SOME STATISTICAL ASPECTS OF HIGHER EDUCATION IN ROMANIA IN 2012

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Abstract: *The paper presents some statistical coordinates of quantitative and qualitative nature of higher education in Romania, in 2012. The main objective is to characterize the dimensions of the students' number and their chosen specializations according to the requirements of Romanian economy. Some trends of the higher education market can be noticed and considered by the public policies in education and all the other sectors influenced by the new labour force, highly specialized.*

Key words: *enrolled population, enrolled students, administrative regions.*

1. Introduction

The economic development influences the development of all activity sectors, including education. In its turn, the education sector can influence the economic development of a state. There is a bi-univocal relation between the two aspects. This kind of relation exists for all the activity sectors of an economy, generating a spiral multiplied effect of development of the living standard for the entire population. Education has the strongest intensity of correlation with the rhythm of economic growth, which leads to economic development in the long term. There are countries which have understood the main role of education and have invested with priority in research and development activities and in higher education. The R&D represents a priority for the European Union programmes which finance the *smart growth*, to fulfil its own Strategy for 2020.

2. Size of Romanian Higher Education

The enrolled number of students, the higher education graduates and the teaching staff can give a quantitative dimension of the higher education market in Romania.

Figure 1 shows the evolutions in the number of students and graduates of higher education in Romania during the period 1990-2011. It can be easily noticed that the number of students grew rapidly until 2008, and then o decreasing tendency began for both flows. The peak was recorded in 2008, because in the academic year 2007-2008, the first three years Bologna promotion, started in 2005-2006, finished the studies.

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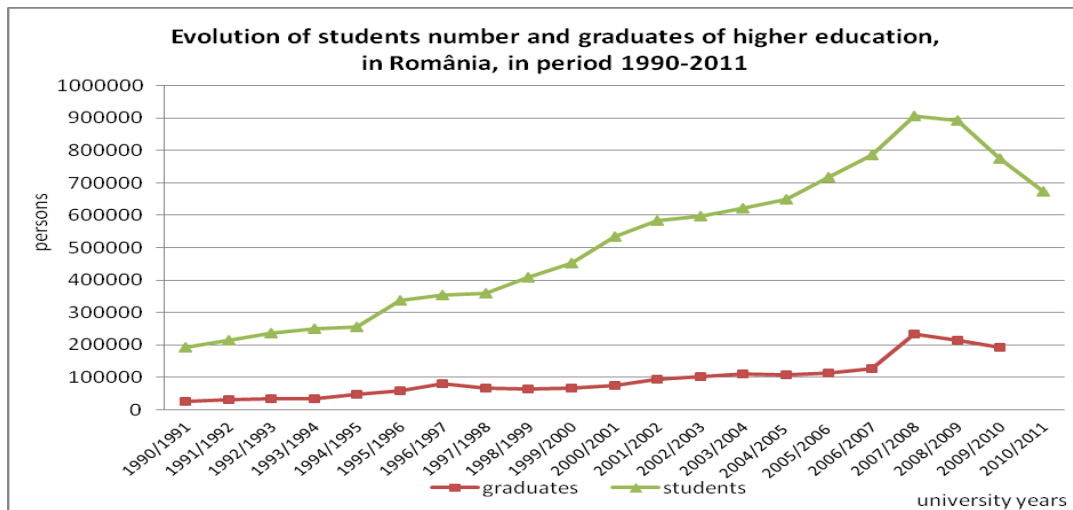
Fig. 1. *Evolution of the number of enrolled students and graduates*
in Romania between 1990 and 2011

This promotion was doubled by the four-year one in social sciences and the five-year one in the technical field, according to the traditional system. The great number of students and the smaller number of graduates show that not all students finish their Bachelor's studies, more of them abandoning the studies.

3. Evolution of interest for science fields

Analyzing the study fields preferred by students, an image about the changes of the activity sectors in the structure of the national economy of Romania can be perceived.

Figure 2 represents the evolution of students' weights from the whole number of enrolled students by their science field.

The weight of students from the technical field dramatically decreased at half, amounting to more than 60% in the

university year 1990-1991 and dropping to 30% in 1995-1996.

The weights of students in the university-pedagogy field and in economics had an increasing tendency, but in the university year 1995-1996, when private universities flourished, there was a great increase, especially for economics and law science.

Starting with the year 1995-1996, the technical education has slowly decreased, reaching 20% of all enrolled students, in the academic year 2007-2008, when a slow increasing trend began to show the importance of the engineering field for the modern economies.

Economics was preferred more and more during the period 1996-2008, until the economic crisis began at the end of year 2008, and the weight began to decrease from over 30% to 25%.
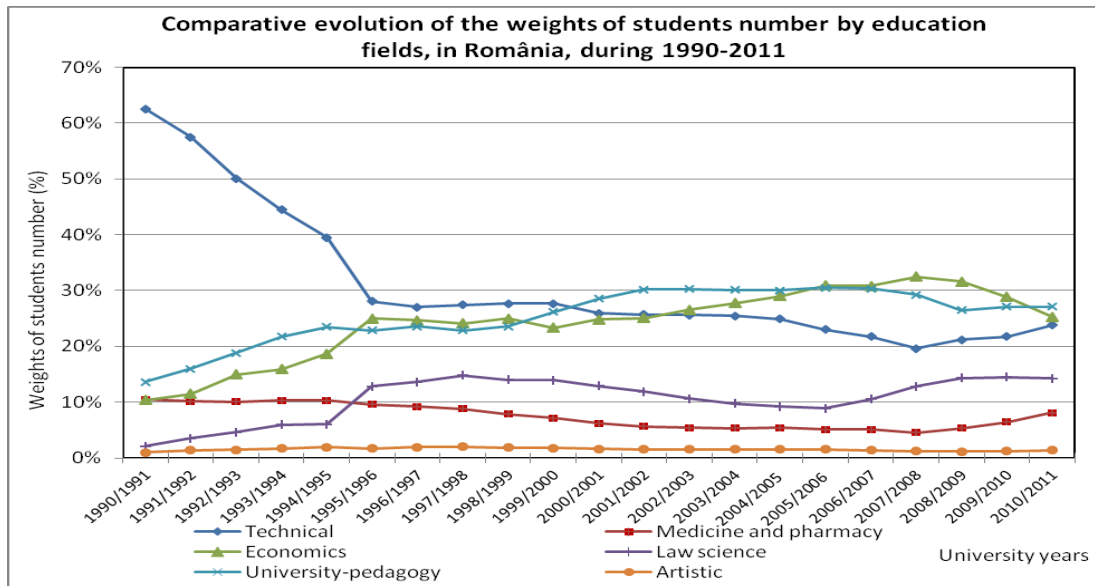
Fig. 2. *Weights of students by study fields in Romania between 1990 and 2011*

The year 2011 found close weights of students for economics (25.3%) and for the technical field (23.8%). The ascending tendency of the university-pedagogy field is surprising, after it declined in 2008-2009, remained constant for 2009-2011, but at a level higher over 27.1%, higher than in the technical and economics areas.

The preference for the law science saw a slow decline 2005-2006, under 10%, but it started to become interesting again between 2007 and 2011, being chosen by 14.3% of all students.

The medicine and pharmacy field being difficult due to the long period of study programs and to the responsibility of actions, not being rewarded by the Romanian society with good salaries, recorded a slow and constant decrease until 2007. Starting with the university year 2007-2008, when the beginning of the economic crisis determined the growing offer of well paid jobs in foreign countries, there was a re-launching of the serious hard learning, as 8.1% of all students became medicine doctors.

The artistic field has always been preferred by less than 2% of all students and the talent, wishes, dreams and believes are the resort for the students who choose the arts.

Figure 3 shows the weights of higher education graduates in Romania between 1991 and 2010.
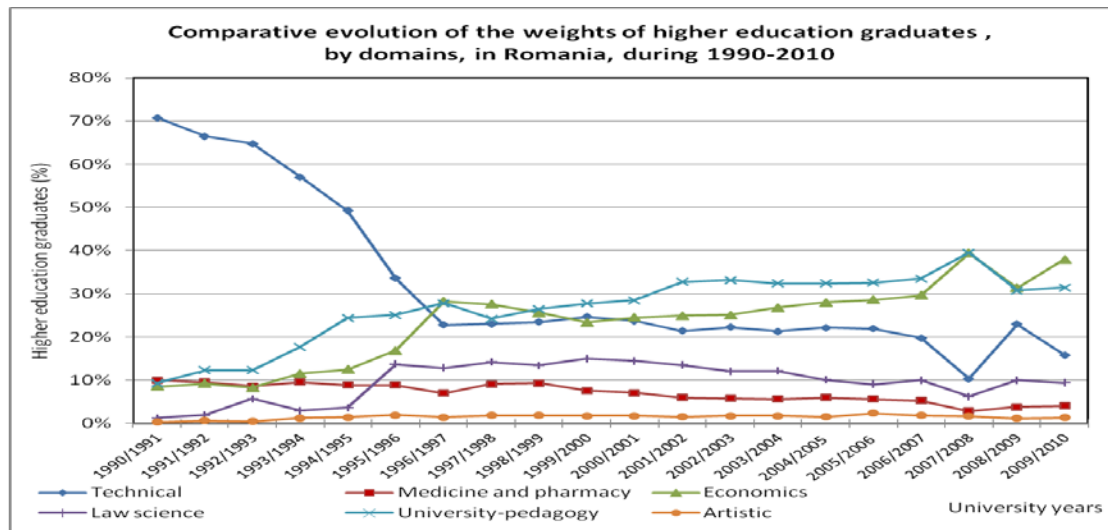
Fig. 3. *Weights of graduates by study fields in Romania between 1990-2010*

The weights of graduates follow the same tendencies described for enrolled students, excepting the year 2007-2008, when the first promotion after the implementation of the Bologna process in Romanian higher education finished the study programs.

For economics and university-pedagogy, a peak of weight was recorded, unifying the two promotions, with four and three year, which graduated the same year.

For the technical area, the double promotion, with four and five years, finished the following year, 2008-2009. The year 2007-2008 recorded a break of graduates' weight in the technical area, compensated by the high percentage of graduates in 2008-2009.

The same behaviour can be seen in Figure 3 for law science and medicine and pharmacy, and the following year, 2008-2009, the tendency for each field continued.

4. Human resources in higher education

The chart from Figure 4 considers the parallel evolution of students' number and teaching staff in higher education institutions. The increasing number of students determined an increased number of teaching staff. In 2006-2007, the regulation of retiring in higher education conducted to a decrease in the number of professors, followed by young and well prepared people who enter the system of higher education. The limit for the retirement age and the restrictions for new assistants produced the decline tendency in the number of the teaching staff.
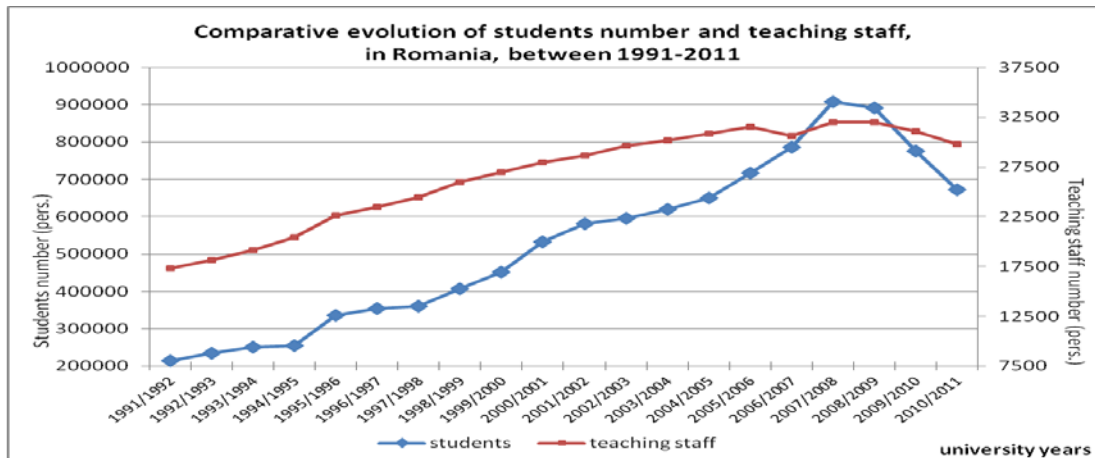
Fig. 4. *Evolution of the number of students and teaching staff,
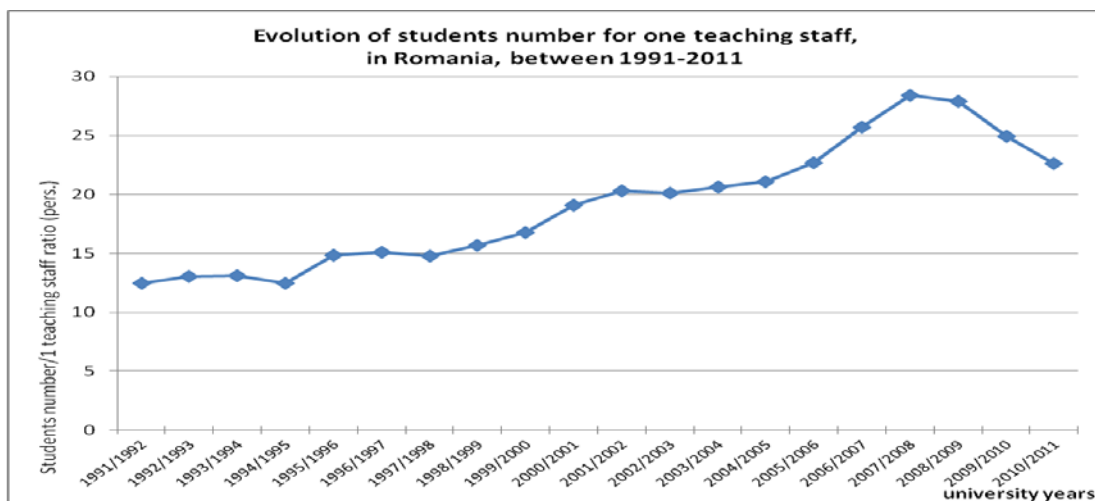in Romania between 1991-2011*

Fig. 5. *Ratio of students' number per one teaching staff
in Romania between 1991-2011*

The ratio of students' number for one teaching staff followed exactly the evolution of students' number, as in Figure 5. This ratio is also ruled by ARACIS, the national Romanian Agency for Quality Assurance.

5. Regional aspects in higher education

The percentages of enrolled students by regions correspond to the big Romanian universities, territorially distributed.

The development level of an administrative region is anticipated by the percentage of enrolled students. The regions with high percentage of students have good universities searched by students for their good living and learning conditions, for their fame.

The chart from Figure 6 presents the structure of students' population by macroregions in Romania, in the university year 2010-2011.

The region Bucuresti-Ilfov attracts students from all the regions, being an atypical region. The students' percentage in this region with the country capital town has the greatest percentage, of 33% of all students.

In Bucharest, there are famous universities, having their own histories, with professors being personalities who opened the way of science in different fields in the Romanian education.
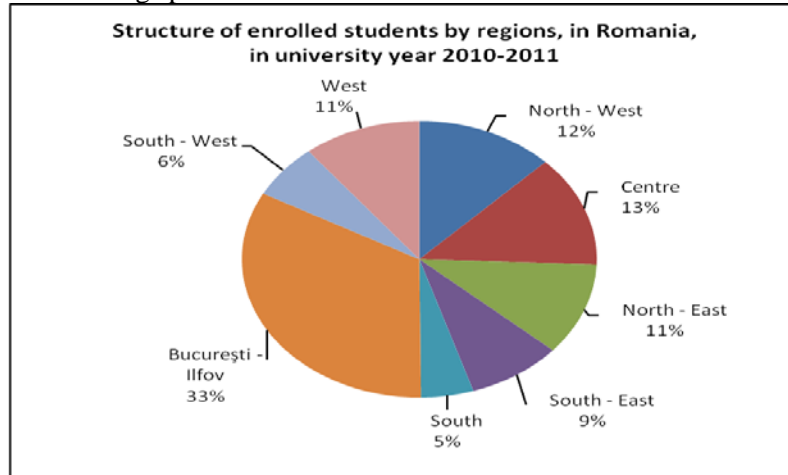

Fig. 6. *Structure of students' population by administrative regions in Romania in the university year 2010-2011*

All the other regions have around 10%. West, North West, North East, Centre and South East regions have close percentages of young population in universities, between 9-13%. The Centre region follows after Bucureşti-Ilfov with 13%.

The low values of 5%-6% belong to the South and South-West, regions economically less developed than the others.

6. Conclusions

The domains of specialization can offer qualitative aspects for the evolution of different science areas. The changes of students' preferences for different specializations show the tendencies existing on the labour market, the way students and their parents perceive the needs for future jobs, well paid. Their expectations and their behaviour can determine the development of those activity sectors.

The public institutions should pay attention to the expectations of the population and should initiate public, fiscal policies and facilities to stimulate and impulse the economic activity to develop.

Meantime the government should ensure a good political medium for policies to act in equality and equity conditions for all members of society.

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