

SHARE OF THE POPULATION WITH HIGHER EDUCATION IN BACĂU - RANK OF THE COUNTY IN ROMANIA

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Abstract

The present paper starts from the analysis of the degree of education in higher education in Romania in recent years and the highlighting of the gaps between the Member States of the European Union, with an emphasis on the existing imbalances between the different areas of the country. Thus, if the European Commission defined as desirable a "European Education Area" in which by 2030 at least 45% of young people aged between 25 and 34 will have graduated from a university education program, in Romania the latest data indicate a level below 23% and slightly decreasing in recent years, compared to the European average of 41.2%. The last population census from the end of 2021 indicates for the North-East Region a proportion of only 14.6% of the population aged 20 and over who have completed higher education in the total population of this age group, being the last region in the country, but also from the EU. The dynamics between the last two censuses confirm the lowest increase in this indicator for the poorest region, with +21.4% compared to the Romanian average of +25%. Within the region, Bacău county, with an average of 13.2% at the last census, has the lowest dynamics not only in the region but also in the country, with an increase of only 11.1% of this proportion.

Keywords

Higher education; territorial disparities

JEL Classification

M41

Romanian higher education in the current European context

One of the priority objectives of the European Union was and remains to increase the level of education in higher education among the population, this being the main influence in the formation of a competitive workforce and the economic development of the Member States. Although education is a priority area for Romania as well, education continues to face a high degree of underfunding. Thus, although through the education law, Romania committed to allocating a minimum of 6% of GDP to education, this percentage is far from being achieved, being currently slightly over a third of the proposed target. Even though the funds allocated to education have registered slight increases in recent years, they were insufficient in the conditions of a high degree of inflation and the need, thus reaching the lowest percentage of the GDP allocated for this year. The effects of investments in education are seen over time and not immediately, as they are considered among the most effective investments. Due to the poor financing of Romanian education, the gaps between the Member States are

increasing. Thus, if the EU proposed as a target for the year 2023 the increase of the share of higher education graduates among young people aged 25-34 to 45%, Romania is currently at the bottom of the ranking, with a percentage of only 23%, decreasing in the last three years.

According to official data, in 2021 Romania had a share of 18.8% of the population with higher education in the total population between 25 and 64 years old, compared to the EU average of 33.6%, being the last country in the distribution of Member States in office by this indicator. This share registered an increase of 28.77% compared to 2011, while the EU average experienced an increase of 32.25%, thus deepening the gaps between the lowest level in our country and the highest level observed in Finland (2011) and Ireland (2021), gap increasing from 2.7 times to over 2.8 times.

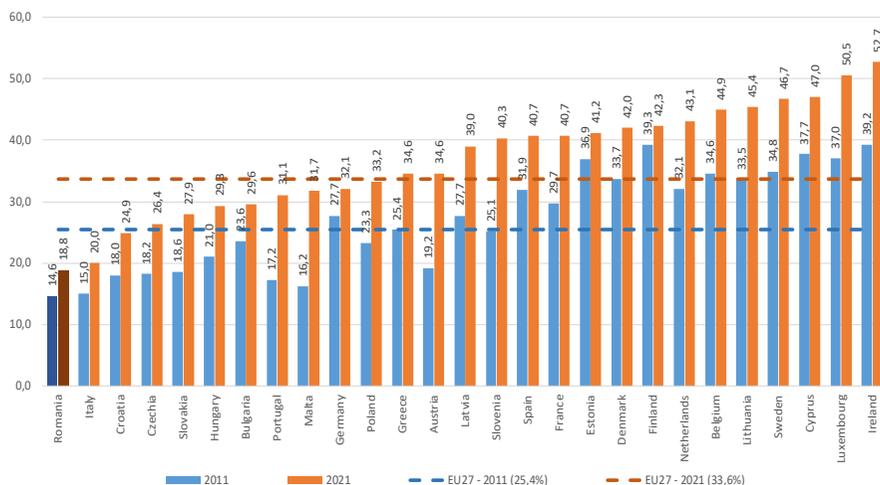


Figure 1 Share of the population with higher education (tertiary education (levels 5-8)) in total population 25 years - 64 years, in the years 2011 and 2021, in EU27 member states (%)

Source: Personal processing of the EUROSTAT available data

The discrepancies between Member States can be clearly seen in Figure 1, and in the future we expect an increase in these gaps due to an even lower allocation of GDP for education in recent years. As Romania is one of the poorest countries in the EU, without higher education funding, with a population having a standard of living well below the average, it will remain far from one of the priority areas on the EU agenda, "ensuring a higher education accessible on a large scale, more favorable to inclusion and increasing its degree of interaction with society"¹.

Disparities in the level of higher education between Romania's regions and counties

If there are large gaps between the Member States of the Union regarding the level of higher education of the population, the same disparities are also observed within the country, the degree of development being a primary influencing factor. Thus, the poorest regions also have the lowest share of the population that has completed higher education in the total population aged 20 and over, the discrepancies being accentuated between the last two censuses, according to Figure 2.

¹ Resolution of the European Parliament of 11 November 2021 on the European Education Area

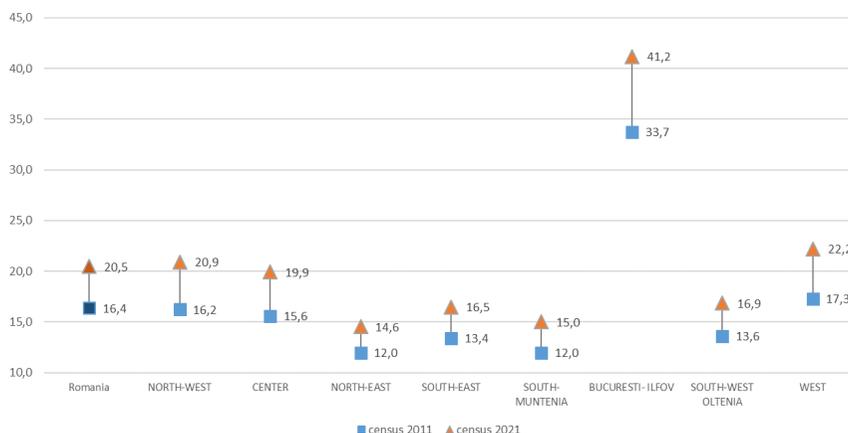


Figure 2. Share of the population with higher education in the total population aged 20 and over, at the 2011 and 2021 population censuses, by regions (%)

Source: Personal processing of the INS – Tempo online available data

Between the two censuses, all regions registered increases in this indicator, the country's average being +25%, the North-East Region having the lowest dynamics (+21.6%), which led to a slight increase in the gap maximum among counties from 2.8 times higher in the Bucharest-Ilfov Region compared to the Northeast in 2011 to 2.82 times in 2021. In 2021, the Northeast Region had a 14.6% share of those with higher education in the total population aged 20 and over, compared to the country's average of 20.5%, being in last place in the EU from this point of view.

Within the North-East Region, Bacăul was in fourth place from this point of view, after the counties of Iași (22.1%), Suceava (13.5%) and Neamț (13.3%), although the last county specified does not have a university center. The indicator experienced a positive dynamic between the two censuses, in all counties of the country, between +11.1% and +76.1%, with Bacău county in last place with only +11.1% (+1.3 points percentage), well below the average of Romania (+25%) and the North-East Region (+14.6%).

If in 2011 Bacău was in 26th place in the country, in 2021 it dropped to 32nd place in terms of the share of those with higher education in the total population aged 20 and over, an observation also seen in Figure 3. Two comparative maps show that although the weights have increased in all counties, the most deficient areas remain those in the east and southeast of the country.

This situation is obviously closely related to the degree of economic development of different areas in the country, the more developed counties being much more attractive from the point of view of the offer on the labor market and the salary for graduates of higher education. Without a real policy of priority allocation of education funds to poorer areas, the discrepancies between counties observed in both Figure 3 and 4 will be maintained or even increased, to the detriment of the EU's desired equal access to education and high quality training of workforce. Perpetuating the financing of higher education according to criteria that favor areas with large university centers will lead to widening the gaps between counties, instead of a harmonious development of the entire national economy. The EU reports confirm the fact that Romania has the worst result regarding the equity of education.²

² Education and Training Monitor - 2022, published by the European Commission

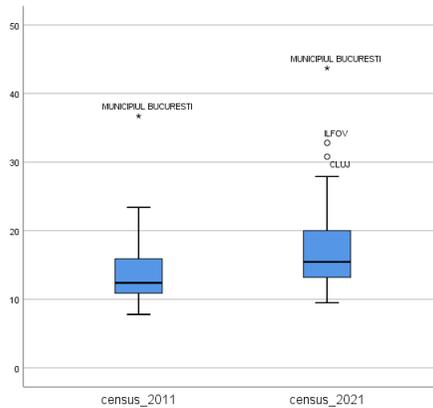


Figure 4. Boxplot of the distribution of counties according to the share of the population with higher education in the total population aged 20 and over, at the population censuses of 2011 and 2021

Source: Personal processing of the INS – Tempo online available data

Trying to explain these trends, we also analyzed the evolution of the population aged 20 and over in Romania, which is decreasing in almost all the counties of the country (with the exception of Ilfov, Bistrița-Năsăud and Suceava). For the whole country, the reduction of this population segment between the two censuses was -5.6% (-882,725 people), and in Bacău county it changed by only -1.8% (-8,358 people). Decreasing the population of the age group of 20 years and over, in the conditions of the increase in the number of graduates with higher education, we would expect an increase in the share of those who have completed such studies in total, but this is not valid in all the counties of the country.

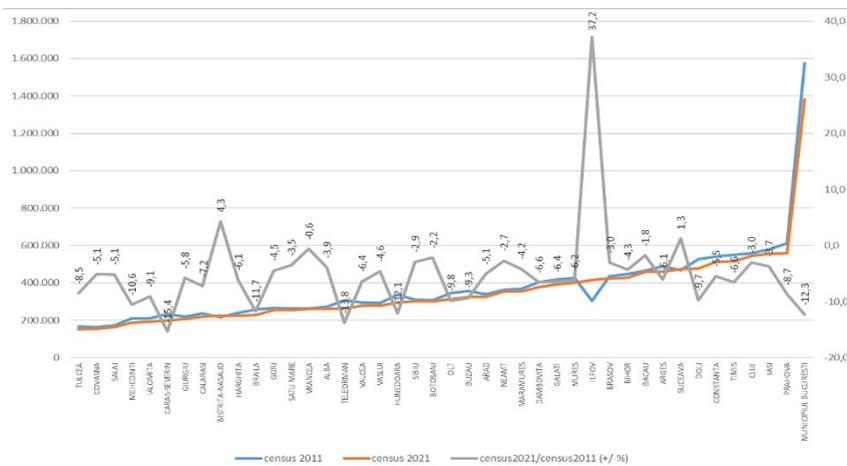


Figure 5. The population aged 20 and over, at the 2011 and 2021 population censuses, by county

Source: Personal processing of the INS – Tempo online available data

As can be seen in Figure 5, Bacăul records a reduction of the population in this segment by -1.8%, and the number of those with higher education increases by only 9.1% (+5,038 people), compared to +18% average of the country and +18.8% average of the Northeast Region. Although the population reduction is one of the smallest in the country, being the 2nd county with a small decrease in the population aged 20 and over, the increase in the number of those with higher education is +9.1% (+5,038 people).

This, given that in most counties the dynamic is over +17% (between +3.2% and +30.8%), without taking into account Ilfov county where the increase is over 2.4 times, motivated by the proximity of the capital and the daily commute to it of a large number of highly qualified people.

Bacău County, the 9th county in terms of the population aged 20 and over (without the municipality of Bucharest), is the 16th county in terms of the number of people aged 20 and over who have completed a form of higher education, this gap between the ranks of the two indicators, also highlighting the fact that it is a disadvantaged county in terms of higher education, although it has a university center.

Analyzing the link between the rate of growth/decrease of the population aged 20 and over (x_i) and the rate of the share of those with higher education in the total population aged 20 and over (y_i), results in a link of medium intensity, ($R_{x,y}=0.668$), the dynamics of the population in this age segment determining only 44.67% of the dynamics of the share of those with higher education. Therefore, other influencing factors prevail, such as: the degree of development and attractiveness of the area, the allocation of education funds with priority to these areas, to the detriment of the areas left behind, thus deepening the already existing discrepancies. Another factor would certainly be the migration of the highly qualified labor force, to the areas with high attractiveness in terms of the offer of better paid work and the possibilities of spending free time.

From Figure 6, Bacău county can be seen as being at the lowest extreme in terms of the dynamics of the share of those with higher education in the total population aged 20 and over, with a reduction of the population in this age group by -1, 8% between the two censuses, but an increase of only 11.1% in the share of those with higher education, well below the country's average of +25%, being the last county for this indicator.

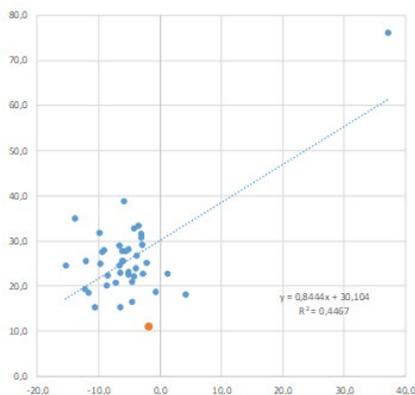


Figure 6. Scatterplot between the dynamics (+/- %) of the population aged 20 and over and the dynamics (+/- %) of the share of the population with higher education in the total population aged 20 and over between the last two censuses, by county

Source: Personal processing of the INS – Tempo online available data

If we consider that the reduction of the population aged 20 years and over in most counties is based in somewhat similar proportions on the reduction of the birth rate and the elderly population, we would expect to a certain extent that a greater reduction of this population group lead to a greater increase in the share of those with higher education in total, due to new graduates from 2011-2021. Among the counties with university centers, Braşov (3% population and +30.8% share with higher education), Sibiu is above the regression line, with below-average population reductions, but with above-average dynamics in the share of those with higher education (-2.9% and +29.1% respectively).

Although Bacăul has a university center with a tradition in the region of Moldova, with attractiveness mostly for the young people of the area, due to a small number of budgeted places and the high degree of poverty, most of them cannot afford to pay the school fees for the places with a fee offered, this being one of the reasons why the share of the highly qualified population in total is the lowest in the country.

For this reason, the state should support more areas of this kind, both from the economic point of view and from the point of view of the development of existing universities, in order to reduce the gaps between the different counties and not to make them worse in the future.

The evolution of the number of universities and faculties by county and the link between them and the share of the population with higher education in total

The number of higher education institutions in the country decreased year by year, from 101 in 2014 to 88 in 2021 (-12.9% and -13 universities, respectively), amid the disappearance of some private universities that could no longer against the competition becoming unattractive. In the comparative maps over time in Figure 7, the disappearance of university institutions from the counties of Satu-Mare and Caraș-Severin can be observed, most of them being concentrated separately in the capital, followed by the counties of Cluj, Iași and Timiș.

The North-East Region loses 3 universities, reaching a total of 11 in 2021, and Bacău County remains constant with two universities, one state and one private.

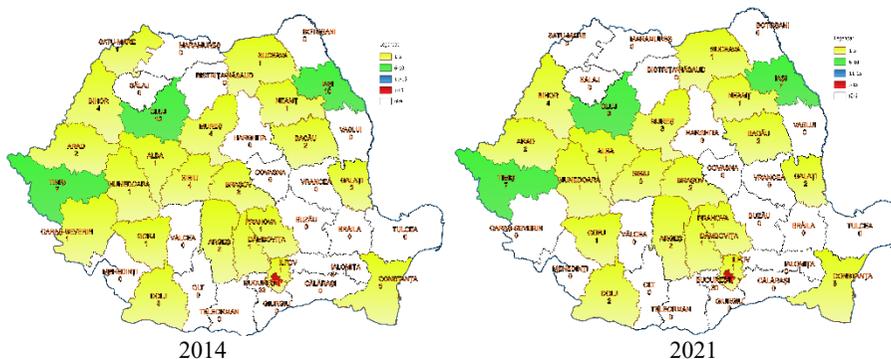


Figure 7 Number of higher education units in 2014 and 2021, by county

Source: Personal processing of the INS – Tempo online available data

Regarding the number of faculties, it decreases from 583 in 2014 to 543 in 2021 (-6.9% and respectively -40 faculties), most being concentrated in Bucharest (149), followed by Cluj counties (49) and Iasi (44), each with over 40 faculties. A second group of counties with over 20 faculties is in descending order: Timiș (38), Constanța (24), Bihor (22) and Brașov (22).

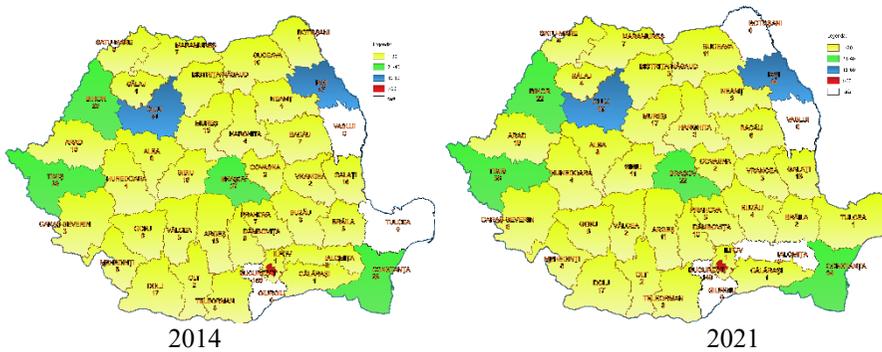
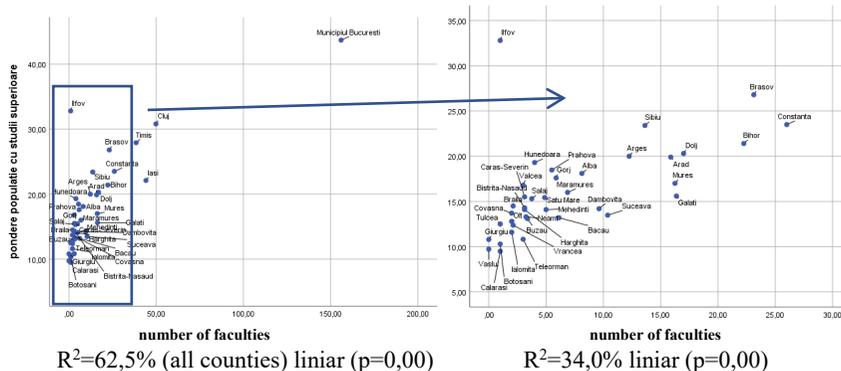


Figure 8. Number of faculties in 2014 and 2021 by county (by faculty location)
 Source: Personal processing of the INS – Tempo online available data

From Figure 8 you can see the similarity between the two maps, especially in the case of Botoșani and Ialomița counties, which remain without any faculty, and Tulcea county, which gains a faculty compared to 2014. Bacău County ranks 10th in terms of number of universities and on the 18th place with the 6 faculties, along with Gorj and Caraș-Severin counties.



$R^2=62,5\%$ (all counties) liniar ($p=0,00$) $R^2=34,0\%$ liniar ($p=0,00$)
Figure 9. Scatterplot between the average number of faculties from 2014-2021 and the share of the population with higher education in the total population aged 20 and over at the 2021 population census, by county
 Source: Personal processing of the INS – Tempo online available data

Analyzing the link between the number of faculties and the share of people with higher education in the total population aged 20 and over, it results that the first variable determines the second in a proportion of 62.5%, the difference of 37.5% being the influence other factors. This result is largely influenced by the large university centers, Bucharest, Iasi, Cluj and Timiș. Excluding these counties, the number of faculties no longer remains a significant influencing factor on the variation in the share of those with higher education in total, causing its variation to be only 34%.

Conclusions

From everything presented, it follows that Romania is far from the European targets regarding the level of education in higher studies among the population, worsening even more the already existing inequities between different areas of the country, with consequences also on the deepening of the gaps in the economic and social development of them.

Access to higher education for the widest possible category of young people, from all areas of the country, would only raise the level of qualification of the future workforce, which would reflect on a more advanced economy towards which all Member States are aiming. The European Parliament encouraged education, constantly emphasized the development of higher education and the link between it and employment, with the objective of increasing to 45% the share of young graduates between the ages of 25-34 in the total population of this age segment, or Romania is currently even slightly below 23%. Also, the European target is to reach by 2030 a 50% share of people who have completed higher education in the total population aged 30 and 34, another target that Romania will certainly not be able to achieve by continuing the policy of underfunding education in general and especially of the superior one.

The Europe of 2020 was intended to be "a competitive Europe with smart growth", the gaps between the different regions of the EU still exist, with the richest regions experiencing important growth and the poorest having a harder time reaching European targets. This is also the case of the North-East Region, known as one of the least developed of the EU regions, both from an economic point of view and the level of education of the population, regardless of which age segments we analyse. Precisely for this reason, it would be appropriate to assign greater importance to this region, in the priority allocation of more important funds to this area, for all areas of economic-social life, of course, and higher education.

In conclusion, in order for Romania to be integrated into an "educated Europe", a coherent strategy for the development of higher education is needed, providing sufficient funds for it, reducing the burden on universities to cover these gaps and prioritizing measures to increase the quality of teaching.

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