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EDUCATIONAL CHOICES AND PARTICIPATION IN HIGHER EDUCATION IN ROMANIA

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Abstract

Education is a central social institution supporting human capital development and socialisation of youth to adulthood. From this point of view, the passage of individuals through the education system is an important theme of study for social sciences, both for explaining educational attainment, as well as for understanding subsequent outcomes obtained by individuals through their life course (employment, income, health, etc.). Educational trajectories are characterised by various transitions that mark the passing of individuals through the education system. The present paper aims to explore educational choices and participation to higher education in Romania and the way they are being shaped by contextual factors. We analyse statistical and administrative data on participation to higher education, considering the characteristics of the economic environment and institutional settings. Our results are relevant to better inform education related decisions of individuals, as well as for supporting the policy making process.

INTRODUCTION

One important research stream that studies the relationship between education and labour market is the school of thought of Human capital development. According to Woodhall (1997), the concept of human capital refers to the fact that people invest in themselves through education, training or other activities that improve their future wellbeing by increasing earnings over their lifetime. Therefore, this school of thought has tried to provide an answer to the question of how the demand for education is formed, assuming that parents and children consider education as an investment, and not as a good for consuming. The decision whether or not to attend a certain school, to work or enrol in a higher level of schooling is considered by scholars to be a rational decision, in terms of costs and benefits (Hatos, 2006).

During the years of study, students make three main decisions regarding their education: where to study, what to study and when to leave education. Educational pathways give the list of educational options available to students who choose an educational route of general or vocational education, as well as the educational institution where to study. Choosing the field of study represents a decision that is made throughout the child's upbringing and education and can be influenced by both preferences and expected earnings. The decision on when to leave education is mainly influenced by the choice of occupation and the optimum time for entering the labour market, but it can also be determined by other factors such as the need to generate income or provide care for family members (Victoria et al., 2015).

The social cognitive theory documented by the study of Bandura, Barbaranelli, Caprara & Pastorelli (2001) argues that people are self-organizing, proactive and self-regulating agents of their psychosocial development (Bandura, 1997, 1999). This theory offers an agent based explanation of career choice and development. Among the mechanisms of human agency, none is more relevant for the current paper than the perception of the self-efficacy of individuals. Unless people believe they can achieve the desired results through their actions, they are not well-determined to act or to be resilient when facing difficulties. Therefore, perceived self-efficacy is considered an essential factor influencing career choice and development (Bandura et al. 2001).

Transitions from upper secondary education into higher education and/or employment are not always straightforward (Mocanu, 2017). The present paper aims to explore educational choices and participation to higher education in Romania and the way they are being shaped by contextual factors. We analyse statistical and administrative

data on participation to higher education, considering the local economic conditions and features of the institutional environment. After presenting some relevant studies and theories in this field, the paper continues with the presentation of data and the obtained results. The final section includes the main conclusions on patterns of participation to higher education in Romania.

LITERATURE REVIEW

According to a study conducted by Victoria et al. (2015), existing career guidance practices do not provide Moldovan students with adequate and systematic information for making decisions regarding education and professional life. Their research focuses on gaps in information on the costs and benefits of different educational pathways. Such a shortage of information can make it difficult to make decisions related to education and career trajectories. They also analyse various sources of information, especially parents and teachers, to which students who make such decisions ask for advice. Their analysis is based on the initial data collected through mixed methods (quantitative and qualitative) in the Survey of decisions on schooling and professions in Moldova (SDSPM) during the 2014-2015 school year. However, the survey also revealed important gaps in the information available to students regarding the labour market, suggesting possibilities for strengthening information services, which should be addressed not only to students, but also to other people close to them. In particular, parents are the main source of information and are often involved in the decision making, but they often are unprepared to provide advices to their children. Although many students rely on the Internet for guidance, it seems that accurate and relevant information is not available to all students. Particularly important is the fact that students with less educated parents demonstrate the greatest information shortage, which may enhance the inequality of opportunities. The factors that influence educational and career choices are related to existing preferences, individual perceptions and professional opportunities available on the labour market. Restrictive social norms discourage certain groups to develop certain education and professional aspirations. If the expectations for girls are that they do not continue their education beyond the compulsory level, or not make choices regarding schooling involving leaving their home, then these expectations will limit their aspirations and decisions. Normative beliefs can lead to occupational segregation by gender, which is high in European countries (Burchell, Hardy, Rubery, & Smith, 2014). Furthermore, Victoria et al. (2015) show that decisions regarding education are

influenced by the student's social network, where parents have the greatest influence. Although individuals are the ones who make decisions regarding their own educational path and future career, in fact, members of the social network participate in the process of making these decisions. Parents are the basis of this social and information network. They can filter information that reaches children, reinforce social norms, or send signals about the child's ability in certain areas.

On the other hand, information on labour market conditions is essential for decisions on education. According to Gary Becker (1962), an individual who makes a decision on education, examines the expected benefits of a particular educational route in terms of expected earnings and compares them with the costs of education, both direct (such as tuition fees, textbooks costs and other expenses) and indirect (such as the earnings you give up for day program schooling). Even with the perfect available information, students may not allow themselves to follow the desired educational path, if they cannot fund their participation to education. As a result, they may have to choose schools where tuition fees are cheaper, or shorter-term study programs, schools that are closer to home, or professions that allow them to combine work with school (Osman 2014).

It has been found that better information can improve the level of education. For example, Jensen (2010) provided some students in the Dominican Republic accurate information on the labour market conditions, and they recorded a significantly higher educational attainment, over the next four years, compared to students who did not benefit from such information. Wiswall and Zafar (2015) have provided university students with objective information on the outcomes of different areas of specialization on the labour market. They discovered that the students' beliefs have adjusted to that information, which had a long-term impact and a significant increase in wellbeing (Victoria et al., 2015).

As Bandura et al. (2001) pointed out, perceived self-efficacy plays a central role in the causal structure of social cognitive theory, because beliefs about efficacy determine adaptation and change both directly, but also through their impact on other determinants. Such beliefs shape aspirations and the commitment to these aspirations, the quality of the analytical and strategic thinking, the level of motivation and perseverance in the face of difficulties and failures, the resistance to adversity, the explanations of successes and setbacks, and the vulnerability to stress and depression (Bandura, 1995, 1997; Locke and Latham, 1990; Maddux, 1995; Schwarzer, 1992; Zimmerman & Schunk, 1989). The higher people's perceived efficacy to fulfil educational requirements and occupational

roles, the wider the career options they consider worthy to follow, the greater their interest in them, the better they prepare themselves educationally for different occupational careers, and the greater their ability to cope with challenging careers.

The study of Bandura et al. (2001) analysed the multiple socio-cognitive origins of children's emerging beliefs about their occupational effectiveness and their impact on career-related choices in a critical period of their educational life. They used a conceptual model that tested patterns of influence of socioeconomic, family, perceived self-efficacy and academic achievement within a four-linked causal structure. The first element in the conceptual model refers to the impact of socioeconomic status on parental efficacy and aspirations. According to social cognitive theory (Bandura, 1986, 1997), socioeconomic factors influence children's developmental pathways mainly through their impact on family. Economic difficulties affect the course of children's development more through its influence on familial processes rather than directly by undermining parents' capacity to develop their children's skills and to protect them from risky environments that can compromise successful development (Elder, 1995). The level and quality of parents' involvement in children's education is a decisive element in the children's educational process, with the involvement of parents having a positive role in the educational process (Jeyes 2003; Fan & Chen 2001; Ilisei, 2016). Additionally, parents' involvement in the educational process influences the way children relate to school and learning, which determine positive effects on how children and students make decisions about their educational path. The other three elements of the conceptual model are: (1) the parents who exert their influence on children's choice and career development, (2) children's perceived self-efficacy and academic aspirations affect educational achievements and subjective career efficacy, and (3) links between perceived occupational efficacy and career choices. They found that socio-economic status does not have direct effects on children's self-perceived efficacy, aspirations and academic achievements, perceived professional effectiveness or career choices. The higher the socioeconomic status of the family, the stronger the parents' beliefs in their effectiveness in supporting the academic development of their children and the higher the educational aspirations for them. Parents' beliefs in their effectiveness in fostering the education of their children also increase academic aspirations for their children. All three forms of self-efficacy perceived by children contribute to their beliefs in professional effectiveness, but perceived academic self-efficacy has the most diverse impact. Also, perceived professional self-efficacy determines the types of professional careers that children consider

in life and those they avoid. The perceived efficacy of the children, rather than their academic achievement, is the key determinant for the perceived professional self-efficacy, influencing career choice (Bandura et al., 2001).

DATA

As stated in the introduction, the present paper analysis both statistic and administrative data on participation to higher education, considering the economic and institutional features. Statistical data that measure participation to higher education and economic development at regional level are provided by Eurostat. Administrative data come from national sources such as Integrated Educational Register (Ministry of Education) and National Authority for Qualifications. The analysed data are as follows:

- Participation in higher education and economic development, by regions
- Success rate at the admission into higher education
- Distribution of students entering higher education by the year of completion of upper secondary education, by type of university
- Hierarchy of universities according to the number of students and study programs, by level of education.

MAIN FINDINGS

Figure 1 presents the participation in higher education and economic development at the regional level in Romania. The participation in higher education is measured as the ratio of the proportion of tertiary students over the proportion of the population, indicating variations in the propensity of regions for higher education. Only three regions register ratios higher than 1, showing a level of participation in higher education higher than their share of population: Bucharest-Ilfov, North-West and West. Moreover, Bucharest-Ilfov region registers a ratio three times higher as compared with other regions, indicating a strong polarization between regions. The other five regions display a participation in higher education below their share of population, representing a shortage in terms of educational attainment. Lowest performances are registered by Southern regions - South-Muntenia (0.3%), South-West Oltenia (0.5%) and South-East (0.6%). Additionally, Figure 1 presents the level of regional gross domestic product, highlighting the link between local economic conditions and participation to higher education.

Figure 2 shows the success rate at the admission into higher education, in the academic year

2018/2019, of the students who passed the baccalaureate exam in the year 2018. 70% of students who promoted high school Baccalaureate final exam have transitioned into higher education. Moreover, two thirds of youth (67%) have enrolled in state universities and only 3% of students in private universities. So, one can notice that 30% of youth who were eligible for enrolment in higher education choose not to continue their education at that moment or not to continue their education in Romania.

Figure 3 presents the distribution of students enrolled in the first year of Bachelor studies in both state and private universities in the academic year 2018/2019, considering the time when they passed the Baccalaureate exam. A high share of students enrolled in universities in the academic year 2018/2019 completed upper secondary education in the same year (59%). The remaining 41% of students who enrolled in higher education in the academic year 2018/2019 passed the baccalaureate in previous years. So, 6 out of 10 students are characterized by a so-called linear transition, with no interruption between upper secondary education and higher education. On the other hand, one can see in Figure 4 that the majority of students enrolled in the first year in state universities (77%) have graduated high school in the same year (2018), while 23% of them graduated in previous years. Analysing the distribution of students from private universities (Figure No. 5), one can see a different pattern - the majority of students graduated upper secondary education in previous years (64%) and about one third (36%) of the students enrolled in private universities graduated in the same year of transition into higher education. Table 1 shows the top ten state universities in Romania by the number of students enrolled in the academic year 2009/2010, including tax-based and budget subsidised students. The number of students has been divided by the study program. Babes - Bolyai University registers the highest number of undergraduate students in the academic year 2009-2010, followed by the "Alexandru Ioan Cuza" University of Iasi and University of Bucharest. Also, the highest number of Master students were enrolled in the Bucharest University of Economic Studies, followed by Babes - Bolyai University and the University of Bucharest. In the PhD studies, the highest number of students were in the University of Bucharest, followed by University Politehnica of Bucharest and Babes-Bolyai University. If we consider the distribution of students in universities by regions, we find out that the largest number of students were in the Bucharest-Ilfov region, followed by North-West region, which can be correlated with the higher economic development in these two regions. Table 2 displays the top ten state universities in Romania by the number of students enrolled in the academic year 2018/2019,

including tax-based and budget subsidised students. Due to the demographic decline, the number of students enrolled in higher education has decreased from the academic year 2009/2010 to the 2018/2019 in all study programs and in the majority of the universities. Babes - Bolyai University remained the university with the largest number of students. Thus, the highest number of students, both in the Bachelor and Master studies as well as in the doctoral studies, is to be found in Babes-Bolyai University, University of Bucharest and Bucharest University of Economic Studies. Similar to the academic year 2009/2010, it can be seen that the regions with the highest number of students are the Bucharest-Ilfov and the North-West regions. Also, the number of students in universities from the Central region increased considerably from the academic year 2009/2010 to 2018/2019. So, one can see that the universities most preferred by students remained partially the same in the period 2009-2019, namely those from in the Bucharest-Ilfov and North-West regions. Moreover, as it is stated above, universities from these regions attract also students from other regions who perform educational decisions based on opportunities and information available to them. The variety of Bachelor or Master Programs existing in a university can influence the number of students that choose to enrol to that university. Therefore, a larger number and a more varied selection of programs in a university may influence a student to choose that university, compared to a university that provides a smaller number of the programs options. Table 3 displays the top ten universities by the number of validated and registered Bachelor programs (in the period 2015-2019). The top universities according to the number of study programs presented in this table show that most of them are universities with a high number of students, except for two universities from the South-East region ("Dunarea de Jos" University of Galati and "Ovidius" University of Constanta). Even though these universities have a large number of undergraduate programs, they are not among the universities with a high number of students. This may be due to the fact that students from the region choose other higher education institutions (for example, "Alexandru Ioan Cuza" University of Iasi or universities from Bucharest-Ilfov). Table 4 shows the top 10 universities by the number of validated and registered Master programs. This table shows that most universities that have a large number of master's programs also have a large number of students enrolled. However, there are two exceptions, a university from the West region (Technical University of Timisoara) and a university from the South-East region ("Dunarea de Jos" University of Galati).

CONCLUSIONS

The educational choices and participation in higher education are influenced by the benefits expected after completing tertiary education such as better prospects on the labour market and well-paid jobs. As a result, Romanian students choose universities in which they enrol by taking into account the available opportunities, as well as the local economic conditions, confirming the theory of professional self-efficacy presented in Bandura et al. (2001) study.

On the other hand, data on educational choices highlight various pathways and patterns of transition into higher education. Two main models of participation in higher education are to be found in Romania. One model is represented by students who enrol in state universities in the same year in which they have passed the final exam of upper secondary education (Baccalaureate). The second model is represented by students who decide to interrupt their educational career between the completion of upper secondary education and transition into higher education or to participate to a second Bachelor program. In this case, they have a higher probability of transitioning in the private sector of higher education. Concluding, linear transitions into higher education are associated with the enrolment into state universities, while interrupted and atypical transitions are characterised by the enrolment into private universities. In this way, our results confirm the theories on horizontal stratification in education following the expansion of education (Lucas, 2001).

Acknowledgement

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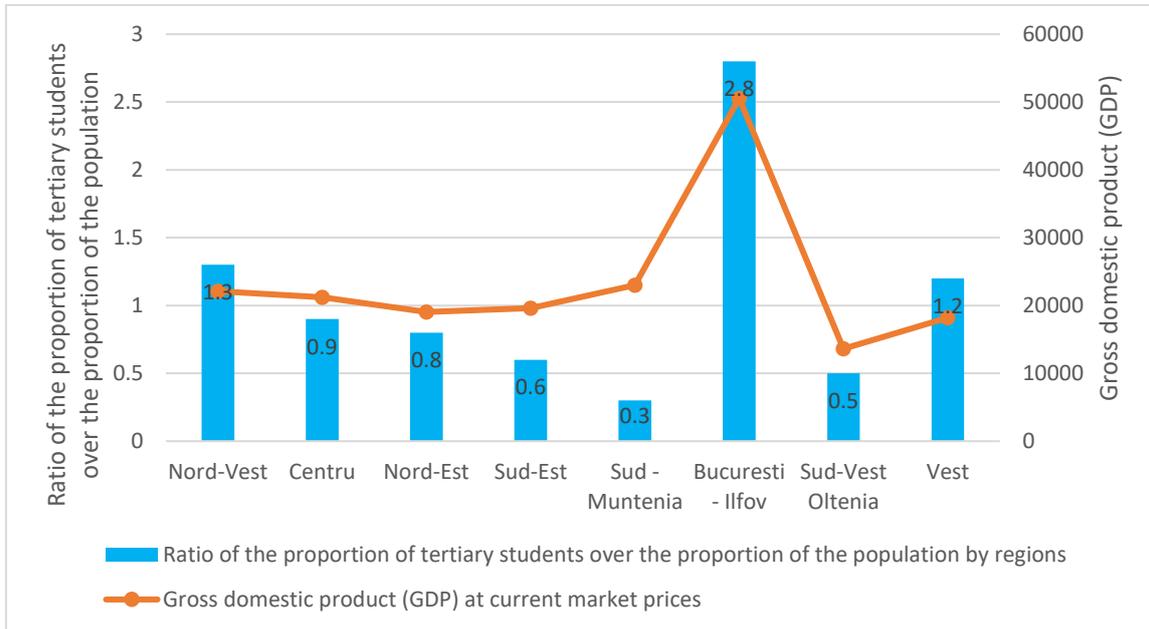


Figure No. 1
Participation in higher education and economic development by regions in Romania, 2017
Source: Eurostat, [educ_uoe_enrt05] and [nama_10r_3gdp]

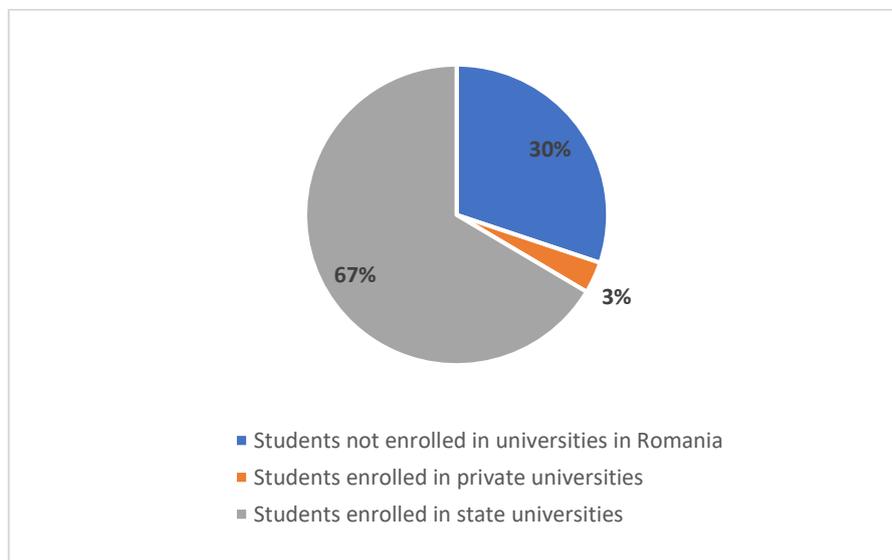


Figure No. 2
Success rate at the admission into higher education (academic year 2018/2019) of the students who passed the baccalaureate in 2018
Source: Integrated Educational Register, link: <https://rei.gov.ro/>

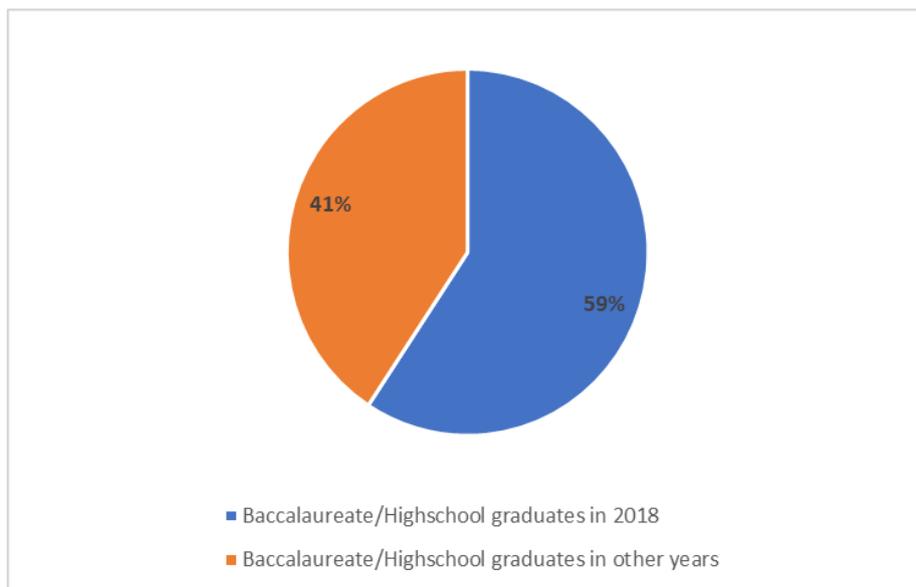


Figure No. 3
Students enrolled in the first year of Bachelor studies (2018/2019), in all universities
Source: Integrated Educational Register, link: <https://rei.gov.ro/>

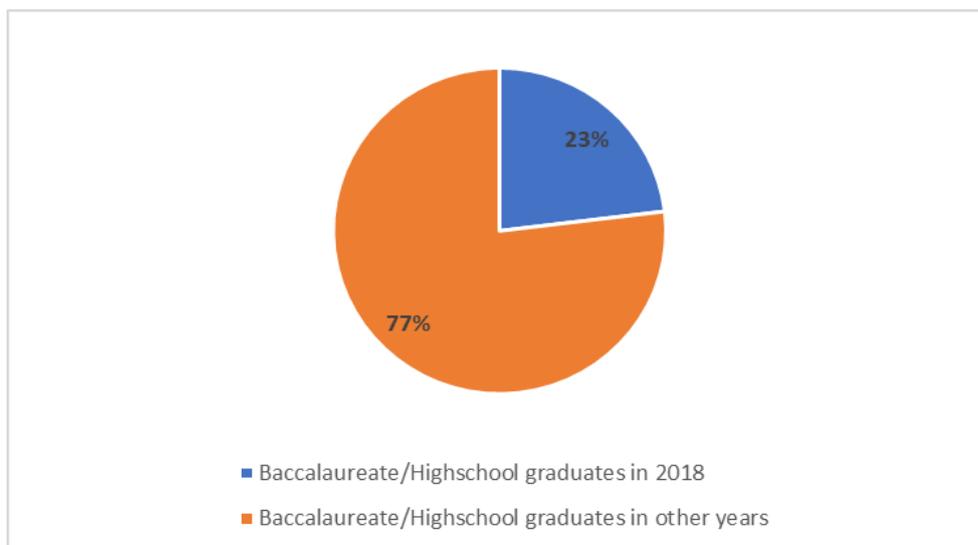


Figure No. 4
Students enrolled in state universities in the first year of Bachelor studies (2018/2019)
Source: Integrated Educational Register, link: <https://rei.gov.ro/>

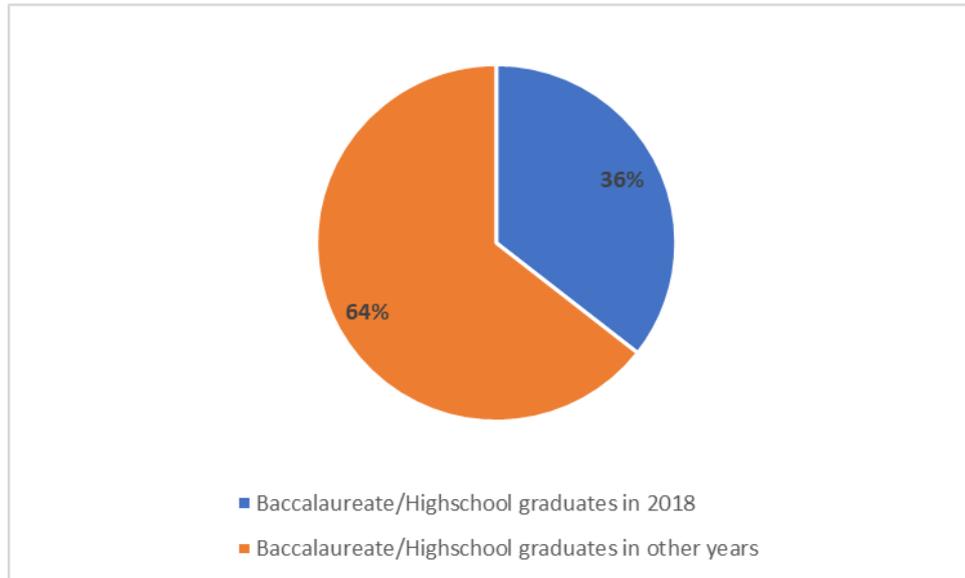


Figure No. 5

Students enrolled in private universities in the first year of Bachelor studies (2018/2019)

Source: Integrated Educational Register, link: <https://rei.gov.ro/>

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Table No. 1

Top 10 universities by the number of students enrolled in the academic year 2009/2010

University	Bachelor Studies	Master Studies	PhD studies
Babes - Bolyai University	39240	9628	2236
"Alexandru Ioan Cuza" University of Iasi	29569	9432	1567
University of Bucharest	24777	9610	3400
Bucharest University of Economic Studies	18602	14748	1330
University of Craiova	21563	6942	783
Lucian Blaga University of Sibiu	18650	7473	737
University Politehnica of Bucharest	16424	6201	2581
Transilvania University of Brasov	18618	4189	758
University of Oradea	16440	5123	571
West University of Timisoara	14697	6357	1070

Source: Integrated Educational Registry, link: <https://rei.gov.ro/>

Table No. 2

Top 10 universities by the number of students enrolled in the academic year 2018/2019

University	Bachelor Studies	Master Studies	PhD studies
Babes - Bolyai University	29248	7860	1231
University of Bucharest	22301	8023	1341
University Politehnica of Bucharest	19250	7545	2119
Bucharest University of Economic Studies	15966	5992	926
"Alexandru Ioan Cuza" University of Iasi	16547	5240	772
Technical University of Cluj-Napoca	15693	4378	871
Transilvania University of Brasov	15430	3201	455

University of Craiova	12651	4307	475
Lucian Blaga University of Sibiu	11204	2746	467
University of Oradea	11125	2678	466

Source: Integrated Educational Registry, link: <https://rei.gov.ro/>

Table No. 3

Top 10 universities by the number of validated and registered Bachelor programs in RNCIS (2015-2019)

<i>University</i>	<i>Number of programs</i>
Babes - Bolyai University	274
Alexandru Ioan Cuza University of Iasi	140
University of Craiova	109
"Dunarea de Jos" University of Galati	104
University Politehnica of Bucharest	101
Technical University of Cluj-Napoca	90
West University of Timisoara	90
University of Bucharest	89
Lucian Blaga University of Sibiu	85
„Ovidius” University of Constanta	83

Source: National Authority for Qualifications, link: <http://site.anc.edu.ro/statistica/>

Table No. 4

Top 10 universities by the number of validated and registered Master programs in RNCIS (2015-2019)

<i>University</i>	<i>Number of programs</i>
Babes - Bolyai University	253
University of Bucharest	224
University Politehnica of Bucharest	199
Alexandru Ioan Cuza University of Iasi	190
West University of Timisoara	111
University of Craiova	104
The Technical University of Timisoara	94
"Dunarea de Jos" University of Galati	93
Bucharest University of Economic Studies	92
Technical University of Cluj-Napoca	87

Source: National Authority for Qualifications, link: <http://site.anc.edu.ro/statistica/>