
THE EVOLUTION OF NATURAL POPULATION MOVEMENT

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Abstract

In the study carried out and presented in this research, the authors started from the fact that the population of a country, categorized as resident population or population by domicile, evolves according to a series of conditions. Thus, the population trend in our country is decreasing, and the mortality rate is high, and in this way, in addition to the aging of the population in our country, a reduction in the resident population is also observed in the future. The monthly evolution of the number of deaths and live births between October 2021 and October 2023, the deaths registered in October 2023, by age group, the evolution of the number of marriages and divorces, between January 2022 and October 2023, as well as the evolution of the number of died after residence, between January 2022 and October 2023. In the article, we used a series of graphs and tables extracted from the databases provided by the National Institute of Statistics and Eurostat, which more faithfully express the way in which the natural evolution of the population is characterized Romanian.

Key words: resident population, population by residence, birth, mortality, birth rate, evolution.

JEL classification: J30, J60

Introduction

The authors of the study started from the idea that a variety of conditions affect the evolution of a nation's population, called the resident population or by domicile. The authors expect to see how rapidly the labor supply is shrinking against the background of a prolonged negative natural increase.

I used several graphs and tables that I found from the databases of the National Institute of Statistics and Eurostat. They provide a more accurate representation of the natural evolution of the Romanian population.

The monthly evolution of the number of deaths and live births from October 2021 to October 2023, by age group, the evolution of the number of

marriages and divorces from January 2022 to October 2023 and the evolution of the number of deaths by residence from January 2022 to October 2023.

In an economic analysis, resident population is the most important demographic indicator because it allows us to infer population growth, population structure, labor pool, and many other relevant statistical categories.

Literature review

Studies by Bijak J. et al. (2007) and Headey D. and Hodge A. (2009) examined global population trends and the role of population in providing labor supplies. In addition, Cai J. and Stoyanov A. (2016) are interested in examining demographic differences between countries. Maestas, Mullen, and Powell (2016) investigated the effects of population aging on the labor force and thus productivity. The problems faced by Oster, Shoulson, and Dorsey (2013) are low health investment and short life expectancy. Chéron, Hairault, and Langot (2013) focused on research on jobs available across the lifespan. Labor in the context of globalization has been addressed in several ways by Hili, Lahmandi-Ayed and Lasram (2016). Klein and Ventura (2009) examined how productivity and labor movement are related to each other. Mortensen and Pissarides (2011) drew attention to some aspects of unemployment theory. Raiu, C.V. and Juknevičienė, V. (2021) using a neo-Weberian approach point out that what was widely known in modern times as political is now becoming more bureaucratic. This is due to various political processes, such as EU integration or new public management reforms. Vogel, Ludwig and Börsch-Supan (2017) discussed more about the employment of older workers and the extension of the retirement age.

Methodology

The demographic data was obtained by processing the data from the statistical bulletins of live births, deaths, marriages and divorces drawn up by the municipal, city and communal town halls. These data were also recorded in civil status documents.

A live birth is a child that has been expelled or completely removed from the mother's body after conception, regardless of the length of the pregnancy. After separation, it shows signs of life, such as breathing, heart activity, pulsations of the umbilical cord, or voluntary muscle contractions. Live births are those whose mothers lived in Romania for at least twelve months until the date of birth.

After a period of time after birth, a person is called deceased when his vital functions have completely ceased. The number of deceased includes persons who had their domicile or habitual residence in Romania for at least twelve months until the date of death.

Natural increase is the difference between the number of live births and the number of deaths in the reference period.

Marriage is the union between a man and a woman that is entered into in accordance with the laws of the nation to establish a family and that provides rights and obligations to their spouses and children. The number of marriages includes both the marriages of persons who were domiciled in Romania at the time of the marriage, as well as the marriages of Romanian citizens who marry abroad and were registered at the civil status offices in Romania.

Divorce is the legal termination of marriage by a court decision, the registrar or a notary public, including all permitted actions. The divorce data also includes the divorces of Romanian citizens divorced abroad and transcribed in Romania.

The person's domicile is the place where they declare their main residence, which is entered in the identity card and kept in the official records of the state.

The usual residence is the place where a person usually spends his leisure time, without thinking about holidays, recreation, business, medical treatment or religious pilgrimage. In the case of people who choose to establish their habitual residence in a locality other than their domicile in the country or abroad, the habitual residence may be the same or may differ.

The birth and mortality data are currently semi-final for the year 2022, being grouped according to the date of the event. The dates that refer to nuptials and divorces are definitive until the year 2022, being organized by the date of the event. Also, we make it clear that the demographic phenomena of 2023 present provisional data.

Data, Results and Discussion

The number of births recorded in October 2023 increased compared to October 2022, but decreased compared to September 2023.

The number of deaths recorded in October 2023 decreased compared to October 2022, but increased compared to September 2023.

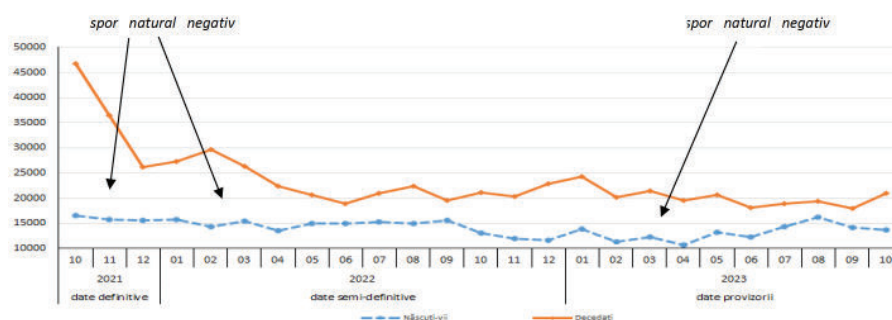
Compared to October 2022 and September 2023, the number of marriages and divorces registered in October 2023 decreased.

In October 2023, 13,623 births were recorded, we have 457 fewer children compared to September 2023. In terms of deaths, 20,917 events were recorded, in October 2023, 11,014 deceased persons were male and 9,903 female persons. There were 2,998 more deaths recorded than in September 2023, 1,523 being men and 1,475 women. The number of deaths among children under the age of 1 was in October 2023, 74 children, 7 more than the

number recorded in September 2023. It can be seen that the natural increase remained negative, the demographic decline in October 2023 was -7294 people, the ratio between the number of deaths and the number of live births being 1.5.

Dynamics of the number of live births and deaths, between October 2021 and October 2023

Figure no. 1



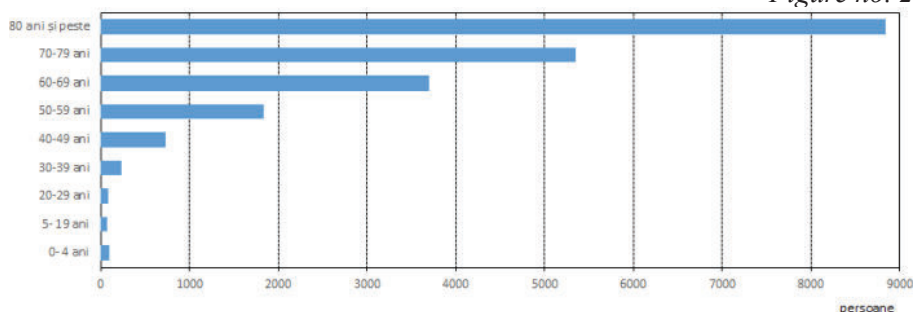
Data source: National Institute of Statistics

The monthly evolution of deaths and live births from October 2021 to October 2023 shows a significant increase in the number of deaths in October 2021, when the COVID19 pandemic recorded the highest value during this period. In February 2022, a significant number of deaths were also recorded, after this month vaccination of the population began. The following period recorded an oscillating evolution, but did not reach the values of the previous months.

At the same time, the number of deaths was higher than the number of live births, which means that the natural increase remained negative. In the first nine months of 2023, the number of births and deaths had the same evolution. However, in October 2023, the number of live births decreased and the number of deaths increased.

Distribution of the number of deaths by age group, in October 2023

Figure no. 2



Data source: National Institute of Statistics

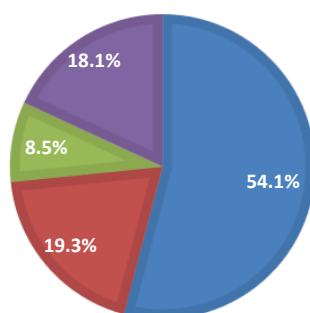
From figure no. 2 we observe the distribution of the number of deaths in the month of October 2023, it seems that in this month of the total number of deaths 8840 events (the equivalent of 42.3%) were registered in the age group 80 and over. The next age group was the 70-79 age group, registering 25.5% of the total number of deaths, totalling 5344 deceased persons, and the 60-69 age group retained 17.7% of the total deaths, in this category being recorded 3694 deaths.

At the opposite pole are the age groups 5-19 years, 20-29 years and 0-4 years. In the age group 5-19 years, we have registered 71 deaths, in the age group 20-29 years 81 deaths were registered, and in the group 0-4 years we have 97 events registered.

Distribution of deaths according to causality, in October 2023

Figure no. 3

■ Boli ale aparatului circulator ■ Tumori ■ Boli ale aparatului respirator ■ Alte cauze



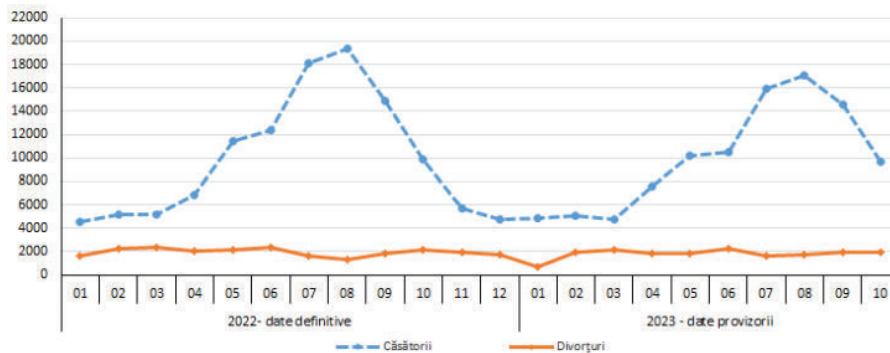
Data source: National Institute of Statistics

Figure no. 3 shows us what were the three main causes that were the basis of the deaths in October 2023, we note that the main problem of the population causing death is represented by diseases associated with the circulatory system, 11320 people being declared dead from this cause. Tumors are responsible for 4033 deaths, occupying the second position with a share of 19.3%. At the level of the Romanian population, diseases associated with the respiratory system caused 1782 deaths in October 2023, representing 8.5%.

The number of live births recorded in October 2023 increased by 612 compared to the same month in 2022. The number of deaths in October 2023 was 178 less than in October 2022, and the number of children under one who died was 8 more small in October 2023 than in October 2022. The natural increase was negative in both October 2023 and October 2022, the balance tilting in favor of the current year, when only 7294 personae were lost from the total population, 790 less than in October 2022.

Dynamics of the number of divorces and marriages, in the period January 2022 – October 2023

Figure no. 4

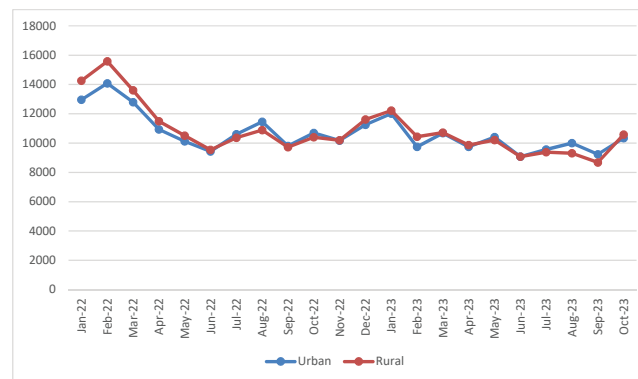


Data source: National Institute of Statistics

From Figure no. 4 we note that in October 2023 no less than 9633 marriages were registered at civil status offices, registering a value 285 lower than in October 2022 and being 4953 less than in September 2023. Regarding the number of divorces, it can be seen that their dynamics is much lower, in October 2023 the number of divorces pronounced by the courts, combined with the number of divorces obtained through administrative or notarial procedure, reached a value of 1946 events, being 10 less than in September 2023 and 154 less than in October 2022.

Evolution of the number of deaths in relation to the environment of residence, in the period January 2022 – October 2023

Figure no. 5



Data source: National Institute of Statistics

In October 2023, there were 10,334 deaths in urban areas (5,396 deaths among males and 4,938 deaths among females), and 10,583 deaths occurred in rural areas (5,612 deaths among males and 4,965 deaths among females). Urban deaths decreased by 355 (198 males and 157 females) in the same month of 2022, and rural deaths increased by 177 (175 males and 2 females).

Conclusions

A thorough study of this article will lead to a number of particularly useful conclusions. First, there will be a continued decline in the resident population. It is difficult to predict that people who have emigrated and settled abroad, establishing their residence there, will someday return to the country. There will undoubtedly be a greater disparity between the resident population and the labor supply.

Another conclusion is that, due to the lack of conditions to work in the country, many people, including highly qualified ones, emigrate for economic reasons. Consequently, the idea that ways and resources must be found to increase the incomes of the employed population is implicit. Investments must also provide jobs that improve the living conditions of the population. Compared to the methods of compensation abroad, they opt for temporary emigration or permanent emigration.

At the Romanian level, there is a constant negative natural increase, it is necessary for public policies to focus on increasing the standard of living,

developing the educational system and then encouraging the birth rate. It would be interesting to follow in the future the age of those who get married, from which areas of residence they come, what is the inclination or desire to have children and what are the results from the intention/desire to their realization.

Considering that at the European level an accelerated aging process is manifested, the lack of opportunities given to young people will further inhibit the birth rate and the natural increases should be as accentuated as possible in the future. Vacancies will thus be a target for refugees from the wars in Ukraine and the Middle East, in addition to the large influx of workers from Asian areas.

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