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# **AN ANALYSIS OF HIGHER EDUCATION INDICATORS WITHIN THE EUROPEAN UNION - TENDENCIES**

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**Abstract:**

*Current paper focuses on identifying indicators on higher education within the European Union that build up the evolution of higher education within the last years. Due to this approach, the performed analysis focuses on tendencies and trends regarding indicators concerning the number of students, their international mobility, proportion of higher education graduates, employability of graduates and their market insertion but also on expenditure regarding education within various EU countries. The analysis also builds on comparisons regarding tendencies of indicators and focuses on the emerging trends concerning higher education within Romania, as a country member of the European Union. The findings of this research sample may serve as an incentive in performing future researches concerning corporate governance in higher education, highlighting the main aspects to be considered when designing appropriate ways in identifying needs and expectations of the major interested parties within the educational process in a way that teaching-learning processes to be designed respond in an appropriate manner to the expectations of the social-economical environment.*

**Keywords:** higher education, indicators, analysis, tendencies

## **1. Introduction**

The changes within Romanian universities after 1989 enabled the internationalization and harmonization of all its activity fields. The areas to be modernized are the course offerings, the culture of these institutions and their managerial skills to manage the institutions. Nowadays universities also face pressure, derived from the appearance of new actors on the market, represented by private universities, which occur with a similar offer (Popescu, Brătianu, Atanasiu, Rusu C,

Oprean, Curaj, Buzărnescu, 2004). Also, universities within the European Union represent important competitors for Romanian universities. This causes even more dynamics within the market, leading to an increase in its efficiency.

The adaptation to European norms and standards also means that a very large effort is required on all sorts of resources. In this respect, European institutions have defined a European area of knowledge, based on the European Higher Education Area and on the European Research Area.

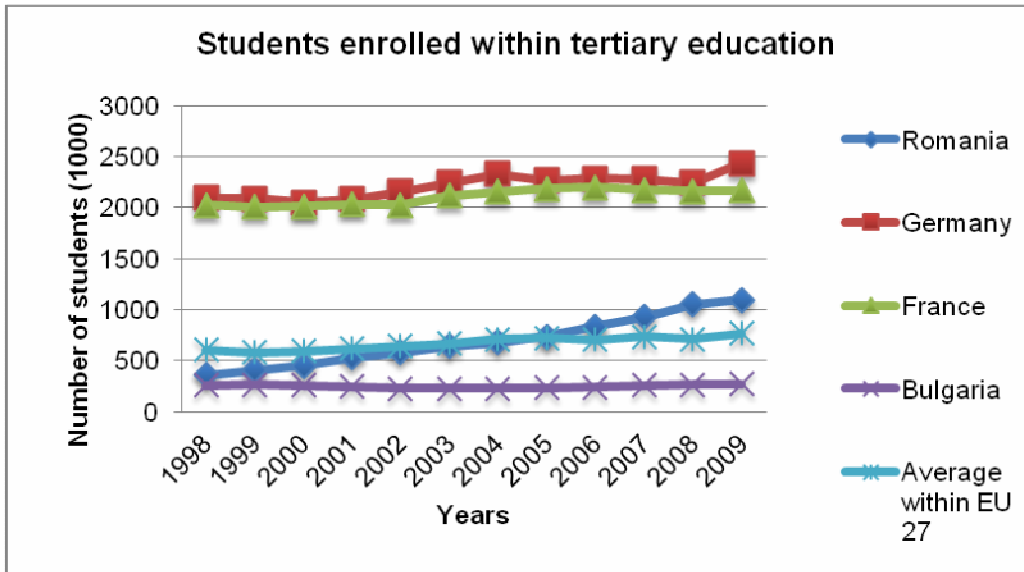
Some important steps in this process are:

- The joint Declaration of Sorbonne, 25 May 1998, which goal was to achieve a harmonization of the European system of higher education;
- The declaration of Bologna, 19 June 1999, concerning the definition of the „European Higher Education Area“;
- The report of the Conference of Ministers in charge of Higher Education, Prague, 2001;
- The report of the Conference of Ministers in charge of Higher Education, Berlin, 2003;
- Communiqué of the meeting of European ministers in charge of higher education in 19-20 May, Bergen, 2005;
- London Communiqué. Towards the European Higher Education Area: responding to changes in a globalized world, 18 May 2007;
- Communiqué of the Conference of European Ministers Responsible for Higher Education, Leuven and Louvain-la-Neuve, 28-29 April 2009;
- The Budapest-Vienna Declaration of the European Higher Education Area, 12 March 2010.

In order to support the development of higher education to a competitive body within the European Union, the conference of Lisbon took place in the year 2000. The European Council met on 23<sup>rd</sup> -24<sup>th</sup> March 2000 in order to set new strategic goals and also in order to strengthen employment and economic reform of the knowledge based society. The conclusions were that the European Union sees itself forced to take prompt measures, as more and more rapid changes emerge in the market and innovation and economic reform must take place.

## **2. An analysis of higher education indicators within the EU**

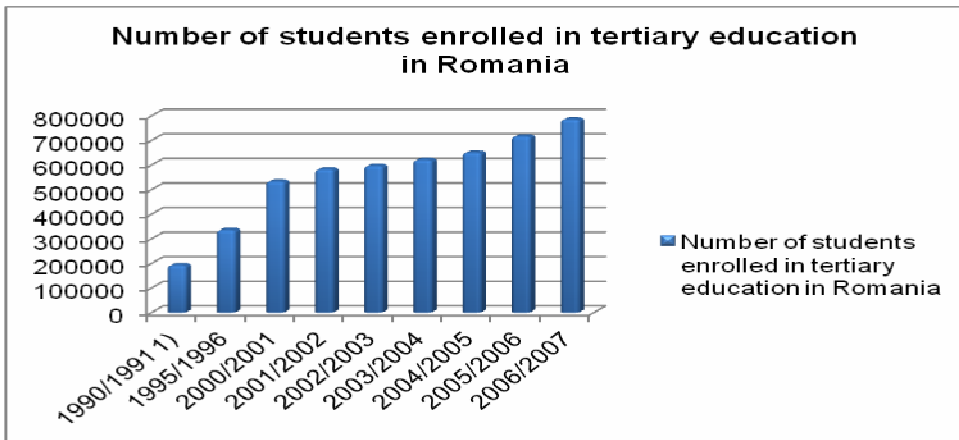
Within this paper some of the most representative indicators that build up the evolution of higher education within the European Union (EU) have been analyzed. First set of figures and trends analyzed were the number of students enrolled within tertiary education in the EU.



**Fig.1. Students enrolled within tertiary education in selected countries of the European Union.**

(Source: Data compilation performed using information provided by Eurostat, <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tps00062>, information last updated on 5.05.2011, last time accessed at 5.02.2012)

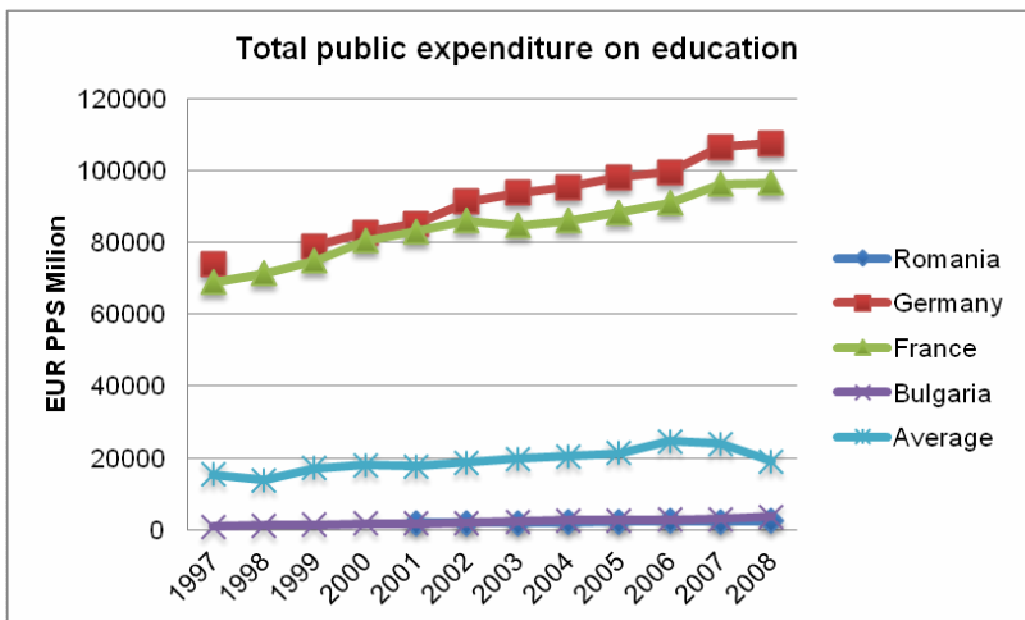
Analyzing fig. no.1, one may notice an increase of enrollments within higher education institutions, both in founding member states (Germany and France) and newest member states, Romania and Bulgaria. Also, the average performed at EU 27 level shows this tendency in increasing.



**Fig.2. Number of students enrolled in higher education in Romania.**

(Source: Data compilation performed using information provided by INSSE, <http://www.insse.ro/cms/files/statistici/Statistica%20teritoriala%202008/rom/Tabel35.htm>, last time accessed at 5.02.2012)

Also, fig. no. 2 shows an analysis performed at Romanian level, registering growing numbers of students after 1990. According to Andrei, Teodorescu, Oancea, Iacob (2010), the growing number of students within Romanian educational institutions in the last years, led to imbalances in the system. The arguments brought by these authors to sustain their opinion focus on the discrepancy between the growth of the number of students' enrollment and public expenditure on education, latter being kept low. Analyzing fig. no.2, one may notice the growing number of students in the transition period within Romania, but also analyzing fig. no.3 one may also notice that public expenditure on education within Romania was kept very low compared to other older members of the EU, but also compared to the European average level. Andrei, Teodorescu, Oancea, Iacob (2010) also point out that Romanian educational system lacked in regulatory measures for a long time, measures that should have focused on increasing the competitiveness of universities, identifying and implementing new financial resources and generally focusing on real market requirements and market insertion of graduates.



**Fig.3. Total public expenditure on education.**

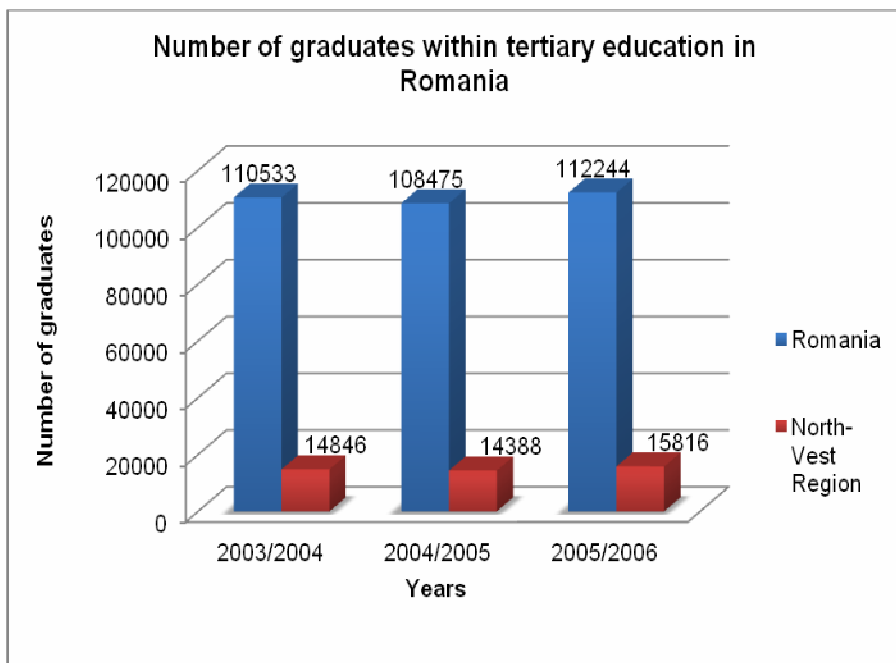
(Source: Data compilation performed using information provided by Eurostat, <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tps00158>, information last updated on 5.05.2011, last time accessed at 5.02.2012)

It should be noted that fig. no.2 contains the number of students enrolled both in public and private institutions. Also, Andrei, Teodorescu, Oancea, Iacob (2010) noticed that more than 25% of students were enrolled within private universities over the past decade. Analyzing the evolution of the number of students before and after

1989, these authors noticed that the number of enrolled students in Romania has grown by 5.6 times within the period 1998-2009.

Also, Andrei, Teodorescu, Oancea, Iacob (2010) analyzed the structure of study fields after 1990 and noticed major shifts during these years regarding the preferences of students. Currently, one may notice positive trends regarding the number of students within the economic field, natural sciences and arts. Negative trends can be found in fields like agriculture and law. Technical study fields and medicine also register decreasing trends in the number of students.

Data available for analyzing the number of graduates within higher education in Romania (fig. no. 4) show a slight decrease of the number of graduates within the university year 2004-2005, followed by a slight increase within the university year 2005-2006. Same trend is noticed when analyzing the number of graduates within universities in the north-west of the country.

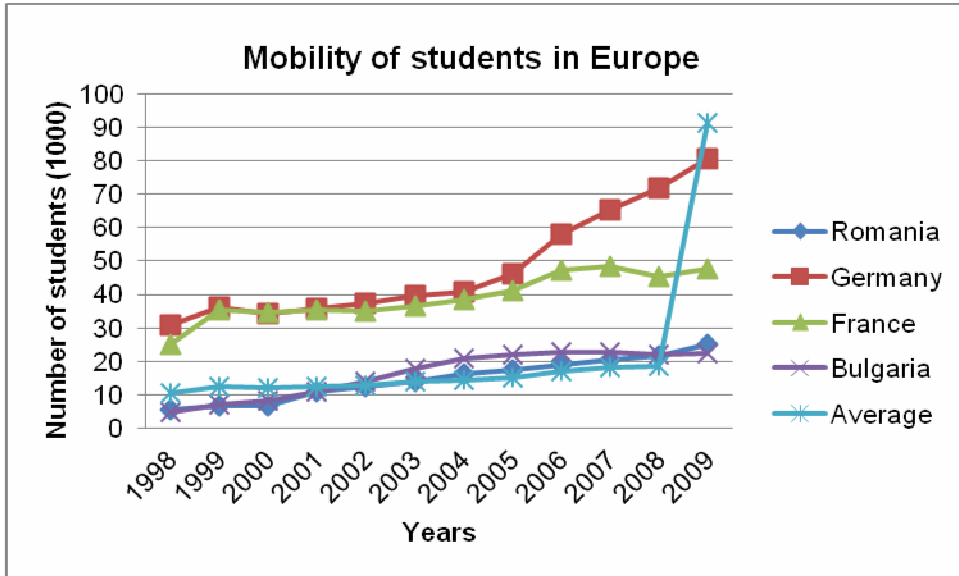


**Fig.4. Number of graduates within tertiary education in Romania.**

(Source: Data compilation performed using information provided by INSSE, <http://www.insse.ro/cms/files/statistici/Statistica%20teritoriala%202008/rom/Tabel37.htm>, last time accessed at 5.02.2012)

Next indicator that was chosen to be focused on is the international mobility of students (fig.no.5). Trends within this indicator show the openness to international relationships between universities of EU member states, marked by various documents on European level, focusing on increasing and encouraging students' international mobility. This trend was also encouraged by the Bologna process, focusing on the recognition of transferable credits. Within the Communiqué of the meeting of European

ministers in charge of higher education in Prague, 2001, ministers underlined the full membership of students within the processes of higher education. Also, the need to adopt a system of grade recognition within the European Higher Education Area and the establishment of a credit system in order to increase flexibility and mobility of students has been discussed.



**Fig.5. Mobility of students in Europe.**

(Source: Data compilation performed using information provided by Eurostat, <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=tps00064>, information last updated on 5.05.2011., last time accessed at 5.02.2012)

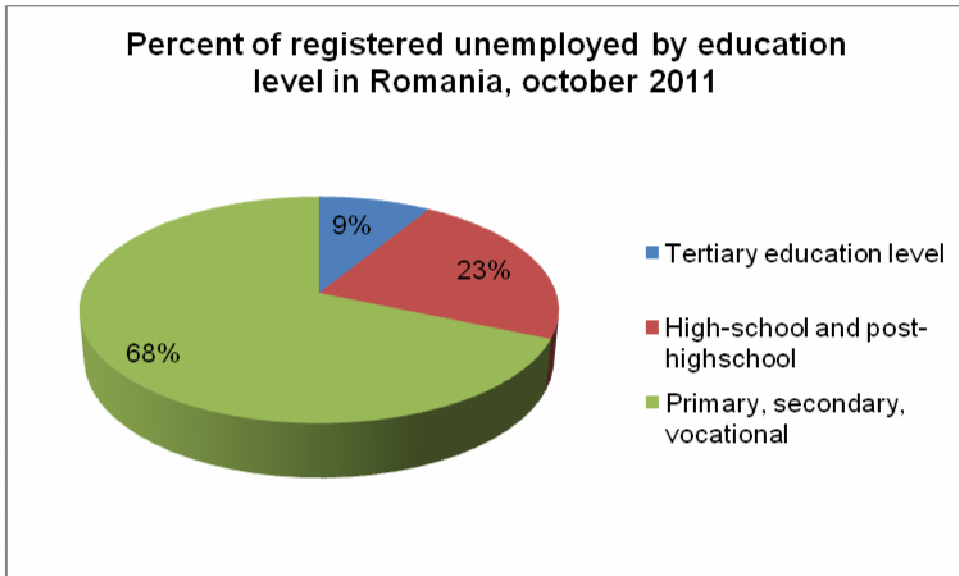
Promotion of mobility was explicitly mentioned as a discussion point, committing to remove all obstacles to the free movement of students, researchers and teachers. Analyzing the statistics presented within fig. no. 5, one can notice the positive trends in international mobility, Romania also registering growing numbers of outgoing students.

Also, the Communiqué of the meeting of European ministers in charge of higher education in Berlin, 2003, noted the progresses made by European higher education institutions and the necessity to implement a two cycle system. Also, they noticed that mobility has increased since the last meeting, figures that support this statement being found within fig. no. 5. Also, promotion of mobility, the establishment of a system of credits and the recognition of degrees remain priorities of these institutions in continuing the struggle to remove all barriers of international mobility. The Communiqué of the meeting of European ministers in charge of higher education in 19-20 May, Bergen, 2005 confirmed the implementation on a large scale of the two cycle system and committed to further recognition of degrees and study periods.

The London Communiqué, 18 May 2007, notes the progresses made in respect to mobility and grade recognition since the last meeting, but also notes some

obstacles found within this process, mainly dealing with recognition, immigration issues, residence or work permits. In order to overcome these obstacles, measures like increasing the number of joint programs and creating a flexible curricula have been included.

Last indicator to be analyzed within this paper is the percent of unemployed by education level. Newest data were collected concerning the unemployment rate within the segment of graduates of university studies.



**Fig.6. Percent of registered unemployed by education level in Romania, Feb. 2011.**

(Source: Data compilation performed using information provided by INSSE, Buletin statistic lunar, 10/11, [http://www.insse.ro/cms/files/arhiva\\_buletine2011/bsl\\_10.pdf](http://www.insse.ro/cms/files/arhiva_buletine2011/bsl_10.pdf), last time accessed at 5.02.2012)

As can be seen (fig.no.6), the segment of tertiary education level graduates shows the lowest unemployment rate. A primary conclusion of this analysis would be that higher education would ensure a market insertion in a more efficient rate than secondary or post-high school education. However, it should be noted that this statistics do not provide information on the nature of employment, meaning that one may not know if these graduates found a work place due to their qualification, or is these graduates found a work place for which they are overqualified. The need to achieve a correlation between academic services of high quality and lasting employability have been emphasized within the Communiqué of the meeting of European ministers in charge of higher education in Prague, 2001. Also, the London Communiqué, 18 May 2007 mentions the necessity to improve graduate employability. This document also notes initial progresses done in respect to the implementation of national qualification frameworks. Also, the Framework for Qualifications of the European Higher Education Area is seen as a core element of European higher

education institutions. Concerning employability, the London Communiqué, 18 May 2007 mentions that institutions have to develop partnerships with employers and ensure compatibility of employment structures with the new two cycle system.

Increasing employability of graduates but also introducing on the job learning was an important issue within the Communiqué in Leuven and Louvain-la-Neuve, 28-29 April 2009. Also, improving program study offer and further development of partnerships with employers should consist (according to the Communiqué in Leuven and Louvain-la-Neuve, 28-29 April 2009) priorities of universities. The Budapest-Vienna Declaration of the European Higher Education Area, 12 March 2010 stressed that begun reforms have to be continued, higher education being a public responsibility.

The need to map universities' program study offer to employers' requirements has also been emphasized by Arthur, Brennan and de Weert (2007), who also discussed the differences between an education system for the masses and an education system for de elite, but also competences that graduates should possess when entering the labor market. Also, Biesma, Pavlova, van Merode, Groot, (2006); Husain, Mokhtar, Ahmad, Mustapha, (2010) focused on finding the most appropriate ways in mapping universities program study offer to employers requirements. Also, the authors of this paper are preoccupied in mapping the program study offer to employer requirements in order to assure a fast insertion of graduates of the German Study Line.

### **3. Conclusions and discussions**

Current research sample shows an overview on current tendencies and trends regarding the evolution of higher education within the last years. Even though only some indicators were chosen to perform this analysis, one may notice the most important trends at European level: an increase of enrollments within tertiary education, an increase of students' international mobility, but relatively reduced public funding in matters of education. These aspects lead to discrepancies at European and regional level and to possible market disequilibria. However, when analyzing the employment structure, one may notice the relative reduced unemployment rate of university graduates. In mapping employers' needs and curriculum design, further, specific research needs to be performed, focusing on identifying and inserting the needs and requirements of all interested parties as found within the framework described within Ilieș, Pitic, Drăgan, (2011). In this respect, the authors of this paper already performed a research focusing on employers' needs and expectations (in order to increase the employability of graduates) and a research focusing on students' needs and expectations regarding all major processes and activities specific to the higher education system.



#### **4. Acknowledgements**

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- \*\*\* Mobility of students in Europe. Data compilation performed using information provided by INSSE, <http://www.insse.ro/cms/files/statistici/Statistica%20teritoriala%202008/rom/Tabel37.htm>
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