

Educational Policies for Growth

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Does education enhance economic growth or is there a reverse causality?

The theoretical growth literature emphasizes three mechanisms through which education may affect economic growth:

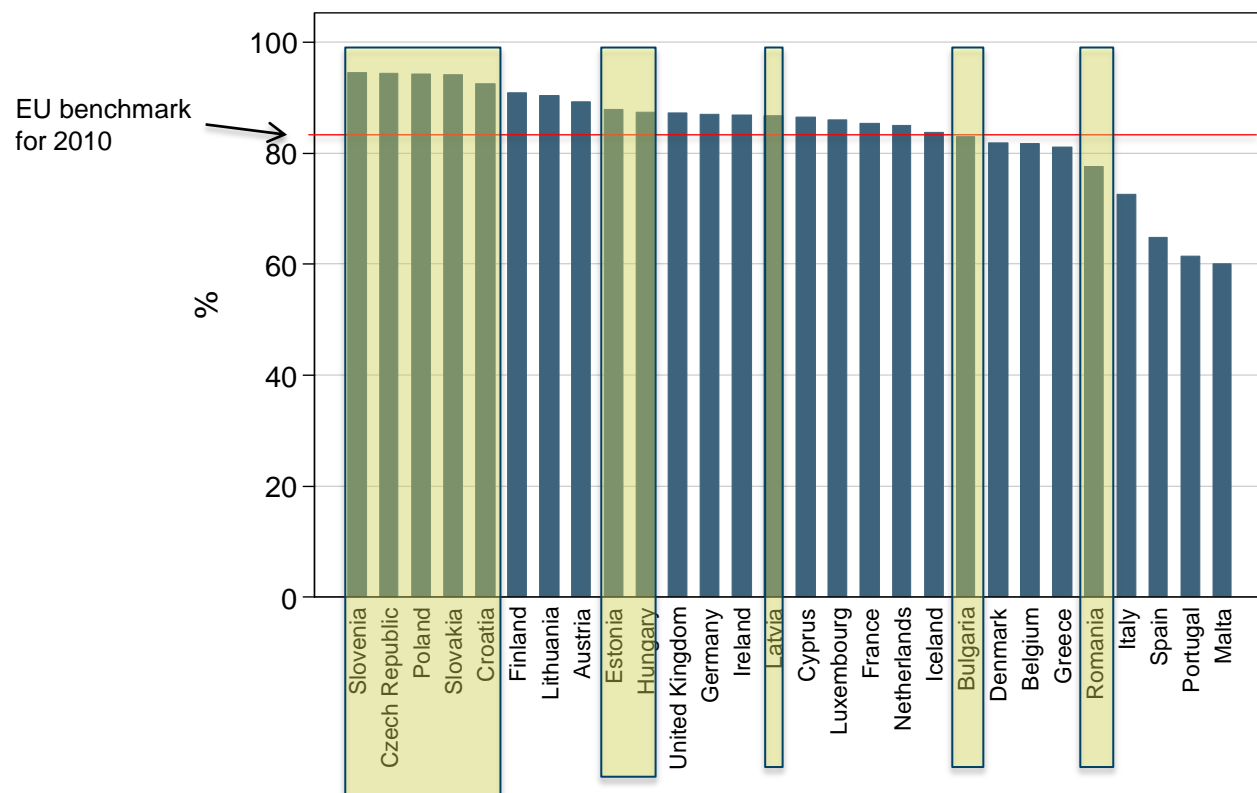
- education can increase the human capital inherent in the labour force, which increases labour productivity and thus transitional growth toward a higher equilibrium level of output (neoclassical growth models, Mankiw et al.(1992));
- education can increase the innovative capacity of the economy, and the new knowledge on new technologies, products, and processes promotes growth (endogenous growth models, Lucas(1988), Romer(1990), Aghion and Howitt (1998)).
- education can facilitate the diffusion and transmission of knowledge needed to understand new information and to successfully implement new technologies devised by others, which again promotes economic growth (e.g., Nelson and Phelps, 1966; Benhabib and Spiegel, 1994)

It's not just years of schooling, but learning (skill levels)

- number of years of schooling is not a good measure of human capital as it is not the same between countries
- measuring cognitive skills against speed of economic growth: countries with more skills have a higher innovative capacity and faster economic growth

Quantity of education in the CEEs – upper secondary education

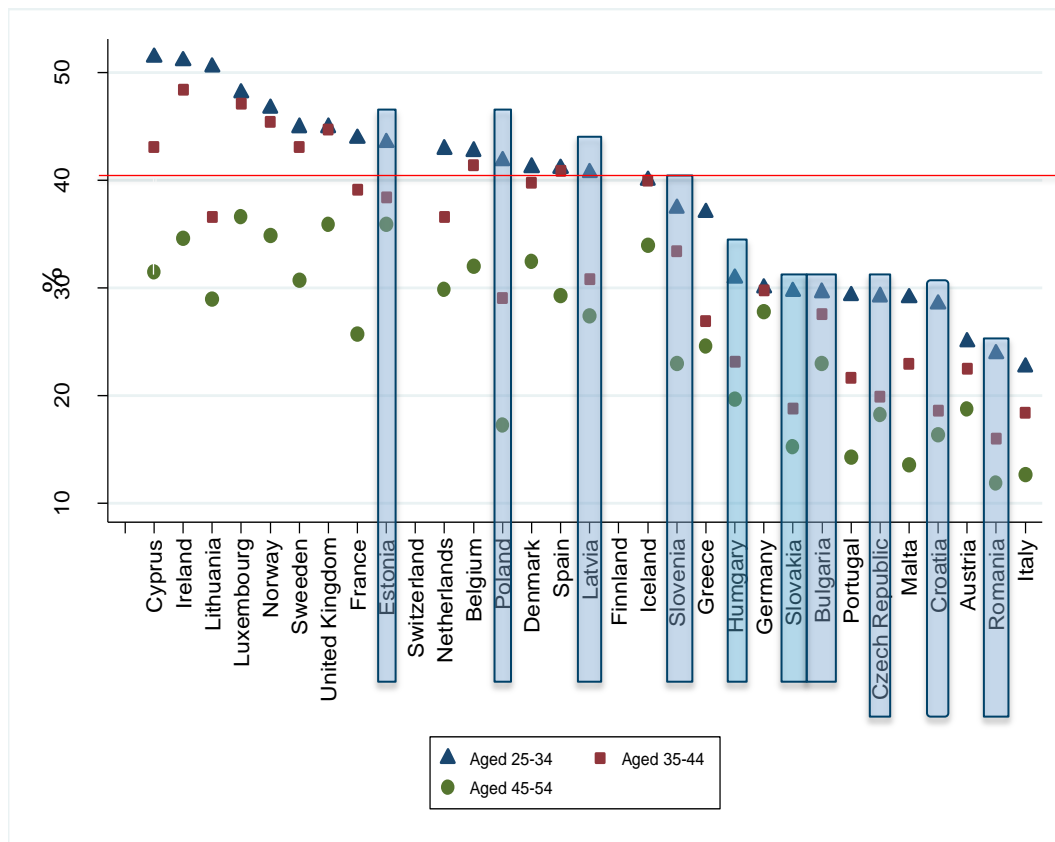
Population that has attained at least upper secondary education, percentage, 25-34 years old, 2013



Population that has attained at least upper secondary education is high in the CEEs, and is above the EU benchmark with the exception of Romania

Quantity of education in the CEEs – higher education

Population that has attained tertiary education, percentage by age group (2011)

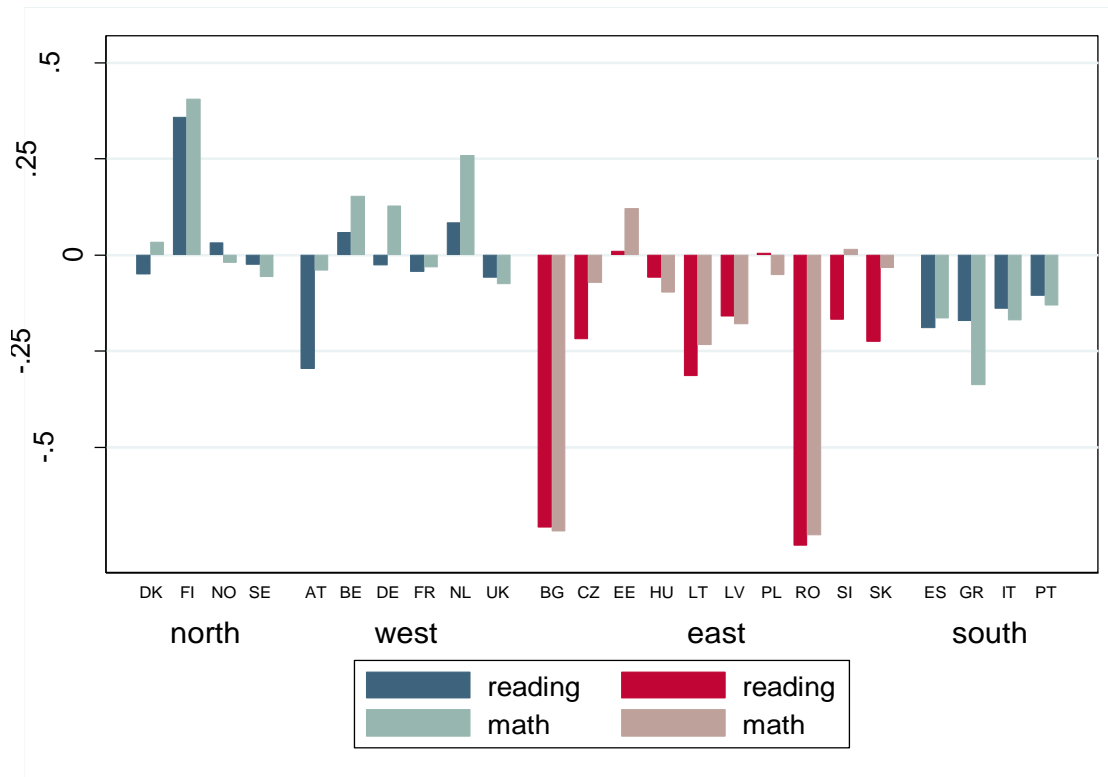


EU benchmark for 2020

Population that has attained tertiary education has increased considerably in the young age cohorts, but is still well below the EU benchmark in CEEs with the exception of Estonia, Poland and Latvia

Quality of education in the CEEs – basic skills

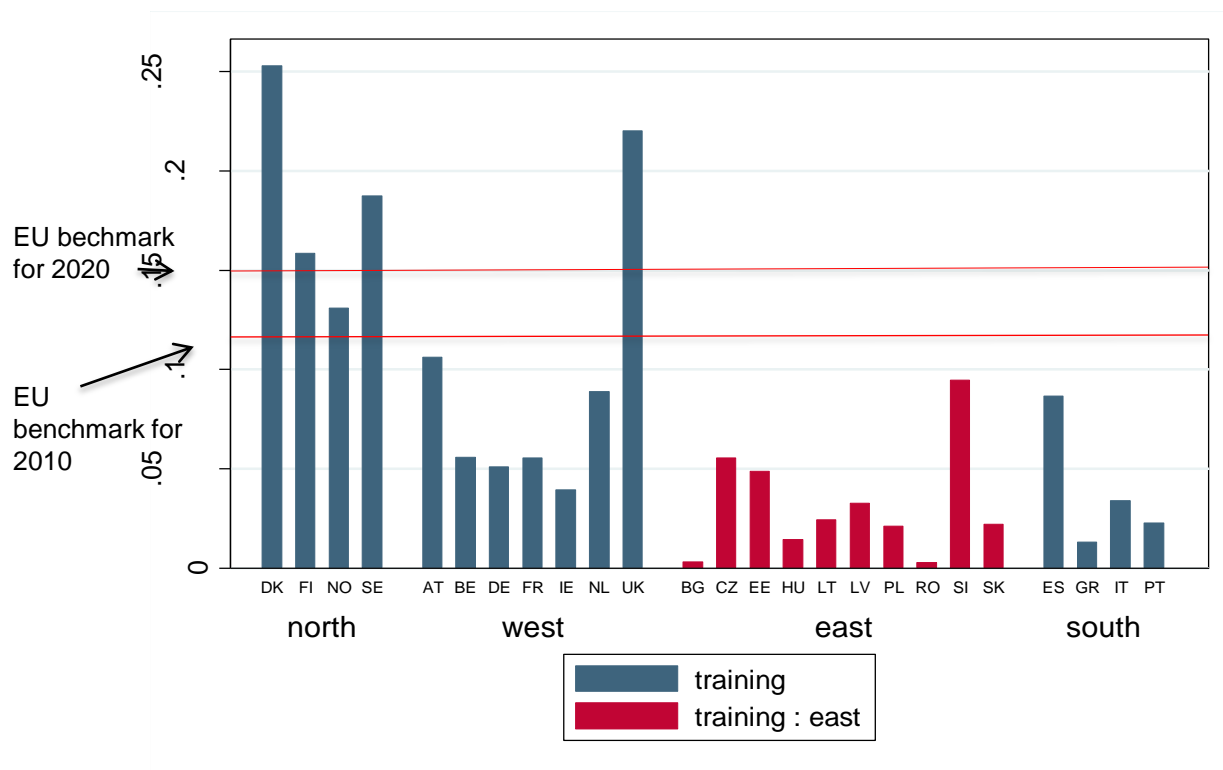
Standardised student test scores, 15 years old – PISA 2009



International student achievement data indicate weaker basic skills in most of the CEE countries compared to Western and Northern countries

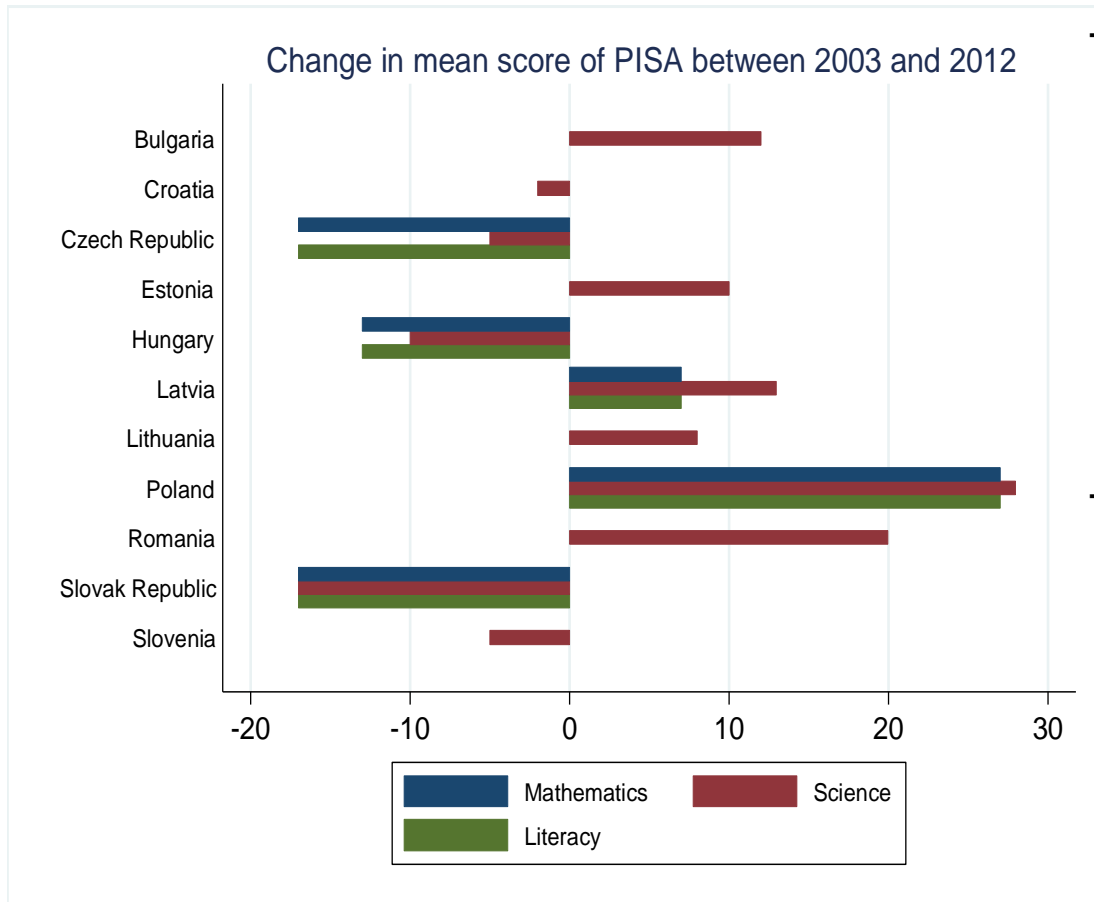


Participation in adult education and training



- Participation in adult education is substantially lower in CEE countries than in Western and Northern Europe.
- Training participation is positively associated not only with education, but also with basic skills. The weaker basic skills play a role in the CEE-EU15 training gap.

Lessons from good practice



- In some CEE countries (Poland, Latvia) student performance improved in all skill categories – literacy, numeracy, science - in other CEE countries students' performance deteriorated significantly (Czech Republic, Hungary)

- With the help of well-designed educational reforms significant improvements can be achieved in student's performance (Poland).

Policy recommendations

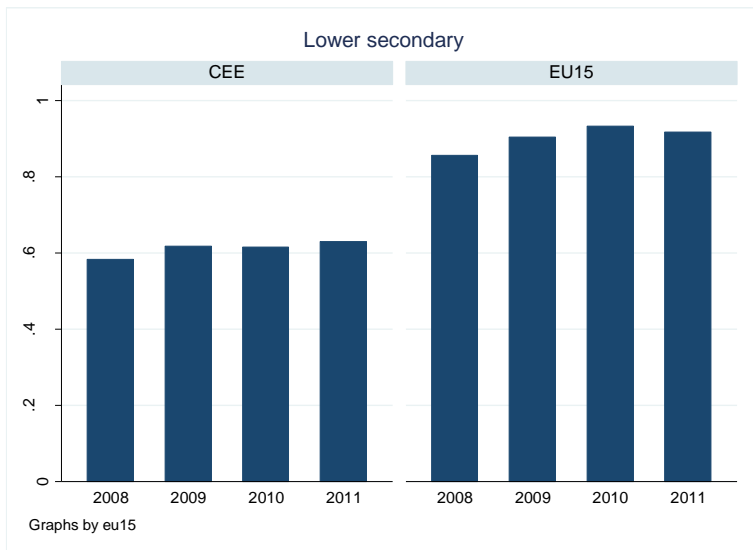
- Primary and vocational schools should equip their students with basic competencies that enable them to participate in formal adult training and learn informally after leaving the school system.
- The CEE countries as a group need to invest more in the quality of primary and secondary education.
- They must also invest more in tertiary, especially undergraduate, education so as to improve teacher quality and the evaluation and monitoring of the overall education system.

Policy recommendations

- Comprehensive reforms of the educational system and avoiding early student selection may have a positive impact on students' performance. It is worth reconsidering to defer early student selection to upper secondary education while reinforcing comprehensive schooling in countries where early tracking regime is applied (Bulgaria, the Czech Republic, Hungary, and the Slovak Republic and Slovenia).
- It is important to balance decentralisation/local autonomy with resource accountability to ensure support to schools. School autonomy needs a well-functioning environment to generate positive effects; a dysfunctional setting can be harmful.

Policy recommendations

- Increasing teacher quality is crucial for improving students' performance. Higher pay induces more able graduates into the profession. In most CEE countries, teacher salaries are low in comparison with other graduate salaries and the difference between teacher salaries and other graduate salaries is much larger than in the EU15 countries.
- The stock of low-quality teachers can be changed only gradually. An overall shift up of wages of all teachers cannot improve the quality of teaching immediately.



Average teacher salaries compared to average graduate salaries by country groups 2008-2011

Policy recommendations

- There are advantages to targeted vocational training programmes that are not school-based. Workplace-based training seems to enhance early labour market employment of the non-college bound youth. The support of workplace-based training during compulsory vocational education may have a positive effect, unless the acquisition of basic skills is hindered.
- While maintaining their focus on increasing the quality of primary and secondary education the CEE countries need to invest more in higher education. Without such investment CEEs will not be able to effectively imitate technological innovations produced elsewhere.
- The number of Ph.D. graduates in STEM disciplines need to be increased for building up a modern science-intensive industry in CEEs.

Thanks for your attention !