

# GENDER EQUALITY IN PUBLIC EDUCATION AS A DRIVER OF INCLUSIVE ECONOMIC DEVELOPMENT IN ROMANIA

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**Abstract:** *The paper analyses the role of gender equality in public pre-university education in Romania as a determinant of inclusive economic development. From a human capital perspective, the study highlights how equitable access to education and the reduction of gender disparities contribute to the formation of skills and future participation in the labour market. The methodology is quantitative and is based on the analysis of secondary data from relevant statistical sources, in particular Eurostat. The results show that, although progress has been made, significant differences persist in terms of school dropout and educational orientation, which requires coherent educational policies oriented towards equal opportunities.*

**Key words:** *gender equality, public education, inclusive economic development, human capital*

## 1. Introduction

Gender equality in education is a fundamental pillar of sustainable development and the building of an inclusive economy, being recognised at the international and European level as a strategic objective of public policies. Reducing gender disparities is essential not only from the perspective of fundamental rights, but also through the role of education in the formation of human capital and the stimulation of economic growth (Kataeva et al., 2025).

From an economic perspective, the human capital theory highlights that investments in education contribute to increasing productivity and generating long-term economic benefits (Eide and Showalter, 2010). However, gender equality is not limited to access to education, but also includes educational outcomes, professional orientation, and opportunities on the labour market (Vasiliu, 2025), given that mechanisms such as gender stereotypes and educational segregation persist.

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Moreover, education plays a key role in shaping social norms and promoting equal opportunities, although it can, at the same time, perpetuate existing inequalities (Karim et al., 2024; Madale et al., 2025). In this context, the concept of gender mainstreaming has become central to educational policies, aiming to integrate the gender perspective and reduce disparities (Kataeva et al., 2025).

At the macroeconomic level, studies highlight that promoting gender equality in education contributes to strengthening institutional equity and expanding development opportunities for girls and boys, with relevant effects on social and economic inclusion. (Godara, 2024; Watanabe and Sasaki, 2026). In Romania, although access to education has improved, important disparities persist, including reversed patterns of vulnerability, in which boys are more exposed to some educational risks, while girls may face difficulties in fully translating educational advantages into labour market outcomes.

In this context, the paper analyses the role of gender equality in public pre-university education in Romania as a determining factor of inclusive economic development, using a quantitative approach based on secondary data.

The originality of the paper lies in its focus on gender equality in Romanian public pre-university education as a component of inclusive economic development, rather than treating education only as a general human capital indicator. While many studies discuss gender equality mainly in relation to higher education or labour market participation, this paper emphasises the pre-university stage, where educational trajectories, stereotypes, and future professional choices are shaped. The analysis is relevant because Romania combines relatively high female participation in education with persistent gendered patterns in dropout, educational orientation, and labour market outcomes. Therefore, the paper contributes to the discussion by linking gender disparities in education with the broader challenge of using human capital more efficiently for sustainable and inclusive economic growth.

The paper is structured as follows: the second section reviews the main theoretical and empirical contributions regarding gender equality in education and its relationship with economic development, while the third section presents the data sources, indicators and methodological approach used in the analysis. The fourth section discusses the main results regarding educational participation, early school leaving and gender-related disparities in Romania. The final section summarises the main conclusions and highlights policy implications for strengthening gender equality and inclusive development.

## **2. Literature Review**

The analysis of gender equality in education has been approached in the literature from interdisciplinary perspectives, including educational economics, sociology, gender studies, and public policy. In general, research converges on the idea that education represents an essential mechanism for reducing gender inequalities, but also a space in which these inequalities can be reproduced and consolidated.

Gender equality in education is defined not only by equal access to educational resources but also by ensuring equitable outcomes and equal opportunities for personal and professional development. In this sense, the literature highlights that simply achieving parity in enrolment rates is not enough to guarantee gender equity (Vasilii, 2025). The dimensions of gender equality include, among others, participation in education, academic performance, choice of fields of study and transition to the labour market. These dimensions are influenced by structural and cultural factors, such as social norms, the distribution of gender roles and educational policies (Raina, 2012). Furthermore, research shows that educational systems can reflect and perpetuate gender stereotypes through curriculum, pedagogical methods, and institutional interactions. These subtle mechanisms influence students' aspirations and contribute to educational and professional segregation by gender (Madale et al., 2025).

On the other hand, education is considered a key factor in promoting gender equality, with the capacity to transform social norms and influence individual behaviours. Through the educational process, individuals acquire not only cognitive skills but also values and attitudes that can contribute to reducing gender discrimination (Karim et al., 2024). Moreover, education contributes to the economic emancipation of women, facilitating their access to better-paid employment opportunities and decision-making positions. Research also shows that promoting gender equality in educational institutions contributes to creating a more equitable framework for training and participation, with important effects on subsequent opportunities for social and economic development (Godara, 2024). However, the literature emphasises that the impact of education on gender equality depends largely on its quality and relevance. Education systems that do not integrate a gender perspective risk perpetuating existing inequalities, even in conditions of equal formal access.

If we look at the relationship between gender equality in education and economic development, it has been extensively analysed in the economic literature. Studies show that reducing gender disparities contributes to increased human capital, which translates into higher productivity and sustainable economic growth (Eide and Showalter, 2010). In addition, gender diversity is associated with higher levels of innovation and economic performance, as diverse groups are better able to generate creative solutions and respond to complex challenges (Watanabe and Sasaki, 2026). At the same time, the literature highlights the fact that gender equality in education contributes to poverty reduction and improved social development indicators, including health and well-being of the population. These multiplier effects emphasise the importance of investing in education as a tool for inclusive development.

In the case of Romania, the literature and international reports highlight a complex situation, characterised by progress in terms of access to education, but also by the persistence of significant disparities in outcomes and opportunities. According to World Bank analyses in the 2023 World Bank report on gender dimensions in the Romanian educational sector, gender equality at the aggregate level hides important differences between groups, and the educational performance of Romanian students is below the

European average. There are also significant differences between urban and rural areas, as well as between socio-economic groups, which amplifies the effects of gender inequalities. A relevant aspect highlighted in the literature is the complexity of gender disparities in education. In many European contexts, boys are more prone to disengagement and early school leaving, while girls often achieve better academic results but may face barriers in the transition to the labour market or remain underrepresented in certain fields of study. However, the Romanian case requires a nuanced interpretation, as recent data indicate that young women may also be highly exposed to early exit from education and training. This shows that gender inequality in education must be analysed in connection with socio-economic vulnerability, territorial disparities, family responsibilities, and labour market opportunities.

Overall, these findings highlight the need for differentiated educational policies adapted to the national context, which simultaneously address the multiple dimensions of gender inequality.

### **3. Materials and Methods**

This research uses a quantitative approach, based on secondary data analysis, to investigate the relationship between gender equality in public pre-university education and inclusive economic development in Romania. The choice of this method is determined by the need to use relevant, comparable and measurable statistical indicators, which allow highlighting gender disparities and their evolution over time. The study has a descriptive and analytical nature, aiming to identify existing patterns in the distribution of educational indicators by gender, as well as to interpret their implications for economic development. The analysis is based on secondary data from official databases and recognised international institutions. The main sources used include: Eurostat, OECD, World Bank, and relevant national statistical reports. Data are aggregated at the national level and, where possible, disaggregated by gender, level of education, and area of residence.

The following indicators were selected to analyse gender equality in pre-university education: access and participation, educational outcomes and educational inequalities. More specifically, the analysis uses indicators such as the number of pupils and students enrolled by education level, early leavers from education and training by sex, and the share of the adult population with at least upper secondary education. These indicators make it possible to assess both the quantitative evolution of educational participation and the gender-related vulnerabilities associated with early exit from education.

The study presents a number of limitations. First, the use of secondary data implies dependence on their availability and quality. Second, the quantitative indicators used do not fully capture the cultural and social dimensions of gender inequalities. Third, the analysis does not allow the establishment of direct causal relationships but only highlights trends and correlations.

#### 4. Results and Discussion

The analysis of Eurostat data on participation in education highlights a downward trend in the total number of pupils and students in Romania, with direct implications for the accumulation of human capital. According to Eurostat data, the school population decreased from approximately 3.72 million in 2015 to 3.43 million in 2024, which represents a reduction of more than 280,000 persons. This evolution is relatively consistent over the period and mainly reflects demographic decline, although its effects may be amplified by the limited capacity of the education system to improve retention and educational performance. By comparison, at the European Union level, the total number of people enrolled in education has remained relatively stable, at around 92 to 94 million, which suggests a greater capacity of education systems to adapt to demographic change. This reduction in the school population has important implications for the future structure of the workforce. As the demographic base shrinks, each educational cohort becomes more economically valuable, while losses due to early school leaving or weak educational outcomes become more costly. In this context, the efficiency of the education system becomes central to supporting long-term economic development.

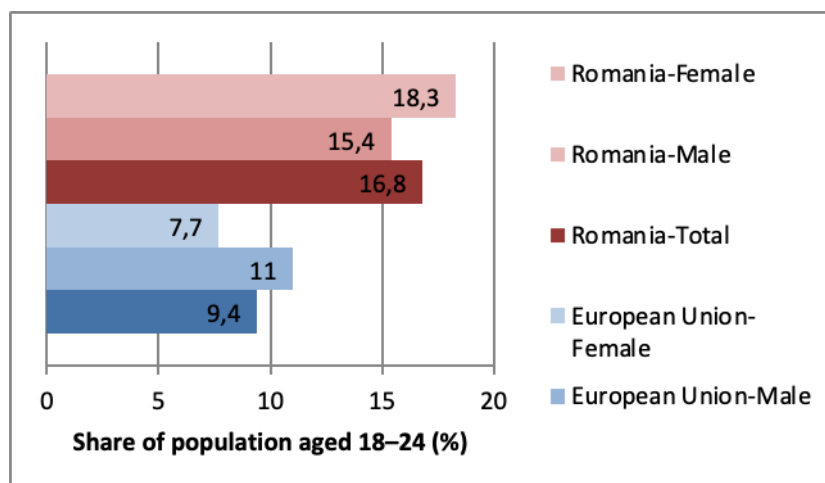


Fig. 1. Early leavers from education and training by sex in Romania and the European Union, 2024 (%)

(Source of data: Eurostat, Early leavers from education and training [edat\_lfse\_16])

**Note:** The horizontal axis represents the percentage of the population aged 18–24 who have completed at most lower secondary education and are not participating in further education or training.

Figure 1 shows that Romania records a substantially higher rate of early leavers from education and training than the European Union average. In 2024, the total rate was 16.8% in Romania, compared with 9.4% at the EU level. This gap points to a persistent

structural vulnerability of the Romanian education system, with direct implications for human capital formation and inclusive economic development.

The gender dimension is also significant. At the European Union level, early school leaving is more frequent among males, whose rate reaches 11.0%, compared with 7.7% among females. In Romania, however, the pattern appears different in the data used here, with a higher rate among females than among males: 18.3% for females, compared with 15.4% for males. This result suggests that gender-related educational vulnerability in Romania cannot be interpreted only through the more common European pattern in which boys are more exposed to early school leaving. Instead, the Romanian case appears to require a more nuanced interpretation that takes into account broader socio-economic conditions, including territorial disparities, household poverty, family responsibilities, and limited access to support services in vulnerable communities.

From this perspective, reducing early school leaving should be considered not only an educational objective but also a priority for gender equality and inclusive economic development. The data therefore support the need for targeted measures aimed at retaining both girls and boys in education, while paying particular attention to the specific vulnerabilities that may affect young women in disadvantaged contexts.

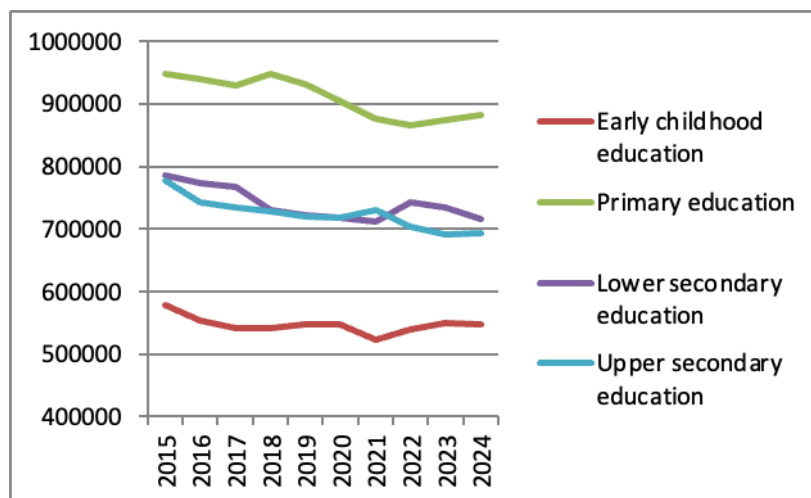


Fig. 2. *Pupils and students enrolled in Romania by education level, 2015–2024*

(Source: Eurostat, Pupils and students enrolled by education level, sex and age [educ\_uoe\_enra02])

**Note:** The indicator is expressed as the number of pupils and students enrolled in Romania, by education level.

While Figure 1 captures a direct gender-related dimension of educational inequality, Figure 2 provides the broader structural context by illustrating the evolution of educational participation in Romania across major pre-university levels between 2015 and 2024. The figure shows a general decline in the number of pupils and students

enrolled at several levels of education, reflecting both demographic pressures and challenges related to retention within the education system.

In early childhood education, participation remained relatively stable, although at a moderate level, decreasing from 578,177 children in 2015 to 547,748 in 2024. This stage is particularly important because participation in early education supports the development of basic cognitive and social skills and may reduce later inequalities. Therefore, limited progress at this level may contribute to the persistence of educational vulnerabilities in later stages.

A downward trend is also visible in primary, lower secondary and upper secondary education. The number of pupils in primary education decreased from 947,205 in 2015 to 881,697 in 2024, while lower secondary education declined from 785,100 to 715,802 pupils. Upper secondary education also registered a decrease, from 777,860 students in 2015 to 694,072 in 2024. From an economic perspective, these reductions are relevant because they point to a narrowing base of future human capital. In a context of demographic decline, each educational cohort becomes increasingly important for the future labour force, productivity, and inclusive economic development. In contrast to these vulnerabilities, the analysis of the educational attainment of the adult population indicates a more positive evolution. The share of people with at least upper secondary education increased from 75.7% in 2013 to 80.2% in 2024, approaching the European Union average of 80.5%. This convergence suggests an improvement in the formal stock of human capital, although it should be interpreted together with the other indicators discussed above.

Taken together, these developments suggest a structural paradox: increasing educational attainment coexists with persistent problems related to educational performance, dropout and unequal opportunities. This pattern may indicate limits in the efficiency of the education system, in the sense that the formal accumulation of qualifications is not always accompanied by a corresponding development of skills and opportunities. From a gender equality perspective, this situation is further complicated by the fact that educational disadvantages and later labour market disadvantages do not necessarily affect girls and boys in the same way.

In this context, the results point to the need for integrated educational policies aimed at both increasing participation and improving the quality of education. Reducing school dropout among vulnerable groups should remain a priority, together with the expansion of access to early childhood education. At the same time, it is necessary to promote gender-sensitive educational guidance and to strengthen the link between education and the labour market in order to ensure a more efficient use of human capital.

Overall, the analysis suggests that educational developments in Romania are shaped by the interaction of demographic, socio-economic, and institutional factors. In the absence of coherent and context-sensitive interventions, these trends may contribute to a suboptimal use of human resources and may limit the country's potential for inclusive economic development.

## 5. Conclusion

This paper analysed the role of gender equality in public pre-university education in Romania as a factor of inclusive economic development, using a quantitative approach based on secondary data. The results show that, although progress has been made in some areas, several structural challenges continue to limit the full use of human capital.

First, the analysis of educational participation indicates a downward trend in the school population, largely associated with demographic developments. This reduction becomes particularly important in a context in which it is not fully offset by substantial improvement in educational retention and overall outcomes. Under these conditions, the efficiency of the education system becomes a critical factor for maintaining and developing human capital.

Second, the high rate of early leaving from education and training remains one of the main vulnerabilities identified in the Romanian case. Romania continues to record values above the European Union average, which suggests persistent difficulties in ensuring educational inclusion. The gender dimension of this phenomenon also requires careful interpretation. While at the European Union level, boys remain more exposed to early school leaving, the Romanian data considered in this paper indicate a higher rate among young women in 2024. This finding suggests that gender inequality in education should be analysed in close connection with broader socio-economic vulnerability and not only through generalised assumptions about male disadvantage.

Third, the analysis of educational participation by level highlights a sustained decrease in the number of pupils and students enrolled in early childhood, primary, lower secondary and upper secondary education. Although these data do not track individual cohorts over time, they clearly point to a contraction of the educational base from which future human capital is formed.

At the same time, the increase in the share of the adult population with at least upper secondary education represents a positive development and suggests a gradual convergence towards the European average. However, this positive trend should be interpreted with caution, given the persistence of problems related to dropout, educational quality and the effective valorisation of skills in the labour market.

From a gender equality perspective, the results highlight the existence of complex and context-dependent disparities. The paper therefore supports the idea that gender equality in education is a key condition for inclusive economic development. However, reducing gender gaps in access alone is not sufficient. A more integrated approach is needed, combining equal access, better retention, improved educational quality, and stronger links between education and labour market opportunities.

Overall, the results confirm the hypothesis that gender equality in education is a key factor for inclusive economic development. However, simply reducing gender gaps in access to education is not enough. An integrated approach is needed, simultaneously targeting access, quality of education and the valorisation of acquired skills.

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