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The multiple impact of education gaps in Romania

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Objectives of the paper

Building on a functional frame, the paper explores the potential consequences of education gaps in Romania considering the changes in the last 25 years and the strategic goals set for Europe 2020.

Using quantitative data from institutional sources (Eurostat, UNESCO, OECD, National Institute of Statistics), the present research investigated the education gaps at several levels between urban and rural areas, regions, social categories. The consequences of these gaps in the future can be already considered dramatic, because education outcomes have an impact in multiple sectors (employability, work force quality, quality of life on long term, welfare of the whole society).















Theoretical background (I)

The systemic perspective in education presents two important applications:

- First refers to ecological approach (the natural development of the theory of systems, and to the application of the concept of sustainable development in education (Sterling, 2001, Dale & Newman, 2005).
- The other perspective is focused on the concept of quality (Alexander, 2000), concept from which emerged the theory of Total Quality Management, that developed a system of principles and indicators for assessing the institutional performance in education (Sallis, 2014).















Theoretical background (II)

There is a circular relationship between the development of hman capital and the well being level of society (Glewwe & Muralidharan, 2015, p.3). Still, the overlapping of gaps between developed and less developed societies was one of the issues in the modern literature on education. Thus, it has been observed that in the less developed countries there is a weak conversion of the participation rate in outcomes of education. In other words, not only participation is the issue, but also how participation can be converted in knowledge and competences for increasing the human capital qualities.















Theoretical background (III)

The scientific literature dedicated to human capital includes a series of studies dedicated on the returns of education. Thus, several authors associated education with individual benefits as: a better position on labour market, increased earnings (Card, 1999), occupational status, social mobility (Buchmann & Hanum, 2001, p. 89), but also social benefits (as better relationships in family, health of the spuse, longer life, more educates children) (Wolfe & Haveman, 2002, p. 104). At a social level, education has a positive influcente on the economic growth, and improves the well being of societies by decreasing crime and increasing the citizenship, democratic participation and finally, health and length of life of citizens (Lochner, 2011)





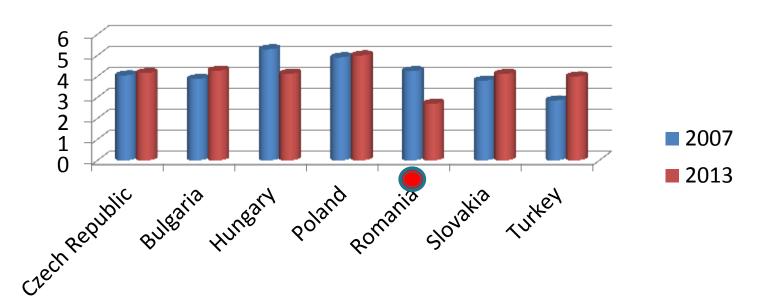








Public expenditure in education (% of GDP), comparison with other European countries









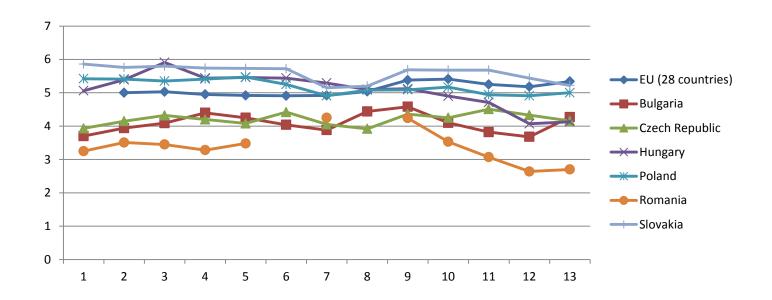








Public expenditure in education (% of GDP), 2001-2013









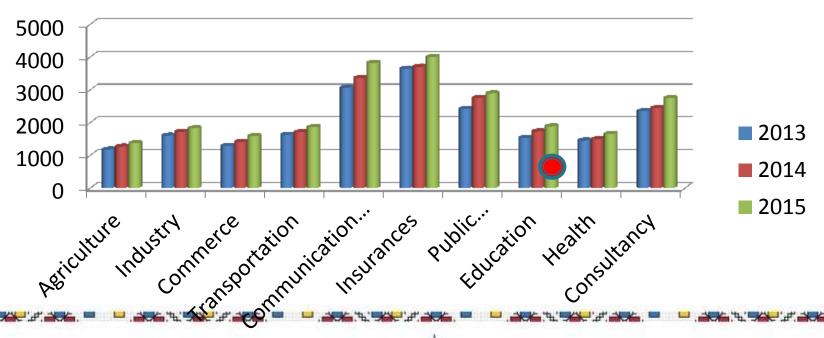








Average net earnings in education, compared to earnings in other fields









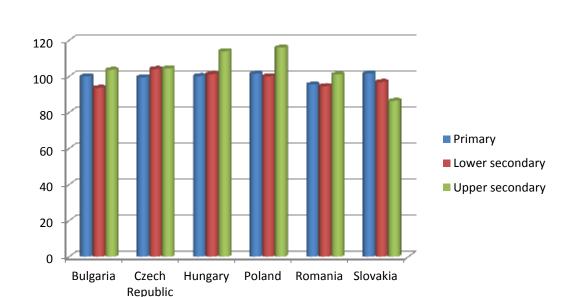








Gross participation rate, comparison with other countries (primary – data from 2012, secondary – data from 2012)



On lower secondary, Romanaua has the lowest level of participation, while in the upper secondary, Slovakia presents the lowest level of participation. Romania has the lowest rates on the primary and lower secondary (which has an important structural effect).







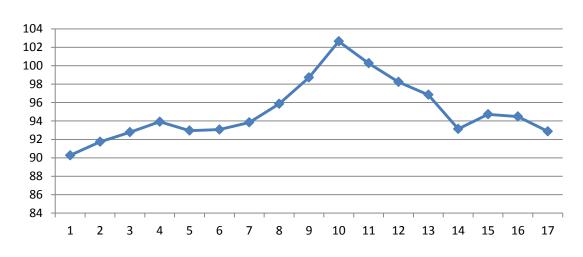








Gross participation rate: lower secondary level (1999-2015)



After a sudden increase in 2008, the indicator had a descending tendency, with a minimum of 93% in 2013, after which had an inconstant evolution up to 93% in 2015.







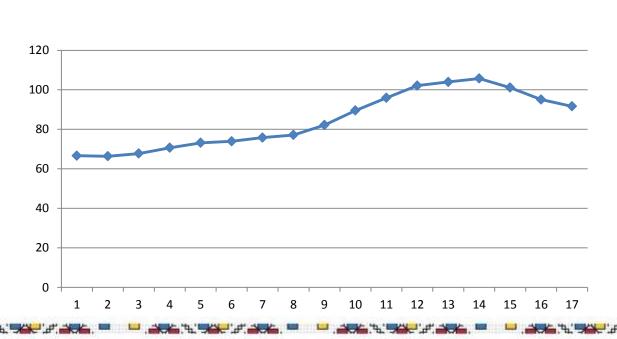








Gross participation rate: upper secondary level (1999-2015)



Evoluția ratei brute de cuprindere școlară în 17 ani (1999-2015) pentru nivelul secundar superior: după 1999 indicatorul a avut o evoluție ascendentă, cu un maxim de 105,7 % în 2012, după care a reînceput să scadă cu aproximativ 5% pe an, până la valoarea din 2015 (91,6%).







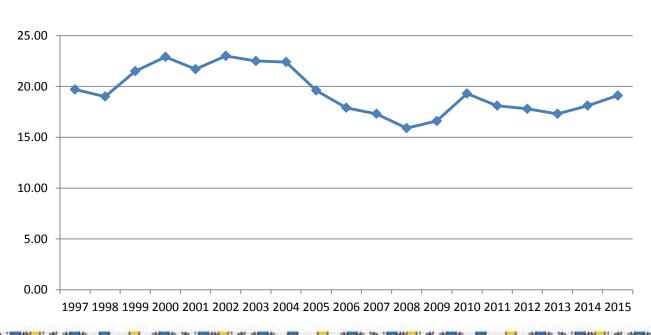








Rate of early school leavers (1997-2015)



The maximum of rate has been attained in 2000/2003 (23%) while the minimum has been attained in 2008 (15,9%). In present, the fifth part of the young population of Romania aged 18-24 years (19,1%) did not graduate a highschool 😐 🗻 or a vocational school.









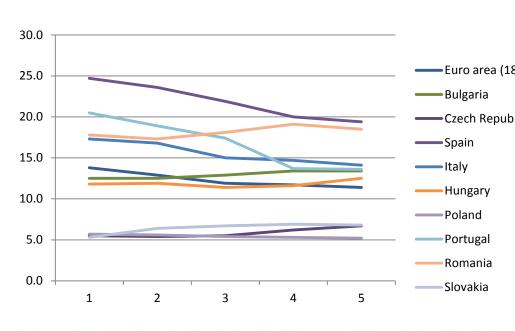




of this rate



Rate of early school leavers (2011-2015)



Czech Republic, Polandand Slovakia have a low level of the Paulgaria Tate of early school leavers (5-Bulgaria Tate of e







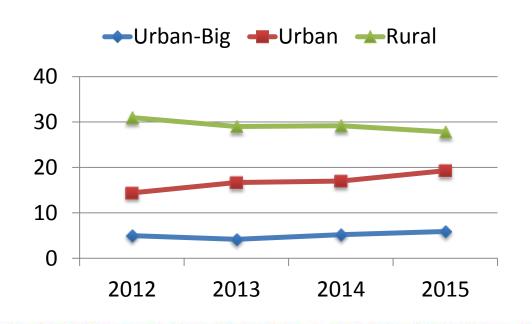








Rate of early school leavers, on degrees of urbanization (1997-2015)



The rural area has the main contribution in the high level of this indicator (the rate is five times bigger in rural areas that in the big urban areas); the big urban area is at a constant level of 5-6%. A negative evolution is seen in the urban areas, where the rate of early school leavers increased from 14,4% in 2012 to 19,3% in 2015.







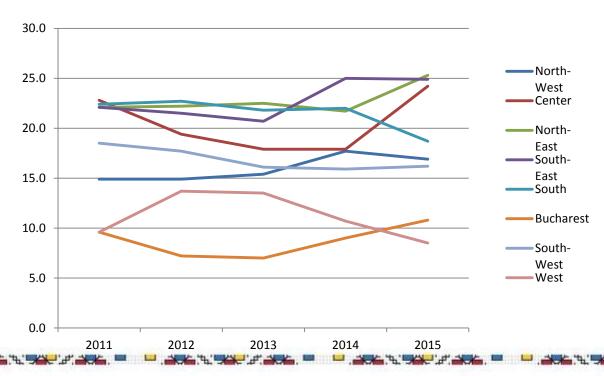








Rate of early school leavers by regions (2015)



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In North-East and South-East regions, the rate of early school increases and is double from the level of Bucharest. Even in regions which presented a medium level at this indicator the situation is not favourable (Center region, increase from 17,9% in 2014 to 24% in 2015). Regions with medium level and constant evolution Lare Ti South West DII (16,2% în 2015) și North-West (16,9%).

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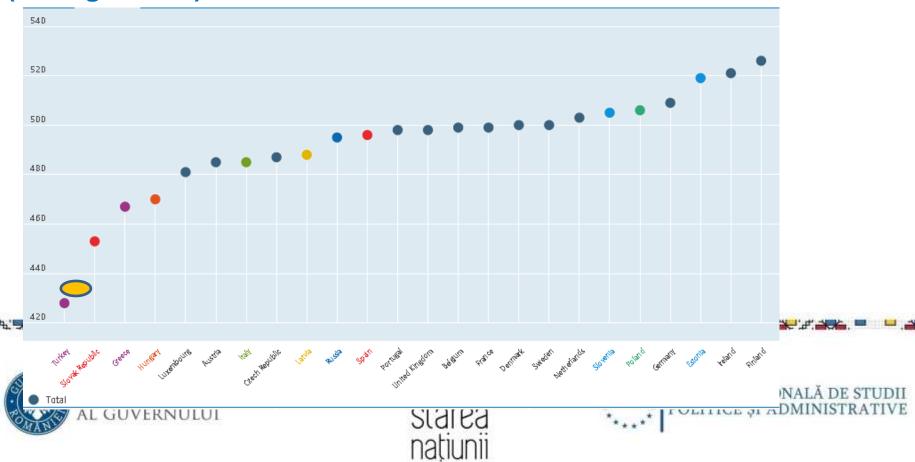








Percentage of pupils with low PISA results (2015): Reading 434 (average score)



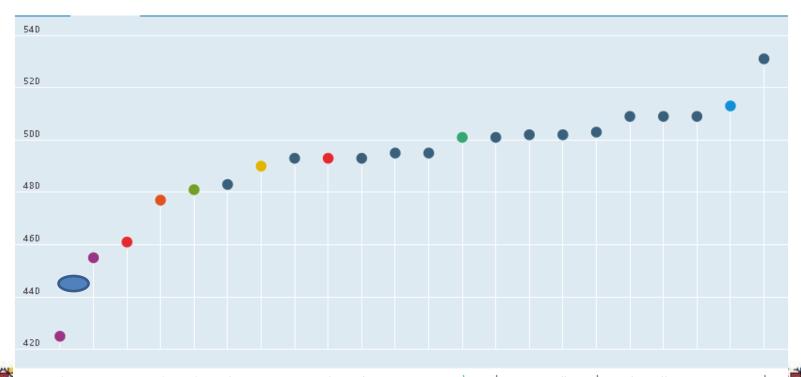






Percentage of pupils with low PISA results (2015): Mathematics 4442000

(average score)



Total

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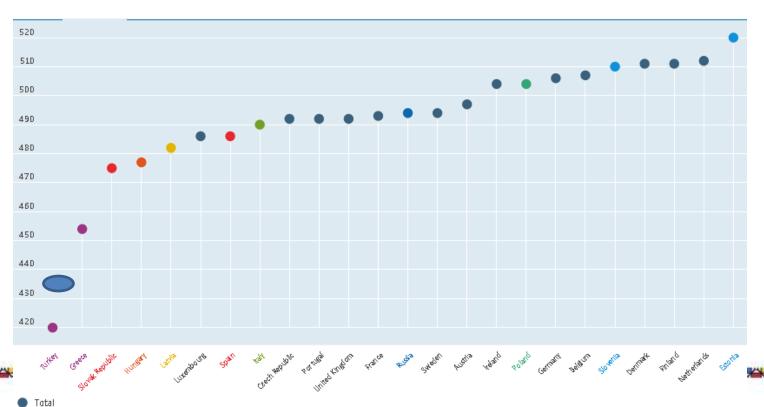






Percentage of pupils with low PISA results (2015): Science 435

(average score)









Competența face diferența!

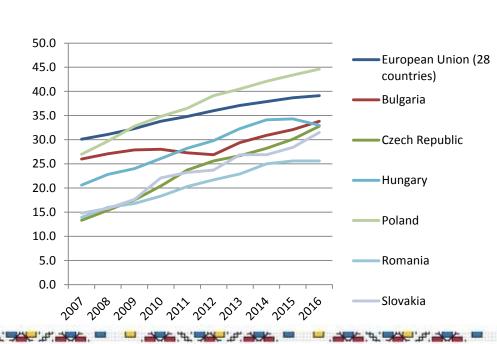








Tertiary education attainment in Eastern Europe (2007-2016)



In spite of the progress (increase from 14% in 2007 to 25,6% in 2016), Romania has a modest rank in comparison with other countries in East Europe (Hungary, Slovakia, Czech Republic and Bulgaria – which is over with 8%). The UE average increased in these years to 39,1%.







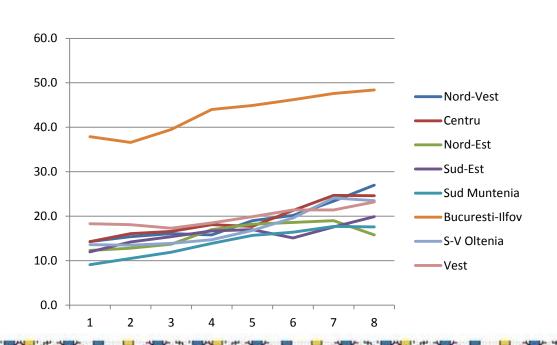








Tertiary education attainment by regions (2008-2015)



The gap este extremely visible: in Bucharest-Ilfov tertiary education attainment reaches to 48,4% în 2015, while the other regions reach to the most 27% in North-West. The lowest level is 15,8% în North-East (three times less than Bucharest region). The level of this indicator increased very slowly in all regions.









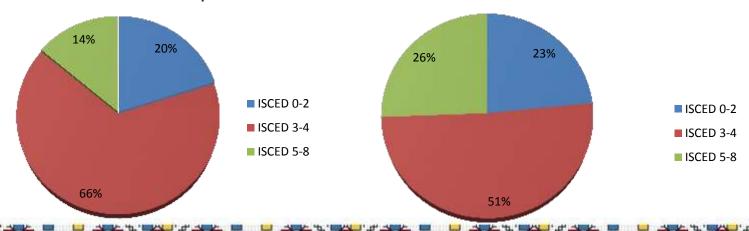






Tertiary education attainment by regions for population aged 30-34 years (2007/2016)

The percentage of population without graduation of the secondary level (ISCED 0-2) increased to 23,3%. Also, the percentage of population with secondary education completed decreased (from 66% to 51%). The percentage of population with tertiary education increased from 14% to 26%.











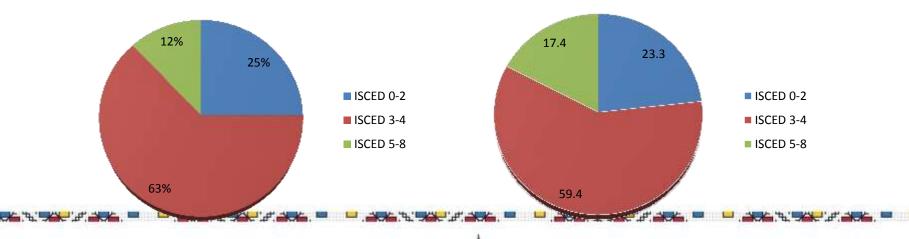






Tertiary education attainment by regions for population aged 24-65 years (2007/2016)

The percentage of population without graduation of the secondary level (ISCED 0-2) decreased very slight, to 23,3%. The percentage of population with secondary education completed decreased from 63% to 59,4%. The percentage of population with tertiary education increased from 12% to 17%.









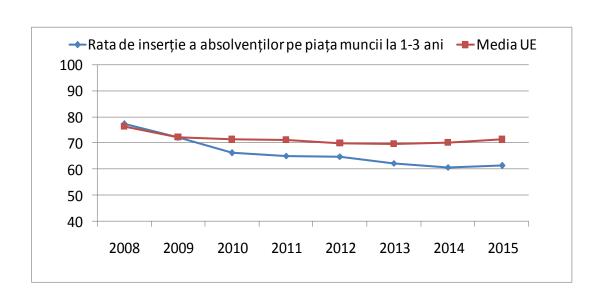








Employment rates of graduates aged 20-34 1-3 years since completion of education (2008-2015)



After crisis (2009-2010) in Romania the employment rate of graduates registered a decrease from the level of EU average to (in present) 10% less.







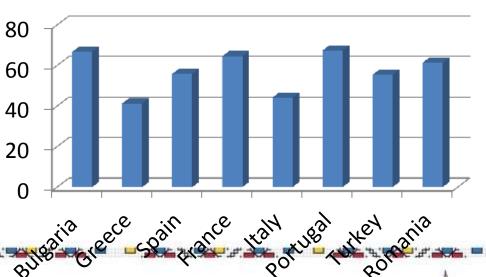








Employment rates of graduates aged 20-34 1-3 years since completion of education (comparison with other countries, 2015)



Romanian level at this indicator is better than te level of Spain, Italy, Greece







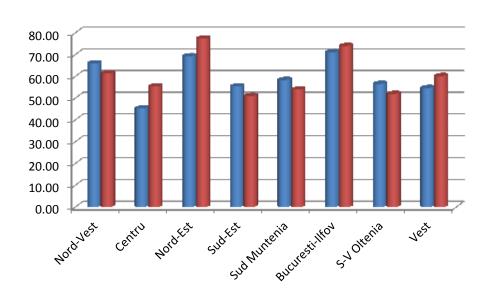








Employment rates of graduates aged 20-34 1-3 years since completion of education, by regions (2014/2015)



The difference between regions is visible, Bucharest and North-East presenting a higher percentage of employment of graduates, while Center and South-East present a lower level.















Findings (I)

- The level of financing is the lowest in Eastern Europe;
- Participation to education presents a decreasing tendency in the last five years for the levels: primary, lower and upper secondary.
- Early school leaving is increasing again (being far from the national target proposed for EU 2020 strategy;
- Tertiary education attainment is at a fine level, the national objective for EU 2020 is already fulfilled;
- •Employment rates of graduates aged 20-34 1-3 years since completion of education
- is at a fine level















Findings (II)

Structural gaps

- From results and resources, we can observe a gap between sectors: education, a key sector of development for a nation, is remaining behind other sectors;
- In education, Romania presents a moderated gap in comparison with the Eastern European countries, and a larger gap in comparison with the developed European countries;















Findings (III)

Sectorial gaps

- a. Between population with high level of instruction (increased in volume)
 and the population with low level of instruction
- b. Average residence (early school leaving is six times more in rural sector (29%) in comparison with the big urban sector (5%)
- c. Regions of development: early school leaving is 2,5 times more in the poor regions (North-East) in comparison with Bucharest-Ilfov (compatible with the EU average, 11%), while the tertiary education attainment in total population of 30-34 years) from Bucharest-Ilfov (48,4%) is three times more than in North-East (15,8%).















Discussion (I)

Even if many studies calculate the impact of education completion to individual earnings (e.g. some studies in US show that the report of earnings is 100:37 between people who graduated highschool and early school leavers), the low quality education is vaguely defined and is difficult to measure (Rouse, 2005, p.11). Several studies explored the role of education in shaping social differences and stratification; educational inequality is shaped by a wide range of factors on multiple levels. Thus, Buchanan & Hanum (2002) synthesized four categories of factors on multiple levels, factors that shape the educational inequality: : (a) macro-structural forces shaping educational stratification (education policies, funding); (b) the impact of family background on educational attainment and achievement; (c) school factors as they relate to educational outcomes; (d) the Timpact of education on social mobility in developing regions. Also, authors discuss the lack of research on influence of communities in education outcomes, and the ed to initiate cross-country studies in order to study more these factors LA DE STUD AL GUVERNULUI









Conclusions and recommendations

- For reducing gaps, there is a need of a new perspective in education, setting education as a priority;
- Financing and use of existent resources should be reevaluated, and also the role of teacher in the system and in society;
- In the management of education system, adequate solutions should be found for increasing participation to education (either be preventing dropout, either by "second chance" systematic programs, either offering more flexibility in continuing studies);
- Investigation of curricula and teaching methods, for obtaining better quality - and improving communication between all actors;
- Measures for reducing gaps between urban and rural, and also for development regions.













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