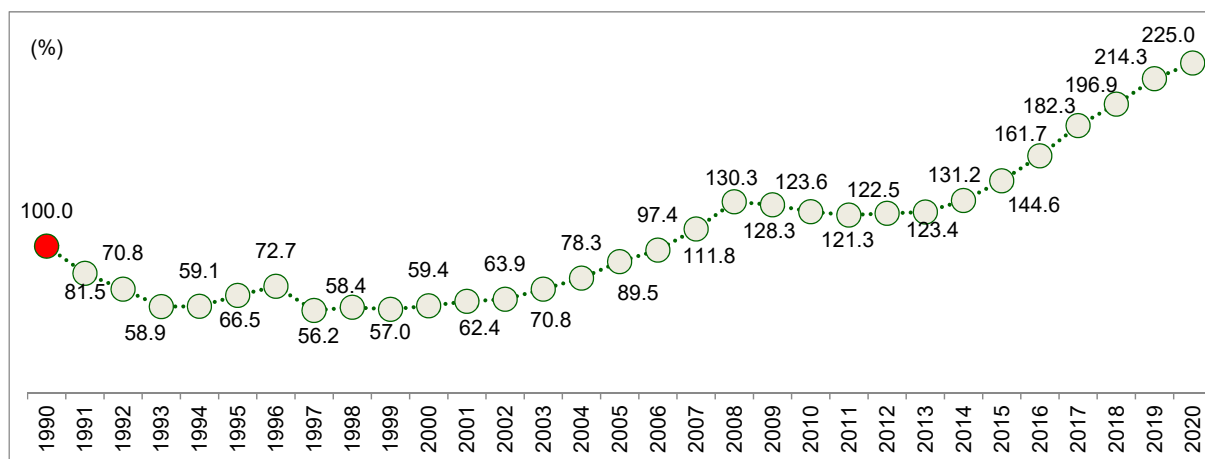


Source: NIS, Labour cost survey and consumer price index

The calculation of indices having as base the previous year signals the impact of the economic evolution.

Thus, in 2009-2011 period, the indicator registered values below 100% (98.5% in 2009 as against 2008, 96.3% in 2010 as against 2009, respectively 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).

The real earnings index was 104.9% for 2020, by 3.9 percentage points lower than the previous year.

**Figure 5.13. Real earnings index (previous year=100), during 1991-2020**
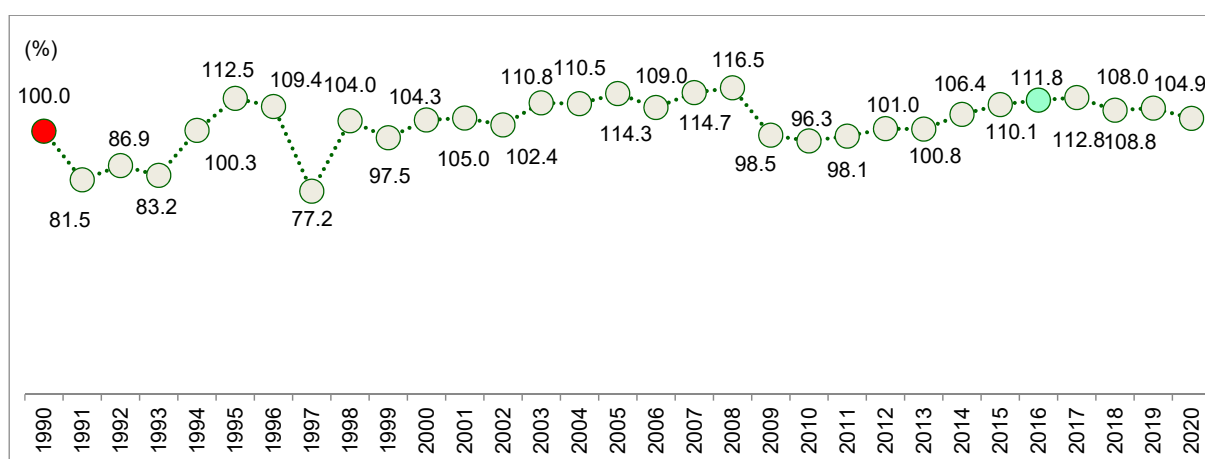


Source: NIS, Labour cost survey and consumer price index

As regards the gender pay gap, women earned in 2020, on average, with 1.2% 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 2010-2020**
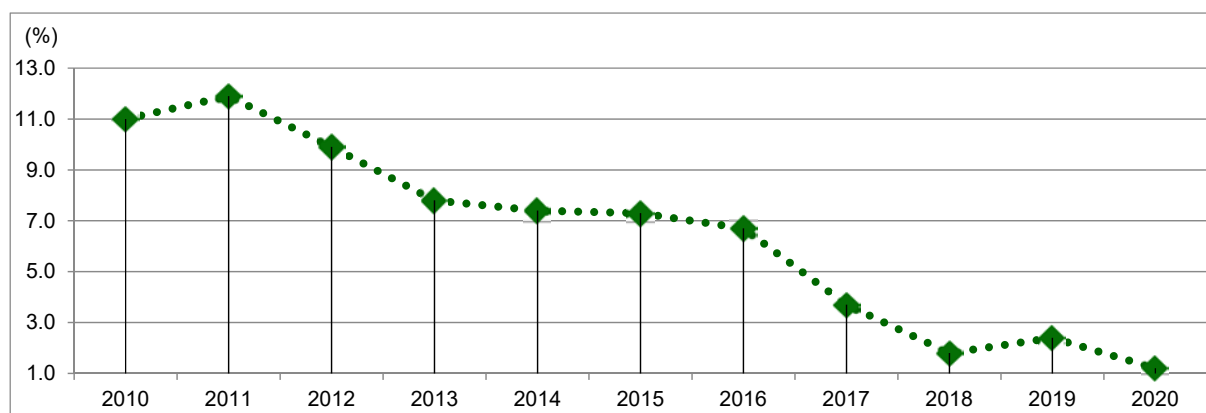


Source: NIS, Labour cost survey

*) 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).

Starting 2012, the gender pay gap had a predominantly decreasing trend, which means a decrease in the differences in earnings by sex.

A relevant indicator for the labour market is the tax wedge on labour cost[3] 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 2020, the tax wedge on labour cost in Romania was 42.5%, with 3.2 percentage points above the European average (39.3% in the EU27) and having a slight increase trend since 2016.

**Figure 5.15. Tax wedge on labour cost in Romania and in the European Union, during 2013-2020**
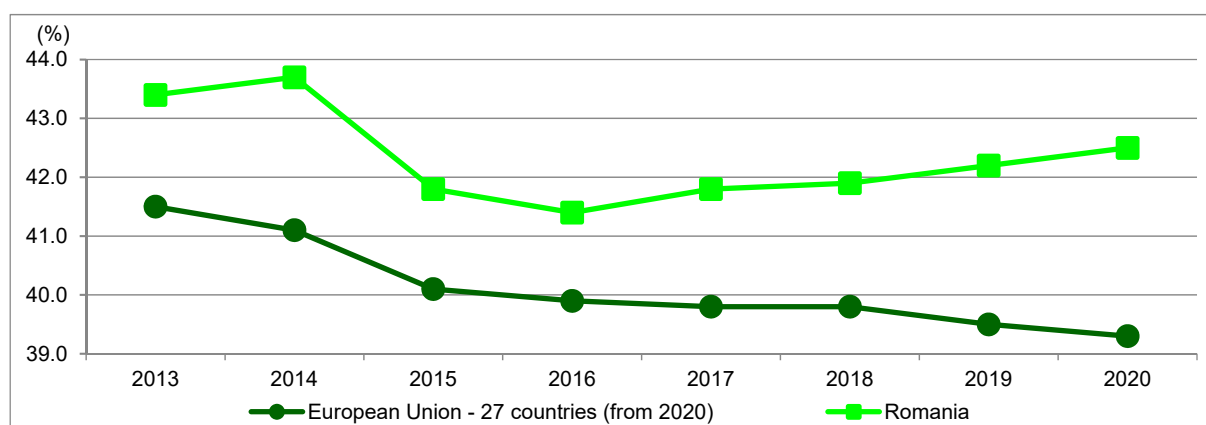


Source: NIS, Labour cost survey for Romania and Eurostat for the EU

*) For previous years, the data of certain states have undergone revisions

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[3] The indicator is defined in the Glossary

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During 2013-2020 period, the tax wedge on labour cost has remained between 41.4% and 43.7% range, but the average values have been constantly higher than the EU average.

## 5.3.2. Income from social insurance pensions

Another component of household income is income from social benefits (pensions, allowances, benefits and social aids). The level of pensions has evolved, after 1990, under the incidence of inflation, being also subject to the limitations imposed by the restricted resources of the pension system (under the circumstance of a dramatic decrease in the number of taxpayers) and by the boom in the number of pensioners. The average monthly social insurance pension[4] registered a continuous growth in the years 2004-2020, reaching in 2020 a value almost 7 times higher compared to the level of 2004. Since 2008, the social insurance pension has grown at an annual rate of 10.1%, while the other two types of pensions presented reduced annual variations.

**Figure 5.16. Evolution of the average social insurance pension, during 2004-2020**
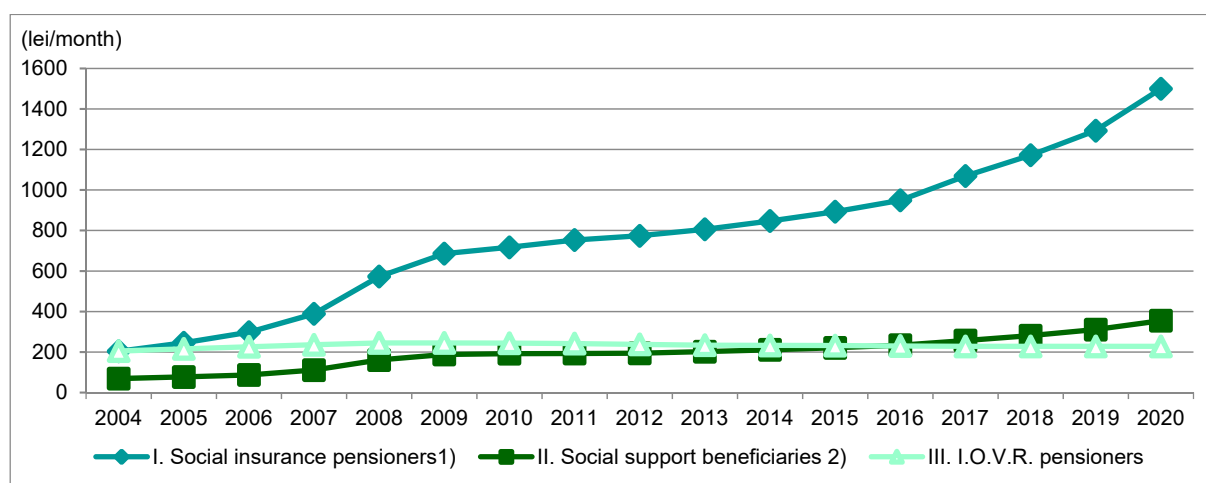


Source: NIS, Statistical survey on the number of pensioners and the average monthly pension

Note: 1) Social insurance pensioners include state social insurance pensioners, pensioners from the Ministry of National Defence, the Ministry of Interior, the Romanian Intelligence Office, the State Secretariat for Cults and the Insurance House of Lawyers.
2) Social aids recipients are the beneficiaries of social benefits receiving a pension-type social aid from the social insurance funds.

In 2020, the average social insurance pension was 1500 lei and the average pension social insurance (excluding pensioners from the old system for farmers) which also covers pensions from other social security schemes was of 1550 lei.

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[4] *For he 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 Intelligenced Office, the Ministry of Culture and the Insurance House of Lawyers.*

The population expenditure and the consumption behaviour are important indicators to describe the status of a national economy, of the economic and financial circumstances of the society at any given time.

The total population expenditure were, in 2020[5], on average, 4371.9 lei monthly per household, with 705.3 lei higher than in 2018, with appreciable differences between different categories of households, analysed according to the occupational status of the household head. Thus, in the households of employees, monthly expenditure were with 1954.5 lei above the average of all households, while households of pensioners have spent 1648.4 lei less.

In the period 2010-2020 there is an upward trend of average monthly household expenditure, rising at a faster pace for the households of employees (annual average pace of the monthly household expenditure growth was 8.8% for employees, 4.9% for the self-employed in non-agricultural activities, 5.7% for farmers, 5.5% for unemployed and 4.9% for pensioners).

**Figure 5.17. Evolution of the average monthly expenditure of households, by the occupational status of the household head, during 2010-2020**
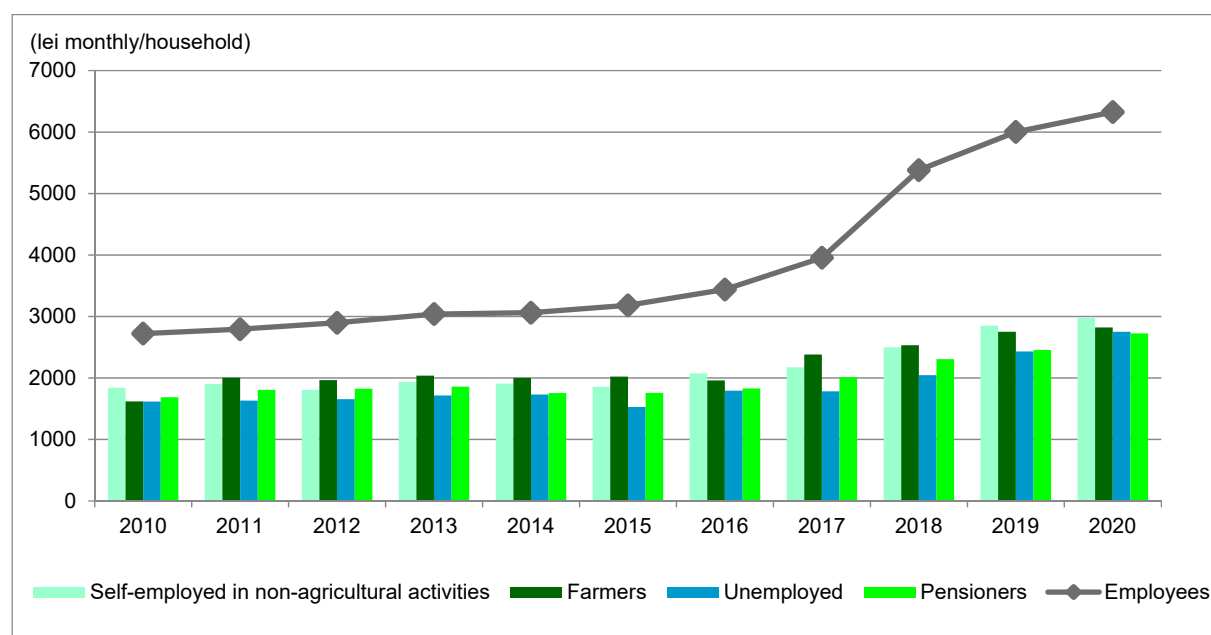


Source: NIS, Household Budget Survey (HBS)

[5] *Since 2014, the results of the household budget survey have been estimated based on the usually resident population and are not comparable with previous data series.*

The monetary expenditure of households have the highest share in total monthly household expenditure (92.7% in 2020), the equivalent value of the consumption of agro-food products from own resources being, on average, 319.4 lei monthly per household, with a share of 7.3% in total expenditure.

**Figure 5.18. Evolution of the monthly average expenditure of households in terms of structure, by expenditure type, during 2010-2020**
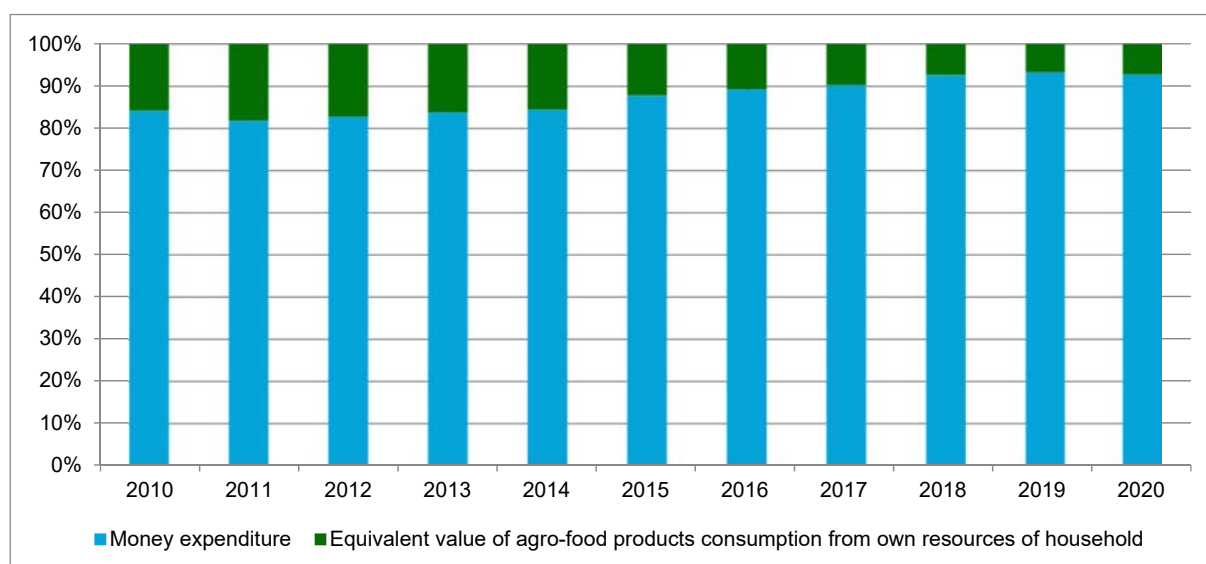


Source: NIS, Household Budget Survey (HBS)

The main destinations for the monetary expenditure of households are food goods, non-food goods, services and transfers to private and public administration and social security budgets in the form of taxes, contributions, dues and fees, as well as the coverage of needs linked to the household production (animals and poultry feed, payment of labour for household production, sowing products, veterinary services, etc.).

The employees' monetary expenditure in 2020 were three times higher than those of farmers and 2.5 times higher compared to those of pensioners.

### Table 5.2. Monetary expenditure of households, by destination, by the occupational status of the household head, in 2020

-lei-

| | Total households | Employees | Self-employed in non-agricultural activities | Farmers | Unemployed | Pensioners |
|---|---|---|---|---|---|---|
| **Monetary expenditure** | **4052.48** | **6057.39** | **2606.49** | **1915.10** | **2482.03** | **2429.80** |
| Consumption expenditure | 2394.13 | 3052.28 | 2172.80 | 1471.95 | 1842.39 | 1860.81 |
| Expenditure for food goods and beverages not consumed[6] | 83.90 | 95.49 | 83.25 | 63.62 | 56.57 | 77.07 |
| Investments | 23.71 | 30.01 | 24.15 | 31.68 | 11.40 | 16.84 |
| Production expenditure | 23.55 | 14.34 | 15.78 | 96.33 | 5.96 | 25.73 |
| Taxes, contributions, dues and fees | 1467.93 | 2792.18 | 278.97 | 234.26 | 542.66 | 392.88 |
| Other monetary expenditure | 59.26 | 73.09 | 31.54 | 17.26 | 23.05 | 56.47 |

Source: NIS, Household Budget Survey (HBS)

Households of employees spend the largest amounts for the payment of taxes, their share being 46.1% of the total monthly monetary expenditure. The most burdensome taxes for all households, are those on wages (as average, 217.4 lei/month for all households, representing 14.8% of total taxes paid monthly by households, respectively 418.1 lei/month for households of employees, representing 15.0% of total taxes paid by them) and social security contributions.

### Table 5.3. Structure of taxes, contributions, dues and fees monthly paid as average by households, by type, by occupational status of the household head, in 2020

-%-

| | Total households | Employees | Self-employed in non-agricultural activities | Farmers | Unemployed | Pensioners |
|---|---|---|---|---|---|---|
| Taxes on wages | 14.8 | 15.0 | 13.4 | 12.9 | 13.4 | 13.9 |
| Taxes on pensions | 0.3 | *) | *) | 0.1 | - | 2.7 |
| Taxes on independent non-agricultural activities | *) | *) | 1.4 | - | - | *) |
| Social security contributions | 60.3 | 60.6 | 59.3 | 59.2 | 61.3 | 57.6 |
| Contributions for unemployment benefits | 23.9 | 24.0 | 24.0 | 23.2 | 24.4 | 22.8 |

Source: NIS, Household Budget Survey (HBS)

[6] Remaining in stock, given for processing, animals feed etc.

Population savings are crucial for the economic growth and social development. The higher the savings ratio, the more has the society funds for investments and hence for increasing production and income. In Romania, however, total population expenditure accounted for 83.8% of the total income (in 2020), the amount remaining for savings being very low. This is also the reason why the investment expenditure, for the purchase or construction of a dwelling, purchase of land and equipment needed for household production, etc. hold a very small share within the total expenditure of households (only 0.5%).

Other destination of the population income is in the form of the restitution of loans and credit, but also of the amounts deposited by households in banks and other financial institutions. The period 2010-2020 can be analysed in two distinct time segments characterised by different trends in terms of the Romanian population savings behaviour. Thus, in the period 2010-2014 there was an intensive consumption behaviour of the population, determined by the facilities on the granting of bank loans, especially in the households of employees. The maximum of loans and credits returned, of the amounts deposited with banks and other financial institutions have been generated by the excessive volume of the population loans made during the period of economic growth (2012-2014). For example, in 2020, loans and credits returned to banks and financial institutions had a maximum (Romanian households spent an average of 237.0 lei each month, mainly for the repayment of credits).

**Figure 5.19. Households loans and credits refunded, deposits in banks and other financial institutions, by occupational status of the household head, during 2010-2020**
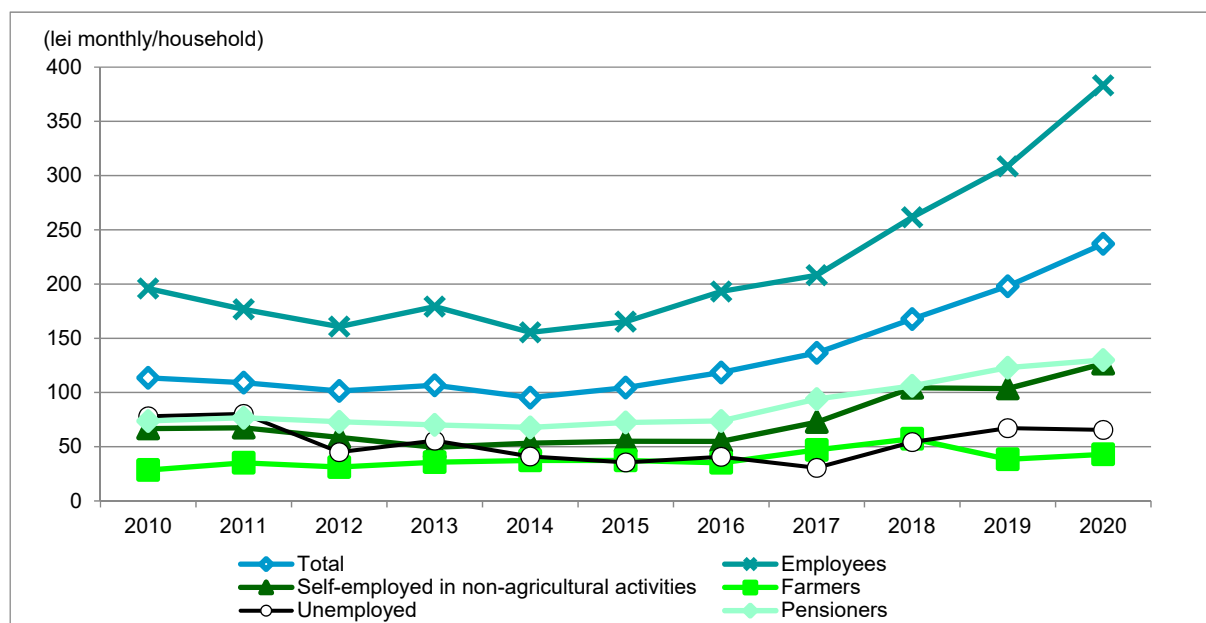


Source: NIS, Household Budget Survey (HBS)

The following period was one in which the consumption, on the background of the financial crisis, has decreased and bank loans had an oscillating evolution, illustrating significant changes in the behaviour of the population.

## 5.5. Population consumption

The highest share of the household monthly disposable income are used to cover consumption expenditure, expenditure incurred for the purchase of goods and services necessary to meet the consumption needs of household members. In 2020[7], 54.8% of the overall household expenditure were intended for consumption, for all the household categories.

The evolution of the total consumption expenditure components structure during 2010-2020, recorded decreases during the first phase of the period in food consumption expenditure in favour of non-food goods, in recent years the trend being to increase the share of services.

**Figure 5.20. Evolution of total consumption expenditure structure, by component, during 2010-2020**
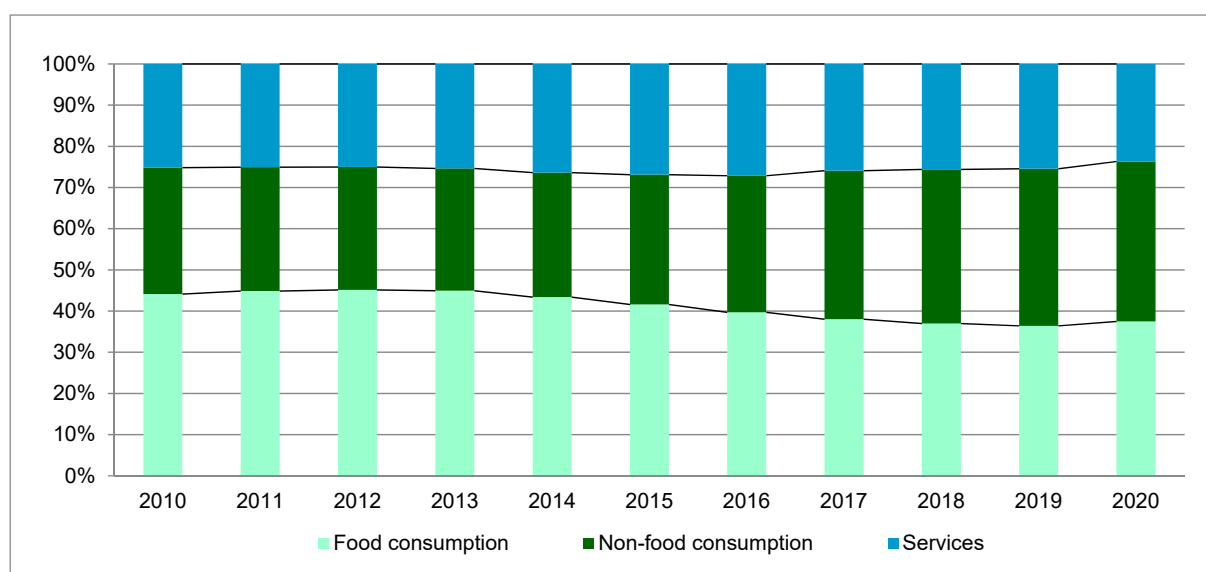


Source: NIS, Household Budget Survey (HBS)

According to the occupational status of the household head, in 2020 the highest level of consumption expenditure was recorded for the households of employees (3264.9 lei monthly/household, the only one value which is above the average monthly consumption

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[7] *Since 2014, the results of the household budget survey have been estimated based on the usually resident population and are not comparable with previous data series.*

expenditure), followed by households of self-employed in non-agricultural activities (2457.4 lei monthly per household).

**Figure 5.21. Household consumption expenditure, by occupational status of the household head, in 2020**
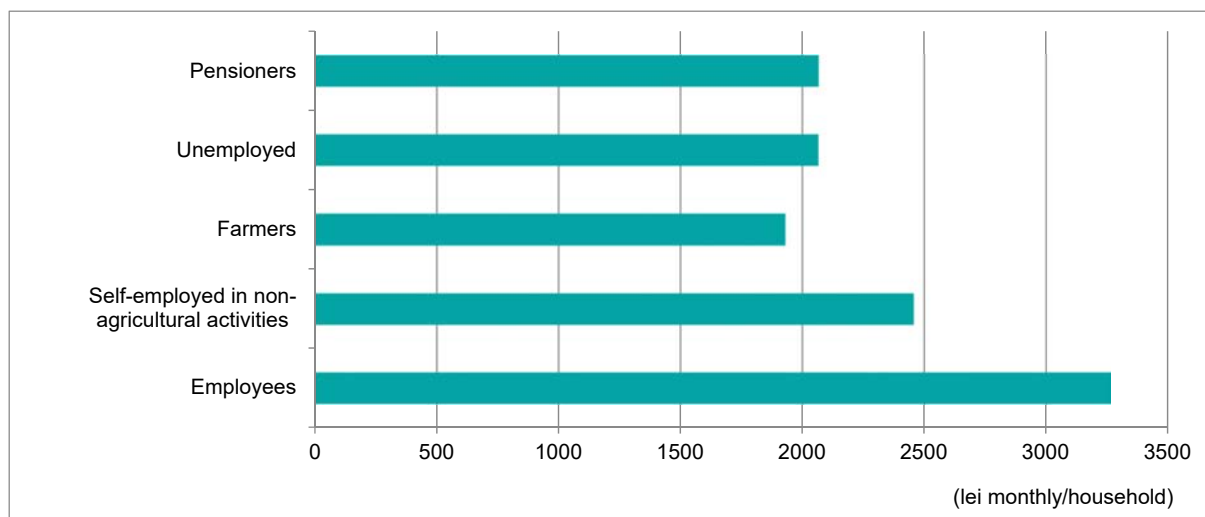


Source: NIS, Household Budget Survey (HBS)

Among all the categories of households, those of farmers spend the least for consumption, their average monthly expenditure being of 1930.7 lei/household.

The average monthly expenditure on food goods and non-food products do not differ significantly between the two residence areas. However, services should be highlighted in urban area, characterised by an average level of spending 1.3 times higher compared to rural area.

**Figure 5.22. Household consumption expenditure by component and by residence area, in 2020**
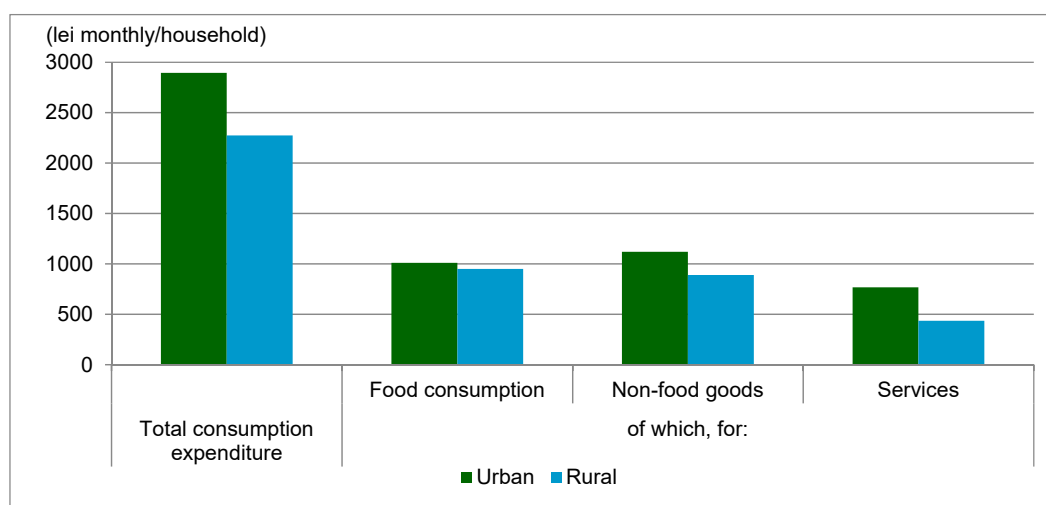


Source: NIS, Household Budget Survey (HBS)

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

**Table 5.4. Average monthly consumption expenditure per person, by household size, in 2020**

| | | Total consumption expenditure | out of which: | | |
|---|---|---|---|---|---|
| | | | food goods | non-food goods | services |
| - monthly average per person - | **1 person** | 1460.38 | 565.94 | 500.97 | 393.47 |
| | **2 persons** | 1206.48 | 436.93 | 472.98 | 296.57 |
| | **3 persons** | 1074.00 | 382.30 | 436.58 | 255.12 |
| | **4 persons** | 873.40 | 330.41 | 347.49 | 195.50 |
| | **5 persons** | 701.63 | 293.95 | 260.40 | 147.28 |
| | **6 persons** | 587.62 | 262.96 | 219.38 | 105.28 |

Source: NIS, Household Budget Survey (HBS)

Although increasing by 1.3 percentage points compared to 2018, the main destination of the population consumption expenditure (COICOP) in Romania, in 2020[8], was still for agro-food products and non-alcoholic beverages (34.6%), followed by expenditure on housing (water, electricity, gas and other fuels), 15.9%.

**Figure 5.23. Structure of household consumption expenditure, by destination, in 2020**
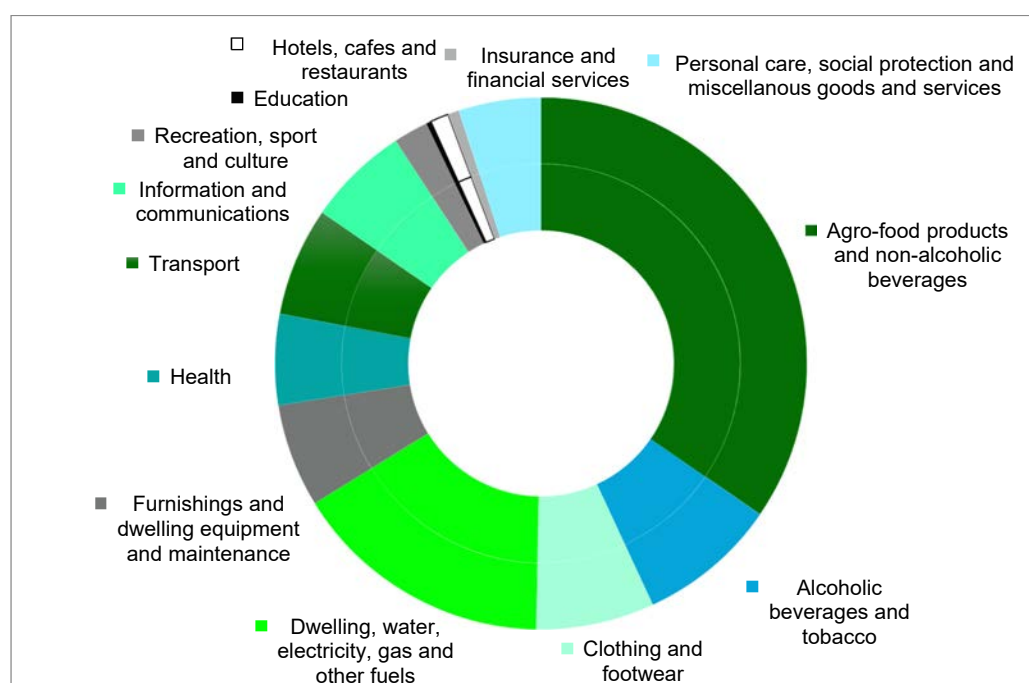


Source: NIS, Household Budget Survey (HBS)

[8] Since 2020, we use the Classification of the Individual Consumption by Purpose – COICOP 2018 at 5 digits level, which brings changes to the structure of certain indicators, meanings their regrouping, compared to previous years.

In 2020, the highest consumption expenditure were in the Bucharest-Ilfov region, on average 3346.0 lei monthly/household and in the North-West region (2846.0 lei).

**Figure 5.24. Household expenditure consumption, by region, in 2020**
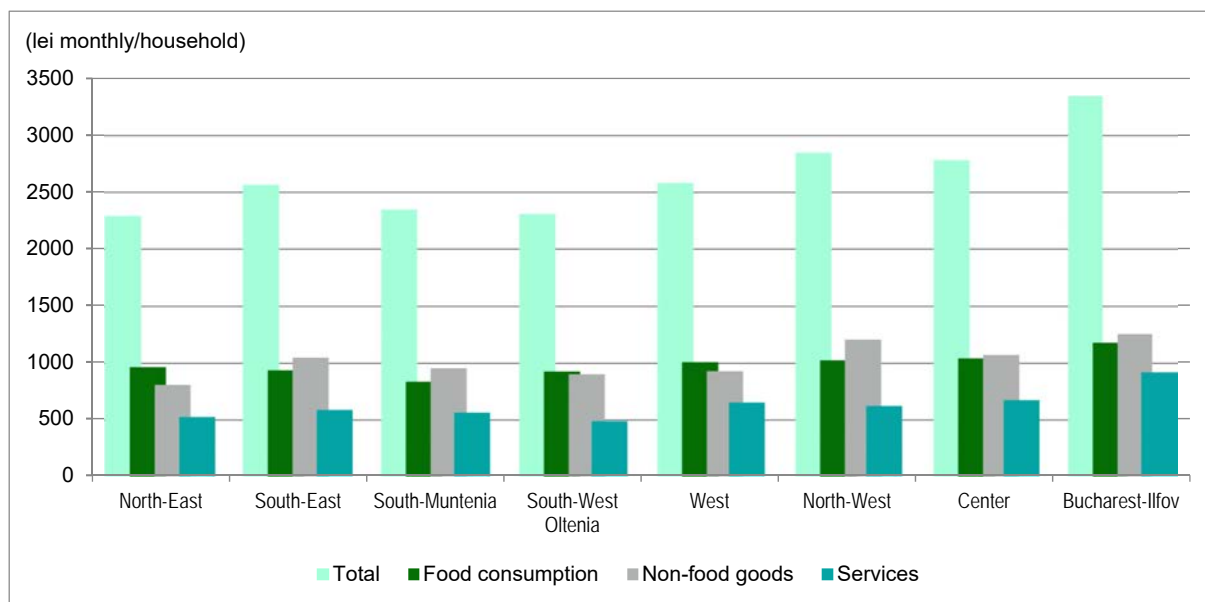
A level higher than the national average (2621.7 lei monthly/household) of the consumption expenditure is also recorded in the Centre region (2781.8 lei monthly/household).

# 6. 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 national level and in terms of international comparisons, in various areas: firstly, population income inequality and poverty are realities of any society, although they are manifest at various degrees. Unsustainable economic policies, combined with inequitable economic adjustments generate social tensions and the prerequisites for new economic imbalances. By supporting Member States in the fight against poverty, social exclusion and discrimination, the European Union aims to reinforce the inclusiveness and cohesion of the European society and to allow all citizens to enjoy equal access to available opportunities and resources. As regards the situation of the Romanian social policies envisaging poverty and social exclusion risks, our country pursues the Europe 2020 guidelines, aiming at achieving of some indicators, such as at risk of poverty or social exclusion rates, the relative at-risk-of-poverty rate, severe material deprivation rate and the rate of persons aged 0-59 years in households with very low work intensity. According to the National Strategy on Social Inclusion and Poverty Reduction for the period 2015-2020, all people should be given the opportunity to fully participate in the economic, social, political and cultural life of the society they live in and to enjoy the benefits of such participation. Ensuring equal opportunities means removing the undesired effects of the circumstances beyond the control of individuals over their quality of life. However, in the last decade, the social costs of the economic crisis in Romania have been substantial and beyond all bearing for the people of our country. The poverty extension and propagation over time are reflected in the relative poverty rate values comparable to those of 2007.

The poverty traditionally affects the vulnerable population categories. In recent decades, inequality in household income has sharpened, leading to social inequality, a phenomenon also manifest in countries with advanced economies. On the other hand, income inequality is increasingly outlining a new component, arising from the pressure of technological progress and educational differences between generations and between different population groups.

The beneficiaries of information on the poverty and social exclusion risks are primarily policy makers, the academic and business environments, as well as the general public.

This chapter presents time series for a wide range of indicators monitoring the poverty and social exclusion risks.

## 6.2. Income inequality, poverty and material deprivation

### 6.2.1. Disposable income and the possibilities of meeting household consumption needs

The level of wealth in a household is mainly determined by the number of persons generating income, in particular by the number of employed persons and the type of activity they are carrying out. Obviously, the household income level also depends on the position of its active members in the hierarchy of income corresponding to the type of activity developed, i.e. salaries, income from agriculture or income from independent non-agricultural activities.

A measure of income inequality is the share of households in the upper deciles of households' distribution by income level.

The analysis of the average level of income by deciles highlights a significant gap between the average income per household of the first decile (which includes households with the lowest income per person) and the average income of a household in the last decile (consisting of households with the highest incomes).

From the perspective of monetary disposable income, in our country, there is a decreasing gap between the lower and the upper deciles. This assertion is supported by the fact that, in 2020, the ratio between the average monetary income per person in the households from the first and the last decile was 8.2, not much lower compared to 2018 (8.9).

**Figure 6.1. Average monetary disposable income, per person, by decile, in 2018 and 2020**
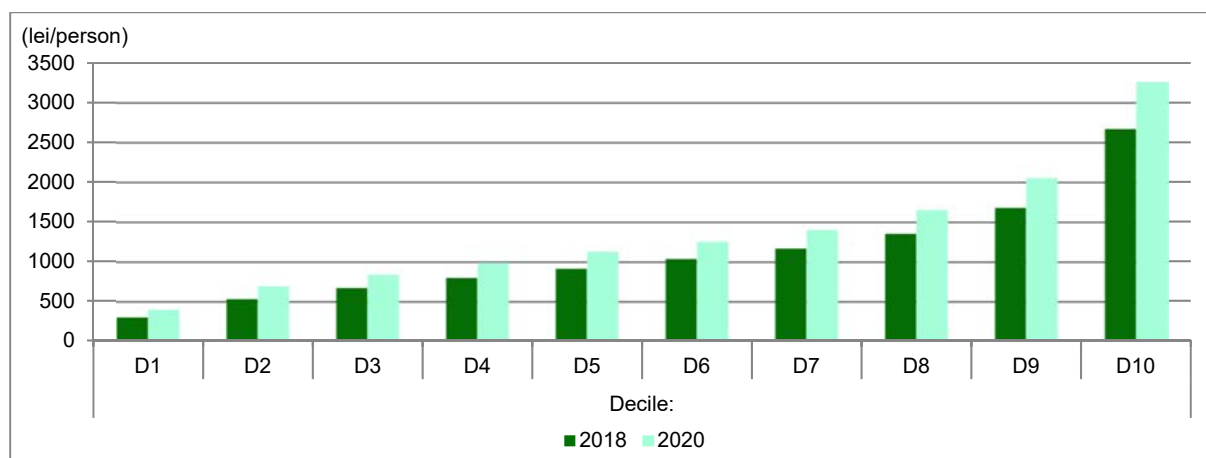


Source: NIS, Household budget survey

In general, for most households, the level of achieved income and in particular of those which remain at their disposal after the household payments for production and for taxes, duties, contributions, etc. is very low in comparison with the expenditure they have to cope with in meeting the consumption needs. To possibilities to cope with the consumption needs of the households are different among the various types of households, classified according to the occupational status of the household head.

In Romania, in 2020, 76.6% of all households were able to cope with the needs from their disposable income. The households of employees are privileged in this respect, meaning that 85.2% of them could meet their needs with the disposable income at that time. The households of unemployed are the most affected, only 45.4% of them coping with the consumption needs.

**Figure 6.2. Share of household able to meet needs with their disposable income, by residence area and by category, according to the occupational status of the household head, in 2020**
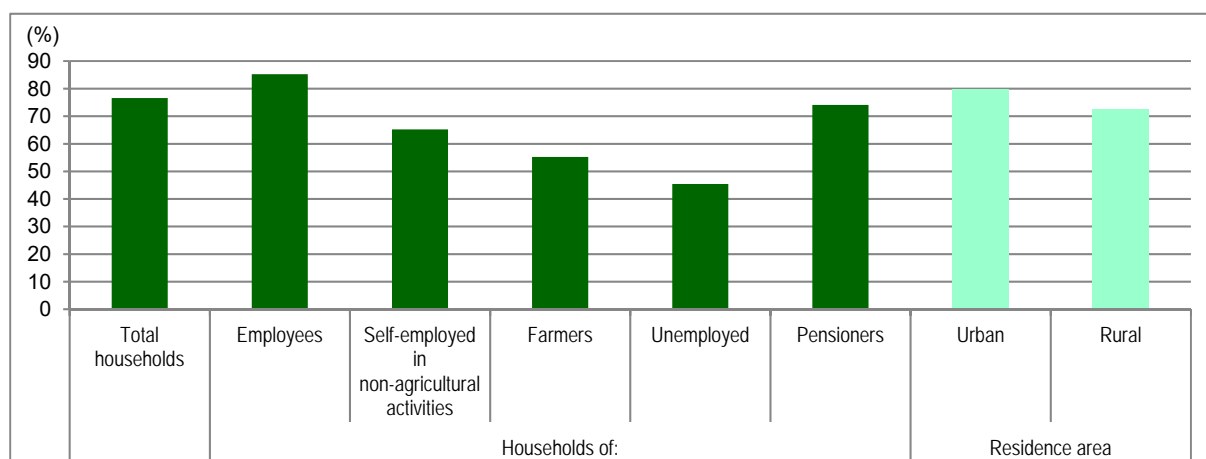


Source: NIS, Household budget survey

The residence area is also a factor that influences the households' possibilities to cope with the needs depending on the disposable income. The share of households in the urban area able to cope with the needs from their disposable income was, in 2020, of 79.8%, while in rural area it was 7.3 percentage points less. It should be noted that in the last two years there has been an improvement of the quality of life, at least from the perspective of covering the consumption needs of households based on their disposable income (in 2018, the share of households in the urban that could meet their needs with the disposable income was 78.7% and 69.7% in rural areas).

**Figure 6.3. Share of households able to meet needs with their disposable income, by category of consumption expenditure, according to the occupational status of the household head, in 2020**
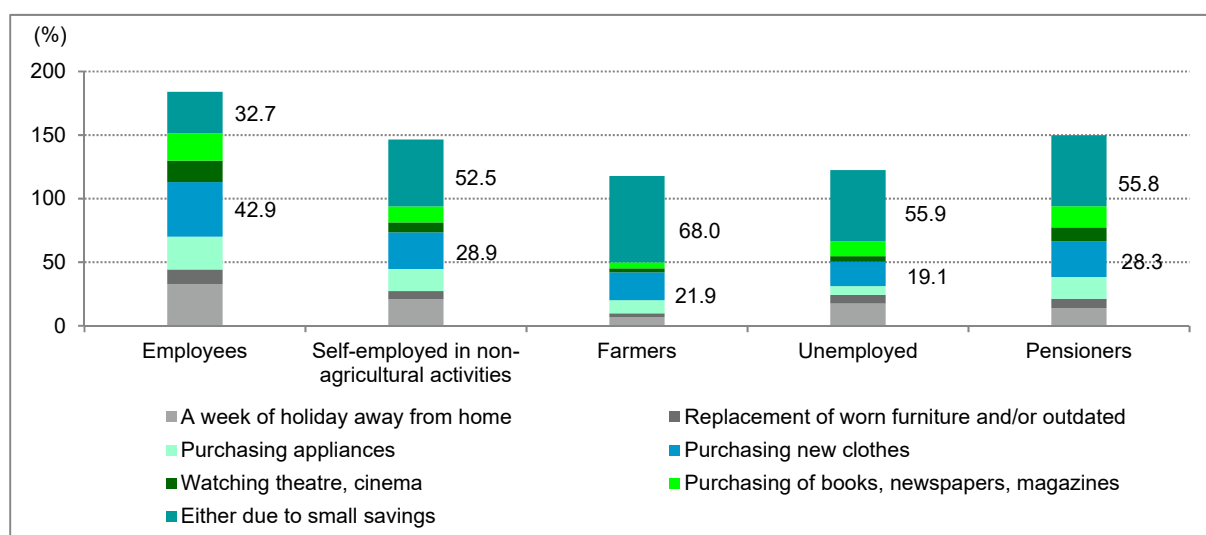


Source: NIS, Household budget survey

In general, households cannot afford other than consumption expenditure except of those for food goods and non-food products meeting the basic necessities, such as, for example, the replacement of worn or obsolete furniture, attending theatre or cinema performances, purchase of books, newspapers and magazines or electric household devices. However, 42.9% of the employees households afford the purchase of new clothes and 32.7% are affording spending a week holiday away from home, on an annual basis. The frequency of those who can afford, from their disposable income, to meet these needs is much lower for the entire range in case of farmers and unemployed households.

The lack of financial resources has resulted in a high proportion of households that are not able to replace their worn and/or obsolete furniture. In 2020, 11.6% of employees households were able to pay for the replacement of furniture,din gospodăriile, while among the farmers and self-employed households only 2.9%, respectively 6.5% were able to deal with this category of expenditure.

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The main poverty indicators, estimated on the basis of equivalised disposable income are the poverty threshold, the at-risk-of-poverty rate (AROP) and the at-risk-of-poverty-or-social-exclusion rate (AROPE).[1]

The overtime evolution of the poverty threshold has shown an upward 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 2020, the poverty threshold was 12150 lei/year for single-person households, respectively 25515 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 2007-2020**
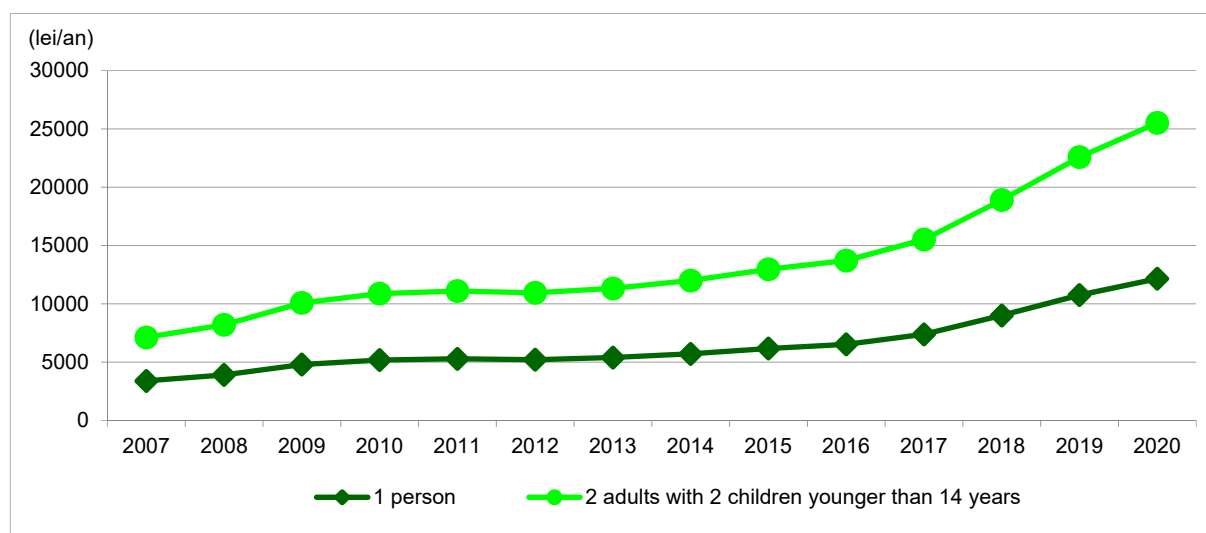


Source: NIS, Quality of Life Survey

The at-risk-of-poverty rate, calculated at the threshold of 60% of the median disposable income per adult equivalent, in 2020, was 23.4%, slightly down from the previous year, yet by 1.8 percentage points higher compared to the minimum level recorded in the period 2007-2020 (21.6% in 2010).

Corroborating the two indicators (threshold and poverty rate), it can be said that 23.4% of the Romanian population, i.e. approximately 4.5 million people, have a disposable income less than 12150 lei annually.

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[1] *Calculated at the threshold of 60% of median equivalised disposable income, as well as at the thresholds of 40%, 50% and 70% of median equivalised disposable income*

The overtime analysis of the at-risk-of-poverty rate shows a decline in the welfare of the Romanian population, the indicator values being above those recorded in the year 2010, irrespective of the income threshold used for the calculation (40%, 50%, 60% and 70% of median equivalised disposable income).

**Figure 6.5. At-risk-of-poverty rate, in 2007, 2010 and 2020**
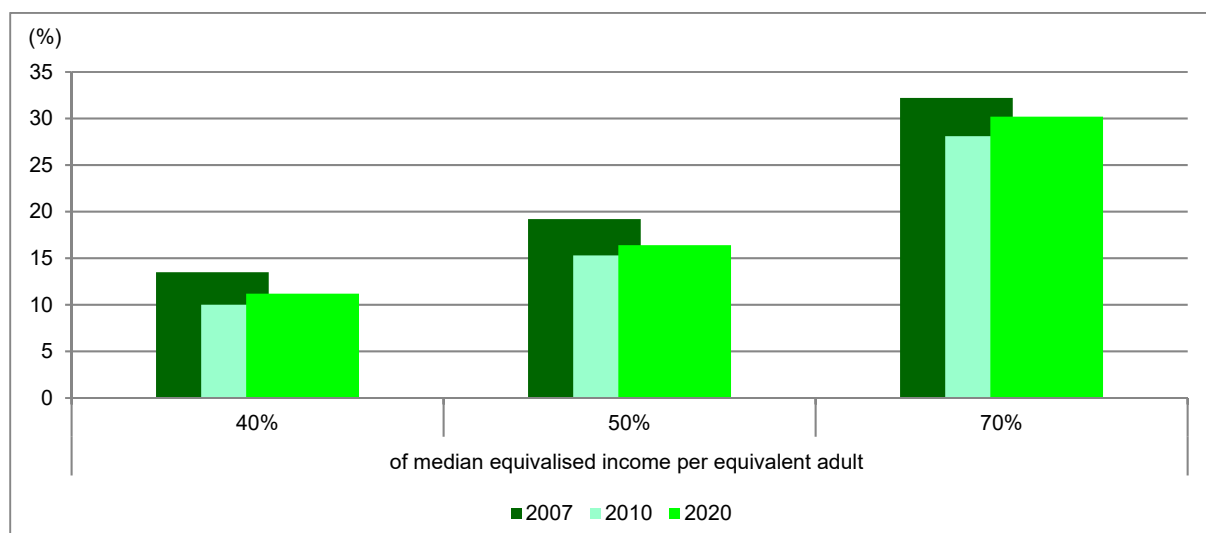


Source: NIS, Quality of Life Survey

The demographic, social and economic characteristics of individuals, as well as the types of households where they live, are factors, often decisive, affecting the occurrence and the increase in the risk of poverty. The existence of an occupation, generally of the occupational status, is of the utmost importance in creating a living environment ensuring the wealth or the poverty of the persons concerned. Thus, important distinctions exist between the poverty rates of different social and occupational categories.

For 2020, the gender analysis shows that there are no significant differences in the at-risk-of-poverty rate, this being 22.1% for male population and 24.6% for female population. Although no clear difference exist between the poverty rate of men and women in Romania, it is noteworthy that the poverty rate by sex developed differently over the period 2007-2020: until 2011, the poverty rate was slightly higher for females, while between 2012 and 2014 it was slightly higher for the male population. In the period 2015-2020, the gender gap in the at-risk-of-poverty rate was favourable to the male population.

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## Table 6.1. At-risk-of-poverty rate by household type, during 2007-2020

-%-

|  | Households without dependent children* | Households with dependent children | 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 |
|---|---|---|---|---|---|---|
| **2007** | 21.5 | 26.5 | 46.0 | 14.1 | 22.6 | 51.2 |
| **2008** | 18.7 | 26.5 | 41.3 | 13.8 | 24.0 | 57.3 |
| **2009** | 16.8 | 25.7 | 33.1 | 15.3 | 24.1 | 55.7 |
| **2010** | 14.8 | 26.2 | 32.6 | 16.0 | 26.4 | 62.0 |
| **2011** | 14.5 | 27.8 | 38.9 | 18.2 | 26.6 | 52.4 |
| **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 |

Source: NIS, Quality of Life Survey

Note: * persons aged 0-17 years

The at-risk-of-poverty rate increase proportionally with the size of the household, the increase being higher of the household has several dependent children. Although households without dependent children are the most favourable category, with a poverty rate of 20.8% (in 2020), poverty is increasing compared to previous years (e.g. 14.5% in 2011 and 2012 - which is the minimum for the analysed period). At the other end of the scale are the households composed of two adults with three or more dependent children, their situation of poverty be improved in recent years (from 70.5% in 2014 to 55.3% in 2020).

Another factor that may increase the risk of poverty is the age: on the background of financial stability, a person's increase in age entails a decrease in the exposure to poverty; thus, children and young people are the most exposed to poverty (30.1% for the age group 0-17 years, respectively 28.4% for the age group 18-24 years).

**Figure 6.6. At-risk-of-poverty rate (%), by age group, during 2007-2020**
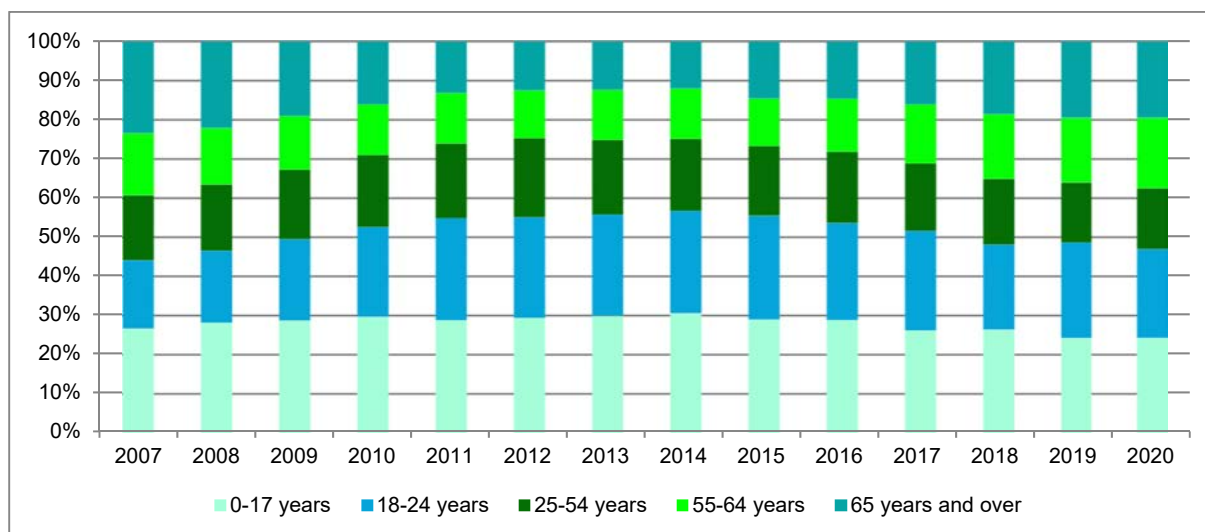


Source: NIS, Quality of Life Survey

Compared to 2018, the at-risk-of-poverty rate has not undergone any significant variations among the main categories of the population. For instance, in 2020, the risk of poverty in the case of other economicaly inactive persons is maintained at the same level as in 2018 (41.3% compared to 41.9% in 2018).

**Figure 6.7. At-risk-of-poverty rate (%), by main categories of population, in 2018, 2019 and 2020**
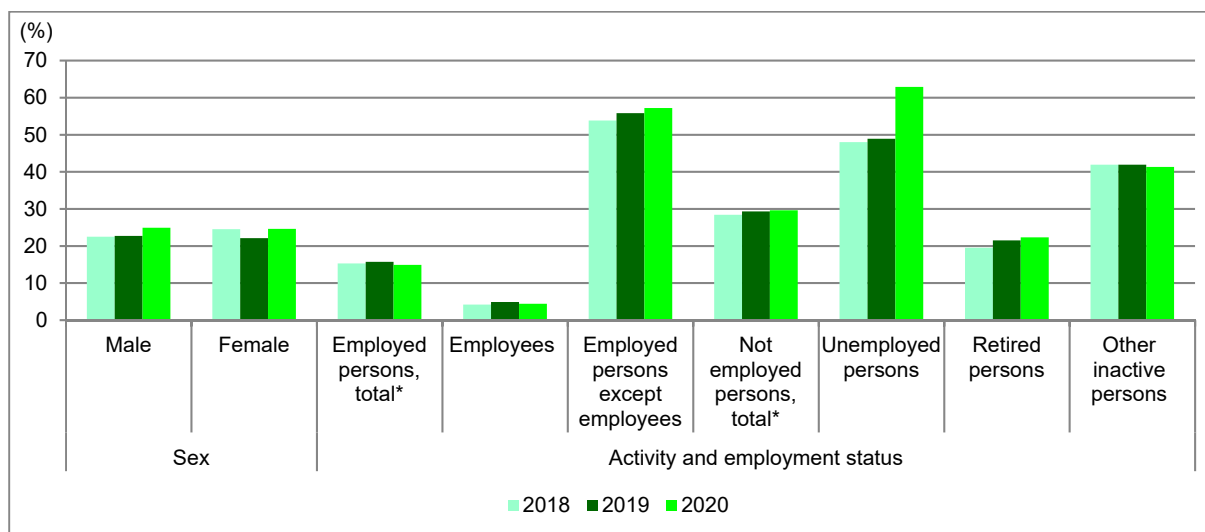


Source: NIS, Quality of Life Survey

Note: * persons aged 18 years and over

In recent years, most affected by poverty have been the non-employed persons and the pensioners, whose at-risk-at-poverty rates have increased by 1.2, respectively by 2.8 percentage points in 2020.

The segmentation of population as regards the level of the poverty risk is visible at territorial level as well. The lowest risk of poverty is among the population of Bucharest and Ilfov region where the at-risk-of-poverty rate was 2.4% in 2020. At the other end of the scale is the North-East region, where over 35.6% of the population are subject to poverty incidence.

**Figure 6.8. At-risk-of-poverty rate (%), by NUTS2 (regions), in 2018, 2019 and 2020**
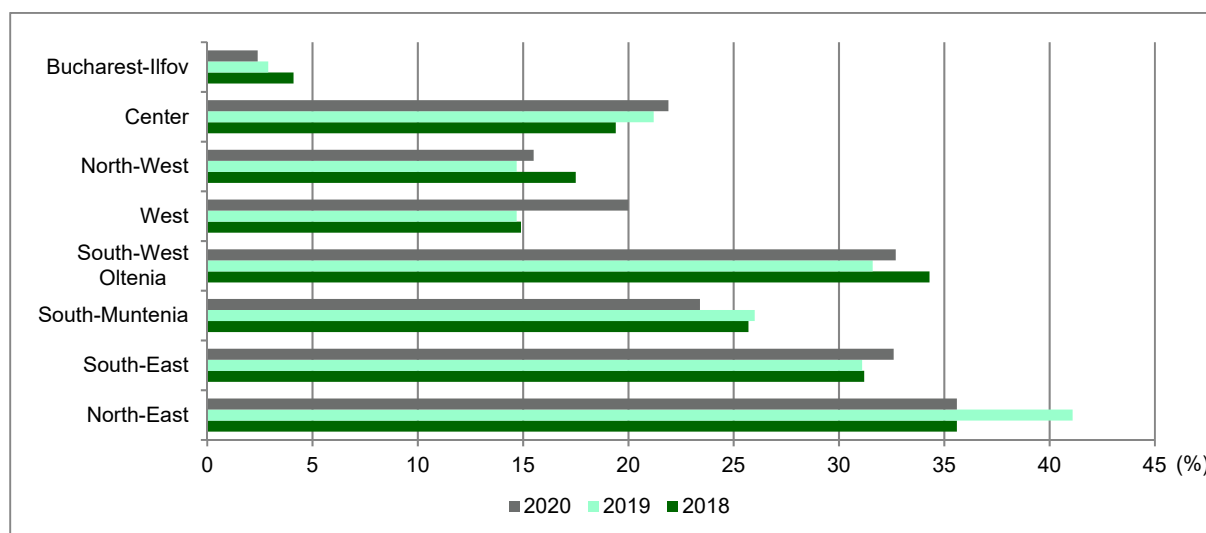


Source: NIS, Quality of Life Survey

Compared to the reference year 2008, when Romania recorded a maximum of the economic growth, in 2020, poverty rate stands at 7.1%.[2]

Poverty is measured in various ways, so as to identify people in the highest risk. Social protection is specifically designed to ensure a basic standard of living for all people, regardless of the means available to them. In Romania, the social protection system, through the whole range of protection schemes, provides - through social transfers - a safety net for the population disadvantaged in terms of disposable income. Thus, in 2020, the poverty rate calculated before social transfers (including pensions) was 44.6% at the national level, almost double compared to the level recorded after such transfers.

The at-risk-of-poverty-or-social-exclusion rate (AROPE) is an indicator that measures the ratio between the number of people in at least one of the following situations: have disposable income below the poverty threshold (60% of median equivalised disposable income); are in a state of severe material deprivation; are living in a household with very low work intensity and the total population. AROPE is a composite multidimensional indicator meant to promote social inclusion and poverty reduction.

[2] *The poverty rate anchored at a fixed moment in time (2008)*

In Romania, 5.9 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 2020**
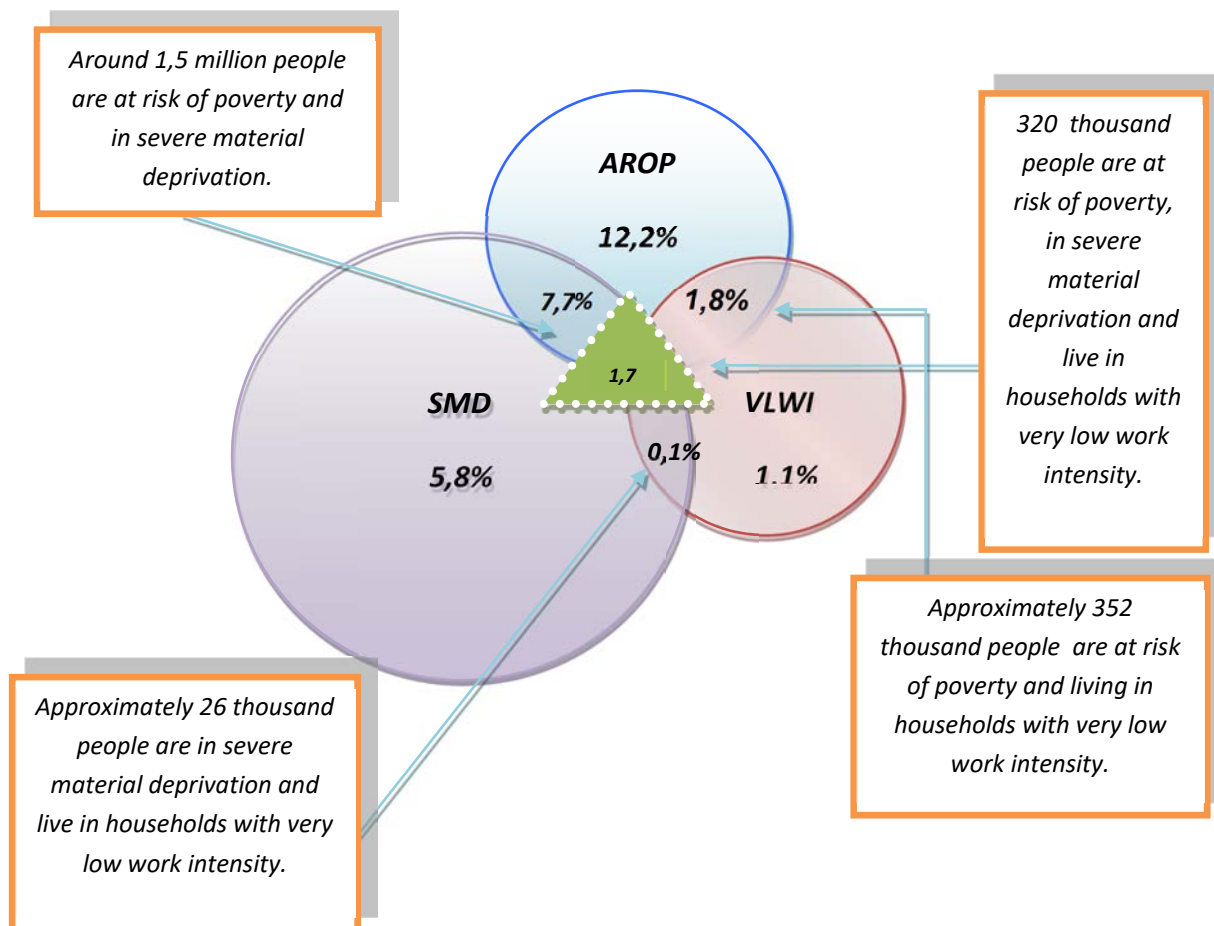


Source: Eurostat, http://ec.europa.eu/eurostat/en/web/income-and-living-conditions/data/database (the database accessed on September 6, 2021); Quality of Life Survey, for data on Romania
Note:
1. AROP - at risk of poverty rate
2. SMD - severe material deprivation rate
3. VLWI - very low work intensity (the rate of persons aged 0-59 years from households with very low work intensity)
4. Data calculated based on the usually resident population on January 1st 2020

**Figure 6.10. Evolution of Europe 2020 target indicators,**
**in 2016, 2018 and 2020**
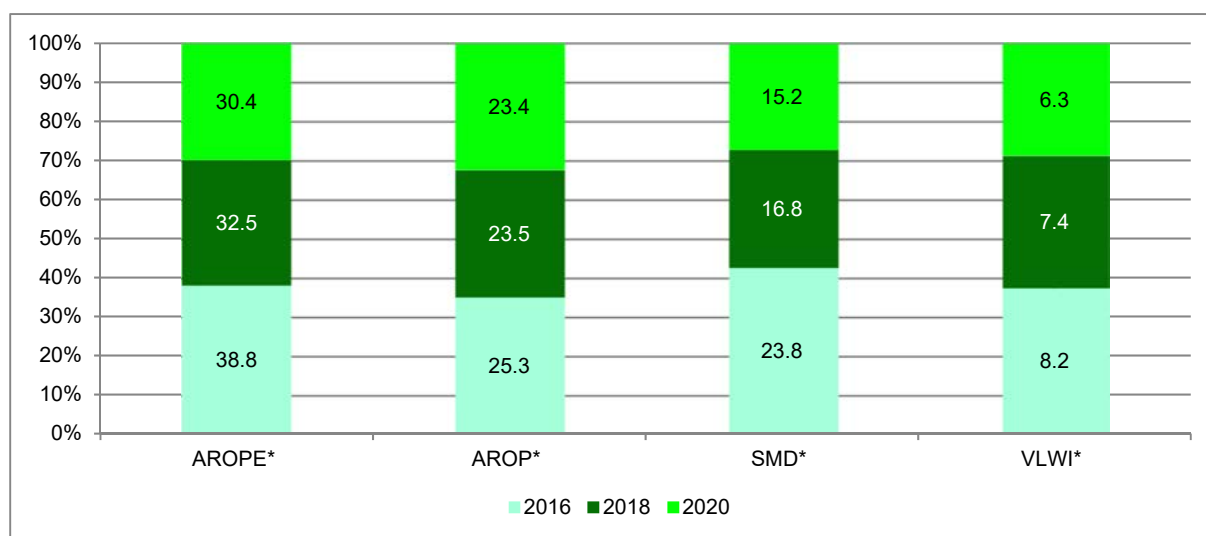


| (%) | 2016 | 2018 | 2020 |
|---|---|---|---|
| AROPE* | 38.8 | 32.5 | 30.4 |
| AROP* | 25.3 | 23.5 | 23.4 |
| SMD* | 23.8 | 16.8 | 15.2 |
| VLWI* | 8.2 | 7.4 | 6.3 |

Source: Eurostat, http://ec.europa.eu/eurostat/en/web/income-and-living-conditions/data/database (6.09.2021); Quality of Life Survey, for data on Romania

Note: * Data calculated based on the usually resident population on January 1st of the respective year

The severe material deprivation rate is lower in 2020 (15.2%) compared to previous years (23.8% in 2016, respectively 16.8% in 2018). Severe material deprivation rate increased in 2020 compared with the previous year, for all the age groups; however, children aged between 0 and 17 years (21.4%), young people aged 18-24 (17.7%) are the most affected.

**Figure 6.11. Severe material deprivation rate, by income quintile, during 2007-2020**
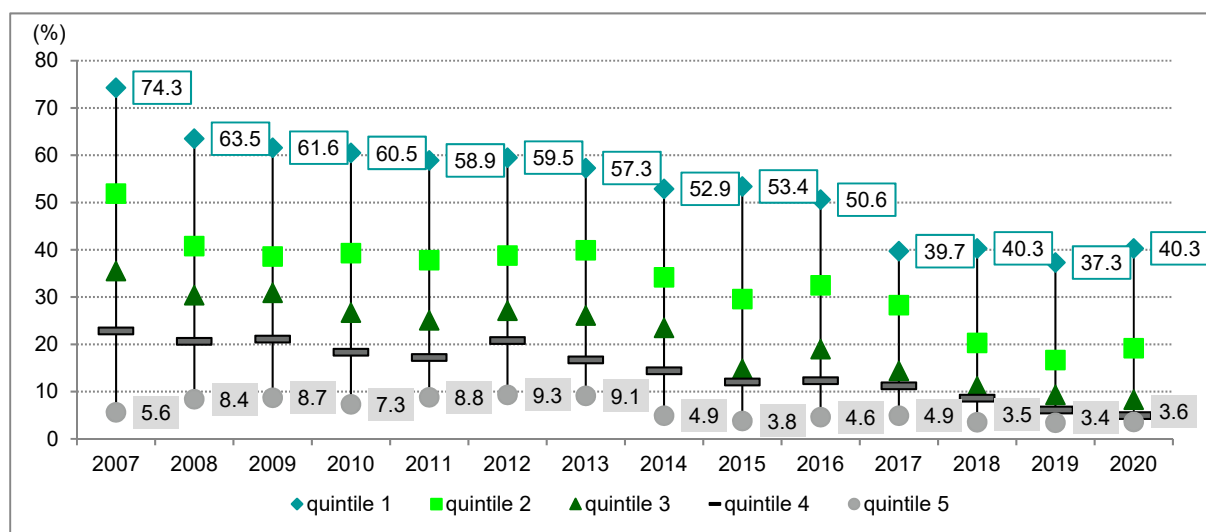


Source: Eurostat, http://ec.europa.eu/eurostat/en/web/income-and-living-conditions/data/database (6.09.2021); Quality of Life Survey, for data on Romania

Note: * Data calculated based on the usually resident population on January 1st of the respective year

The most affected households, in terms of severe material deprivation, are those in the lower income quintile. In other words, out of the 20% of total households with the lowest incomes, in 2020, 40.3% are in a state of severe material deprivation. However, the value of the indicator has improved over time, since in 2007 severe material deprivation rate for households in the first quintile stood at 74.3%. Households with the highest income (top quintile) had in 2020 a severe material deprivation rate of 3.6%.

## 6.2.3. Inequality indicators

Piketty has drawn up, in 2014, one of the most important papers in the economic field dealing with income inequality.[3] It argues, relying on historical data (beginning with some centuries ago), that widening inequality is caused by the fact that the wealth of a country is going faster than economic growth.[4]

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[3] *Piketty, T., 2014, Capital in the Twenty-First century, Harvard University Press, Cambridge, Massachusetts, London.*
[4] *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 equivalised disposable income, and the main indicators of inequality are the income inequality index (also known as S80/S20 ratio), Pareto indicator (20/80) and the Gini coefficient.[5]

The income inequality index (S80/S20 ratio) is an indicator reflecting the inequality of population income, defined as the ratio between the income of population the top quintile and that of the population in the bottom quintile; in other words, this ratio reflects the income magnitude of the richest people compared to the poorest people income within a distribution by income.

In Romania, the budgetary-fiscal and the wage policies applied in the period 2005-2008 have sharpened social disparities in the next periods of time, when, on the background of the limited budgetary resources, income inequality between individuals has increased. In 2020, the total income of one fifth of the population (with the highest income) was 6.6 times higher than the total income of the 20% poorest people (with the lowest income); in view to support the assertion on the deepening of inequality during 2009-2017, please note that the S80/S20 ratio had, both in 2009 and 2017, the value of 6.5.

Another indicator that reflects the distribution of income inequality is the Gini coefficient, which measures how much of the total income of the population should be redistributed in order to arrive at a hypothetical situation where income is equally shared between all members of society. In other words, the indicator measures how far the distribution of the individuals' income within a State deviates from a perfect distribution of income. From a theoretical point of view, the Gini coefficient can take values between 0 and 1 (or 0-100%). A zero value would mean perfect equality of distribution, i.e. all the citizens of a country would receive the same level of income. Thus, lower values of the Gini indicator are preferable to higher values. If, hypothetically, the Gini coefficient would take the value 1 (100%), the whole income in a country would be achieved by a single person.

For Romania, the Gini coefficient was estimated in 2020 at 33.8%, a slight decrease compared to previous years (35.1% in 2018, 34.8% in 2019).

## 6.3. Social protection

Social protection encompasses all actions by means of which the State provides various services to citizens in order to protect them against certain events that may result in decreasing living standards. The financing of social protection is made through contributory or

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[5] *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.*

non-contributory financial mechanisms. The contributing financial mechanisms are based on the payment of social contributions, while the non-contributory mechanisms are based on budgetary financing and other resources.

Social security is a priority for all the EU Member States and a defining component of the European social model. However, although economic and social conditions across Europe have improved, the consequences of the crisis over the last decade are still felt in many parts of 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 sets out principles and key-rights for supporting functional and equitable welfare systems, grouped into three categories: (i) equal opportunities and access to the labour market, (ii) equitable working conditions and (iii) access to social protection and inclusion. The social pillar is accompanied by a "social scoreboard" aiming at monitoring the progress achieved.

In Romania, in order to prevent, limit or eliminate the temporary or permanent effects of situations which may give rise to marginalisation or social exclusion of individuals, family, groups or communities, the State supports the social protection of its citizens through financial redistribution measures intended for individuals or families who meet the eligibility conditions provided for by law (social benefits) and through the access to a complex set of measures and actions envisaged to address social needs (social services), in order to increase the quality of life.

Social protection is defined in terms of the ultimate goal to be achieved, respectively the protection of individuals and families and of their households against major social risks.

The major social risks identified in the statistical survey on social protection (ESSPROS) classify the social protection benefits in eight functions: sickness/healthcare, disability, old-age retirement, survivors, family/children, unemployment, housing, social exclusion (benefits which were not previously classified).

Social protection expenditure comprises expenditure on social benefits, administration costs and other expenditure (for example: bank interest in connection with social funds).

Social benefits expenditure represents the amount of social protection resources allocated to the beneficiaries either in cash or in kind (in the form of goods and/or services), while administrative costs are those arising from the organisation and administration of social protection schemes.

Over the last ten years (2010-2019), social protection expenditure increased in nominal terms from 92.4 billion lei in 2010 to 161.9 billion lei in 2019.

**Figure 6.12. Evolution of social protection expenditure, during 2010-2019**
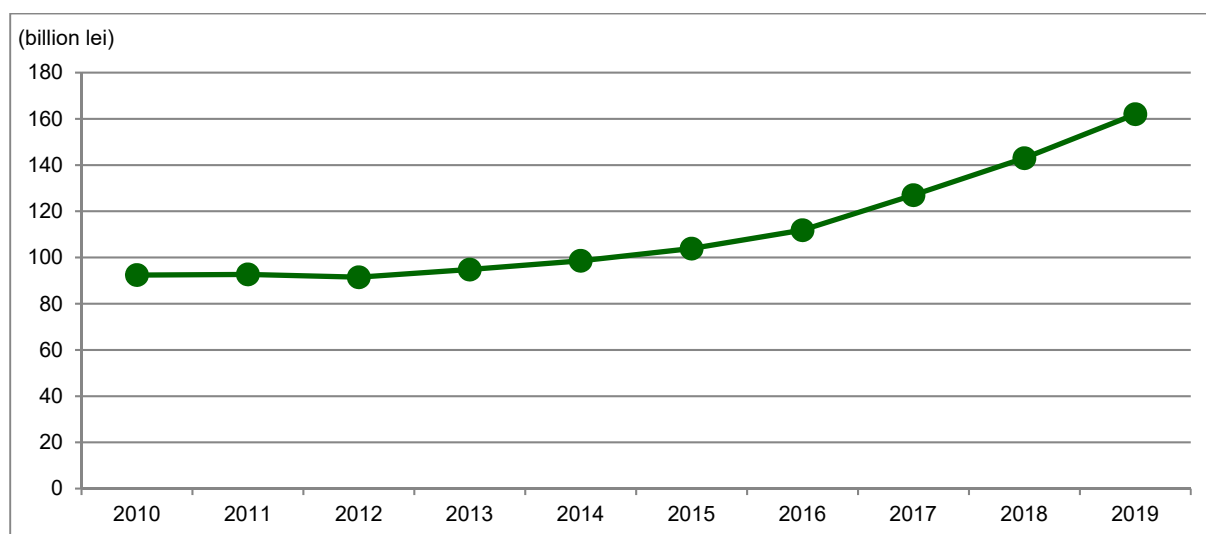


Source: NIS, Statistical survey on social protection, ESSPROS

Social protection expenditure consist, to an overwhelming extent, in the expenditure with social benefits (98.1% in 2019), followed by administrative costs (1.9%) and other types of expenditure (0.04%). Social benefits are a form of additional income or replacement of individual income from work, in order to provide for a socially acceptable minimum standard of living, as well as a form of support for promoting social inclusion and improving the quality of life of certain categories of some categories of persons whose social rights are specifically provided for by law.

**Table 6.2. Social protection expenditure, by category of expenditure, during 2010-2019**

-billion lei-

|  | TOTAL | Expenditure with social benefits | Administrative expenditure | Other expenditure |
|---|---|---|---|---|
| **2010** | 92411 | 91434 | 915 | 62 |
| **2011** | 92680 | 91776 | 871 | 33 |
| **2012** | 91472 | 90478 | 960 | 34 |
| **2013** | 94812 | 92782 | 1946 | 84 |
| **2014** | 98584 | 96482 | 2030 | 72 |
| **2015** | 103887 | 101571 | 2250 | 67 |
| **2016** | 111822 | 110053 | 1702 | 67 |
| **2017** | 126749 | 124253 | 2429 | 67 |
| **2018** | 142906 | 140.226 | 2613 | 67 |
| **2019** | 161955 | 158.855 | 3033 | 67 |

Source: NIS, Statistical survey on social protection, ESSPROS

Social benefits are provided in cash (allowances, indemnities, social aids) or in kind in the form of goods (material aids in goods for individuals use or durable goods and foodstuffs, provided individually or within programmes designed to facilitate the access to education, healthcare, employment, etc.) and/or services (for example: household support services for people who are ill or disabled, medical and paramedical services, rehabilitation services, placement services, etc.).

The distribution - by ESSPROS function - of social benefits expenditure reveals that the old-age function holds the first place in terms of expenditure on social benefits in Romania (47.8% in 2019), followed by healthcare function (29.8%) in total expenditure on social benefits. It has to be noted that the two functions, holding the top positions in terms of social protection expenditure, are contributory benefits.

**Figure 6.13. Expenditure with social protection benefits, by social protection function, in 2019**
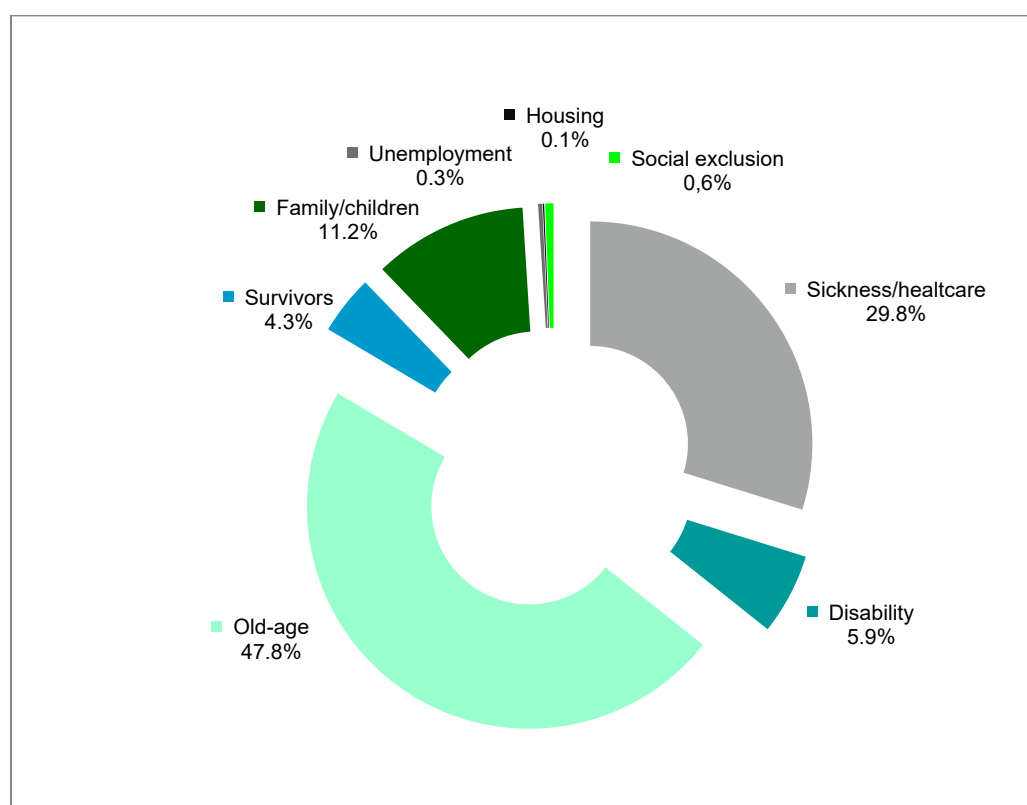


Source: NIS, Statistical survey on social protection, ESSPROS

Social expenditure growth over the last decade is also due to the increasing the number of social insurance pensioners. It is expected that the process of population ageing and increased life expectancy will result in an increase of pensioners' number.

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In 2020, the number of social insurance pensioners (excluding those coming from the former system for farmers) was 4.9 million persons, 3.8 million old-age pensioners, 0.5 million persons receiving disability pensions and 0.5 millions receiving survivors' pension.

**Figure 6.14. Distribution of social insurance pensioners, by category of pension, during 2004-2020**
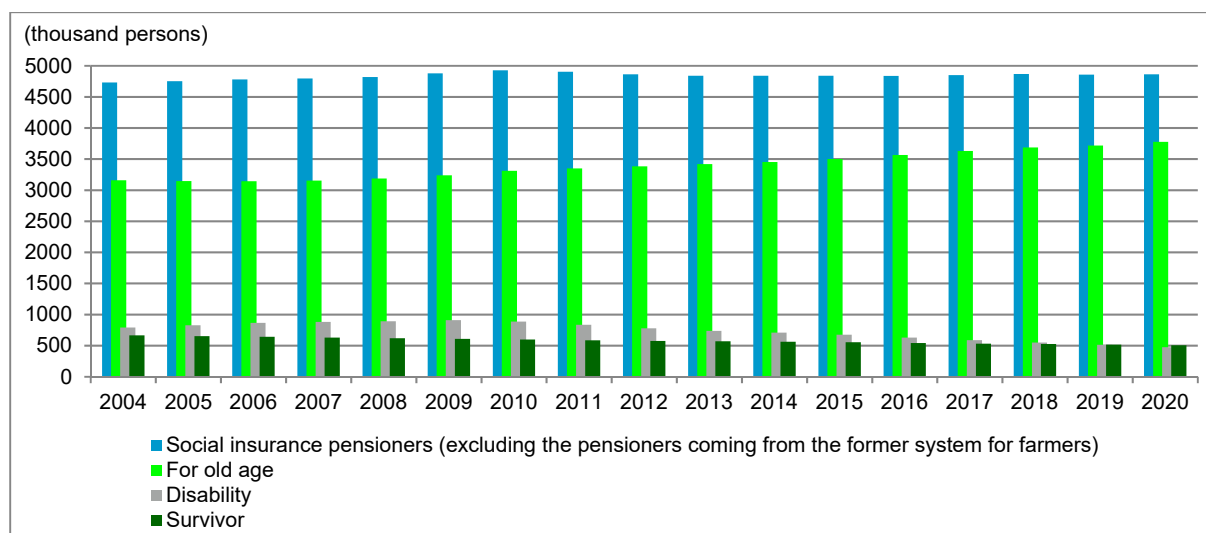


Source: NIS, Statistical survey on the number of pensioners and average monthly pension

The ratio of average pensions by category of pensioners and the average pension of social insurance (excluding pensioners from the former system for farmers) - considered as a reference - recorded different developments in the period 2004-2020 depending on each category of pensioners, distinctly.

**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 2004-2020**
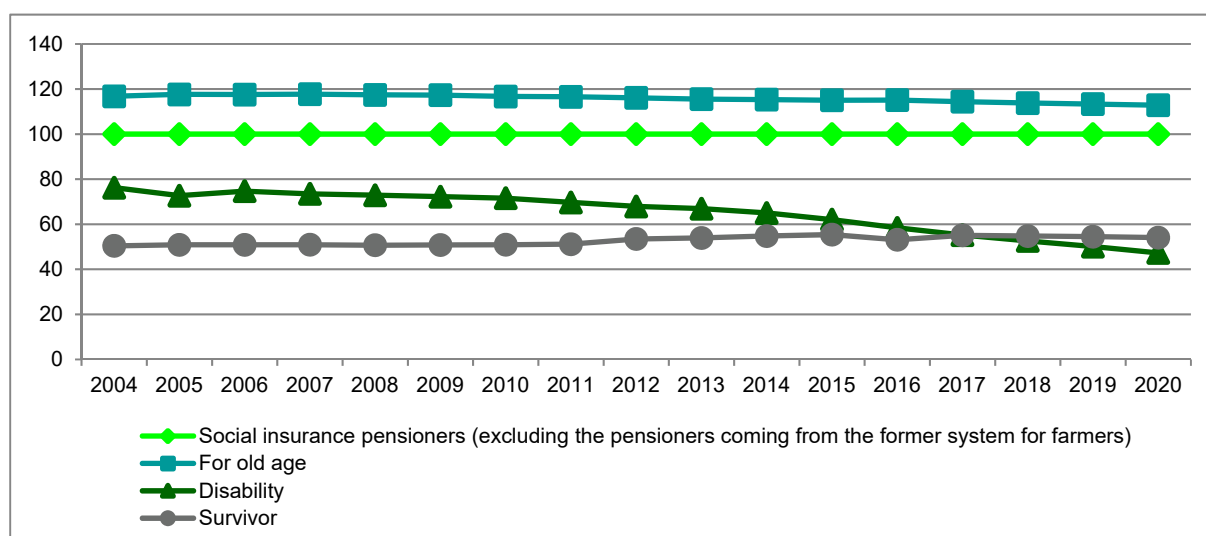


Source: NIS, Statistical survey on the number of pensioners and average monthly pension

The ratio between the average old-age social insurance pension and the average pension of social insurance (excluding the pensioners from the former system for farmers) continued to decline since 2009 (under the impact of the economic crisis), but remained over 1 throughout the analysed period (2004-2020).

**Figure 6.16. Evolution of the average real pension index of the state social insurance pensioners (1990=100), during 1990-2020**
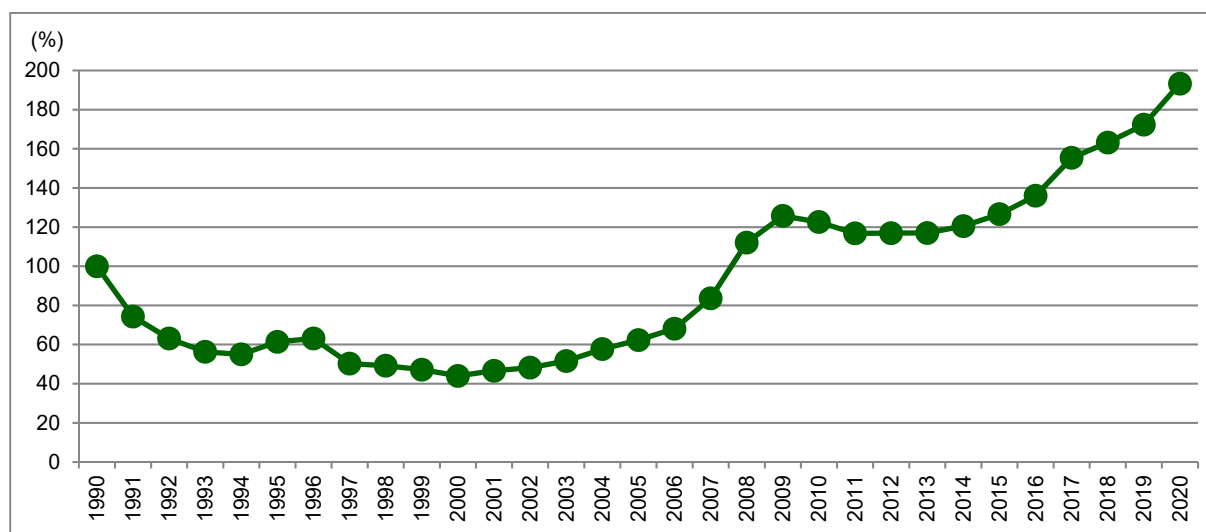


Source: NIS, Statistical survey on the number of pensioners and average monthly pension

In the period 2004-2020, the purchasing power of the average nominal pension showed an upward trend, the highest value of the average real pension index compared to the year 1990 being recorded in 2009 (125.7%). During the following period, the average monthly pension index has gradually decreased. The last two years are characterised by a large increase in the purchasing power of the average nominal pension in 2020, reaching 193.3%.

**Figure 6.17. Ratio between the average social insurance pension and the average earnings, in 1990 and during 2004-2020**
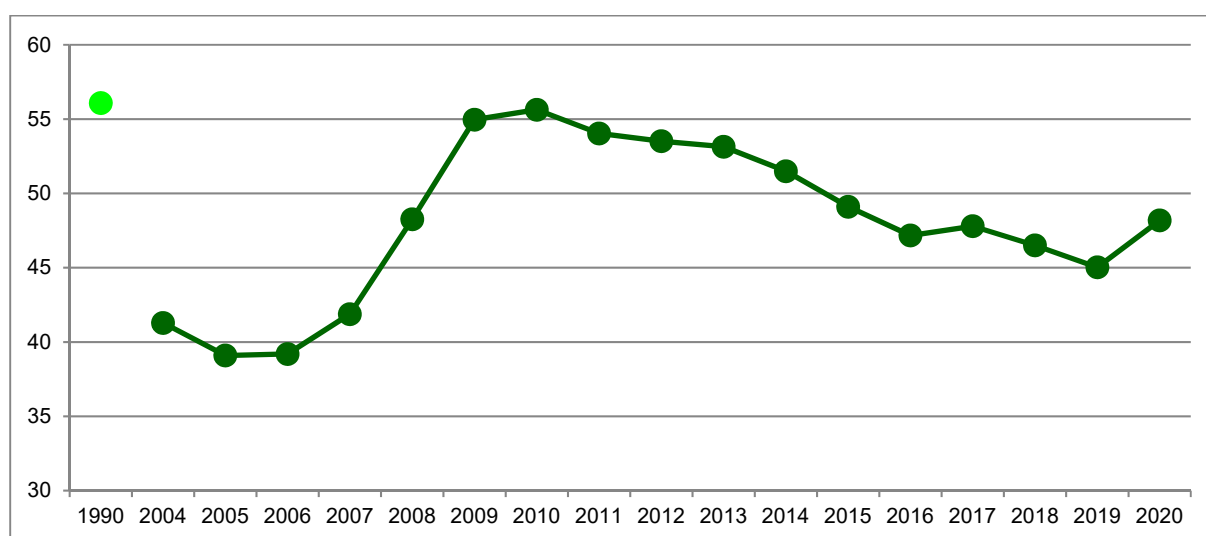


Source: NIS, Statistical survey on the number of pensioners and average monthly pension

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In 1990, in real terms, the average pension of social insurance accounted for 56.1% in relation to average earnings; in 2004 it was 41.3% and in 2020 it was 48.2%.

## 6.4. Poverty incidence and social protection in the international context

Eurostat, based on data transmitted by Member States' statistical offices, calculates and disseminates indicators of poverty, social inclusion and social protection.

The indicator measuring the at-risk-of-poverty or social exclusion rate (AROPE) is the main indicator for monitoring the poverty target in the Europe 2020. The data shows a slight decrease in AROPE value in the European community: in 2019, 107.5 million people in the European Union (21.4%) were under the incidence of poverty or social exclusion, compared to 21.8% in 2018.

Bulgaria and Romania are estimated, according to the provisional data for 2019, with the highest risk of poverty or social exclusion across the EU; in Romania 31.2% of the population lives at risk of poverty or social exclusion and 32.8% in Bulgaria. At the other end of the scale are the Nordic countries where the risk of poverty or social exclusion rate is the lowest among the EU Member States (Czechia - 12.5%, Slovenia - 14.4%, Finland - 15.6%, Denmark - 16.3%, Slovakia - 16.4%, Netherlands - 16.5%, Austria - 16.9%).

**Figure 6.18. At-risk-of-poverty or social exclusion rate (AROPE) in some EU Member States[6], in 2018 and 2019**



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

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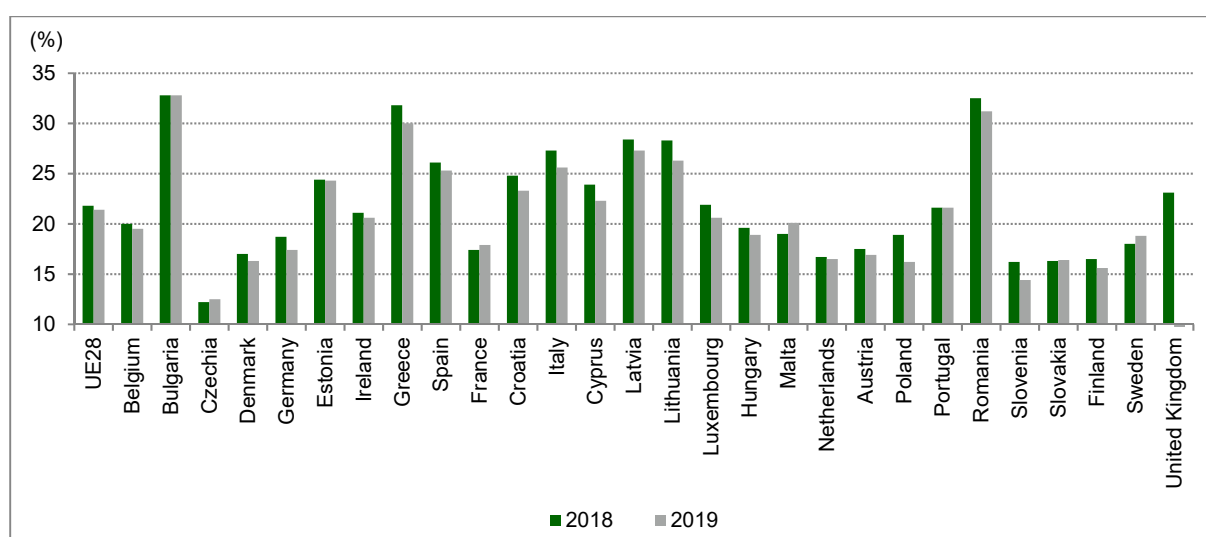
[6] Data for 2020 are not available for all countries

In most European countries, children and people of working age are at greater risk of poverty or social exclusion than elderly people are. The biggest differences - registered by the AROPE indicator - between the age group 0-17 years and the total population are observed in Slovakia, Spain, Luxembourg, France and Romania. The situation is much better in terms of incidence of poverty or social exclusion on children, in Slovenia, Czechia, Denmark and Finland.

**Table 6.3. At-risk-of-poverty rate in the EU Member States, during 2010-2019**

-%-

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **UE 28** | **16.5** | **16.9** | **16.8** | **16.7** | **17.2** | **17.3** | **17.3** | **16.9** | **17.1** | **16.8** |
| Belgium | 14.6 | 15.3 | 15.3 | 15.1 | 15.5 | 14.9 | 15.5 | 15.9 | 16.4 | 14.8 |
| Bulgaria | 20.7 | 22.2 | 21.2 | 21.0 | 21.8 | 22.0 | 22.9 | 23.4 | 22.0 | 22.6 |
| Czechia | 9.0 | 9.8 | 9.6 | 8.6 | 9.7 | 9.7 | 9.7 | 9.1 | 9.6 | 10.1 |
| Denmark | 13.3 | 12.1 | 12.0 | 11.9 | 12.1 | 12.2 | 11.9 | 12.4 | 12.7 | 12.5 |
| Germany | 15.6 | 15.8 | 16.1 | 16.1 | 16.7 | 16.7 | 16.5 | 16.1 | 16.0 | 14.8 |
| Estonia | 15.8 | 17.5 | 17.5 | 18.6 | 21.8 | 21.6 | 21.7 | 21.0 | 21.9 | 21.7 |
| Ireland | 15.2 | 15.2 | 16.3 | 15.7 | 16.4 | 16.2 | 16.8 | 15.6 | 14.9 | 13.1 |
| Greece | 20.1 | 21.4 | 23.1 | 23.1 | 22.1 | 21.4 | 21.2 | 20.2 | 18.5 | 17.9 |
| Spain | 20.7 | 20.6 | 20.8 | 20.4 | 22.2 | 22.1 | 22.3 | 21.6 | 21.5 | 20.7 |
| France | 13.3 | 14.0 | 14.1 | 13.7 | 13.3 | 13.6 | 13.6 | 13.3 | 13.4 | 13.6 |
| Croatia | 20.6 | 20.9 | 20.4 | 19.5 | 19.4 | 20.0 | 19.5 | 20.0 | 19.3 | 18.3 |
| Italy | 18.7 | 19.8 | 19.5 | 19.3 | 19.4 | 19.9 | 20.6 | 20.3 | 20.3 | 20.1 |
| Cyprus | 15.6 | 14.8 | 14.7 | 15.3 | 14.4 | 16.2 | 16.1 | 15.7 | 15.4 | 14.7 |
| Latvia | 20.9 | 19.0 | 19.2 | 19.4 | 21.2 | 22.5 | 21.8 | 22.1 | 23.3 | 22.9 |
| Lithuania | 20.5 | 19.2 | 18.6 | 20.6 | 19.1 | 22.2 | 21.9 | 22.9 | 22.9 | 20.6 |
| Luxembourg | 14.5 | 13.6 | 15.1 | 15.9 | 16.4 | 15.3 | 16.5 | 18.7 | 16.7 | 17.5 |
| Hungary | 12.3 | 14.1 | 14.3 | 15.0 | 15.0 | 14.9 | 14.5 | 13.4 | 12.8 | 12.3 |
| Malta | 15.5 | 15.6 | 15.1 | 15.8 | 15.8 | 16.6 | 16.5 | 16.7 | 16.8 | 17.1 |
| Netherlands | 10.3 | 11.0 | 10.1 | 10.4 | 11.6 | 11.6 | 12.7 | 13.2 | 13.3 | 13.2 |
| Austria | 14.7 | 14.5 | 14.4 | 14.4 | 14.1 | 13.9 | 14.1 | 14.4 | 14.3 | 13.3 |
| Poland | 17.6 | 17.7 | 17.1 | 17.3 | 17.0 | 17.6 | 17.3 | 15.0 | 14.8 | 15.4 |
| Portugal | 17.9 | 18.0 | 17.9 | 18.7 | 19.5 | 19.5 | 19.0 | 18.3 | 17.3 | 17.2 |
| **Romania** | **21.6** | **22.3** | **22.9** | **23.0** | **25.1** | **25.4** | **25.3** | **23.6** | **23.5** | **23.8** |
| Slovenia | 12.7 | 13.6 | 13.5 | 14.5 | 14.5 | 14.3 | 13.9 | 13.3 | 13.3 | 12.0 |
| Slovakia | 12.0 | 13.0 | 13.2 | 12.8 | 12.6 | 12.3 | 12.7 | 12.4 | 12.2 | 11.9 |
| Finland | 13.1 | 13.7 | 13.2 | 11.8 | 12.8 | 12.4 | 11.6 | 11.5 | 12.0 | 11.6 |
| Sweden | 14.8 | 15.4 | 15.2 | 16.0 | 15.6 | 16.3 | 16.2 | 15.8 | 16.4 | 17.1 |
| United Kingdom | 17.1 | 16.2 | 16.0 | 15.9 | 16.8 | 16.6 | 15.9 | 17.0 | 18.6 | - |

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

In 2019, at-risk-of-poverty rate, calculated as an average for all Member States, at the threshold of 60% of the median equivalised disposable income slightly decreased compared to the previous year. Among the EU member states, in Romania, the highest rate of relative poverty is observed in 2019 compared to 2018 (by 0.3 percentage points).

As regards the monitoring of social protection, Eurostat, through its database[7], makes available to the users detailed, comparable and regularly updated information about national social protection systems in the EU Member States, Iceland, Norway, Switzerland, Serbia and Turkey. Thus, comparative tables on social protection are disseminated, accompanied by specific metadata. In this way, a trans-national approach of the main data on each social protection branch is ensured.

Social benefits expenditure represents over 90% of total social protection expenditure in all the EU Member States. Among them, a higher share is held by old-age and healthcare benefits, followed by the benefits for child and family care and for unemployment.

In 2018[8], the share of expenditure on unemployment in the total expenditure for social benefits was 4.0% in EU28 Member States. In Romania, the level is much lower (0.36%), but there are states for which the share of unemployment benefits exceeds the European average, e.g. Ireland (7.29%), Spain (7.1%), Finland (6.1%) and Belgium (6.2%).

**Figure 6.19. Expenditure with unemployment benefits in total expenditure with social benefits, in the EU Member States, in 2017 and 2018**
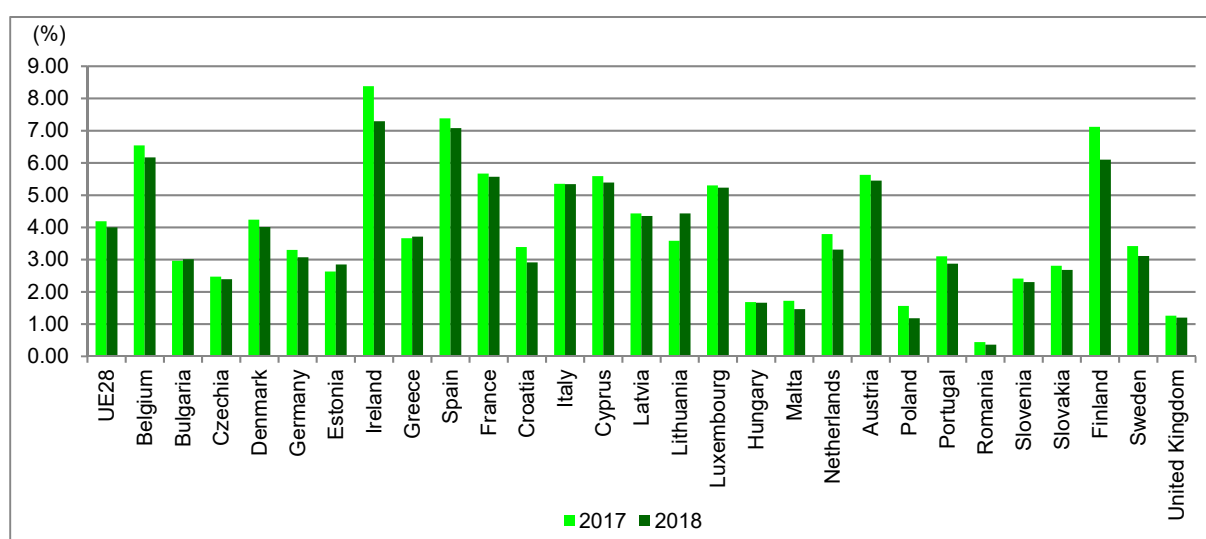


Source: Eurostat, European System of integrated Social PROtection Statistics (ESSPROS), http://ec.europa.eu/eurostat/data/database

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[7] http://ec.europa.eu/eurostat/data/database
[8] EU28 estimated based on the most recent available data at the time of accessing the Eurostat website.

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In 2018, total social protection expenditure[9] was 27.5% of GDP within the EU28. As share in social protection expenditure in GDP, at Member State level, it can be seen that it varies substantially between Member States, from a share of less than 20% in GDP in many Eastern European countries[10] to a share of more than 30% of GDP in the Western and Northern countries[11].

As regards Romania, the share of social protection expenditure in GDP was 15.0% in 2018, increasing compared to previous years (14.8% in 2014).

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[9] *Includes administrative costs and other expenditure. EU28 estimated based on the most recent available data at the time of accessing the Eurostat website.*
[10] *RO, LV, IE, LT, MT, BG, SK, CZ and HU*
[11] *FI and FR*

# 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 arts performing 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 Romania[2].

At the same time, the data presented in this chapter for the year 2020 must 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 has profoundly

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[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).

affected this year's production and cultural habits and is likely to have an impact in the subsequent periods. Thus, the activity of cultural and artistic units was strongly influenced by the measures taken by the central and local authorities to prevent the spread of the virus, by applying the provisions of military ordinances to prevent the spread of COVID-19 and the provisions of Emergency Ordinances and Government Decisions during the state of emergency and state of alert. The closure or restriction of the activities of cultural units and the cancellation or ban of the organization of artistic events were some of the measures that had a particular impact on the cultural habits of the population and on the artistic and cultural community. The periods in which the cultural units 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, a situation reflected in the statistical indicators presented in this paper. For this reason, the analysis below will also include comparisons with the data from 2019, to capture developments and trends compared to a year without epidemiological situations affecting the cultural sector.

## 7.2. Libraries network and activity

During 2010-2019, the number of libraries decreased gradually, so that in 2019 it reached 78.0% of the total number registered at the end of 2010 and in the context of the COVID-19 pandemic in 2020, the decrease was even more pronounced, registering only 74.6% of the total number of libraries operating in 2010. Compared to 2019, in 2020 the number of libraries decreased by 4.3% (393 units), mainly due to the temporary closure of some libraries.

### Figure 7.1. Evolution of libraries number, during 2010-2020
### (at the end of the year)
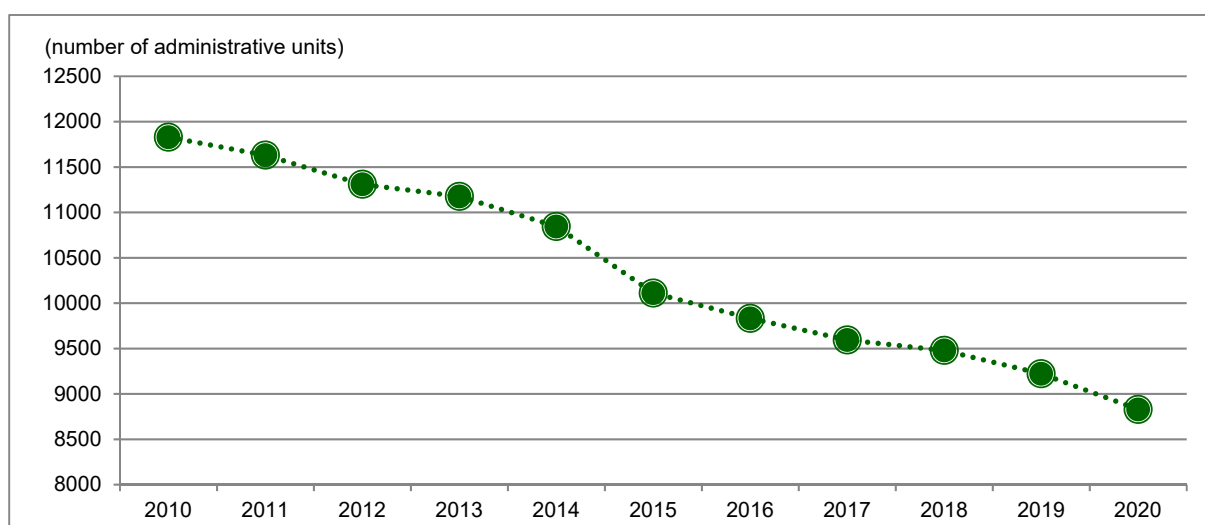


Source: NIS, Statistical survey on culture referring to "Activity of libraries".

The decreasing of the libraries network has also had an impact on their activity by decreasing, in 2020 as compared to 2010, of the number of lent volumes to 35.3% and of active users to 56.5%). The impact of the pandemic crisis in 2020 is reflected in the activity of the library network by the number of active users, which is lower than the previous year by 19.3% and the number of lent volumes by 38.1%.

In the context of the COVID-19 pandemic, at the end of 2020, in Romania there were 8.8 thousand libraries (9.2 thousand libraries in 2019) that registered 2.5 million active users (3.1 million active users in 2019). In 2020 the average number of lent volumes was 8.2 lent volumes to an active user, compared to 10.7 volumes in the previous year.

**Figure 7.2. Evolution of the number of active users and of lent volumes in libraries, during 2010-2020**
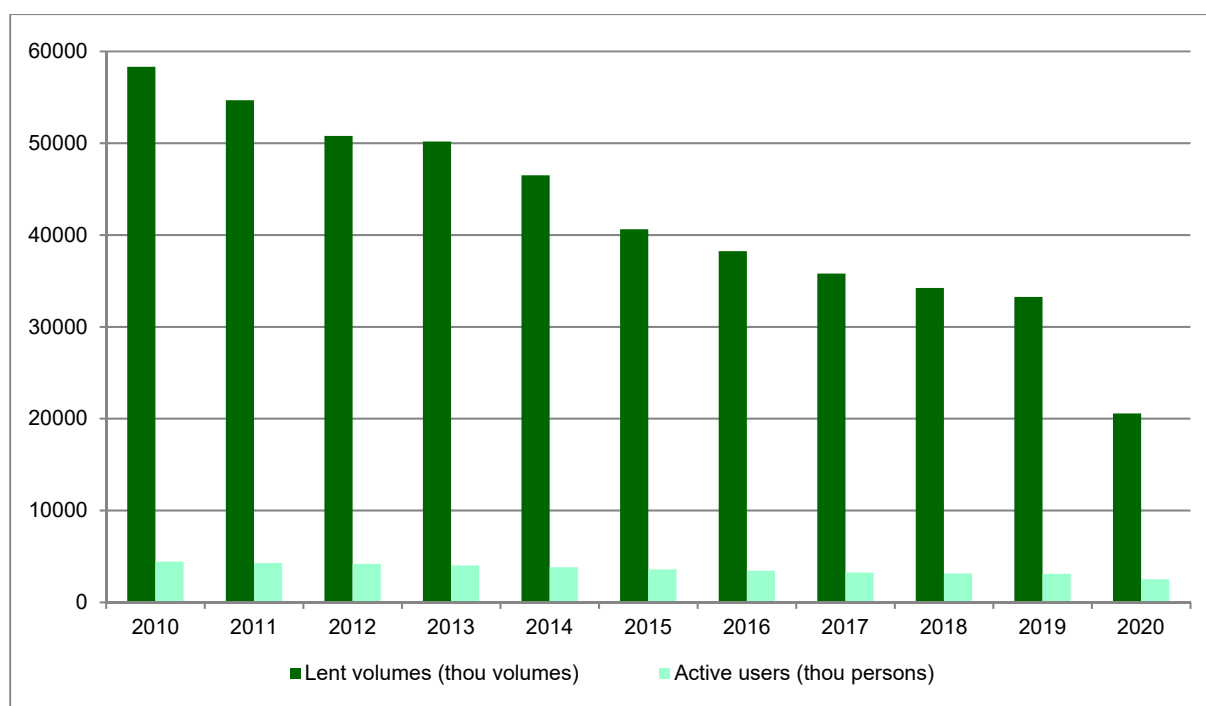


Source: NIS, Statistical survey on culture referring to "Activity of libraries".

In 2020, at territorial level, though Bucharest-Ilfov region accounted the highest share of existing volumes in the national library network (22.8%), the highest number of active users (18.7% of the national total) and the largest share of lent volumes (24.1% of the national total) were recorded in the North-East region.

## Table 7.1. Structure of active users, of volumes in libraries and lent volumes, by region, in 2020

(%)

| Development region | Active users | Lent volumes | Existing volumes | |
|---|---|---|---|---|
| | | | Total | out of which: new entries during the year |
| **TOTAL** | **100.0** | **100.0** | **100.0** | **100.0** |
| North - West | 13.4 | 14.0 | 13.9 | 11.7 |
| Center | 11.7 | 11.0 | 11.7 | 13.2 |
| North - East | 18.7 | 24.1 | 15.9 | 17.4 |
| South - East | 11.0 | 10.8 | 9.2 | 9.8 |
| Bucharest - Ilfov | 11.9 | 10.3 | 22.8 | 20.6 |
| South - Muntenia | 15.0 | 13.5 | 10.5 | 12.7 |
| South - West Oltenia | 9.7 | 9.0 | 8.1 | 8.1 |
| West | 8.6 | 7.3 | 7.9 | 6.5 |

Source: NIS, Statistical survey on culture referring to "Activity of libraries in 2020".

In 2020 the West region had the lowest ratios as regards the activity of libraries, both in the number of active users (8.6% of the national total) and the number of lent volumes (7.3%).

## 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. It also brings to mind various types of works of art that 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 next[3].

„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 comprises the number and activity of museums and public collections. During 2010-2020, with the increase in the number of museums and public collections, the appetite

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[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.

of the Romanian population for visiting them also increased. Thus, in Romania in 2020 there were opened to the public 76 museums and public collections[5] more than in 2010, but in the context generated by the COVID pandemic, they were visited by only 7.9 million visitors, 10.8% less than in 2010.

In 2019 there were 104 museums and public collections[6] more than in 2010, which were visited by 18.2 millions visitors, twice as much than in 2010. At the end of 2019, the cultural heritage of Romania included 33.8 million cultural and natural goods[7], exhibited in a network that organized 6.8 thousand exhibitions (36.0% of them being permanent and 64.0% temporary exhibitions). In 2020, the suspension of the activity of museums during the state of emergency, but also for certain periods during the state of alert, has determined some small museums and some public collections to remain closed to the public until the end of the year. These aspects are highlighted by the statistical indicators on the activity of museums by the lower number of cultural and natural goods[8] exposed to the public in 2020, which was of 33.5 million goods, with 0.3 million less goods exposed to the public in museums and public collections, compared to 2019, but also by the smaller number of exhibitions organized (2.4 thousand exhibitions), representing a third of the number of exhibitions organized in 2019.

**Figure 7.3. Distribution of the area of cultural heritage exposure[*],**
**by region, in 2020**
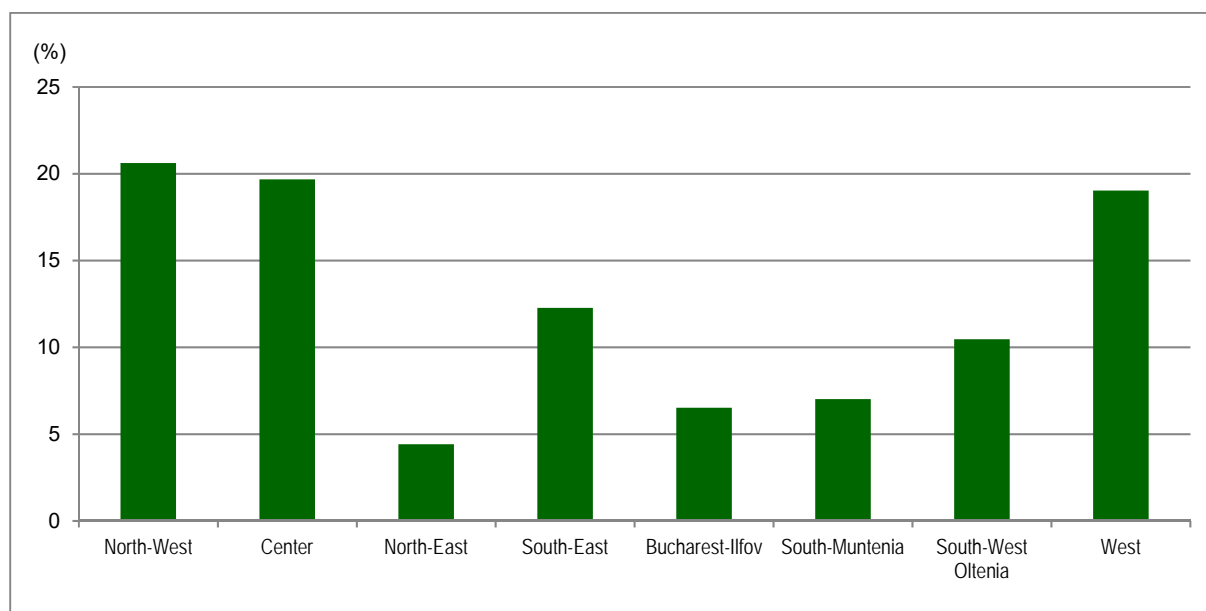


Source: NIS, Statistical survey on culture referring to "Activity of museums and public collections in 2020".

Note: [*] including monuments, excluding botanical and zoological gardens, aquaria, nature reserves.

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[5] *Including museum subsidiaries and sections.*
[6] *Including museum subsidiaries and sections.*
[7] *Including natural goods in botanical and zoological gardens, aquaria, nature reserves.*
[8] *Including natural goods in botanical and zoological gardens, aquaria, nature reserves.*

In 2020 the exhibition area occupied by museums, monuments, botanical gardens, zoological gardens and aquaria totaled 6025914 m$^2$, and an area of 444512 ha was occupied by nature reserves.

The area of natural heritage exposure in botanical and zoological gardens, aquaria and nature reserves is concentrated in the West and North-West regions were, in 2020, was comprised 75.1% of its total area. This is the result of the fact that in these regions could be found almost a third of the nature reserves accessible to the public for visiting and observing the flora and fauna.

If the botanical and zoological gardens, aquaria and nature reserves are excluded from the network of museums and public collections, in 2020 the area of cultural heritage exposure concentrates in western development regions (North-West and West) 39.6% of the total area of exposure, in eastern development regions (North-East and South-East) 16.7% of the total area of exposure, in the southern area (South Muntenia, South-West Oltenia and Bucharest-Ilfov) 24.0% of the total area of exposure and in the Center development region 19.7% of the total exhibitional area.

## 7.4. Institutions and companies for arts performing or concerts

Over the last decade, the cultural events in Romania were mostly held within the institutions and companies of arts performing or concerts. The demand of the public in our country for entertainment and music shows has resulted in an increasing number of cultural institutions offering arts performing and concerts, from 158 units in 2010, to 242 units in 2019 and decreased, by temporary closure of some units in the context of the pandemic, in 2020 to 235 units[9].

In 2019, 26.4 thousand shows were presented to the public, with 6.8 thousand more shows as compared to 2010 and the number of spectators has reached 8.1 million spectators, as compared to 6.3 million spectators in 2010.

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[9] Including sections, units operating within the structure of Cultural Centers, local councils, etc.

**Table 7.2. Number of institutions and companies for arts performing or concerts and of the spectators, during 2010-2020**

| Year | Institutions and companies for arts performing or concerts *) (units) | Shows and concerts (number of performances) | Spectators (persons) |
|------|------|------|------|
| 2010 | 158 | 19559 | 6303660 |
| 2011 | 162 | 20161 | 8125780 |
| 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 |

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

Note: *) including sections.

The restrictions imposed to cultural units during the COVID-19 pandemic in 2020 have led to only 10.0 thousand performances presented to the public (decreased by 62.1% compared to 2019), which were attended by only 1.5 million spectators (representing 18.7% of the number of spectators registered in 2019).

## 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 2019, 98 cinemas were operational (including a mobile cinema), 30 more units than in 2010.

In 2019 the number of film projections presented to the public was of 638.0 thousands film projections (2.7 more film projections than in 2010), being viewed by 13.1 million spectators (twice as compared to 2010).

## Figure 7.4. Cinemas and cinema installations[1], during 2010-2020
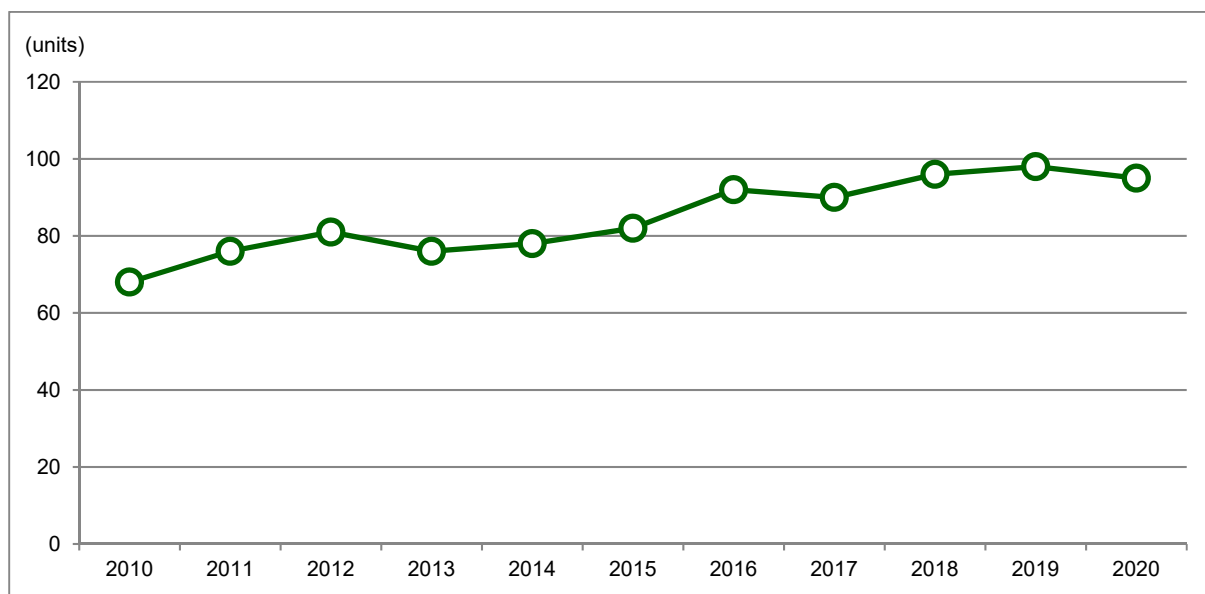


Source: Ministry of Culture - National Center of Cinematography.

Note: [1] Including standard-film-gauge cinemas and standard-film-gauge mobile cinemas.

In 2020, in the context of the COVID-19 pandemic, the closure of cinemas, but also the restrictions on social distancing imposed by the authorities during the sanitary crisis, have led to a significantly decrease of the number of film projections and, implicitly, the number of spectators. Thus, in 2020 the number of film projections (210.5 thousand film projections) was lower than the number recorded in 2010 and decreased 3 times as compared to 2019, and the number of spectators was twice lower than in 2010 and 4 times lower as compared to 2019.

## Figure 7.5. Seats in cinema halls, by region, in 2020
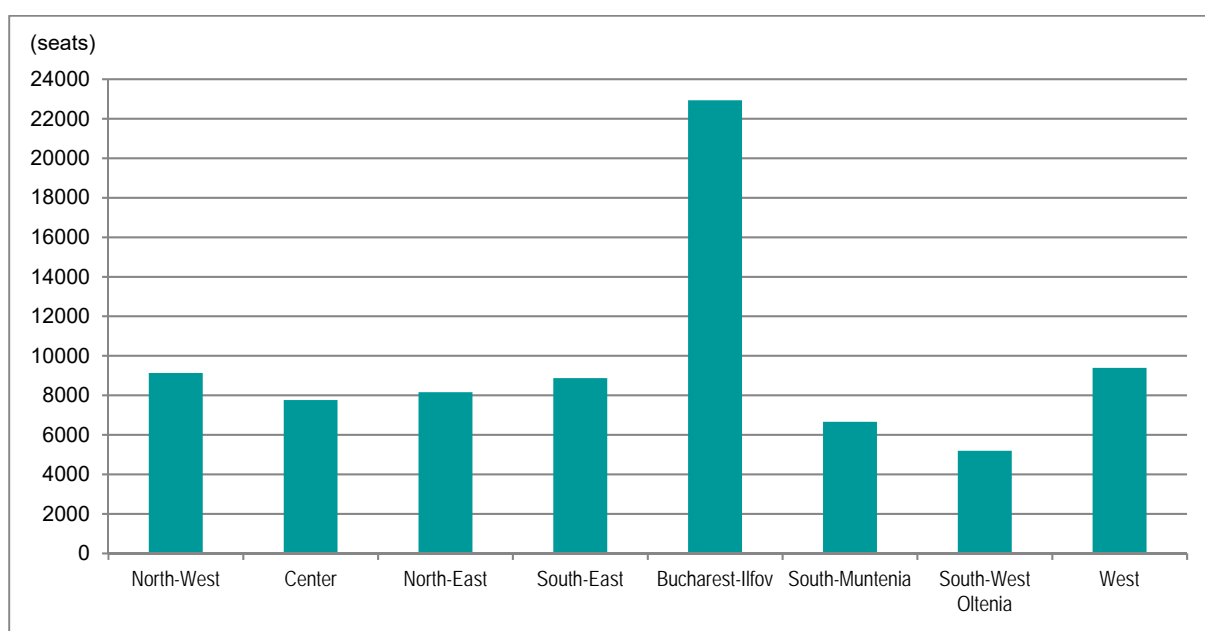


Source: Ministry of Culture - National Center of Cinematography

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 existing 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."[10]. 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;
- using the new information and communication technologies (ICT) for creation, distribution and access to culture.

The Digital Agenda for Romania[11] 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.eu[12].

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[10] Source: National Institute for Cultural Research and Training - Strategy on culture and national heritage 2016-2022
[11] Field of Action 2 - ICT in Education, Healthcare, Culture and eInclusion.
[12] 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.

**Figure 7.6. Percentage of rare digital documents in all rare documents available in libraries, during 2010-2020**
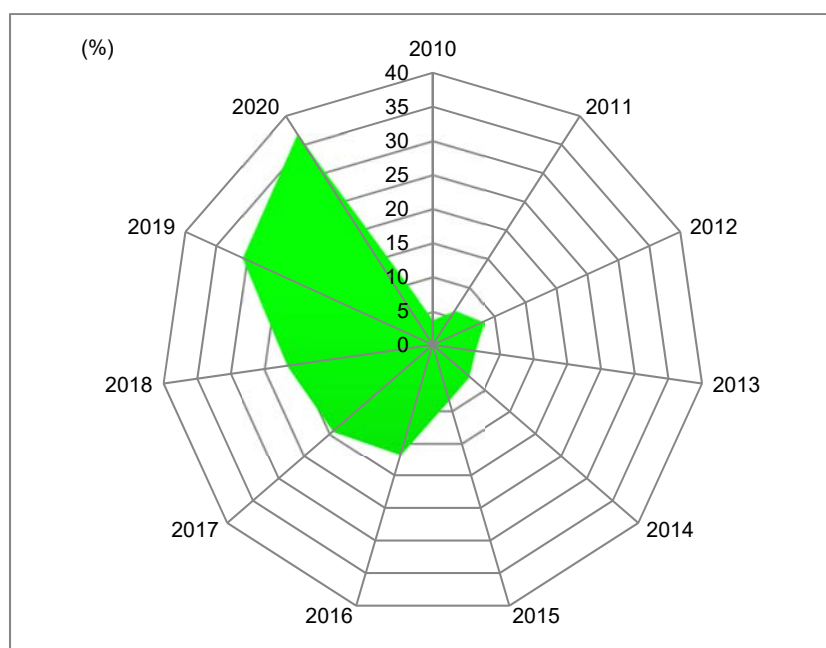


Source: NIS, Statistical survey on culture referring to "Activity of libraries".

During 2010-2020, the percentage of rare digital documents in all rare documents available in libraries has increased from 3.8% to 36.8%.

"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."[13]

"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."[14]

[13] http://www.bibnat.ro/index/Biblioteca-Digitala-Nationala-s135-ro.htm.
[14] http://www.bibnat.ro/Biblioteca-Digitala-Nationala-s135-ro.htm.

**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 2016-2020**

| 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 |

Source: NIS, 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 collections[15] 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 2020, museums and public collections owned 17.8 million more cultural and natural goods (32.4 million) than in 2016, of which 12.7% were digitized (4.1 million goods). Out of these, only 0.5% were natural goods and 12.2% were cultural goods.

**Table 7.4. Number of cultural and natural digital goods[*)] uploaded on the website www.europeana.eu, during 2016-2020**

| 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 |

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

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

[15] *Excluding cultural and natural goods in botanical and zoological gardens, aquaria and nature reserves.*

During 2016-2020 the total number of cultural and natural digital goods uploaded on the website www.europeana.eu increased almost 11 times, from 5137 to 55697.

At the end of 2020, as compared to 2019, there is also an increasing trend of 55.9% of cultural and natural goods uploaded on the website www.europeana.eu.

## 7.7. Culture in the European context

The European Union supports, coordinates and supplements the actions of the Member States in terms of preserving and promoting Europe's cultural heritage, improvement of the knowledge and dissemination of the European culture and history, the artistic and literary creation, but also the non-commercial cultural exchanges (Art. 167 - the Lisbon Treaty of the European Union). On the other hand, for cultural policy, the implications of acting within the European Union as a Member State requires the harmonisation of the national legislation with the EU legislation, and in the cultural fields harmonization involves the transposition of some European normative acts into national legislation in areas such as: audio-visual, cultural heritage, copyright and related rights.

In May 2018[16], the Commission adopted a new European Agenda for Culture to take into account the evolution of the cultural sector, focusing on the positive contribution that culture brings to societies, economies and international relations and which establish improved working methods with Member States, civil society and international partners.

The New European Agenda for Culture defines three strategic objectives:
- harnessing the power of culture and cultural diversity for social cohesion and well-being by promoting cultural participation, the mobility of artists and the protection of heritage;
- supporting job creation and growth in the cultural and creative sectors by fostering arts and culture as part of the education, promoting the relevant skills, and encouraging innovation in culture;
- strengthening international cultural relations by making the most of the potential of culture to foster sustainable development and peace.

Also, the European Agenda for Culture provides the strategic framework for the next phase of cooperation at EU level, which began in 2019. In this regard, Member States expressed the main topics and working methods for substantiating the European policies in the culture domain that were included in the Framework Strategy for Culture, subsequently adopted by the EU Council of Ministers.

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[16] *Official Journal of the European Union, 2018, C 460, 10, Council conclusions on the Work Plan for Culture 2019-2022.*

The framework strategy for culture 2019-2022[17], adopted on 27 November 2018, sets out five main priorities for European cooperation in the elaboration of cultural policies:

- Sustainable development in cultural heritage;
- Cohesion and well-being;
- An ecosystem that supports artists, professionals in the field of culture and creativity and European content;
- Gender equality;
- International cultural relations.

These priorities are complemented by 17 concrete activities, with clearly defined working methods, activities based and developed on recent achievements at European Union level, for example for the cultural heritage domain the activities proposed at European level refer to museums, archaeological sites, intangible heritage. Other activities include new topics, such as those related to the music sector and gender equality.

Eurostat[18] proposes that the scope of culture be much wider, including also sub-domains among cultural domains, such as: cultural heritage, archives, libraries, books and press, visual arts (fine art, photography, design), performing arts (music, dance, dramatics, combined arts and other live performances), audiovisual and multimedia (film, radio, television, video, audio recordings, multimedia works, videograms), architecture, advertising and crafts, etc.

The main cultural indicators calculated by Eurostat from various sources[19] refer to: the labor force in the cultural sectors, the number of enterprises in the cultural sectors, the added value and the turnover of the companies in the cultural sectors, the trade in cultural goods, the 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 level[20].

In 2020, 7.2 million persons in the EU Member States were working in one of the cultural domain or had a cultural occupation.

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[17] Eurostat, Strategic framework, European Agenda for Culture, 2018
[18] Guide to Eurostat culture statistics - 2018 edition
[19] 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.
[20] 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).

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 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 2020**

| Country | Employed population in cultural domains -thou persons- | Share in the total employed population - % - |
|---|---|---|
| **EU-27** | **7168** | **3.6** |
| Austria | 163 | 3.8 |
| Belgium | 214 | 4.5 |
| Bulgaria | 92 | 2.9 |
| Croatia | 64 | 3.9 |
| Cyprus | 13 | 3.2 |
| Czechia | 203 | 3.9 |
| Denmark | 126 | 4.4 |
| Estonia | 34 | 5.2 |
| Finland | 128 | 5.1 |
| France | 973 | 3.6 |
| Germany | 1599 | 3.8 |
| Greece | 123 | 3.2 |
| Hungary | 175 | 3.9 |
| Ireland | 74 | 3.2 |
| Italy | 791 | 3.5 |
| Latvia | 33 | 3.7 |
| Lithuania | 54 | 4.0 |
| Luxembourg | 12 | 4.2 |
| Malta | 13 | 4.8 |
| Netherlands | 421 | 4.7 |
| Poland | 538 | 3.3 |
| Portugal | 173 | 3.6 |
| Romania | 120 | 1.4 |
| Slovakia | 71 | 2.8 |
| Slovenia | 50 | 5.1 |
| Spain | 667 | 3.5 |
| Sweden | 243 | 4.8 |

Source: Eurostat, *Culture statistics* – 2020 edition, Table 1: Cultural employment, 2020 (% of total employment).

The share of employed persons in culture at EU-27 level in 2020 was of 3.6% of the total number of employed persons in the entire economy of the European Union[21].

The highest shares on the employed population in cultural domains were recorded by Estonia (5.2%), Finland and Slovenia (5.1%), Malta and Sweden (4.8%), the lowest ranking countries being Bulgaria (2.9%), Slovakia (2.8%) and Romania (1.4%).

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[21] Eurostat, Culture statistics – 2019 edition.

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**Table 7.6. Share of the employed population in cultural domains, by level of educational attainment, in 2020**

| | 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** | 59.3 | 32.9 | 7.5 | 0.2 |
| Austria | 59.1 | 34.3 | 6.5 | - |
| Belgia | 71.7 | 22.1 | 6.3 | - |
| Bulgaria[1] | 60.7 | 36.5 | 2.8 | - |
| Croatia | 53.3 | 44.9 | 1.9 | - |
| Cyprus[1] | 75.0 | 22.7 | 2.3 | - |
| Czechia | 53.4 | 45.4 | 1.1 | - |
| Denmark[1] | 59.9 | 29.2 | 10.9 | - |
| Estonia[1] | 62.2 | 35.2 | 2.6 | - |
| Finland | 65.2 | 29.6 | 5.2 | - |
| France | 65.6 | 26.6 | 7.7 | - |
| Germany[1] | 50.5 | 40.8 | 8.7 | - |
| Greece | 56.9 | 38.8 | 4.4 | - |
| Hungary | 62.2 | 34.3 | 3.5 | - |
| Ireland[1] | 69.0 | 23.8 | 7.2 | - |
| Italy | 45.8 | 39.5 | 14.6 | - |
| Latvia[1] | 61.9 | 35.1 | 3.0 | - |
| Lithuania[1] | 69.0 | 30.2 | 0.7 | - |
| Luxembourg[1] | 79.0 | 12.9 | 8.1 | - |
| Malta | 52.4 | 28.6 | 19.0 | - |
| Netherlands | 63.2 | 28.6 | 7.3 | 0.9 |
| Poland | 63.4 | 34.8 | 1.8 | - |
| Portugal | 60.7 | 22.7 | 16.6 | - |
| Romania[1] | 54.4 | 42.8 | 2.8 | - |
| Slovakia[1] | 56.5 | 41.7 | 1.8 | - |
| Slovenia | 65.4 | 32.0 | 2.8 | - |
| Spain | 74.8 | 16.1 | 9.0 | - |
| Sweden[1] | 62.6 | 32.2 | 5.2 | - |

Source: Eurostat, *Culture statistics* – 2020 edition*, Figure 5: Cultural employment, by level of educational attainment, 2020 (% 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 2020, at EU-27 level, 59.3% 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 (79.0%), Cyprus (75.0%), Spain (74.8%) and Belgium (71.7%).

The lowest shares of the population with tertiary education that is employed in cultural domains were registered in 2020, in: Croatia (53.3%), Malta (52.4%), Germany (50.5%) and Italy (45.8%). In Romania the share of the population with tertiary education that is employed in cultural domains was of 54.4%.

# *DATA SOURCES*

| |
|---|
| ***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 (DEPABD - Directorate for Personal Records and Database Administration). 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 adress).*

*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.*

*DEPABD and Passports General Directorate submit biannually data on internal and international migration by change of legal residence, in electronic format.*

*DEPABD 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 2021 was computed based on legal population on July 1ˢᵗ 2020, to which the following elements have been added:*

- *natural increase of the population during July 1ˢᵗ - December 31ˢᵗ, 2020 (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 adress or, if the mother did not have the legal adress in Romania, according to the father's legal address (locality); for deceased persons, the distribution was also made by their legal adress.*

- *balance of internal migration by change in legal adress during July 1ˢᵗ - December 31ˢᵗ, 2020 (the difference between the number of persons settling the legal adress in a locality and the number of persons leaving it due to legal change of adress);*

- *balance of international migration by change in legal adress during July 1ˢᵗ - December 31ˢᵗ, 2020 (Romanian citizens who re-established their legal adress in Romania minus Romanian citizens who established their legal adress 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 of the European Parliament and the Council on European demographic statistics, 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, and*
- *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 1ˢ) 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 Directorate for Personal Records and Database Administration (DEPABD), 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.*

## 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**

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### 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).*

**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:*

- *processed data from administrative sources (Ministry of Interior: Directorate for Personal Records and Database Administration - DEPABD, General Inspectorate for Immigration-IGI, Passports General Directorate-DGP);*

- annual data provided by national statistical offices of Spain and Italy;
- Eurostat database regarding the population and international migration ('mirror' statistics);
- 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 October 20th, 2011) 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.*

## 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.*

*On 26.10.2010 was published the Law No. 202/2010 on certain measures to accelerate the judiciary process, known as the "Small Justice Reform". This law amended some legal provisions of the Family Code relating to divorce, regulating for the first time the administrative divorce, which makes it possible to dissolve the marriage by a civil status officer or a notary public. 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.*

*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.*

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**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 (EC) Regulation 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 the (EU) Commission Regulation no. 2015/359 of March 4, 2015 implementing (EC) Regulation no. 1338/2008 of the European Parliament and of the Council on Community statistics related to healthcare expenditure and funding sources.*

**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 |
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## 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. (EU) Commission Regulation No. 359/ 2015 of 4 March 2015 on implementing Regulation (EC) No. 1338/2008 of the European Parliament and of the Council as regards statistics on healthcare 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, Family, Social Protection and for the Elderly Persons, 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, Ministry of Interior, Romanian Academy, etc.).*

*The statistical sources used to elaborate the SHA are the following: exhaustive statistical survey on the activity of medical establishments (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.*

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**Exhaustive statistical survey on early-childhood education and development - ISCED level 01 and pre-primary education – ISCED level 02**

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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 units (about 5,400)*

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 nomenclature, teaching languages, SIRUTA*

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**Exhaustive statistical survey on primary education - ISCED level 1
and lower-secondary education – ISCED level 2**

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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 units (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 nomenclature, teaching languages, foreign languages, SIRUTA*

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**Exhaustive statistical survey on special primary education - ISCED level 1
and special lower-secondary education - ISCED level 2**

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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 units (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 nomenclature, teaching languages, SIRUTA*

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> ### Exhaustive statistical survey on vocational education - ISCED level 3
> ### and post-secondary non-tertiary education - ISCED level 4

**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 units (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 nomenclature, teaching languages, foreign languages, qualifications, SIRUTA*

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> ### Exhaustive statistical survey on upper-secondary education
> ### - ISCED level 3

**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 units (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*

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**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**

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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 95)*

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 nomenclature, countries nomenclature, ISCED-F (fields of study), SIRUTA*

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| 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 statistical survey is carried out according to the European norms, respectively the (EC) Regulation no. 577/98 of the Council regarding the organisation of a sample survey on the Community labour force, with the  further amendments, the (EU) Regulation no. 545/2014 of the European Parliament and of the Council amending (EC) Regulation no. 577/98 regarding the organisation of a sample survey on the Community labour force, the (EC) Commission Regulation no. 377/2008 implementing the (EC) Regulation no. 577/98 as regards the codification used for the data transmission starting with 2009 and the use of a sub-sample for the collection of data referring to structural variables and the definition of reference quarters, with further amendments.*

## 2.  Coverage

*The survey is carried out all over the country territory.*

*Only the Individual households from permanent dwellings are interviewed. The collective housing units (for elderly persons, disabled persons, workers hostels, sanatoria, etc.) and persons who permanently live in this kind of units are not included in this survey. Likewise, seasonal dwellings have been not included.*

*The survey covered persons with usual or permanent residence in Romania, members of the households from the selected dwellings. There are also considered as members of the household those persons absent from home for a period longer than 6 months, living somewhere else in country or abroad[1], if they keep ties with the household from which are*

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[1] *If the period of absence from home is less than 12 months.*

*part, namely: students left for studies, persons left to work, convicts and prisoners, hospitalised persons or those being temporarily in sanatoria for treatment or recovery.*

*3. **Observation unit** - person*

*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 extension

*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. Survey questionnaire

*The information are collected on identical questionnaires all over the year. The data collection is done based on two statistical questionnaires, namely: **DQ** - dwelling questionnaire; **IQ** - individual questionnaire.*

## 8. 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-08[2].*

**Activity:** *is defined and codified according to "Classification of Activities in National Economy[3] (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 date[4].*

*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.*

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[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*

*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 activity[5] and the survey results representativeness was ensured at national, development region and county levels (NUTS level 0, 2 and 3[6]).*

**Categories of employees**

*The data collected in this survey refer to the category of employees.* **Employees** *are all the persons having an individual labour contract/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.*

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[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 was the* **month of January following the reference year.**

*Starting with reference year 2010, the National Institute of Statistics (NIS) lunched a web based application for on line data processing (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 letter) 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 letter). 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 26500 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 ($\pi_{ih}$)*

- *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:*

*http://colectaredate.insse.ro/metadata/viewStatisticalSurvey.htm?locale=ro&surveyId=4063*

**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, hotels and restaurants, transportation and storage, information and communication, financial intermediation and insurance activities, real estate activities, professional, scientific and technical activities, administrative activities and support services and other services activities; the social services sector: public administration (armed forces and assimilated are excluded), education (private sector included), human health and social assistance 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**

| Job Vacancies Survey |
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## 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 (NUTS0[7]), 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 individual labour contract/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 (COR2008[8]), 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 (e-Survey Online Portal) which allows on line data collection and validation.*

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[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 assistance (Q) activities 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 assistance (Q) activities 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 **22500** businesses units and public institutions. In order to improve data quality and to increase the overall response rate, estimation methods (number of occupied jobs) 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:

http://colectaredate.insse.ro/metadata/viewStatisticalResearch.htm?locale=en&researchId=4062

*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*

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### National Agency for Employment

1. **Survey objectives:** *Ensuring the information on the number of unemployed and registered unemployment rate.*

2. **Coverage:** *Total number of unemployed registered with the National Agency for Employment*

3. **Observation unit: The registered unemployed** *is the person who fulfils certain conditions stipulated by law and is registered with the agency for employment in the area where he/she has the permanent residence or, as the case may be, his/her usual residence, or with another provider of employment services, functioning according to the law, in order to get a job.*

4. **Frequency and reference period**

*The periodicity is the annually and monthly and the reference period is the calendar month or the preceding calendar year.*

5. **Method and period of data registration**

*The data collection is made by transmission of data by the National Agency of Employment in the month following the reference month for the previous month. Data refer to registered unemployed, registered unemployment rate, unpaid unemployed, length of unemployment, at national, macroregion, development region, county, locality, gender, education level, age group level. Since March 1ˢᵗ, 2002, Law No. 76/ 2002 on the unemployment insurance system and stimulation of employment has come into force, Law no. 1 /1991 with all amendments being repealed.*

- *According to the new law, with further amendments, the **unemployed person** is the person who cumulatively accomplishes the following conditions:*

  a) *is seeking for a job from the age of at least 16 years, till the retirement conditions fulfilment;*

  b) *health, physical and psychic abilities make him/her able for work;*

  c) *has no job, does not receive income, or receives, from authorised activities according to the law, an income lower than the value of reference social indicator of unemployment insurance and stimulation of employment, in force;*

  d) *is available to work in the following period if any job is 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. Since 2011 the value of this social indicator is lei 500.*

## Data sources for Chapter 5

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**Household Budget Survey (HBS)**

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### 1. Survey objectives

*The Household Budget Survey enables a detailed analysis of the current situation and of the overtime evolution of an individual or a household in a socio-economic environment subject to permanent change.*

*The collected information also allows for the identification of disadvantaged households and persons, in view to draw up appropriate programmes of social protection, as well as for carrying out an impact analysis of the implementation of various programmes in the social field, of the economic effects of the transition in general, upon the economic and social situation of the population. The survey ensures information necessary for establishing the weights for CPI calculation according to standard classifications, assessing the households' final consumption and measuring poverty and social exclusion. Therefore, the survey meets the priority users' needs for information in the social field, providing the necessary elements for the analysis of the modalities and opportunities to improve the life quality of the population in Romania.*

### 2. Coverage

*In view to provide information on all segments of the population, the survey includes households from all socio-economic categories: employees, employers, self-employed in non-agricultural activities (craftsmen, traders, free lancers etc.), members of non-agricultural cooperatives (crafts, consumption and credit cooperatives), self-employed in agricultural associations; unpaid family workers, unemployed, pensioners, students, housewives, other categories (children at early-childhood ages, elderly persons, people with disabilities, dependent persons, etc.). The household membership in one of these socio-economic categories is determined on the basis of the main occupational status declared by the household's head.*

## 3. Observation unit

The sampling unit is the dwelling selected through the sampling process and the observation unit is the household - as the basic unit for data collection and analysis. According to this principle, if several households are found at a certain address, data collection is carried out for each household, by a distinct 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 filled 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

In the Household Budget Survey data collection is done through a combination of one or more interviews and self-registration in the household journal.

Filling in the data in the household's questionnaire was made at the household's permanent residence, based on discussions with each household's adult member and, if this was not possible in all cases, information was obtained on the basis of a declaration of the household's head, of the spouses or of another adult member who was able to give full information both related to the other persons in the household and related to the household as a whole. The household's journal was filled in by self-registration by the household's head, his/her spouse or by another person in the household who was required to make accurate entries, on daily basis or at periods as short as possible, mainly on the current expenditure of the household. If the household's journal could not be entirely filled in through self-registration or when, for objective reasons (elderly persons, sick persons, etc.), the household requested its filling in by the operator, the statistical data was filled in based on interview or, in other cases, on the basis of personal records (notes) of the household members, which they more easily accept do separately from the household journal.

## 6. Sampling plan

### 6.1. Sampling frame

In view to design the sampling frame and to select the sample to be used in carrying out the Household Budget Survey, a "master" type sampling frame was applied, built up as a sample of geographical areas - well demarcated in the territory - the Multifunctional Sample of Territorial Areas (EMZOT).

### 6.2. Sampling unit

The national territory was split into geographical areas, called Primary Units (PU). A primary unit (PU) was composed of at least 3 contiguous census sections.

### 6.3. Stratification variables

The selection of PUs included in EMZOT was a well balanced stratified selection (District x Residence area). The PUs inclusion probabilities were calculated in proportion to the size of the PU, defined as **the number of permanent dwellings** (because only households in permanent dwellings, at the time of carrying out the survey, are included, the other dwellings being considered outside the survey scope).

### 6.4. Sample extraction

A sample of PUs were extracted from the crowd of PUs, representing the **survey centres** included in EMZOT. These samples are used for the extraction of the samples of dwellings for the household surveys.

### 6.5. Results extension

The survey results extension is done on the basis of coefficients assigned to persons from the households selected in the sample, who replied to the interview.

For the determination of these coefficients, the following steps are to be taken:

    a.  Calculation of basic weights;

    b.  Adjustment of total non-responses;

    c.  Redressing of the sample and the calculation of final weights.

## 7.  Survey questionnaire

The survey programme covers the basic features needed to assess the standard of living to be recorded, features that are found in the survey questionnaires: Household's Journal (JG) and the Household's Questionnaire (CG).

## 8.  Classifications in use

- **Nomenclature of products and services for household's consumption** (COICOP - HBS)

- **Occupation**: defined and coded according to the Classification of Occupations in Romania (COR), harmonised with the International Standard Classification of Occupations ISCO-08;

- **Activity:** defined and coded according to the National Classification of Economic Activities (NACE), harmonised 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 represent one of the main action areas of social protection. The statistical data, used in order to describe the social security system of pensions, is obtained through a quarterly and annual statistical survey aimed to estimate the average number of pensioners and the average monthly pension, by pension system and by category of pensions, at national and territorial (county) level.*

*2. Coverage*

*The coverage of the statistical survey is given by the pensioners across the whole country. The data are available at macroregion, region and county level only for the categories of pensioners from the state social insurance system and from the former system for farmers. The coverage of the statistical survey is given by the pensioners who hold a significant share in the total inactive population.*

*3. Observation unit*

*The units to be investigated are: pensioners from the state social insurance system and from the former system for farmers, social insurance pensioners from National Defence Ministry, Ministry of Interior and the Romanian Intelligence Service, social insurance pensioners from the Ministry of Culture, social insurance pensioners from Lawyers' Insurance House.*

*4. Frequency and reference period*

*The statistical survey is carried out on annual basis; the reference period of the survey is the 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**.*

*Data processing flow is as follows: sending questionnaires to the houses of pensions; at administrative data sources level (houses of pensions): data input; data validation (performing key controls); transmission of questionnaires filled in with data to the NIS; at central level (NIS): data input; data validation; data comparison with the previous reporting period; data analysis; preparation of statistical data for the dissemination of the statistical survey results.*

*6. 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 survey questionnaire is designed taking into account the national and European legislation. The questionnaire is forwarded for consultation to the collaborative ministries.*

*At central level (NIS), the department of social protection from the labour market statistics directorate, general directorate of social statistics and demography, ensures the coordination of methodology and statistical tools design activities, as well as the processing, analysis and preparation of the final results for dissemination.*

*The IT solution of the statistical survey was developed in Excel and contains: tables with logical keys for verifying the correlations between the statistical variables; layouts for obtaining final data tables.*

## *Data sources for Chapter 6*

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| *Quality of Life Survey* |
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### *1. Survey objectives*

*The Quality of Life Survey, called EU-SILC (EU Survey on Income and Living Conditions) at European level, has as main objective the production of detailed statistical data for evaluating the living conditions of population. This is achieved by the collection of information on various social aspects: housing conditions, health status, education, employment, households' endowment with various facilities and durable goods, etc.*

*The statistical survey is carried out in accordance with Regulation No. 1177/2003 of the European Parliament and of the Council, concerning Community statistics on income and living conditions (EU-SILC).*

### *2. Coverage*

*The survey covers all the members with permanent residence in the selected survey centres (urban and rural). All the household members are subject to registration, including the persons absent from home for a longer period, but no longer than 6 months, if they are preserving family relations with the household to which they belong, such as: pupils and students left for study purposes; persons left for work; prisoners; persons temporary in hospitals or sanatoria for medical cure or recovery.*

*Persons permanently living in collective housing units: hotels, residential centres for elderly persons, persons with disabilities, workers hostels, sanatoria, etc., are not included in the survey.*

### *3. Observation unit*

*The observation unit of the survey is the household, defined as a group of two or more persons, who normally live together and who generally are related and carry out altogether housekeeping activities, participating integrally or partially to the generation of income and expenditure budget of the household. The person who does not belong to a household and*

*declares he/she lives and carries out housekeeping activities by him(her)self represents one-person household.*

## 4. Frequency and reference period

*Depending on the specificity of questions and the characteristics of the approached area, several reference periods would exist: the week before the interview for some questions about the economic activity, the last 12 months for questions related to the need to consult a doctor, the previous calendar year for income etc.*

## 5. Method and period of data registration

*The method of data collection is the "face-to-face" interview fulfilled at the permanent residence of households that are subject to survey, the main role belonging to the statistical operator who should ensure a sound interview (presentation of the survey coverage and specific, the appropriate formulation of questions, eventual explanations in case of misunderstandings, etc.)*

*Data collection is usually carried out in May.*

## 6. Sampling plan

### 6.1. Sampling frame

*The sampling frame for the household sample surveys during the inter-censuses period is a "master sample" named EMZOT (multifunctional territorial areas sample), built up based on the results of the Population and Housing Census (PHC 2002). EMZOT comprises 780 survey centres, spread all over the country and in the sectors of Bucharest Municipality (427 in urban area and 353 in rural area).*

### 6.2. Sampling unit

*The sampling Primary Unit (PU), corresponding to the first sampling stage (the master sample selection) was a group of census sections, which makes up the survey centre. The sampling Secondary Unit (SU), corresponding to the second sampling stage (selection of the survey sample) was the dwelling. Each secondary unit supposes the inclusion in the sample of all households and consequently of all persons in households.*

### 6.3. Stratification variables

*Stratification concerns only the first stage of sampling. 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 size and allocation

*The annual sample size is of about 10,000 dwellings. The Quality of Life Survey is a sample panel survey, based on a rotational sample. The total survey sample is annually split into 4 approximately equal sub-samples. From one year to another three sub-samples are retained, one is dropped and one new sub-sample is included in the survey. The sampling plan is a two-steps sampling plan.*

*According to the methodology adopted by NIS Romania for its household surveys, a dwelling may contain one or many households (still, not very frequent cases).All the households belonging to the selected dwellings, as well as all the persons aged 15 years and over, belonging to the households in selected dwellings, are surveyed.*

### 6.5. Sample extraction

*The balanced extraction method was used in order to select the primary units within each layer, based on by SAS macro CUBE. For the dwellings selection the systematic selection method was used.*

### 6.6. Results extension

*The final weights, used to obtain estimates at household level and/or person level, are obtained following a 3-steps procedure.*

The calculation of basic weights *for each dwelling included in the survey sample was differentiated by each sub-sample (wave) and category of persons (panel and non-panel). For the first wave, the basic weight is the inverse of the general inclusion probability. For the other waves, the basic weight is determined by applying the indirect sampling of households method (Weight Share Method) through the panel persons (persons aged 14+ at the time of the panel sample selection).*

Treatment of total non-responses*: The non-response treatment is differentiated for each sub-sample, by household groups, generated at crossing of variables seen as explicative variables for non-responses: the region (NUTS 2) and the residence area (urban/rural). This non-response treatment corresponds to the so-called "homogenous response groups method".*

Calculation of final weights: *The sample adjustment to the structure of total population was achieved through an integrated calibration through SAS macro CALMAR. The calibration variables were: "distribution of the population by age group (0-15; 16-24; 25-34; 35-49; 50-64; 65-74; 75 and over), residence area (urban/ rural) and gender (male/female)" using the Romanian population estimates at the end of the reference period for income and the number of households by region. Finally, three types of weights are obtained: the weight of households, the weight of all household members and he weight of household members aged 16 years and over.*

### 7. Survey questionnaires - description

*Data collection is achieved by using statistical questionnaires designed according to European Parliament and Council Regulation no. 1177/2003. They support major changes from one year to another.*

*The statistical questionnaires used are: MG - Household file; CG - Household questionnaire; CI – Individual questionnaire, filled in only for the household members aged 15 years and over.*

**8. Classifications in use:** *COR Rev.2; CANE Rev.2; ISCED 2011.*

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<div style="border:1px solid">

*Social protection statistics (ESSPROS)*

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## 1. Survey objectives

*Social protection represents a fundamental component of the European model of society. Social protection systems are highly developed in the European Union and are designed to protect people against the risks associated with unemployment, parental responsibilities, healthcare and disability, the loss of a spouse or parent, old age, housing and social exclusion.*

*The operation of the national social protection systems entails significant costs and allocation of adequate financial resources.*

*In the Member States of the European Union the statistical indicators on social protection are calculated using a harmonized methodology[9] (ESSPROS - European System of Integrated Social Protection Statistics) which ensures the spatial and temporal comparability of data based on the* Regulation No 458/2007 of the European Parliament and of the Council of 25 April 2007 on the European system of integrated social protection statistics (ESSPROS) *which came into force in 2007.*

*The general objective of ESSPROS is to provide comprehensive, realistic and coherent information necessary for the description and characterisation of the national social protection systems through social benefits and their financing, under European comparability conditions and of harmonising them with other statistics, particularly the national accounts.*

*The specific objectives of ESSPROS are to collect information and develop statistics including: qualitative components of national social protection systems: legislation, functions, schemes; quantitative indicators of receipts and expenditure of social protection.*

## 2. Coverage

*According to ESSPROS, social protection encompasses „all interventions of public or private* bodies intended to protect households and individuals against the consequences of a defined set of risks or needs, provided that there is neither a simultaneous reciprocal nor an individual arrangement involved*". The ESSPROS coverage includes social protection provided by public administration and the social benefits provided by private social protection schemes, to the extent that they have similar effects on the benefits as the social security does. Social protection expenditure are composed by:* expenditure with social benefits *which consist in transfers in cash or in kind to the households or individuals in order to protect them against a defined set of risks or needs,* administrative costs *meaning the costs charged to*

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[9] *ESSPROS Manual, 2006, European Commission, Eurostat.*

*the scheme for management and administration thereof and* other expenditure *of social protection schemes that means miscellaneous expenditure by social protection schemes.*

*Social benefits cover eight major social risks, called functions: Sickness/Health care, Disability, Old age, Survivors, Family/Children, Unemployment, Housing and Social exclusion (not previously classified)*

### 3. Observation unit

*Units of central/local government that manage social protection schemes, meaning that, a social protection scheme is a set of distinct rules, managed by one or more institutional units, ensuring the provision of social benefits and their financing, provided that the possibility to draw up a separate account of receipts and expenditure exist and that is ensures protection against a single risk or need and cover a single specific 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

*The data for social protection statistics are collected* **yearly, after the end of the reference year,** *using a combination of statistical sources and administrative data, as follows: the administrative data sources are mainly represented by the records of the institutions that manage various social protection schemes: Ministry of Labour, Family and Social Protection and Elderly Persons, Ministry of Health, National House of Health Insurances, Ministry of National Defence, Ministry of Interior, Romanian Intelligence Service, National Agency of Employment, National Authority for the Protection of Children's Rights and Adoption, National Authority for Disabled persons, National House of Public Pension; national accounts system; health accounts system; the pilot survey in non-profit organizations that provide social protection services in Romania.*

### Data sources for Chapter 7

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### 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,*

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*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.*

*The statistical data filled in on printed questionnaires are transmitted annually (in February for the previous year) to the Territorial Directorates of Statistics.*

*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 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-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 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).*

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).

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.

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*

**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 adress on the territory of Romania, determined according to administrative-territorial criteria.*

**The legal adress** *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 km$^2$).*

**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 $1^{st}$ 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 $1^{st}$ 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 $1^{st}$ 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 $1^{st}$ 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 form 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 coverd 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 addmition 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*** *are health centers, medical centers, diagnostic and treatment centers, institutes, medical clinics that have approved in the operating structure a number of beds for continuous and / or 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 education with a schooling duration of 3-4 years (level 6 - ISCED 2011) and Bachelor's degree education with a schooling 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 unit, included in the National Nomenclature SIRUES, where one or more level of education are functioning whilst having a single management system. Are considered school institutions: 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).*

**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 is calculated without including the special education pupils.*

*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.

## Glossary for Chapter 4

*Economically active population* includes employment and unemployment.

*Economically inactive population* comprises all persons who neither have worked at least one hour nor were unemployed in the reference period, being in one of the following situations: pupils and students; pensioners (of all categories); housewives (which carried out only housekeeping activities in the household); persons upheld by other persons, or by the state, or who support themselves from other income (rents, interests, etc.).

*Employment comprises all persons aged 15 years and over who have carried out an economic activity producing goods or services of at least one hour in the reference period (a week), in order to get income as salaries, payment in kind or other benefits.*

*Self-employed and contributing family workers who work in agriculture are considered employed persons only if they are the owners of the achieved agricultural production (not necessary of the land) and fulfil one of the following conditions: the agricultural production is, even in part, intended for sale or for change in kind (barter); the agricultural production is exclusively intended for own consumption, if this represents a substantial part of the total household consumption.*

***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;*

- Contributing family worker - *person who carries out his/her activity in an economic family unit run by a family member or a relative, receiving or not a remuneration as salary or payment in kind;*

- Member of an agricultural holding or co-operative - *person who has worked either as owner of agricultural land within an agricultural holding constituted according to the law, or as member of a craftsmen, consumer or credit co-operative.*

***Unemployed,*** *according to the international definition of ILO (**I**nternational **L**abour **O**ffice), are persons aged 15-74 years who during the reference period fulfil simultaneously the following conditions: have no job and do not carry out an activity in order to get an income;*

*are looking for a job, using various active methods to find it in the last 4 weeks (including the reference week); are available to start work in the next two weeks, if they find a job at once.*

***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.*

***Inactivity rate** represents the share of economically inactive population of the age group x in total population from the same age group x.*

***Incidence of long-term unemployment** represents the share of long-term unemployed (12 months and over) in total unemployed.*

***Incidence of long-term unemployment for young people** represents the share of young unemployed people (15-24 years) for 6 months and over in total young unemployed (15 -24 years).*

***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".*

***Discouraged persons** are economically inactive persons available to work in the next two weeks (including the week when the interview is carried out), who have declared that in the last 4 weeks (including the reference week) they have looked for a job using passive methods or do not look for a job, for the following reasons: they believed there were not vacant jobs or did not know where to look for them; they feel they are not professionally prepared; they believed that they will not find a job because of their age; they looked for a job another time and did not find any.*

***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 number of jobs (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.) and;*

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 refer to the maximum time the vacancy is open and intended to be occupied.*

*There are considered as job vacancies the jobs 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 jobs that are: meant* **exclusively** *to promote persons from inside the enterprise or institution; from public administration units, blocked by a normative document.*

*The jobs occupied by persons who are absent for a certain period of time (maternity leaves, leaves for child care, medical leaves, unpaid leaved, 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 number of job vacancies** *is calculated as a simple arithmetic mean for the four quarters.*

**Number of occupied jobs** *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 individual 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 jobs** *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.*

***Registered unemployed*** *is the person who fulfils certain conditions and is registered with the agency for employment where he/she has the permanent residence or, as the case may be, his/her usual residence.*

***Registered unemployment rate*** *is determined by the ratio between the total number of registered unemployed and the economically active civil population.*

***Average total number of pensioners*** *includes all the pensioners in Romania regardless of the pension system (including the social support - type pension, IOVR - invalids, veterans 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.*

***Real pension index*** *is calculated as the ratio between the nominal pension index (for the calculation of real pension) and the consumer price index.*

***Real earnings index*** *represents the ratio between the average net nominal earnings index and the general consumer price index, expressed as percentage.*

***Types of internet connections***

***Broadband connections***

***- connections for Internet access at broadband fixed points:***

    ***- connections via DSL*** *(basically, Telekom is the provider of this kind of copper wired connections - the same thread with the telephony; it also includes some fibre-optic connections);*

    ***- connection ADSL*** *(Asymmetric Digital Subscriber Line) = DSL technology designed to reach speeds of asymmetric type up to 8 Mbps at download and 1 Mbps at upload using as a transport environment the standard telephony lines (copper); ADSL 2⁺ technology allows for reaching speeds of up to 24 Mbps for download and 3 Mbps for upload;*

    ***- connection VDSL*** *(Very High Bitrate DSL) = DSL technology designed to reach asymmetric speeds of up to 52 Mbps for download and 16 Mbps for upload using as transport environment the standard telephony lines (copper);*

*All DSL technologies are generically called xDSL and are broadband connections allow for reaching speeds of megabits order.*

    ***- optic fibre connection****: this technology provides a broadband connection to the Internet using fibre optic cables as environment for transport, equipped with optical active equipment heads using laser technology for transmitting and receiving. It is the most advanced technology for distributing terrestrial telecommunications services on a global basis. The potential of this technology at this time allows for reaching speeds up to 10 Gbps.*

*In case of connections via coaxial cable, optical fibre or UTP/FTP, the presence of a wire that goes into the respondent's home must be identified.*

> *- **fixed radio connection** (satellite, public WIFI) - connections via satellite, radio, WiFi (these are wireless; for satellite and radio an antenna is necessary; WiFi connections involve accessing a hotspot based on user name and password).*

> *- **satellite connection** – the technology was developed in view to provide the isolated areas access to broadband Internet access, where there is no cable network or DSL networks*

*- **mobile broadband connections:***

> *- **connection for accessing the Internet connections in mobile broadband points** (differentiation compared to narrowband connection used by mobile phone or by using a modem connected to a laptop) can be done by observing whether or not the respondent uses a compatible 3G terminal (at many terminals, at the top of the screen next to the antenna appears the technology available, e.g.: 3 , 3G, H, etc. for the broadband ones) in conjunction and with the technology available in the area.*

> *- **mobile radio telephone connection 3G (UMTS)** - 3G phones are mobile phones or Smartphones that are using a web browser, they can use electronic mail (e-mail), or other similar facilities available in 3G mobile networks. Only the connections of third generation mobile networks (3G), such as the networks that use UMTS radio technology, can be classified as broadband. UMTS (Universal Mobile Telecommunications System) provides access to the Internet at high speed.*

*- **mobile radio connection via a 3G modem (USB cable, card)** - laptops and other portable computers can connect to the Internet using a USB stick or an incorporated card for accessing the 3G networks.*

***Narrowband communication***

*- **dial-up access** via telephone line or ISDN connection*

*- **dial-up access to the Internet** is a form of Internet access that uses the facilities of the public switched telephony network in order to establish a connection to an Internet service provider via telephone lines. The user's computer or router uses an attached modem for encoding and decoding data packages and information control and analog audio signals.*

*- **ISDN (Integrated Services Digital Network**) - data transmission is done via ISDN BRI digital technology by using a maximum of 2 channels of 64 Kbps, allowing for the simultaneous connection of two devices (phone, PC, fax, etc.). The maximum speed that could be reached is 128 Kbps as the connection is defined as narrowband.*

*- **narrowband connection** (3G/GPRS) in the form of radio transmission (GPRS-General packet radio service) data-oriented mobile services in the second generation of mobile telephony (2G). In 2G systems, GPRS offers data rates of 56-114 kbit/s.*

*3G services have the capability to transfer simultaneously two types of information: voice (i.e. a phone conversation) and non-voice, such as data transfer: e-mail, instant messaging, web browsing).*

## 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 not less than 6 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 nurseries, 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 people, people with disabilities and children; monasteries, etc.) that are part of the household, are absent during the reference month, but not absent from the household for more than 6 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 6 months; children in foster care or in custody for a period exceeding 6 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 6 months or do not have another permanent residence; persons employed for rendering services in the household who participate in household's expenditure and live with the members of the household for a period of at least 6 months or do not have another permanent 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; individuals 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, are generally relatives and keep the household altogether, participating integrally or partly to the income and expenditure budget of the household. Where appropriate, household members work together the land or breed animals, jointly consuming or turning into account the products obtained. The household may also be made up of a group of two or more individuals, with or without children, without being subject to family relationships, but who state that, by agreement, live together and have a common budget. Persons not belonging to*

*another household and who are living and keeping the house alone are deemed to be single-person households.*

**Household's head:** *the adult person declared and recognized as such by the other members of the household, typically the husband. The decision lies solely with 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 work done and the way of obtaining income.*

**Employee** - *a person employed under a contract of employment, with a fixed-term or indefinite duration 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 carrying out permanent, seasonal, daily, occasional or hourly based activities, apprentices, paid employees on probation, priests and pastors. The professional maternity assistant, the caregiver of the elderly persons at their home, the personal assistant or the professional assistant to a disabled person, employed under individual employment contract are also deemed to be employee.*

**Employer** - *the person carrying out activities on his/her own premises (enterprise, firm, shop, company, farm, cabinet, etc.) and who has one or more employees. There are also included those employers who are at the same time employees in their own enterprise or are holders of premises management or concession contracts using employees.*

**Self-employed in non-agricultural activities** - *the person carrying out activities in his/her own premises without the use of salaried labour force. This status is also assigned to persons carrying out such activities during their leisure time and, in general, to any person exercising 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 performing agricultural activities, working alone or together with the other members of the household the agricultural land, orchards and 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.*

**Contributing 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,*

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*giving help and for which is not receiving 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 ready 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 enrolled 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.*

**Housewife** - *the person carrying out domestic activities in the household such as: preparation of food, laundry, maintenance and 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 education children, elderly people, 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 6 months, dependent persons, etc.*

***Education 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*: **Monetary income and income in kind (assessed in lei).**

**Monetary 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), namely:*

*Income from salaries and other rights – the whole monetary and in-kind income (measured 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 taxes (taxes, contributions, instalments for goods and loans, etc.).*

*Income from agriculture - represent all the monetary receipts from agricultural holdings and associations, from sales of agri-food products, animals and birds (poultry and pets) and the provision of agricultural works.*

*Income from independent non-agricultural activities - all the monetary receipts from activities of trade, rendering services, practicing an occupation, liberal professions and intellectual property rights.*

*Income from social benefits - all the monetary receipts from social protection benefits, namely:*

*Property income - all the monetary receipts from other's use of own assets, as consequence of holding shares in open/closed investment funds, deposits in CEC Bank and other banks and similar institutions (leases, rents, dividends, interests).*

*Income from the sale of the household's assets - all of the monetary receipts from the transfer of ownership on securities and shares, from the sale of foreign currency, land, buildings and other new or worn assets which are not resulted from own production.*

**Income in kind** *(assessed in lei) include: the equivalent value of human and animals' 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 total income and the expenditure on taxes, contributions, duties, etc.***

***Total expenditure*** *comprises:*

- *Monetary expenditure;*
- *The equivalent value of human and animals' consumption of agri-food products from the own resources of household.*

**Monetary expenditure** *- all of the monetary expenditure, regardless of purpose (including the equivalent value of income in kind obtained by the employees and recipients of social benefits, excluding the amounts deposited in CEC Bank, other banks and similar institutions, loans and credits refunded).*

**The equivalent value of human and animals' consumption of food and non-food goods from the household's own resources** *- value expression of human and animals' 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.).*

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*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 agri-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.*

**Expenditure for food goods and beverages not consumed** - *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).*

**Expenditure for investment** - *the whole monetary expenditure of the investments 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 worn, animals for milk, transport, breeding, materials (including labour) for new buildings, extensions, large scale (capital)repairs, shares, foreign currency.*

**Total expenditure for production** - *the whole monetary expenditure incurred by a household over a certain period of time for the household's production: purchases of feed for animals and poultry, of animals for meat and fur, of poultry, of sowing products, veterinary treatment of animals, other expenditure for the household's production and the equivalent value of the feed consumption from own resources.*

**Taxes, contributions, levies and duties** - *the whole monetary expenditure allocated to the compulsory payments of the taxation system (taxes, contributions, levies and duties).*

**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 substracting 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 labour contract/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:*

*- persons employed under a labour contract/agreement of a definite or indefinite duration, 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);*

*- persons whose labour contract/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;*

*- persons who are temporarily in work incapacity (medical leave) during the time period in which they are paid from the employer own funds;*

*- persons in quarantine/home isolation during the time period when are paid by the employer from their own funds;*

*- 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;*

*- employees whose working hours has been temporarily reduced, irrespective of the funds from which they are paid.*

*In the daily number of employees taken into consideration when calculating the average number, are not included: 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 labour contract/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.*

*Part-time employees are included in the average number proportional with the working time included in the labour contract. In the number of employees taken into consideration in the average number only the paid persons are included.*

*Exceptionally, in the cases when amounts for prior periods are paid (backdated paid arrears as consequence of wining the lawsuits involving the money rights for the previous years), the number of beneficiaries (former employees or employees with suspended labour contract/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 Wages by occupations in the month October survey).*

***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 C - K of CANE Rev.1, respectively sections B - N according to CANE Rev.2 since the reference year 2008).*

## *Glossary for Chapter 6*

***Disposable income*** *is calculated as the difference between total income and the expenditure on taxes, contributions, duties, etc. (the definitions are included in the Glossary for Chapter 5).*

***At-risk-of-poverty rate*** *is an indicator of poverty incidence defined as the share of persons in households with an equivalised disposable income below the 60% threshold on the median disposable income in 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 people 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 the equivalised income of the richest persons (in the last quintile of the distribution by income) is higher than that of the poorest persons (in the first quintile of the distribution 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 "upside-down" the usual threshold of 60%. The estimates are based on equivalised disposable income 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 equivalised income 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, IOVR 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 an alleviation 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 equivalised disposable income including the consumption from own resources and on the equivalised disposable income excluding the consumption from own resources.*

***Poverty threshold:*** *the level of equivalised disposable income (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 equivalised disposable income (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 equivalised disposable income 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, I.O.V.R, 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 holding 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-equivalents", 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 equivalised disposable income, based on which the median point of that distribution is established.*

***Poor persons*** *are those persons whose equivalised disposable income are below the poverty threshold established for a certain year. The persons whose equivalised disposable income 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 contributing 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 (housewives, pupils or students, pre-primary education children, elderly persons with no kind of pension, disabled or upheld persons etc.)*

***Education level:*** *low level (not in education, 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).*

***Work intensity*** *is the ratio of the total number of months that all working-age household members have worked during the year and the total number of months the same household members theoretically could have worked in the same year.*

***Material deprivation for the "Economic strain"*** *(the 1st dimension) represents the persons in the household who could not afford:*

- *to cover in due time utility costs and other current duties;*
- *to spend one week annual holiday away from home;*
- *to eat a meal with meat, chicken or fish at least every second day;*
- *to financially afford to keep the dwelling warm;*
- *to cover unexpected expenses.*

***Material deprivation for the "Durables" dimension*** *(the 2nd dimension) represents the lack of household endowment with durable goods seen as basic for decent living: washing machine; colour TV; telephone (including mobile phone); computer; personal car.*

***Material deprivation for the "Housing"*** *dimension (the 3rd dimension) refer to certain characteristics of the dwelling that are influencing the household quality of life: leaking roof, damp walls or deteriorated floors; too dark, not enough daylight; no bath or shower; no flushing toilet.*

*These indicators of material deprivation should meet the following requirements:*

- *to reflect the lack of an element pertaining to the endowment of the living standard of the majority or of the largest part of the population in EU and in most Member States;*
- *to allow for international comparisons;*
- *to allow for a comparative analysis of data series;*
- *to be sensitive to changes in the population living standard.*

***At-risk-of-poverty or social exclusion (AROPE**) is defined as the share of the population in at least one of the following three situations:*

*1) below the poverty threshold (60% of the median equivalised disposable income) ;*

*2) severe material deprivation,*

*3) living in a household with very low work intensity.*

***Severe material deprivation** covers persons who, due to the lack of financial resources cannot afford at least four of the nine components seen as crucial for decent living: to pay in due time rent, mortgage or utility bills; to keep their home adequately warm; to pay unexpected expenses; to spend a week holiday away from home; to eat meat, fish or a protein equivalent every second day; to own a colour TV set; to own a washing machine; to own a telephone (fixed or mobile); to own a car.*

***Persons living in households with very low work intensity** relate to persons (up to 60 years) living in households where the working age adults worked less than 20% of their total potential during the previous year. In the survey acception, working age persons are those aged 18-64 years who are neither dependent children nor economically inactive persons.*

***Social benefits** consists of transfers, in cash or in kind to households and individuals aiming at protecting them against one or more risks (needs) provided that there is no simultaneous reciprocal arrangement.*

***Social protection scheme** is a distinct body of rules, drawn up and implemented by one or more institutional units, governing the provision of social protection benefits and their financing. The aim of the social protection scheme is to provide protection against one or several risks or social needs and addresses a specific group of beneficiaries.*

***The social benefit function** refers to the primary purpose for which social protection is provided, meaning the protection of households and individuals against the major social risk identified. Social benefits provided based on the social protection schemes are classified on eight social protection functions, corresponding to the eight major risks identified in ESSPROS: Sickness/ Health care, Disability, Old age, Survivors, Family/Children, Unemployment, Housing, Social Exclusion.*

***1. The SICKNESS/HEALTH CARE function** covers: cash benefits that replace in whole or in part loss of earnings during temporary inability to work due to sickness or injury; the value of medical care provided to maintain, restore or improve the health of the people protected.*

*Social benefits from this function cover: paid sick leave indemnities, medical assistance with all its forms, pharmaceutical products granted for free.*

***2.** The **DISABILITY function** covers benefits that: provide a monetary or in kind income to persons below standard retirement age and whose ability to work is impaired by a physical or mental disability; provide rehabilitation services specifically required by disabilities; provide goods and services other than medical care to disabled people.*

*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.*

*4. The **SURVIVOR function** includes social protection benefits in cash or in kind, granted to the persons that did not reach the standard retirement age and who lost the spouse or a next-of-kin and are entitled, according to the legislation in force, to receive the above mentioned benefits:*

*5. The **FAMILY/CHILDREN function** covers social protection benefits (other than the ones of health care) that provide financial support and/or in kind, in case of pregnancy, adoption, maternity,  child day care or care of the others members. Here, are also included the social benefits provided to the children in need.*

*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** is made up of interventions by public authorities to help households with income below a certain threshold and to cover certain costs of housing.*

*8. The **SOCIAL EXCLUSION (not elsewhere classified) function** includes social benefits in cash or in kind for combating the social exclusion and targeting the deprived or socially excluded persons.*

*Generally, the target groups are: persons with low income, migrants, refugees, drug or alcohol addicted persons, victims of natural disasters or of criminal violence.*

*This function has a residual nature because it covers all the social 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*** *means the expenditure related to the organisation and management of the social protection schemes.*

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[10] *In ESSPROS acception, elderly person is any person who reached the standard retirement age.*

*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.

*Means-tested social benefits* are social benefits whose provision is conditional on the beneficiary's income falling below a specified threshold.

*Non means-tested social benefits* are social benefits whose provision is not conditional on the beneficiary's income level.

*Periodic cash benefits* are cash benefits paid at regular intervals (such as each week, month, quarter or year).

*Lump sum benefits* are cash benefits paid on a single occasion or in the form of a lump sum.

## 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, artistical, documentary, memoir, scientifical 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 (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 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/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.*

*Cinemas network consists of all films with normal strips intended for commercial films production (films made for television are not included); a film is considered to be produced during a reference year if it was finished and projected for the public, for the first time, during that year.*

*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.*

*246*

*250*