Abstract: Romanian education has crossed a period framed after the Revolution of 1989, which had to adapt to the new demands of the market economy. The Romanian education transition had also to be reformed in conditions in which it passed from a strict higher education, limited in numerical terms, to one in which admission has often become a mere formality. The emergence of higher private education was also an element specific to the period. In the desire to adapt, update the legal framework, the Romanian education was most affected by the legislative changes. Thus, only the current law on education, in force from 2011, was amended 152 articles from 365, in other words, in a proportion of 41%. Over these aspects, specific to Romania, it overlapped the requirements of adapting the education to the European requirements, by implementing the Bologna process. These problems specific to the domain overlapped the economic difficulties specific to the transition period to the market economy. The issue of higher education is the subject of the present paper, in which we sought to establish a few specific aspects of the domain and the period, in this sense we have recourse to comparisons with the European Union or with other countries. In the treatment of the topic we used the statistical tool as well as the graphic synthesis method of the evolution of analyzed phenomena. In this regard, we used the R Studio program.

Key words: financing of education, number of graduates, structure of graduates by forms of ownership and university centers

JEL Code: A20, A29, C1, C4, E 37.

Motto:
"To be Educator means to be a poet of love. Never forget that I will take a little of the being you, in my own being."  
Augusto Cury

1. Introduction

The structure of the Romanian education system includes: pre-school education, primary education, lower secondary education, general compulsory education, upper secondary education, arts and crafts schools, apprentice schools, post-high school education and higher education.

After 1989, Romanian education has made progress despite the difficult economic conditions and the changes that have occurred in the social life. After 1998 the reform of education was started as a result of gradual democratization and infusion of European and World Bank funds.

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3 See http://www.ziare.com/pavel-nastase/education minister Wednesday, 15 March 2017
This paper is intended to be a continuation of the analysis of the fundamental problems facing the Romanian economy and society in the present moment.

2. Related Work

Even from Aristotle that said: "In modern times, people's views on education are shared and there is no shared opinion about what young people should learn, both in terms of moral virtues and success in life. Contemporary events have made the issue even more difficult and it is not certain whether education should be primarily professional, moral or cultural”.

Petrus Alexandrescu (2009) presents the essential challenges currently facing the Romanian education system, analyzing both of the assessment of pre-university students based on their final graduation average marks for accepting in the universities and also the university teaching stuff.

Monica Cucureanu (2011) analyzes the evolution of educational alternatives over the last ten years, and also the associated threats, with the passing of a schooling period in the educational alternatives system, with an updated database in the Romanian education system.

Adrian Miroiu (coordinator, 1998) in his diagnosis study shows that the key issue today of education management is within the current legislative framework, existing institutional structures - which, even if they have achieved a lost balance - do not seem sufficient either in the long term or even for the next period.

Constantin Lomaca (2015) in his work precises that experience of reforms in countries such as Poland, South Korea, Finland, Singapore, Canada, Estonia or Australia and negative experiences here also need to be considered, shows that there are common traits of success that could be synthesized in a "decalogue” that Romania could follow in its legitimate desire to decide its own destiny for future generations.

3. Contents

We mention that this approach continues with the treatment of demographic crisis issues, as well as of road infrastructure Romanian education, like the other areas of economic and social life have undergone profound transformations. But, perhaps their intensity and meaning were much broader, only if we neglect that higher education has gone from a strongly restrictive education, less valiant for technical specializations in the context of a the demographic upward trend, to a liberalization in some areas almost totally waters a downward demographic trend.

On these aspects overlapped the labor market imperfections, as well as the costs of transition and, last but not least, the economic crisis. A major issue that has affected Romanian education is a chronic under-financing, given the fact that despite the National Education Law (see Law No. 1, January 5, 2011, art 8) and the National Education Pact, assumed by all political parties required a minimum allocation of 6% of GDP. This objective, which was unfortunately never reached, was an alignment of the Romanian education at European level. Thus, this indicator which expresses the investment in education has evolved in the EU countries as it can be seen in the figure no. 1, from which it results that it recorded values between 3 and 7,5%.
For a better understanding of Romania's position in the European context see figure no. 2, which shows a sad finding for our country, which occupies the last place regarding the weight of education in GDP\(^1\). This result condemns the Romanian education, but even more sad future generations and not the whole of the Romanian society at an economic and social return.

Besides this last of Romania's occupation of GDP is also the big differences compared to the other countries in the last places, about one percent. Following the dynamics of this indicator, expressed in comparison with the average of the 28 EU member states, see figure no. 3, it can be noticed that its trend is not an upward trend. In other words, following a growth trend, up to the level of 2008, which corresponds to the beginning of the financial crisis, with a rebound in 2011, the trend is a downward trend, which basically condemns Romanian education to a chronic under-financing towards a state that does not respect its own laws and which in the last moment will affect future generations. As the EU average, this indicator had an almost constant evolution, with the economic crisis not having a result in

\(^1\) GDP = Gross Domestic Product
influencing the financing of education. We can conclude on this point that the executive of the member
countries, conscious of the role of education on the economy and the society, generally, took measures
to counteract the effects of the crisis, but did not affect education, considering it a sacrosanct domain.

Figure 3

A factor that we consider to be significant in this low level of funding for Romanian education and, also,
a source of attracting funds for education is corruption, a scourge on which it has been constantly acted
but still far from an acceptable level. For a study of the level of corruption on the financing of education
in the EU member states, see figure no. 4. The level of corruption is quantified by the Corruption
Perceptions Index as it is done by Transparency International. It is mentioned that it takes values from
0 to 100, 0 representing the maximum level of corruption, while 100 is the lowest level of corruption.
As shown in figure no. 4, Romania occupies the lowest level of education funding in 2014, subject to a
maximum level of corruption. Through the dotted right we have identified the level of corruption on the
weight of education in GDP in the EU countries. Ascending trend demonstrates a direct link between
lower corruption over a higher share of education in GDP.

Figure 4

Education as percentage from GDP vs corruption 2014

Data source Eurostat, Transparency Intl. done by authors
The opposite trend towards the EU member countries, compared to other Eastern European countries that have registered the same political conditions as Bulgaria is highlighted in figure no. 5.

Figure 5

As it can be seen, the government expenditure per student for primary education - with an exception in 2006-2008 - was higher in Bulgaria compared to our country. It also results that after the financial crisis in Romania, government spending has dropped significantly, while in Bulgaria it continues to grow. It is thus demonstrating that despite the statements of the whole political class that "education is a national priority", in fact it was not supported by facts.

Under these conditions of chronic under-funding of education, the number of students who graduated from higher education increased exponentially in the period from December 1989 to 2007, after which it regressed, see figure no. 6.

Figure 6
These contradictory developments are segmented in figure no. 7, in which on the left we have the exponential evolution of some of the graduates from 1990-2007 and on the right the descending evolution after 2008.

Figure 7

This contradictory evolution of the number of graduates in higher education can be attributed, on the one hand, to the liberalization of the number of places in higher education and to the emergence of private higher education and, on the other hand, to the poor demographic and economic crisis and last but not least of a much more transparent and objective baccalaureate.

After December '89, Romania faces a very low demographic crisis caused by the decline in birth rates whose effects have come to affect all levels of education. Figure no. 8 shows the age pyramid for the years 1992 and 2016. As can be seen, the age segments that have been influenced in the negative sense are those that are dependent on the education system.

Figure 8
Changes in the absolute population size for the two periods are shown in figure no. 9. It is noted that the most significant decrease is recorded in the age group between 20-24 years, which coincides with the age of higher education. The trend and the intensity of the changes had a significant influence on the Romanian higher education, which had to cope initially with an exhibition increase, then with a crisis due to the significantly lower number of candidates. Thus, attracting candidates to higher education became a priority for most of the higher education units. Unfortunately, the demographic crisis has been amplified by the migration of the Romanian labor force to other countries, which has caused many families to settle in other countries, including potential candidates for higher education. The number Romanians abroad are estimated at over 4 million\(^1\). This number adds the growing number and, unfortunately, of the most valuable baccalaureate graduates who choose to study abroad. It is estimated that about 45,000 Romanians are now studying abroad.

The introduction of surveillance cameras at the baccalaureate exam starting with 2011 also affected the reduction of the number of candidates. This evolution is presented in figure no. 10. Under these conditions, a number of decisions have been taken that definitely affected the quality the first measure targeted the admission system, from the exam to the one based on the file, respectively, be based on the baccalaureate note. But, unfortunately, educational units with a long tradition and a great reputation admitted exclusively on the basis of the baccalaureate average and as an even more aggravating fact that it was not imposed as a condition that the baccalaureate encompassed a discipline that is specific to those faculties. There were opinions, fortunately for this time they remained without effect, that admission to universities to be achieved even in the conditions of a non-promotion of the baccalaureate exam. In faculties with higher competition were often supplemented, often unjustifiably, the number of places, we take into account publicly taxed places. This phenomenon has been registered, despite the fact that the fundamental law stipulates that "the state education is free, according to the law".

\(^1\) [https://ro.wikipedia.org/wiki/Diaspora_romana](https://ro.wikipedia.org/wiki/Diaspora_romana)
This trend tended to reduce the number of students and, implicitly, the graduates manifested themselves with different intensities on the forms of ownership of the higher education units. Thus, as can be seen from figure no. 11, the number of graduates on the two forms of property registered the same trends, respectively growth until the beginning of the economic crisis then decline. It can also be seen that, as a result of the different rhythms of change, the number of graduates in private education exceeded that of public education for 2009-2010. It can also be seen that private education is more affected by the drop in the number of graduates in the period after the economic crisis than public education.

Regarding the evolution of the number of graduates of higher education in Romania, it has been stated that the number of graduates is very large, but if we tackle this issue by comparison with the EU countries, the results are not favorable. Thus, the percentage of graduates with higher education compared to the population aged between 15 and 64, Romania ranks last in the EU. In figure no. 12 we
present this indicator for the EU countries in 2016, while in figure no. 13 the country ranking is presented, based on the percentage of those with higher education, compared to the population aged between 15 and 64. Thus, while the European average is 27.92%, Romania's last position is only 15.10%, which is about 50% of the EU average.

Figure 12

![Percentage of tertiary education EU countries 2016 from 15 to 64 years](image)

Another aspect mentioned in the current Romanian higher education compared to the one before 1989 was the modification in the structure of the graduates, respectively from an education with a majority weight of the technical one to the social one, especially understanding the economic and the right.

Figure 13

![Population by high educational attainment levels 5-8 from 15 to 64 years 2016](image)
Figure 14

Figure no. 14 shows the structure of graduates from EU dentistry, except for Poland for which we do not have data, which results, in relation to Romania, shows that about half of the graduates come from social specialties.

The differences between Romania and the EU average are presented in figure no. 15, which shows negative differences in education, mathematics - computing and services and positive differences in social sciences, engineering - construction and health. In terms of intensity, differences are recorded in education, social sciences and engineering-construction.

Figure 15

Another phenomenon faced by Romanian higher education after December 1989 is the strong dissipation from the territorial point of view. We remind that of the 41 counties of Romania, only two, namely Giurgiu and Tulcea, do not have university centers. In figure no. 16 we present the map of Romania with the university centers in which the number of graduates at the license level is registered in 2014.
Figure 16

As you can see between the counties, there are great differences between the number of graduates, which ultimately reflects the size of the university centers. Thus, based on an ABC chart like the figure no. 17, we can see that only 5 counties concentrates 60% of the number of graduates and 10 counties 80% of them. We mention that these include the Bucharest Municipality, which is, in fact, the largest university center.

Figure 17
Conclusions

The study has resulted in a series of issues faced by the Romanian higher education. Chronic financing is a major deficiency that has put its mark on both the numerical and qualitative aspects of the selection of candidates. Also, the ratio between the number of students per teacher was influenced by such under-funding. The remuneration of teaching staff was not able to attract, especially among young people, the most competent teachers with didactic vocation. The importation of so-called Western education models, without to be correlated with the traditions of the Romanian education, have unfavorably infiltrated the field. The competition of the state and the private education was not able to register in the quality of the higher education. Although Romania has a number of educational institutions with tradition in the area, such as the Bucharest Academy of Economic Studies, which was the first in the Balkans, does not enroll the university lecturer Worldwide.

So, the role of universities would be to actively participate in future debates and discussions:

- to get involved directly in the writing of school curricula, both to content, skills and abilities
- to be the bridge between schools and the world after school, after college; the real world in which all graduates will end up
- establish partnerships with schools and high-schools whereby future teachers have the chance to get practice "in production"
- to help evaluate these classroom experiences and to help future teachers improve not only their specialist knowledge but also the teaching methods.
- to become not only nurseries of future teachers and teachers, but true "pedagogical laboratories".

References


Romanian Constitution published in: Official Monitor no. 767 of 31 October 2003, Article 32, paragraph 4


http://www.metproject.org/.