

TERRITORIAL DISPARITIES OF THE POPULATION FROM BACĂU COUNTY

Eugenia Harja

“Vasile Alecsandri” University of Bacau
eugenia.harja@ub.ro

Abstract

The last census of 20 October 2011, confirmed the decrease in the stable population in most localities, although this did not occur uniformly across the county. The analysis aims to highlight the stable population evolution in the last two censuses, which mainly led to decreases in existent disparities between localities, to a slight increase of the degree of uniformity in this regard. If in urban areas, all localities have recorded drops, in the rural areas there were 11 localities with population increases, especially large suburban cities. This led to a slight decrease in the degree of variation in the area, from a coefficient of 45,6% at the census of 2002 to 43,4% in 2011 and the reduction in the ratio of the largest and smallest area, from 7,84 times to 6,08 times. If in 2002 there were 21 local rural residents under 3000 inhabitants, in 2011 their number increased to 26, while more than 10 thousand people do not exist in any village in the county, compared to 2 as they were at the previous census. Territorial disparities are found also among the population by age, existing only 8 villages where the average age has decreased compared to 2002, these being mainly poor localities from Valea Siretului, where the birth rate is higher.

Keywords

Census; stable population; territorial disparities; average age; coefficient of variation

JEL Classification

C10; J10; J11

1. Introduction

Knowing the population and how it varies over time, the causes that led to these changes is particularly important for decision makers from the local government and for companies wishing to do business in the area. At small geographic level, population data are provided when the census is done, when the records are performed even from village level. These data are mostly used by local and central government, whether it is necessary to prepare urban plans, the local budget allocation, or to obtain external funds for various development projects. For this reason I decided to look at how it has evolved since the last census the stable population by localities of Bacău County. This will be compared to the 2002 census, and will show where major changes occurred and which have been the main factors that led to it, if regional disparities have widened or conversely, the population data were homogenized. Since the structure of the population by age has a great influence on the economic and social life, knowing that across the country we are facing an aging population, I calculated and analyzed also the evolution by localities of the average age of the population in the last two censuses and its degree of variation in territorial profile.

2. Dynamics of the population by localities at the last censuses

If in Bacau county, the stable population recorded between the last two censuses a decrease by 12,8% (-90.455 people), this dynamic was much more pronounced in urban areas than in rural areas. The urban areas experiences a reduction by 18,1% (-59.176 people), the relative growth by localities being shown in Figure 1. The most significant absolute decrease in population was felt in the county capital, which is the largest (-31.193 people), followed by Onești (-12.244 people) and Buhuși (-12.244 people). Even if in all urban areas the population decreased, due to higher relative decrease of the population from Buhuși and Onești, the coefficient of variation slightly increases, maintaining the heterogeneity of localities in terms of urban agglomeration.

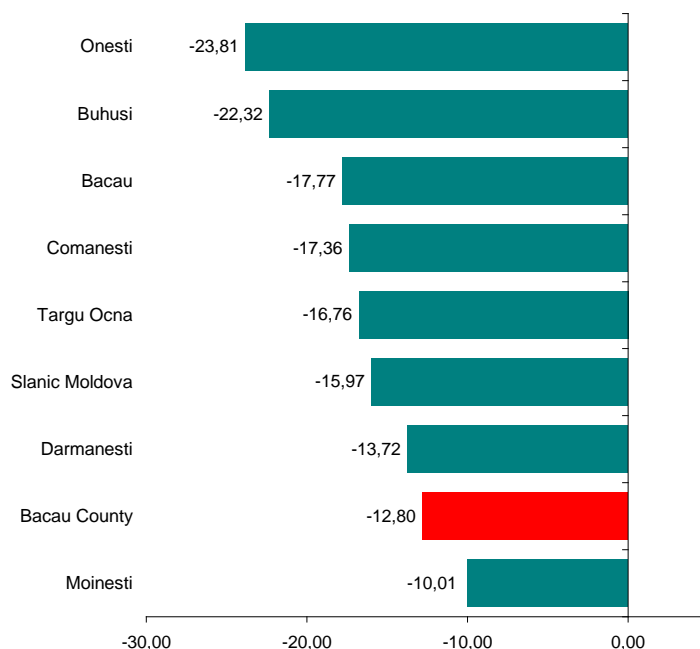


Figure 1 Relative growth of the stable population at the last two censuses, by urban localities (-%)

Source: own calculations based on data from the Statistics Institute of Bacău County

Following a decrease in the population according to the last census, the population of the county capital falls below 150 thousand inhabitants, its place in the hierarchy of the county capitals of the country increased from 12 to 15, after: Bucharest, Cluj-Napoca, Timișoara, Iași, Constanța, Craiova, Brașov, Galați, Ploiești, Oradea, Brăila, Arad, Pitești and Sibiu. Basically, the last three cities listed above, surpassed Bacau at the last census. The rank of the urban localities in terms of population by the last census can be seen in Figure 2.

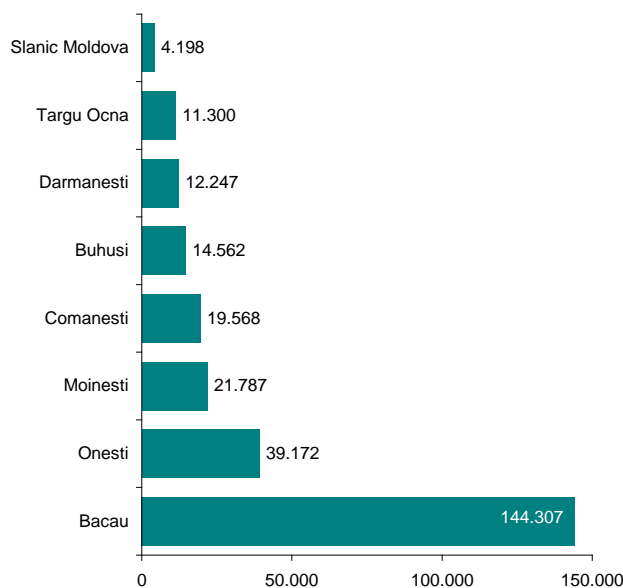


Figure 2 The stable population at the census from 2011, by cities and

Source: own calculations based on data from the Statistics Institute of Bacău County

Rural environment faced with a stable population decline, but it happened in a smaller share than in urban areas, i.e. -8,2% (-31.279 people), dealing with two different trends: one of growth in population in 11 municipalities and one of decrease in the other 74 municipalities. At the country level, the rural population was with -9,59% compared to the previous census, Bacau County ranking 5th among the country in terms of rural population, after the following counties: Iași, Prahova, Suceava and Dâmbovița. If at country level the share of population in total rural area is 46,03%, in Bacau it has a share of 56,64%, ranking 18th among the country from this point of view and 5th in the North East region. In all counties of the region, the majority is the rural population, with an average of 58,37%. The highest relative increases or decreases by localities can be seen in Figure 3. Besides the localities bordering the county capital (Hemeiuș, Letea Veche, Săucești, Măgura, Itești) or even Onești (Ștefan cel Mare), which more were built in recent years, there are still small increases in population in some poor areas along Siret Valley. In the latter, the population increases is explained by a slightly higher birth rate.

In absolute size, the highest decreases are recorded in rural large towns, making that in 2012 no longer to exist any community of over 10 thousand inhabitants: Sascut (-1603 people), Dofteana (-1582 people), Oituz (-1535 people), Gura Văii (-1415 people), Faraoni (-1244 people), Pârjol (-1238 people), Nicolae Bălcescu (-1207 people), Luizi Călugăra (-1021 people), Poduri (-1021 people) and others. Of these, Nicolae Bălcescu and Luizi Călugăra, although they are localities near Bacau, have lost population due to massive external migration. Major communities of Roman Catholics, 82,7% in the case of the first locality and 91,3% for the second, they left one after another to work mainly in Italy and Spain, often helped by Romanian representatives of the Roman Catholic Church in those countries. This phenomenon was observed in the census of 2002, but continued in the future.

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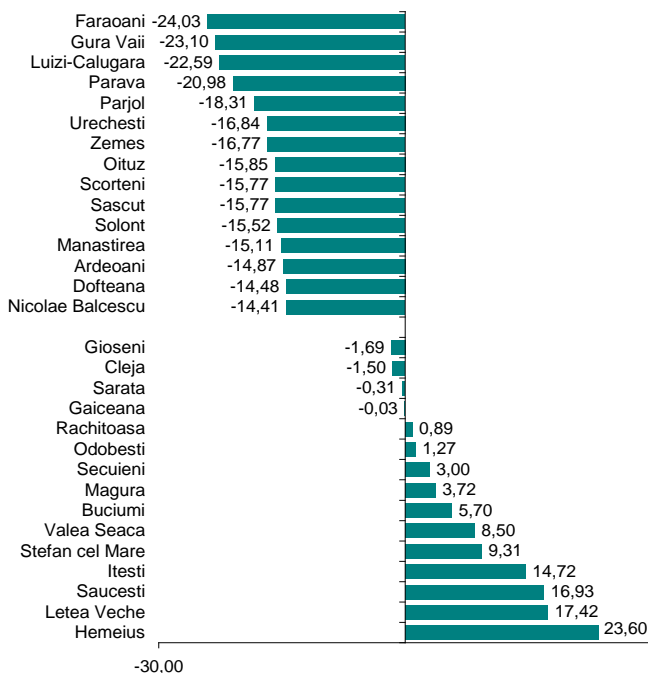


Figure 3 Relative growth of the stable population at the last two censuses, by some rural localities (+/-%)

Source: own calculations based on data from the Statistics Institute of Bacău County

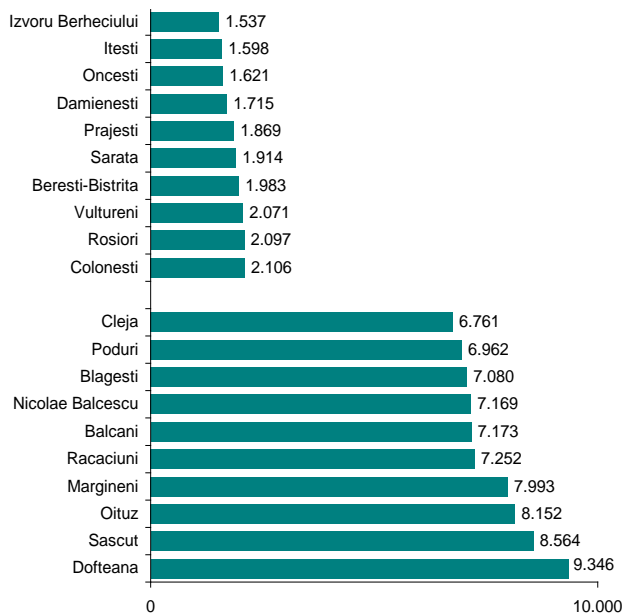


Figure 4 Stable population at the 2011 census, by extreme rural localities

Source: own calculations based on data from the Statistics Institute of Bacău County

3. Disparities of stable population by localities

As noted above, the relative growth of the population, although mainly negative, it happened with different intensities by places, resulting in a slight decrease in the degree of variation. This can be quickly seen in Figure 5, where the two box-plot diagrams for 2002 and 2011 are provided in parallel by areas. Although apparently if in urban areas it is seen a homogenization due to the slight decrease of the ratio between the largest city and the lowest, from 35,1 times to 34,4 times, in reality, the large coefficient of variation, increases slightly in 2011. In the case of rural areas, if in 2002 were discordant in terms of population size a number of three localities, in 2011 remain just two towns, Oituz no longer being visible. The average rural population becomes broadly acceptable, the coefficient of variation decreasing from 45,58% in 2002 to 43,41% in 2011, confirming the slight increase in rural homogeneity.

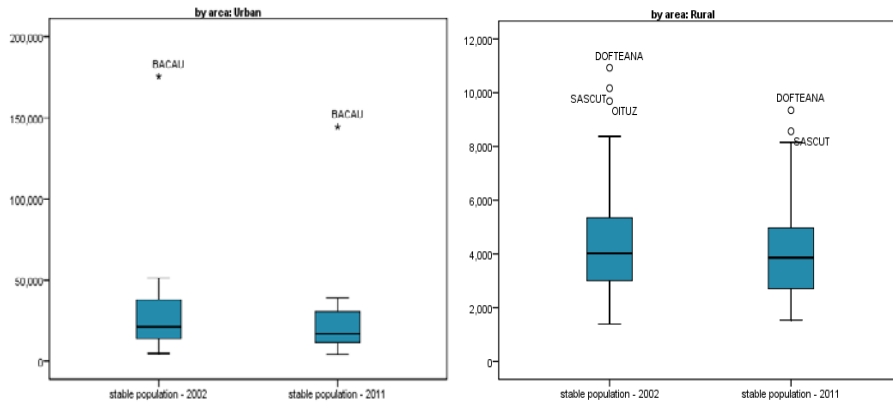


Figure 5 Relative growth of the stable population at the last two censuses, by urban localities (-%)

Source: own calculations based on data from the Statistics Institute of Bacău County

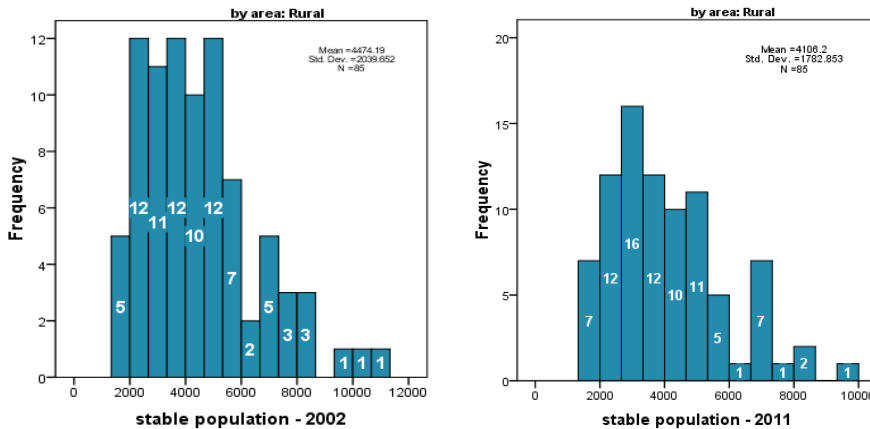


Figure 6 Relative growth of the stable population at the last two censuses, by rural localities (-%)

Source: own calculations based on data from the Statistics Institute of Bacău County

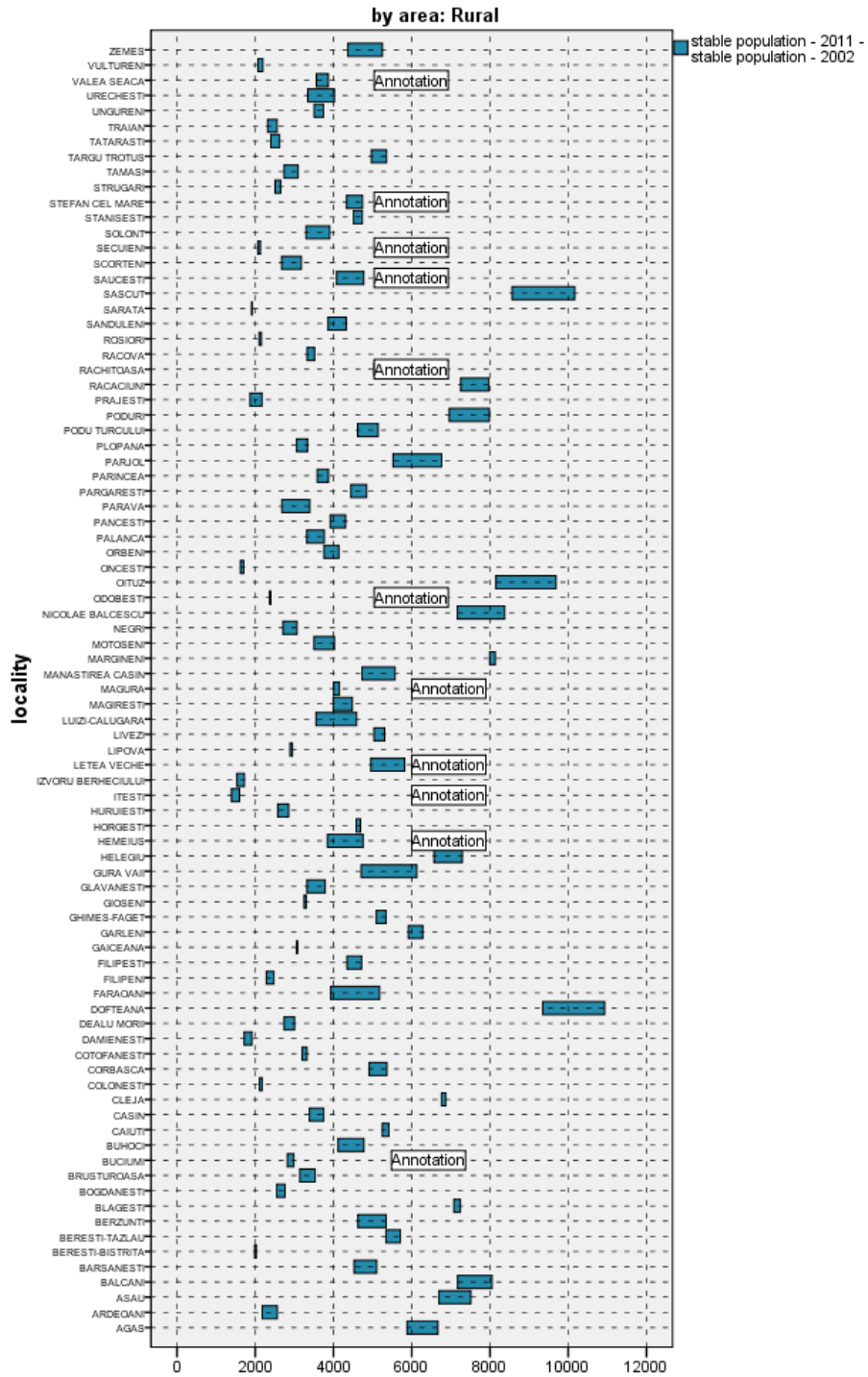


Figure 7 Relative growth of the stable population at the last two censuses, by rural (-%)

Source: own calculations based on data from the Statistics Institute of Bacău County

Figure 7 confirms the increasing in the homogeneity of the rural population distribution by localities, comparing the histograms of the last two censuses. It is observed how localities migrate from right to left, to smaller values and how the distribution tends to better normality for 2011. If in 2002 the ratio between the largest rural locality (Dofteana, 10.928 inhabitants) and lowest (Itești, 1.393 inhabitants) was 7,84, in 2011 this becomes 6,08, the highest locality being again Dofteana (9.346 inhabitants), but the lowest being Izvoru Berheciului (1.537 inhabitants).

In Figure 7 we can see the best the disparities that exist between rural areas of the county, for each locality is marked both the population size and its absolute decrease between the two censuses. On the chart axis can be seen in every town how many people it had in 2002 and how many were left in 2011, the difference between them is actually coloured in blue, being the absolute increase or decrease in population. To distinguish the 11 localities that experienced a population growth during this period, near them was marked a warning (*annotation*), all other localities experiencing decreases. It can be observed for example how Sascut, the second in size, had in 2002 over 10 thousand inhabitants and in 2011 reached around 8.500, the difference between them is practically the absolute decrease in population with 1.603 people. Decrease of population due to migration, especially foreign, but to a lesser extent also domestic, occurred mainly due to active age groups, generally younger, which led to increased aging of the population for both urban and rural areas. A relevant indicator in this regard is the **average age**. Therefore, I calculated the average age of the population for each locality at the last two censuses.

Overall, the average age in the county increased by 3,7 years, reaching 40,2 years in 2011. Only 8 cities recorded decreases in the average age, all rural settlements: Valea-Seacă (-2,38 years), Lipova (-0,54 years), Vultureni (-0,38 years), Coțofănești (-0,31 years), Colonești (-0,28 years), Ștefan cel Mare (-0,18 years) and Filipeni (-0,06 years). Most of the villages are poor, along Siret Valley with a higher birth rate than the average. In contrast, with a more pronounced aging of the population there were observed towns such as: Bârsănești (+3,48 years), Asău (+3,39 years), Ardeoyears (+3,34 years), Bogdănești (+3,31 years), Pârgărești (+3,23 years), Mărgineni (+3,22 years), Sascut (+3,2 years), Buhoci (+3,19 years), and the list goes on.

In the case of *urban area*, the average age increased by 5,1 years, reaching 40,9 years in 2011. Onești recorded the largest increase in average age, by +7,22 years, which makes it in 2011 to be the most aged town, with an average of 42,56 years and followed in order by: Buhuși (42,18 years), Târgu Ocna (42,16 years), Bacău (40,43 years), Comănești (39,84 years), Moinești (39,82 years), Slănic Moldova (39,19 years) and Dărmănești (39,06 years).

In the case of *rural areas*, the average age increased by 2,6 years, reaching 39,7 years in 2011. The youngest locality is Horgești (33,31 years), followed by Gioseni, Cleja, Corbasca, Colonești, Lipova, Valea Seacă, Răcăciuni, Nicolae Bălcescu. In contrast, the most aged rural locality is Glăvănești (45,26 years), followed closely by Motoșeni (44,91 years) and Dămieniști (43,92 years).

4. Conclusions

The 2011 census confirmed a visible aspect, the sharp decrease in population in most localities in the county, as well as emphasized the demographic aging of the population. Both phenomena occurred with different intensities from one place to another, existing in rural areas also some cases of positive trends. Besides the crowded areas around the county capital, there is also noticed a slight population growth in poor areas, especially due to higher birth rate. The same demographic

phenomenon mainly influenced also the average age of the population in younger villages, ethnicity and religion being in this respect a key factor. Between the youngest and most aged town there is a gap of 11,95 years, which indicates a high degree of variation between the localities of the county.

To mitigate the social effects due to demographic aging, there are required political decisions that lead to the development of poor areas, the preservation of the active population, especially the young one, to measures that really stimulate the family and birth. Not to be forgotten that the effects of demographic policies are felt over several decades, therefore a political measure taken in this regard will not produce effects immediately, but equally true is the fact that the effect already produced can not be solved.

References

- Barthelemy, P, Granier, B, Robert, M (2009), *Demografie și societate*, Institutul European.
- Harja, E (2004), *Analiza și prognoza statistică a numărului și structurii forței de muncă*, București, Ed. MatrixRom.
- Harja, E (2009), *Statistică și econometrie*, Bacău, Ed. AlmaMater.
- Sora, V., Mihăescu, C., Colibabă, D., Grădinaru, G., Danciu, A. (2002), *Analiză statistică demografică. Teorie și aplicații*, Ed. Economică.
- Statistical data from Statistics Institute of Bacău County, available on <http://www.bacau.insse.ro/main.php>, http://www.bacau.insse.ro/phpfiles/Comunicat_rezultate_definitive_RPL_2011_judet%20Bacau.pdf
- Stoica, I. (2011), *Tentația migrației. Necesitate și oportunitate într-o lume globalizată*, Editura Militară.