

# IMPACT OF LABOUR MOBILITY ON THE DEMOGRAPHIC PHENOMENON EVOLUTION IN THE 21ST CENTURY. THE CASE OF ROMANIA

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**Abstract.** *Actuality: The forecast regarding the total population of Romania in 2050 are pessimistic, with estimates of population decline ranging between 15 and 16 million people. One of the factors influencing population decline is the phenomenon of migration. Romania is facing a massive migration phenomenon (domestic, but especially external). This migration from less developed areas (rural areas or small cities) to economically dynamic urban areas or other states has led to an imbalance in population distribution and socio-demographic structures and even a marked depopulation in certain areas. Purpose: identification and synthesis of factors that have produced new characteristics of the structure, size and intensity of migratory flows and analysis of the impact of labour mobility on demographic evolution. Method: Descriptive statistical analysis was mainly used to visualize and synthesize information derived from international/national migration data and demographic changes. The classification analysis was used in defining a typology of the size and structure of migratory flows and of the factors that caused the demographic decline in Romania. The factorial analysis was used in the creation of indices to compare the effects of labour migration on demographic evolution in the short and medium term. Results: Conducting a comparative analysis of the effects of labour migration on the demographic structure in Romania.*

**Keywords:** *demographic developments, labour force mobility, socio-economic impact, demo-economic factors*

**JEL:** *F22, J11, J21, O15, R23*

**UDC:** *314.15(498)*

**Introduction.** In the 21st century, one of the most current problems of humanity is the population aging, with important implications for the socio-economic development of different regions of the Earth. Both in economically developed countries as well as in most developing countries, the weight of old people in the population structure is growing at a rapid pace, requiring specific policies in this area.

Ageing is a demographic phenomenon with multiple ramifications. It determines the age structure of the population, the size of the active population and specific age cohorts, as well as the size and demand for major government-funded social services such as medical care, pensions, education, etc.

An important component of the demographic phenomenon, which exerts direct influence on the labour force and, at the same time, a fundamental characteristic of the population today, is the movement of the population, its movement from one place to another.

Migratory flows, in particular labour migration, are primarily the result of economic conditions and inequalities and can be important in stimulating economic growth and promoting recovery after a crisis. In addition, migration flows can be explained by demographic imbalances reflected in labour force surplus and deficits. Migration is already the main driver of population growth in many countries, but the long-term demographic results of migration will vary depending on the structure of the migrant population and the type of migration movement (temporary, permanent or something intermediate).

Global demographic change, in general and national change in particular, is shaped by double trends of declining fertility and growth of life expectancy. However, the differences between countries and regions remain extremely significant and have implications for the future overall distribution of the population in general and of the working-age population in particular. Population growth is generally concentrated in the developing countries and this is expected to remain applicable until 2050.

Romania is part of this overall picture, facing demographic changes that have medium and long-term implications. The country's population dropped between 1990 and 2022, by about 4.15 million people and continues to steadily drop. This trend is driven on the one hand by low fertility, but also by high external migration.

Romania is also facing a slow but steady aging population process. A factor that influenced the population decline is the phenomenon of migration, our country facing a massive migration phenomenon (internal, but especially external). This migration from less developed areas (rural areas or small cities) to economically dynamic urban areas or other states has led to an imbalance in population distribution and socio-demographic structures and even a marked depopulation in certain areas.

The results of the 2021 census highlight an unexpectedly large external migration, which amplifies the deterioration of the general demographic picture.

In the long term, a negative factor on the demographic evolution in Romania is the emigration of the female population of fertile age, and in the short and medium term, the large influx of young workers contributes to the aging of the workforce, reducing the size of the active population and the number of taxpayers to the social assistance budgets and thus increasing the pressure on social security expenses.

**Literature review.** Many studies have been conducted in the field literature that focus on the effects of immigration on the population's age structure in the host countries. The Demographic forecasts often take into account the calculation and size and structure of migratory flows (Samir et al., 2010; O'Neill et al., 2001; Lutz and Samir, 2010).

Other studies and research have examined the impact of demographic evolution on migration. Thus, in his work (Plane, 1993) he analyses the multiple connections between demography and migration.

Studies by the International Labour Organization (2011) or the US Census Bureau (Toosi, 2012) have also analysed the impact of aging on the workforce and health services. In her work, Margarita (2010) showed that the demand for attendance and nursing work triggered by aging opened up significant opportunities for migrant workers in Spain. Driouchi et al. (2009) and Rutten (2009) also studied the links between medical personnel recruitment abroad and the need for attendance for aging population.

The World Bank's 2023 World Development Report titled "Migrants, Refugees, Societies" pleaded for migration, stating that "migration is increasingly needed for countries at all income levels" and "when the match (between migrants' skills and host country's needs) is strong, the gains are high". The World Bank's position on migration is primarily inspired by divergent demographic trends in host and home countries. Most countries of origin have a young and growing population with a classical age pyramid, but most of the host countries have an aging population and a workforce in decline, or in the best case scenario, stable, which reverses the population pyramid. Young people's migration towards developed countries rebalances the age structure in both countries, and will therefore be beneficial for both home and host countries.

Migrant workers also contribute to the welfare in host countries if their knowledge and skills are complementary to those of their native population (Borjas, 2016).

Battisti et al. (2018) were the first to analyse the effects of immigration on welfare in the presence of both the imperfectly competing labour market and the public sector that applies taxes and redistribution.

In his studies dedicated to the demographic situation of Romania, V. Ghețău (2004, 2007, 2009) signalled that the current demographic situation of the country is the cumulative result of the complex evolution of births (fertility) (with major impact on the sustainability of the health system and the pension system), deaths and external migration over the past two decades.

An integrated analysis of the impact of the aging population on migration, examining the effects of aging in terms of emigration and immigration for Romania is also carried out by Tițan and Oțoiu (2014).

Romania ranks among the top 20 countries in the world in the ranking of countries with the highest emigration.

With over 4 million Romanians living abroad, Romania ranks 17 among the countries of origin of migration worldwide, according to the Global Migration Report 2022 (International Organization for Migration, 2022).

Another characteristic of the migration phenomena in Romania is that, although immigration has increased, it is still below emigration, as Sandu (2009) and Roman and Voicu (2010) pointed out. The ratio between the Romanian population that emigrated abroad and the foreign population that immigrated to Romania is

about 6 to 1, the number of Romanian emigrants being 6 times higher than the number of foreign immigrants who were on our country's territory at the end of 2020.

**General characteristics of the migratory phenomenon in Romania.** Labour migration abroad is one of the most important phenomena for the social transformations of Romania after 1990 and which intensified in the first decades of the 21st century.

In recent decades, there has been an increase in the number of Romanian workers who have obtained the legal right to work in the community area (after January 1, 2007).

Those involved in the *legal and/or contiguous* migration movement are usually part of three main categories of labour:

- a) *highly qualified workforce* with validated skills in cutting-edge areas of science and technology, as well as in some services, such as education, health, aged between 25-40 years old, considered to be the most creative and productive;
- b) *medium-skilled workforce*, with specialization covering a wide range of activities and professions, such as builders (the migration motivation being economic), para-medical staff (nurses), for which the demand by employers from different countries is increasing (Italy, USA, Canada, Switzerland, etc.); hotel and catering staff, also in demand on certain Western markets;
- c) *unskilled or semi-skilled labour in agricultural activities* (during harvest periods), in sanitation, construction, etc. (Spain, Portugal, Greece).

Certainly, the number of migrants for work is much higher, given that not all diplomatic missions have transmitted the number of work visas they have issued. Thus, the hierarchy of the main states could also be changed, with the example of Italy and Spain being significant and able to seriously cause substantive changes to the situation.

The emigration of Romanian citizens, especially for work, also grew in 2023. Around 22.3% migrated to Germany, 13.6% to Italy, 12.3% to the UK and 8.6% to Spain (International Migration Outlook, 2023). Recent developments in migration policy in Romania have mainly referred to the transposition of several EU directives or regulations to simplify and improve the management of migration and asylum.

Currently, young people with training in top competitive areas have the highest chances of becoming successful abroad, which is why the share of migrants in the population segment aged 20-34 is and will continue to be higher. Thus, in 2022, the share of migrants aged 20-34 represented 38% of the total Romanian migrants (Figure 1).

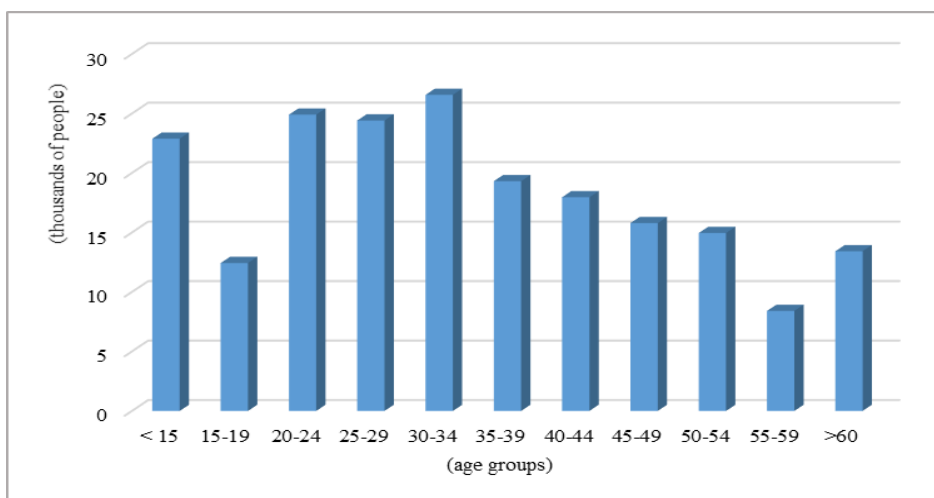


Figure 1. **The number of Romanian migrants, by age group, in 2022**

Source: Statistics, Research Department. [www.statistica.com](http://www.statistica.com)

The migration of Romanians for work leads to an increase in the labour force shortage in the country. As a result of the large number of vacancies on the Romanian labour market, the Government approved for 2024 a new quota of 100,000 foreign workers (admitted on the Romanian labour market).

Also, in order to allure and retain highly skilled workers, Romania has introduced since 2022 a six-month digital nomad visa, which allows foreign citizens to live in Romania while working for companies outside the country. This allows eligible third-country nationals to work more flexibly and with fewer constraints in Romania for a fixed period. Applicants must prove significant financial means to be eligible for a visa.

For the coming years, external migration is expected to increase amid a higher need for a workforce in Western Europe.

**The effects of migration for work on the structure of the population in Romania.** Romania has seen significant changes in population structure in recent decades. The specific component of Romania, which had and still has the greatest negative impact at the social and economic level, was due to the political decisions of the communist period that strongly influenced the evolution of demographic phenomena, especially birth.

The transformations that occurred after 1989 in the political system, in the economy and in the social life have produced changes in the demographic behaviour of the population. Since 1990, Romania's population has steadily decreased, from 22,810.035 thousand people in the 1992 census to 19,054.548 thousand people on January 1st, 2023.

The deterioration of the demographic structure of Romania after 1990 and continued in the first 2 decades of the 21st century is determined by multiple causes, being the direct or indirect product of the entire political, economic and social context of the transition. The economic factor has its role, but the contribution of other factors cannot be overlooked or underestimated, of a non-economic nature,

with independent, objective action or shaped by the new economic and social realities of the Romanian society.

Romania is part of a demographically ill, aging Europe, with a population that no longer provides its own replacement, through voluntary subfertility, and which is not far from the onset of generalized demographic decline.

Between 2000 and 2023, Romania’s population decreased by 2,572.961 thousand people, with a slight increase in 2002. Likewise, in Romania, the demographic aging process has intensified over the past decade. The decrease in the number of young population (from the base of the pyramid, Figure 2) and the corresponding increase of the elderly population represent the most striking displacement of the structure of the Romanian population over the last 10 years. Demographic aging, supplemented by low birth rates, will have the most severe effects on the man power and future structure of the workforce, on the economic dependency and schooling index, as well as on the budget and social security system.

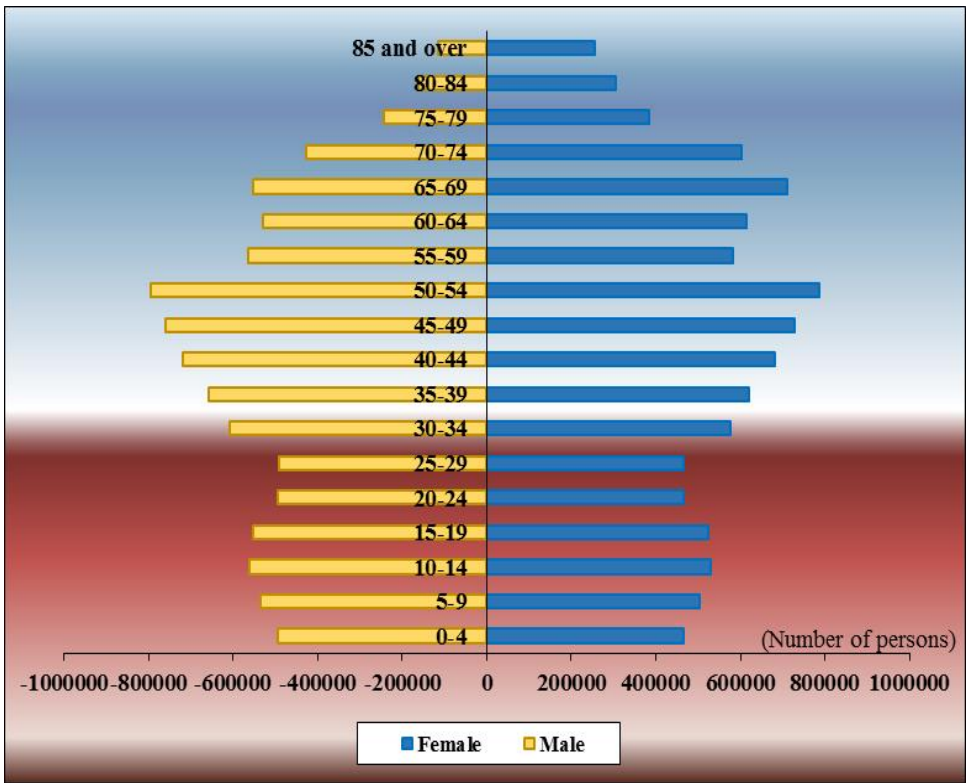


Figure 2. The Pyramid of Romanian Population by Age in 2023

Source: made by the authors based on the data from the Tempo-online, [www.insse.ro](http://www.insse.ro)

The demographic ageing process continued in 2023, with a slight decrease (of 0.3 pp) in the share of young people (0-14 years) and, at the same time, an increase (0.4 pp) in the share of the elderly population (65 years and over) in the total population.

The demographic aging index rose from 122,0 on January 1st, 2023, to 127.5 elderly people per 100 young people on January 1st, 2024.

The analysis of the substitution rate evolution (an indicator that is calculated by dividing the number of people in the 15-24-year-old age group by the number of people in the 50-59-year-old age group) over the last decade indicates the demographic pressure that will be exerted on the labour market by young people who will enter the active population.

The effects of the birth rate drop recorded in the period 1990-2023 (from 13.6 ‰ in 1990 to 10.6 ‰ in 2000 and to 7.1 ‰ in 2023) will become more prominent in the future when fewer young people are entering the labour market and contribute to the social insurance system and to economic growth. At the same time, the demand for services and programs for the elderly, such as pensions and healthcare, will increase.

The overall fertility rate dropped from 56.2 (live births per 1,000 women) in 1990 to 39.7 ‰ in 2000 and to 30.7 ‰ in 2023.

“Demographic winter” is a concept that reflects a period in which a country or region is experiencing a significant decrease in birth rates and, implicitly, causing the ageing of the population. The metaphorical image of a hard winter highlights the negative impact of declining birth rates and population ageing on the social, economic and even political sustainability of a society.

Unfortunately, in Romania, the decline of some demographic indicators is aggravated by another phenomenon, namely: migration for work, which often becomes permanent and by “brains’ exodus”.

A significant proportion of educated and skilled young people leave the country to seek better opportunities abroad. The loss of talent and skills has a direct impact on the economy and the country’s ability to develop. The absence of these qualified professionals from key areas, such as medicine, technology or engineering, affects tax revenues and the ability of the state to provide qualitative public services.

In addition, young people who leave often delay or completely give up starting a family and raising children in the country, contributing to the further reduction of the birth rate and creating a vicious circle in which the decrease of the active population and the ageing of the population are mutually amplified.

The long-term and very long-term negative effects on the ageing of the population include the emigration of the female population of fertile age. The loss of human potential is greater in women. The younger they are, the more children they can have, however, to which they give birth and/or grow abroad. In almost all the years of the entire transition period, the number of female emigrants exceeded the number of male emigrants. The feminization of the emigrant population became more prominent after 2000; for example, in 2023, migrant women were 2,060 more numerous than male migrants. In the period 2011-2020, in the EU, the total fertility rate decreased from 1.55 ‰ in 2011 to 1.50 ‰ in 2020, while in Romania, it

increased, over the same period, from 1.47 ‰ in 2011 to 1.80 ‰ in 2020 (according to Eurostat statistics). In this context, if only 2/3 of the women of migrant fertile age were to give birth to children abroad, on average 1.4 throughout their lives, then for the last 15 years it can be estimated that Romania has lost almost 400 thousand people.

However, official statistics do not provide a real overview of the migration phenomenon because data on temporary migration for work, a very important phenomenon, is not included. The external migration of the unregistered active population raises important demographic and social problems that cannot be captured in any study based on official statistics.

It becomes obvious that migration in general and for labour in particular is no longer just a demographic issue, but has profound implications for the long-term sustainability of public finances. As the demographic imbalance accentuates, it puts immense pressure on the social security system and on public finances in general.

**Conclusions.** Migration has become a structural factor in labour markets and economies around the world. In addition, its importance has been accentuated by demographic imbalances leading to greater competition between nations for work.

Demographic change at both global and national levels is shaped by the double tendencies of dropping fertility and increasing life expectancy.

Demography and labour demand are among the two most powerful forces acting on contemporary migration flows. Neither, however, is a static or easily predictable variable, nor are they independent of each other.

Important structural changes and socio-economic changes in Romania over the last two decades have resulted in serious demographic changes, both in the total number of population and in its structure.

The age structure of the Romanian population highlights a continuous process of population aging, determined primarily by the decrease in the birth rate that led to the reduction of the young population (0-14 years) and at the same time to the increase of the elderly population of 65 years and over.

The population continues to decline because the population growth rate increase in Romania is negative, and the exodus of labour force was and continues to be a major problem for Romania.

In Romania, demographic change and migration have a significant impact on labour market dynamics.

In the short term, the decrease in the number of children will have direct effects on the educational system, with smaller groups in kindergarten and school. At the same time, in the long term, there will be a significant reduction in the number of people entering the labour market, thus aggravating the lack of labour.

To counter these negative effects, policies are needed to encourage birth growth and support families in the birth and raising of children in Romania. It is also necessary to adopt policies and measures that lead to the reduction of migratory flows, and in particular the “brains’ exodus”.

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