

# Equity Challenges in Romanian Education: Towards Sustainable Education for all Students

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## **Abstract**

*This article aims to analyze, from the perspective of the objectives of sustainable development, as they were stated in the report of the World Commission of Environment and Development (WCED), "Our Common Future", the challenges faced by the education system in Romania, especially those that come from the perspective of equity, ensuring access to education (regardless of level), its ability to offer equal chances and opportunities that allow students to develop and reach their own potential. The multiple reforms of the system had the objective of increasing quality, adapting it to the fast pace of changes in society, economy or technologies, to the prospects of preparing graduates for a better insertion in a labor market that is also changing.*

*Beyond the output of the system, which can be evaluated from the perspective of sustainable development, it is important that the system itself evaluates to what extent it satisfies these objectives. To what extent is the equity of the system ensured, how deep are the gaps between urban and rural environments in terms of access to resources, to what extent is social inequity reproduced in the educational system, how much is the principle of equal opportunities respected, are aspects of maximum importance in defining a sustainable education system.*

*The main objective of the article is to realize an econometric model between dropout rate and the proportion of education expenditures.*

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**JEL classification:** O11, I21, C41, I28, I22.

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## **1. State of art**

Education is increasingly seen as something the state owes its citizens and its responsibility to ensure an equitable education, quality and equality in opportunities for all students. Schools must provide well-trained graduates, so they meet the demands of a challenging labor market. For example, some students achieve better results than others, have the opportunity to attend better schools or do more years of schooling, following more forms of education (Gorard and Smith,

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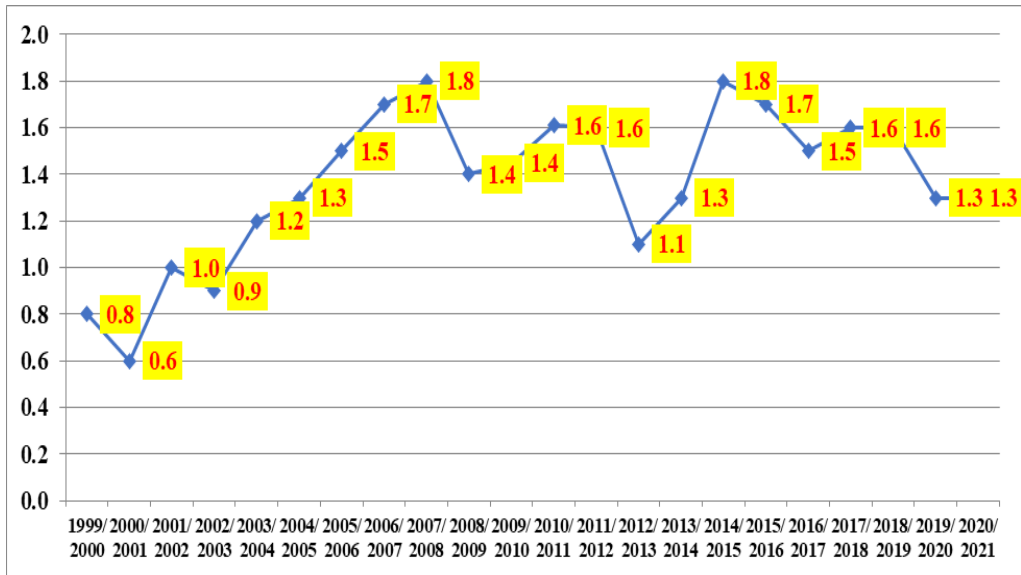
2004). This refers to having access to the same resources so everyone satisfies their educational needs and must be effective in non-discriminatory treatment (Jurado De Los Santos *et al.*, 2020).

Equity in education measures the achievement of every individual student, is given fair treatment and opportunities for success (Ling and Nasri, 2019). It is manifested in aspects like academic results and quality education, allowing students to access to higher education, equal opportunities regardless of gender, social or ethnic origin, level of income and thus, break the inequity gap (Francis *et al.*, 2020). Since Brundtland Report (1987) we are witnessing a paradigm shift in terms of the educational act, from "compete and consume" to "care and conserve", taking into consideration a sustainable out-put of educational system, attitude changing and competencies for sustainable development (Sterling, 2001). There are social costs regarding under-achievements of educational systems in providing equity. Low status students may be underrepresented in high-schools and universities and presents higher risk of being enrolled in special education or drop out school (Breen and Jonsson, 2005). That recalls concrete actions, reforms and equity enhancing programs regarding curriculum design, teaching methodology and teachers training (Van Den Branden, 2012). Dropping out of school has other causes, as example: bullying, unfavorable relations with teachers, belonging to certain groups where alcohol and drugs are consumed poor school results. (Merce, 2015). A country with a high level of dropout will try to maintain a high degree of employment and also from the point of social cohesion (Gogu, 2014). The level of education is influenced by the public policies adopted in this area (Țoțan, 2019). Statistically, there are 6.4 million young people who drop out of school early. This aspects generates in time lower tax revenues to the state budget and respectively higher public costs (example: payment of the provision of some health services) (Amariei, 2020).

To assess the impact of investment in the Romanian education system and its effectiveness regarding alleviation of school dropout, an econometric model have been performed.

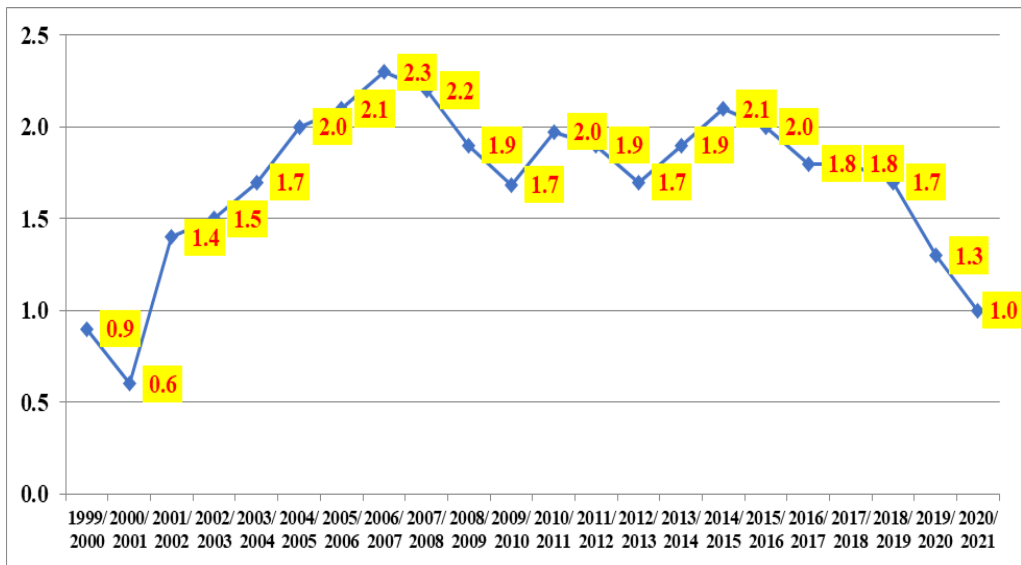
## **2. Analysis of the main indicators for educational system**

The analyze of the drop-out rate for primary education in the period 1999 and 2021 increases from 0.8% in 1999/2000 to 1.3% in 2020/2021 (figure 1). The average drop-out rate for primary education in the period 1999/2000 and 2020/2021 was 1,4%. The drop-out rate increases in the analyzed period with 0.023% from year to year. The maximum value was registered in 2007/2008 and 2014/2015 (1,8%) and the minimum value was registered in the year 1999/2000 (0,8%).



**Figure 1. The evolution of the drop-out rate for primary education in the period 1999/2000 and 2020/2021**

*Source:* National Institute of Statistics, Time Series 1990-2022.

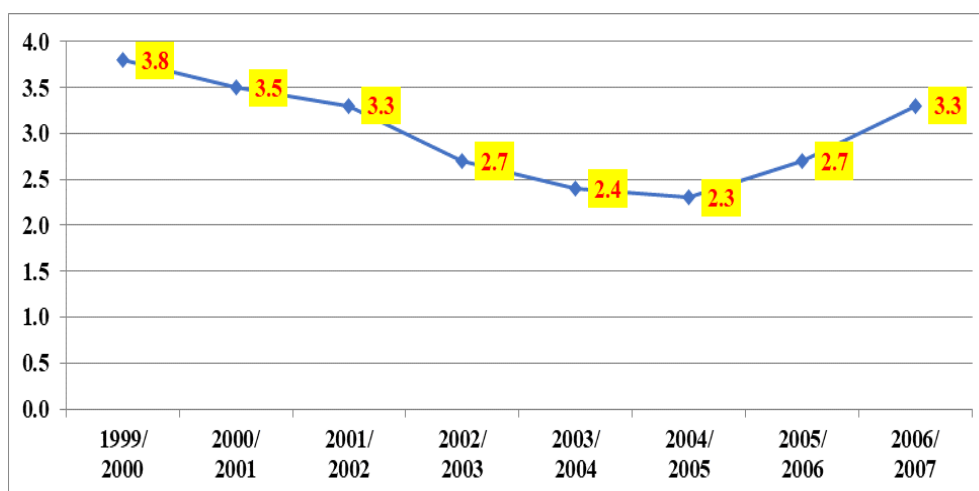


**Figure 2. The evolution of the drop-out rate for lower secondary education in the period 1999/2000 and 2020/2021**

*Source:* National Institute of Statistics, Time Series 1990-2022.

The analyze of the drop-out rate for lower secondary education in the period 1999 and 2021 increases from 0.9% in 1999/2000 to 1% in 2020/2021 (figure 2). The average drop-out rate for lower secondary education in

the period 1999/2000 and 2020/2021 was 1,7%. The drop-out rate increases in the analyzed period with 0.004% from year to year. The maximum value was registered in 2006/2007 (2.3%) and the minimum value was registered in the year 2000/2001(0.6%).

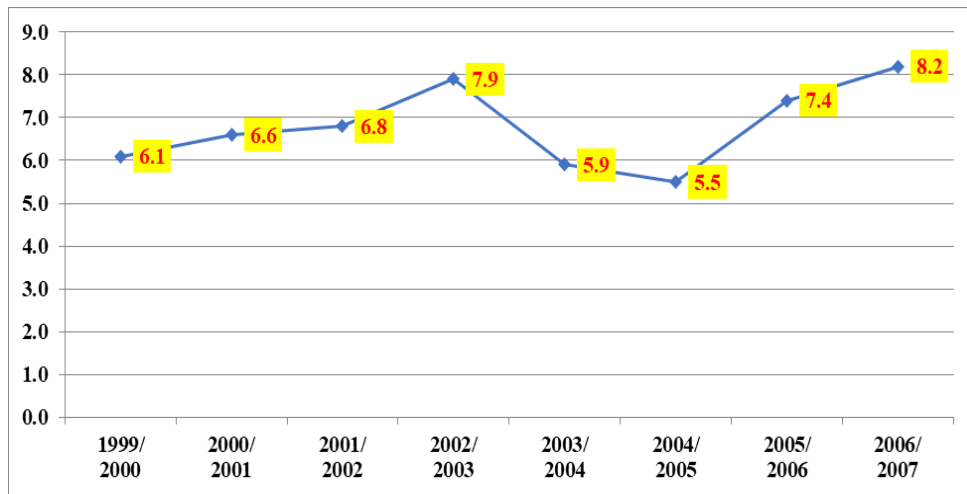


**Figure 3. The evolution of the drop-out rate for upper secondary education in the period 1999/2000 and 2006/2007**

*Source:* National Institute of Statistics, Time Series 1990-2022.

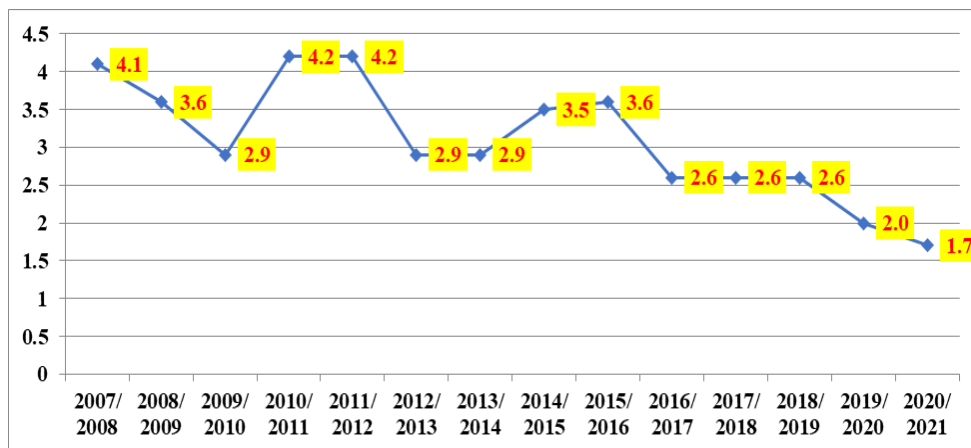
The analyze of the drop-out rate for upper secondary education in the period 1999/2000 and 2006/2007 decreases from 3.8% in 1999/2000 to 3.3% in 2006/2007 (figure 3). The average drop-out rate for upper secondary education in the period 1999/2000 and 2006/2007 was 3%. The drop-out rate decreases in the analyzed period with 0.07% from year to year. The maximum value was registered in 1999/2000 (3.8%) and the minimum value was registered in the year 2004/2005 (2.3%).

The analyze of the drop-out rate for vocational and apprenticeship education in the period 1999/2000 and 2006/2007 increases from 6.1% in 1999/2000 to 8.2% in 2006/2007 (figure 4). The average drop-out rate for vocational and apprenticeship education in the period 1999/2000 and 2006/2007 was 6.8%. The drop-out rate increases in the referenced period with 0.3% from year to year. The maximum value was registered in 2006/2007 (8.2%) and the minimum value was registered in the year 2004/2005 (5.5%).



**Figure 4. The evolution of the drop-out rate for vocational and apprenticeship education in the period 1999/2000 and 2006/2007**

*Source: National Institute of Statistics, Time Series 1990-2022.*



**Figure 5. The evolution of the drop-out rate for upper secondary and vocational education in the period 2007/2008 and 2020/2021**

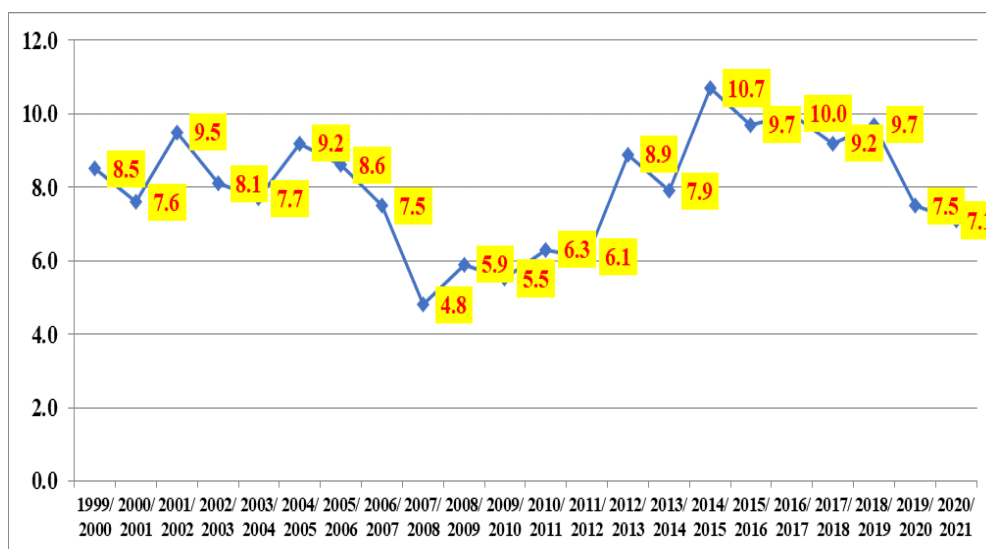
*Source: National Institute of Statistics, Time Series 1990-2022.*

The analyze of the drop-out rate for upper secondary and vocational education in the period 2007/2008 and 2020/2021 decreases from 6.1% in 2007/2008 to 1.7% in 2020/2021 (figure 4). The average drop-out rate for upper secondary and vocational education in the period 2007/2008 and 2020/2021 was 3.1%. The drop-out rate decreases in the analyzed period with 0.18% from year to year. The maximum value was registered in 2006/2007 (8.2%) and the minimum value was registered in the year 2004/2005 (5.5%).

The analyze of the drop-out rate for post-secondary non-tertiary education in the period 1999/2000 and 2020/2021 decreases from 8.5% in 1999/2000 to 7.1%

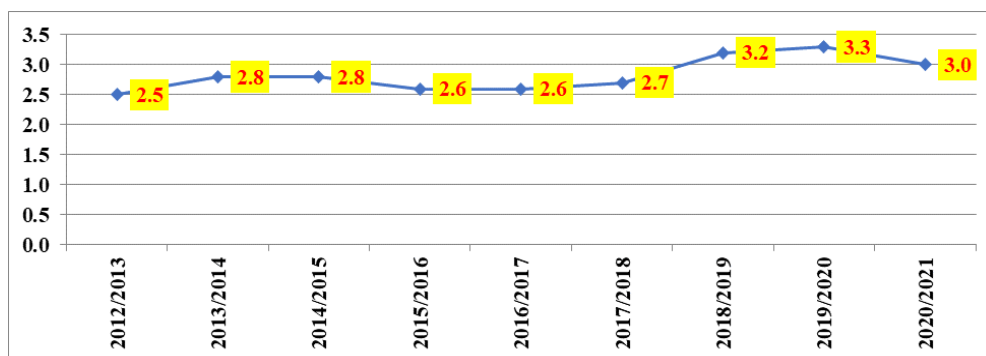
in 2020/2021 (figure 5). The average drop-out rate for post-secondary non-tertiary education in the period 1999/2000 and 2020/2021 was 8%. The drop-out rate decreases in the analyzed period with 0.06% from year to year. The maximum value was registered in 2010/2011 and 2011/2012 (4.2%) and the minimum value was in the year 2020/2021 (1.7%).

From figure 6, we can conclude that the proportion of public expenditures on education in GDP increases from 2.5% in 2012/2013 to 3% in 2020/2021. The mean value for the proportion of public expenditures on education in GDP for the analyzed period was 2.8%. The proportion of the public expenditures as a percent in GDP increases form year to year with 0.02%. The maximum value was in the year 2019/2020 (3.3%) and the minimum value was in the year 2012/2013 (2.5%).



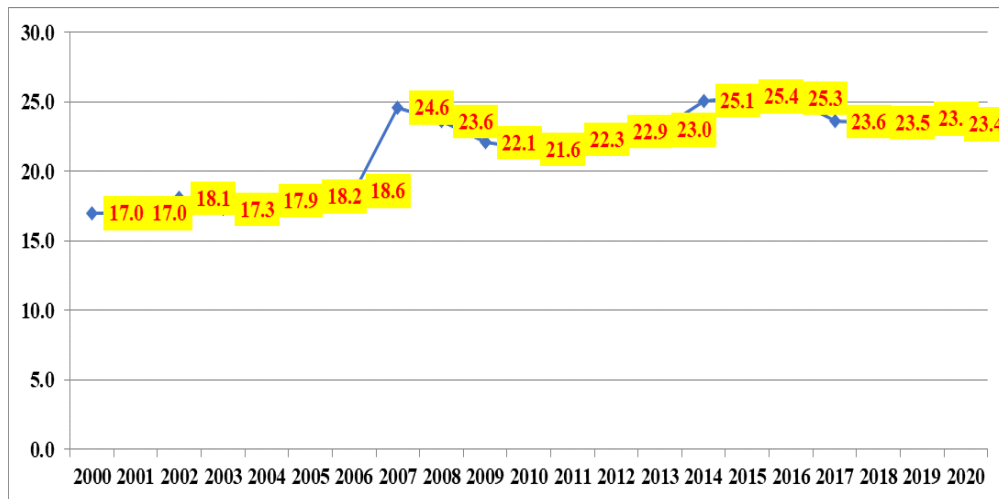
**Figure 5. The evolution of the drop-out rate for post-secondary non-tertiary education in the period 1999/2000 and 2020/2021**

Source: National Institute of Statistics, Time Series 1990-2022.



**Figure 6. The evolution of proportion of the public expenditures on education in GDP between 2012/2013 and 2020/2021**

Source of data: National Institute of Statistics, Time Series 1990-2022.



**Figure 7. The evolution of poverty rate between 2000 and 2020**

*Source:* National Institute of Statistics, Time Series 1990-2022.

From figure 7, we can conclude that the poverty rate increases from 17% in 2000 to 23.4% in 2020. The mean value of the poverty rate in the analyzed period was 21.63%. The poverty rate increases from year to year with 0.33%.

### 3. The econometric model

We made an econometric model between the proportion of the public expenditures in total GDP and the drop-out rate between 2012/2013 and 2020/2021.

The model is statistically significant. The coefficients are significant different from 0. The coefficient of correlation is -0.58. Between the drop-out rate in the upper-secondary and vocational education (%) and the proportion of the public expenditures on education in the period 2012/2013 and 2020/2021 is indirect and on average intensity.

The equation of regression is:

Proportion of public expenditures on education (% in GDP) = 3.54-0.26\*Drop-out rate in the upper-secondary and vocational education

If the drop-out rate in the upper-secondary and vocational education increases with 1%, then the proportion of public expenditures on education (% in GDP) will decrease with 0.26%.

### 4. Conclusions

Romania started the reform in the field of education, thus succeeding in supporting EU policies and regulations in the field of education. Funding from other states is absent in Romania. Regarding the percentage of GDP spent on education, the minimum was 2.86% in 2010 and the maximum was 4.25% in 2017. In 2015, Romania spends the lowest amount per student (1437.9 euros per year), being the lowest amount than any European country.

The publication of the Brundtland Report in 1987 detailed the concept of “sustainable development”. At the international level, the Paris Agreement on climate change was signed in 2015. It is thus intended to promote change in the way of thinking of individuals that leads to a safer, healthier and more prosperous society. These aspects help to improve the quality of life (Lazarov, 2022).

Romania is among the first countries in the European Union at the dropout rate. The COVID pandemic was one of the primary factors that increased the number of students who dropped out of the education system because they did not have the necessary technology. Among the factors of early school leaving are the increasingly high of poverty. Although the society should support the population to complete the mandatory period of education and professional training, the governors are not involved in solving this problem. This aspects can be concluded from the underfunding of education.

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