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# DEMOGRAPHIC CONSTRAINTS AND THE CONTRACTION OF THE ROMANIAN HIGHER EDUCATION SYSTEM

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## A b s t r a c t

Predictably, Romania's higher education system has been influenced by the socio-political, economic and demographic changes during the post-communist transition. Under the communist regime, the implemented natalist policies resulted in population growth to record numbers of over 23 million inhabitants. However, the number of students and their proportion in the general population remained low due to a systemic limitation of access to higher education enacted by the regime in its last decade.

After 1989, the Romanian higher education system initially experienced an expansion phase driven by the liberalization of access, increased demand from the public, and a growing supply of programs offered by both public and private universities. This phase lasted until 2008 when student enrollment peaked at over 900,000. Following this, the system entered a contraction phase, and starting in 2014, the number of students stabilized at approximately half a million.

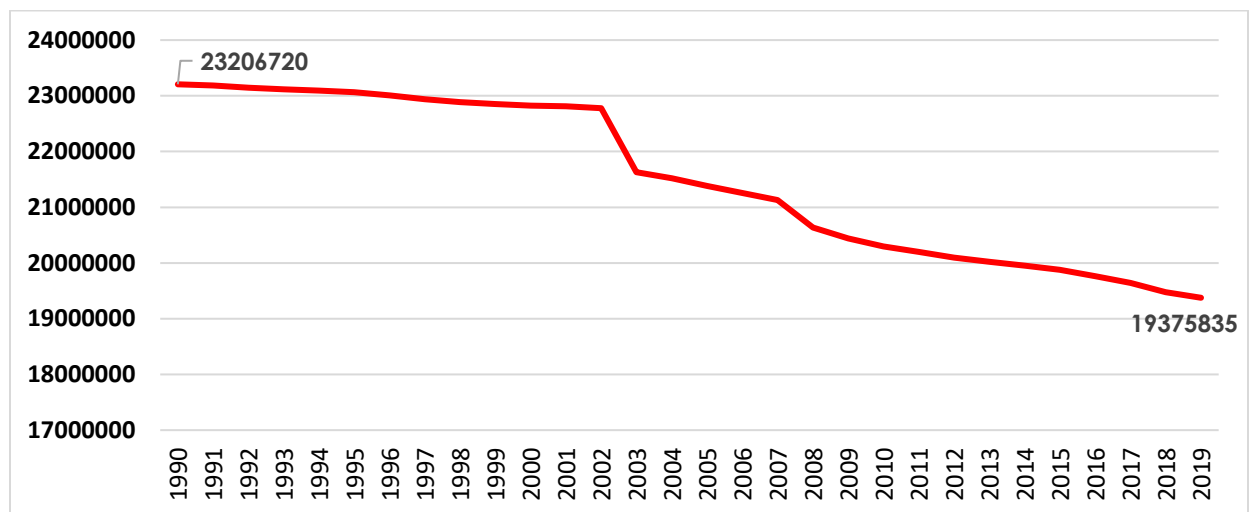
This contraction phase is attributable to a combination of factors, including changes within the higher education system (the first generations of Bologna students graduate faster), the failure of private universities, or the gradual exhaustion of the number of non-traditional students (those who were denied access to higher education during the communist regime) and finally, several demographic factors that are the subject of this milestone.

### **1) *General decrease in the general population***

Over the past 30 years, the general population of Romania has decreased by approximately 20%, from 23,206,720 in 1990 to 19,375,835. In fact, there has been no year during this period in which the national population increased. In 1997/1998, the population fell below 23 million; in 2003/2004, it dropped below 22 million; in 2008/2009, below 21 million; and in 2014/2015, it fell below 20 million. Notably, in the period immediately preceding the contraction phase, Romania lost one million people in just five years.

Two key factors explain this decline: first, the drop in birth rates, and second, the sustained external migration flows. The natural population increase turned negative in 1992 (with deaths exceeding births), and the situation has only worsened as the number of newborns continues to decline. Fertility rates followed a similar downward trend. For example, among the cohort reaching higher education age after 2008, the fertility rate was 68.4 in 1988, 66.3 in 1989, 56.2 in 1990, and 48.7 in 1991. By 2005, it had fallen to 40.9, recovered slightly to 44.4 by 2010, then to 42.4 in 2015, and finally to 41.7 in 2020.

Equally significant is the decrease in the average number of children per woman. This figure dropped sharply during the 1990s, falling from 2.2 in 1989 to 1.8 in 1990 and then to 1.3 by 1995. Starting in 2001, it stabilized at 1.2 until 2008, when values began to recover. As of 2020, the average number of children per woman was 1.6.



*Figure 1 The evolution of population in Romania between 1990-2019*

## 2) Sustained migration

Migration contributed to the reduction of the overall Romanian population. Since the fall of communism, Romania has experienced substantial emigration, with many young people seeking better opportunities abroad. Considering the purpose of our analysis, if we analyze the migration flows by considering age groups, we can observe that the 20-24 age group has a significant share in the total amount. It is reasonable for us to assume that, at least in part, members from this group migrate for educational purposes, i.e. to continue their studies abroad.

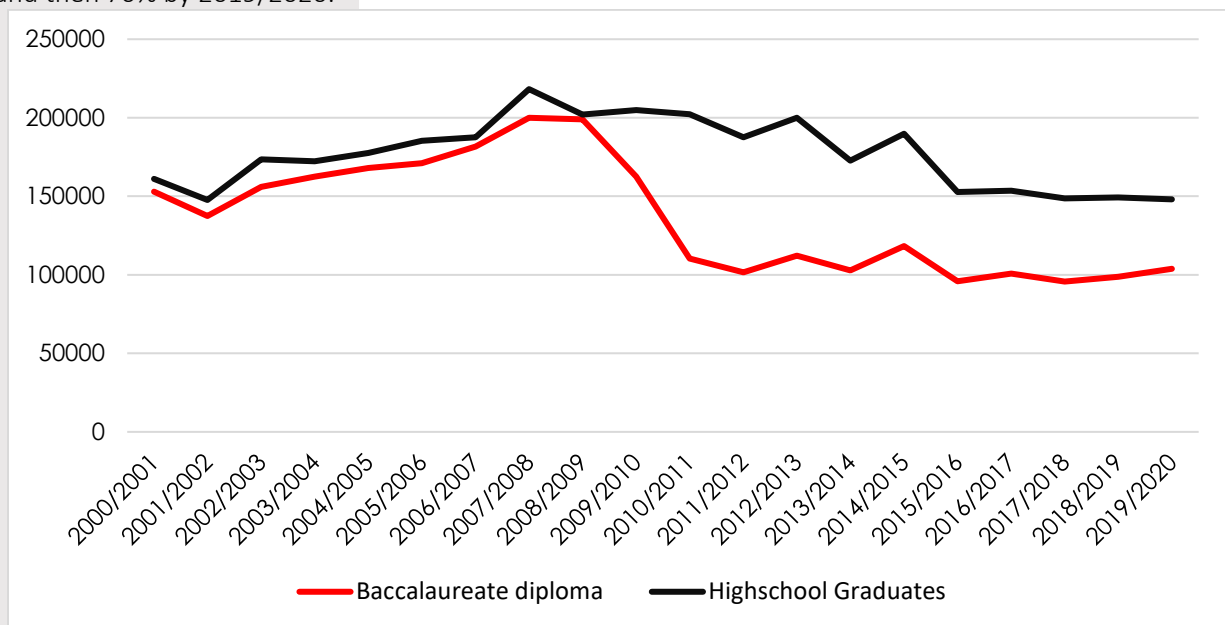
The data we analyzed reveals a significant and sustained emigration trend between 2007 and 2018 (and even earlier, although data prior to this year is less clear due to changes in the presentation mode). The year-by-year number of emigrants steadily increased, peaking in 2017 at 242,193. In the same year, the 20–24 age group had the largest representation, accounting for 18% of all emigrants (43,705 individuals).

## 3) Changes to the recruitment pool

Following the trend of the general population, the age group 20–24, which typically includes what we consider traditional students, similarly declined. This age group decreased from 1,955,437 in 2000 to

1,721,709 in 2010 and then more abruptly to 1,002,712 in 2020. By seeing these values, we can see that the recruitment pool for higher education decreased by half in the referenced period.

Nevertheless, the changes are more profound. The primary condition for entering the higher education system is for students to pass the baccalaureate exam. Here, we also see a decrease in numbers. Although the number of high school graduates increased in the first part of the last 20 years from 161,106 in 2000/2001 to a maximum of 218,205 in 2007/2008, following the gradual decrease in the general population, their number went down again to 148,005 as of 2019/2020. More dramatic is the decrease in the proportion of high school graduates that got their baccalaureate diploma. If in 2000/2001, 95% of graduates passed the baccalaureate exam, the value decreased after 2009, to a low of 54% by 2011/2012n and then 70% by 2019/2020.



*Figure 2 The evolution of high school and baccalaureate graduates*

It is also important to consider the impact of early school leavers, as school dropout rates further reduce the recruitment pool for higher education. For instance, in 2009/2010, the dropout rate was 1.7% for primary and lower secondary education, 2.4% for high school education, and 8.3% for professional education. Despite efforts to address this issue, little progress has been made in reducing dropout rates. By 2014/2015, the rates had shifted slightly to 2% for primary and lower secondary education and 3.5% for high school. Five years later, in 2019/2020, these rates were 1.3% and 2%, respectively, indicating limited improvement over the decade.