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Economic Rationale for Investing in Education and Skills

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Education is critical for sustained economic growth

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- Human capital is a key factor of production. Three-quarters of cross-country variation in economic growth is explained by differences in cognitive skills (Hanushek and Woessmann, 2012)
- In Asia, each year of schooling increases earnings by 10% (Monenegro and Patrinos, 2021)
 - Returns have been stable over time
 - Recent studies suggest that returns to tertiary education (15%) are higher than primary (11%) and secondary education (7%) – high skills are valued more in an increasingly knowledge-based economy
- The returns are even higher when social returns are considered
 - More educated workers are healthier and live longer
 - A society with more educated people improves the productivity and well-being of others, improves governance, and promotes innovation, all of which support growth
- Public spending programs on education have higher returns than, more than paying for themselves (Hendron and Sprung-Keysar, 2020)

Technological change increases the demand for education



**Higher education enrollment and economic returns
(global estimates)**

**Demand for digital skills (from job ads) is increasing,
with large but narrowing gaps across countries**

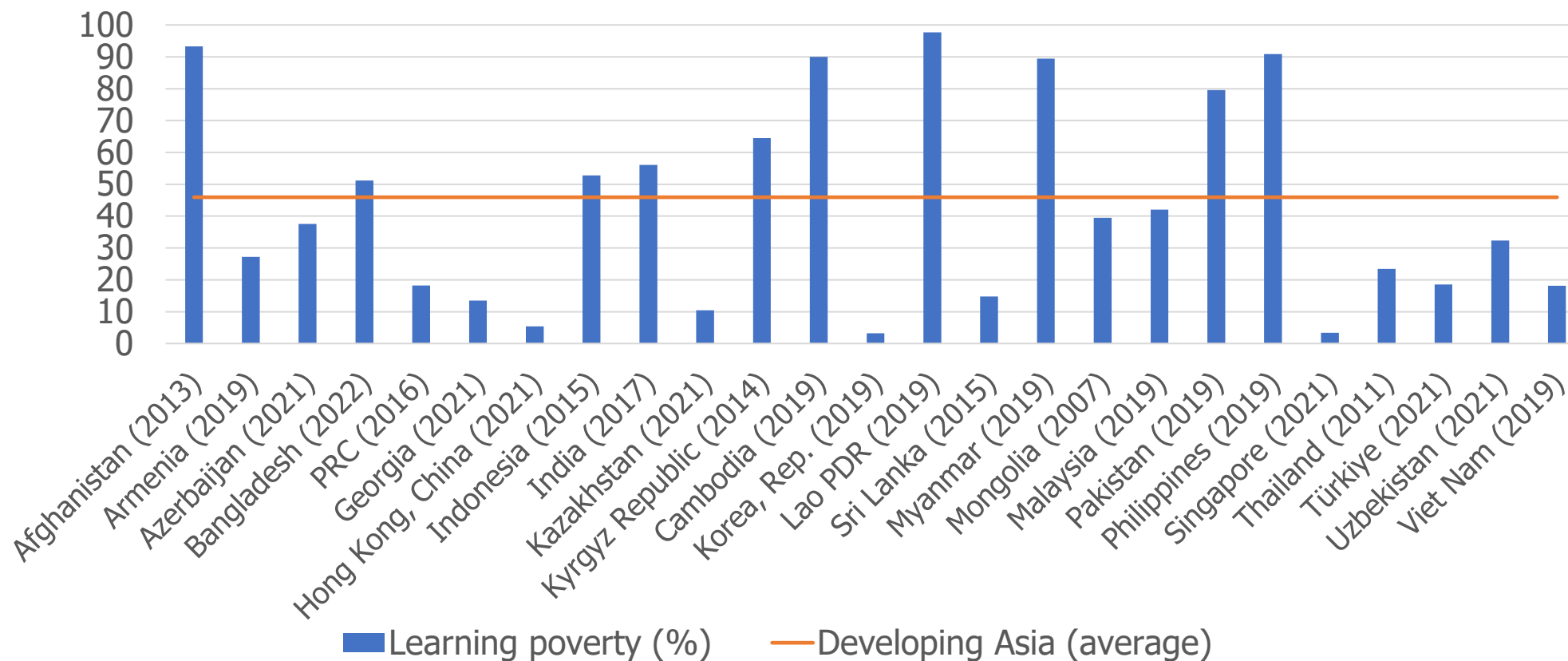
Source: Psacharopoulos and Patrinos (2018).

Source: Adrjan, Aoki, Ciminelli, Döttling, and Mandico (2025)

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Learning poverty is 46% in Asian economies

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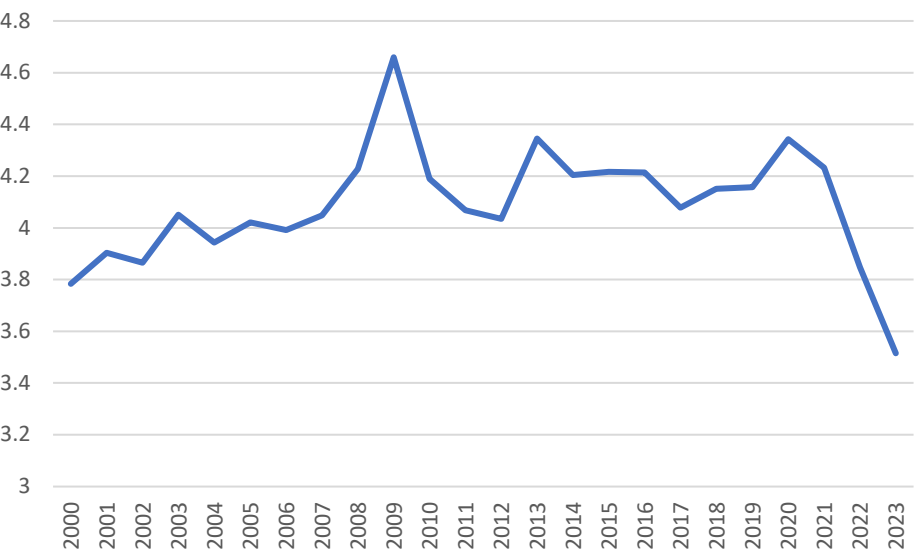
Notes: PRC - People's Republic of China. Lao PDR - Lao People's Democratic Republic. Learning poverty (%) refers to the share of children at the end-of-primary age below minimum reading proficiency adjusted by out-of-school children (%). Average learning poverty for developing Asia is weighted by the population of primary school-age children.

Source: World Bank. Learning Poverty Global Database. November 2024 Update.

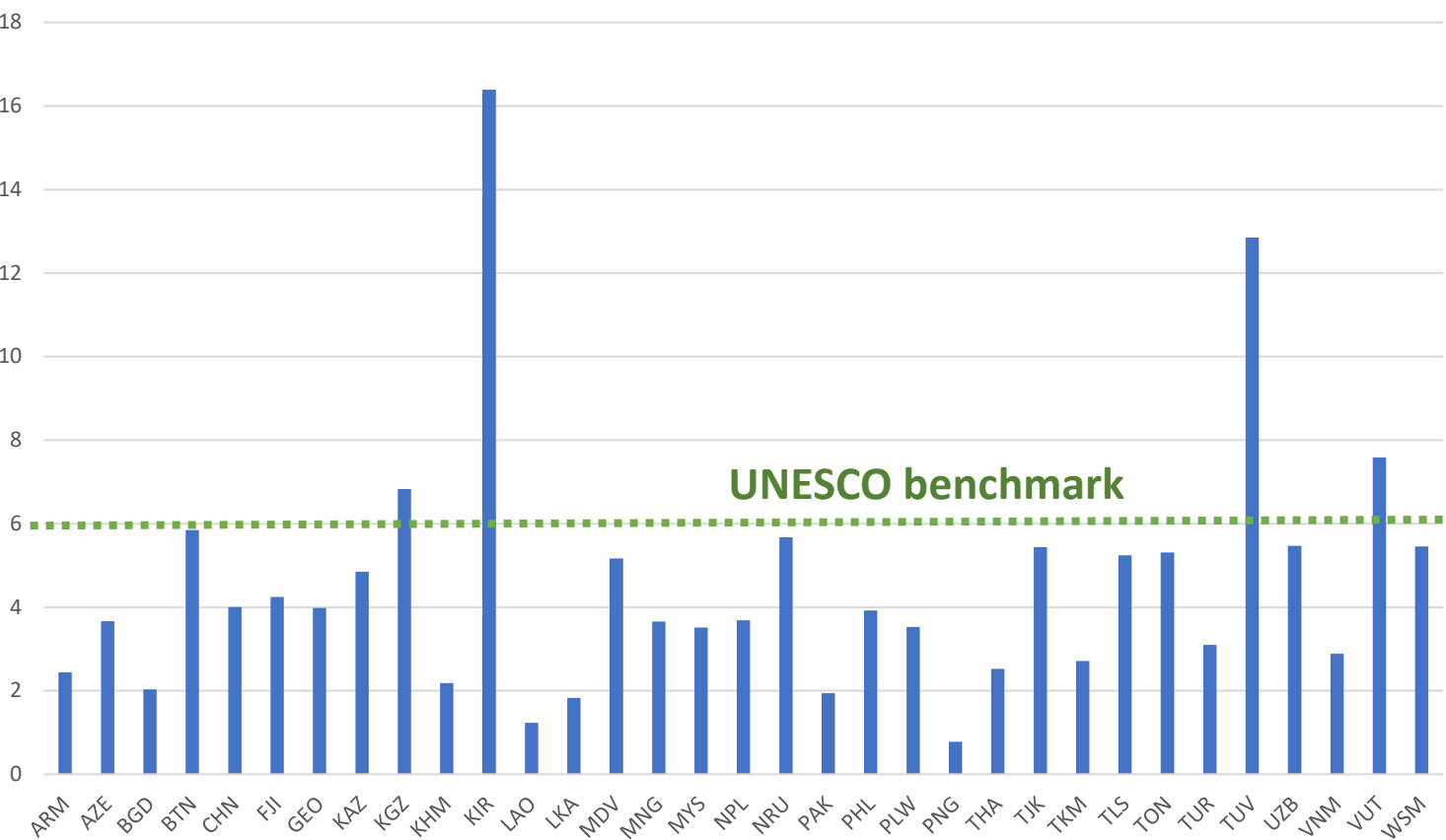
Education spending as a share of GDP (2023)

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Global average



Asia-Pacific Developing Economies



Most cost-effective education investments

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Best Buys	<ul style="list-style-type: none">• Providing information on the benefits, costs, and quality of education• Supporting teachers with structured pedagogy (a package that includes structured lesson plans, learning materials, and ongoing teacher support)• Targeting teaching instruction by learning level, not grade (in or out of school)
Good Buys	<ul style="list-style-type: none">• Providing parent-directed early childhood stimulation programs (for ages 0 to 36 months)• Providing quality pre-primary education (for ages 3 to 5)• Reducing travel times to schools• Giving merit-based scholarships to disadvantaged children and youth• Administering school-based mass deworming where worm-load is high

The need for more evidence

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Promising investments but limited evidence (GEEAP 2023)

- Using software that allows personalized learning and adapts to the learning level of the child (where hardware is already in schools)
- Augmenting teaching teams with community-hired staff
- Providing mass school-based treatment of specific health conditions
- Leveraging mobile phones to support learning
- Safeguarding students from violence
- Teaching socio-emotional and life skills
- Involving communities in school management
- Targeting interventions towards girls

Making evidence effective

- Support rigorous impact evaluation studies
- Focus on evidence gaps
- Pilot innovative approaches
- Experiment with implementation: A-B testing using nimble or trial-and-adopt evaluations
- Develop standard measurements (especially for learning outcomes)
- Make data widely available to researchers
- Develop institutional learning capacity where new evidence informs changes in policies and program design



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Public spending on education is positively correlated with learning outcomes

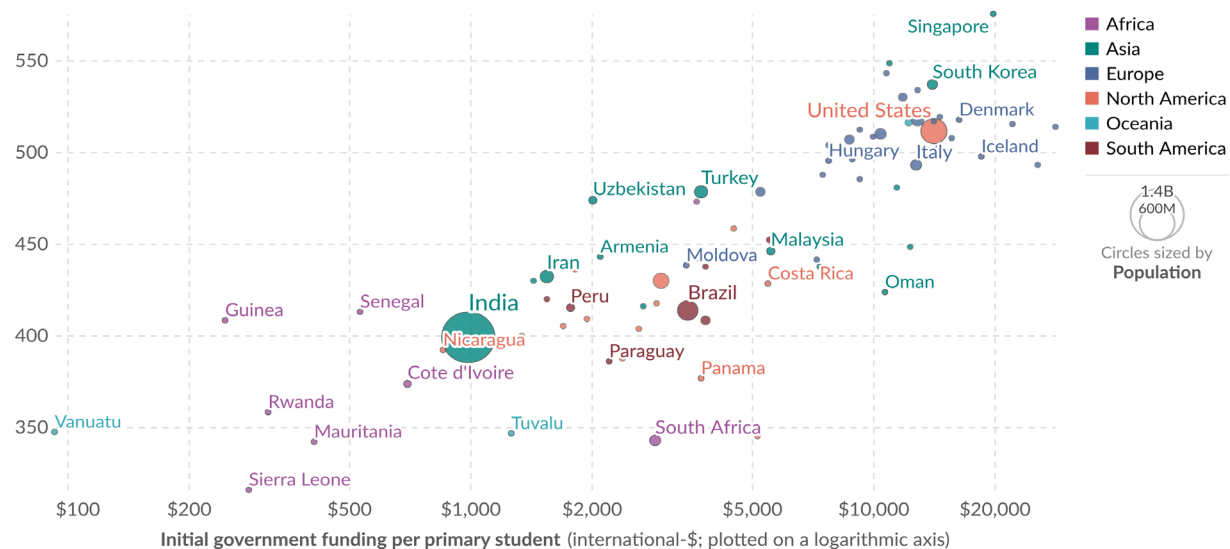
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Average learning outcomes vs. government spending per primary student, 2020

Our World in Data

Average learning outcomes correspond to harmonized¹ test scores across standardized, psychometrically-robust international and regional student achievement tests.

Harmonized test scores among all students (score)



Data source: World Bank (2024); UNESCO Institute for Statistics (2025)

OurWorldinData.org/financing-education | CC BY

Note: Government funding data is expressed in international- $\$$ ² at 2019 prices.

1. Harmonized test scores Harmonized test scores consolidate data from several international student achievement testing programs, enabling a standardized comparison of educational attainment across different educational systems and cultures. These scores are measured in TIMSS (Trends in International Mathematics and Science Study) - equivalent units, with 300 denoting minimal attainment and 625 representing advanced attainment.

2. International dollars International dollars are a hypothetical currency that is used to make meaningful comparisons of monetary indicators of living standards.

Figures expressed in constant international dollars are adjusted for inflation within countries over time, and for differences in the cost of living between countries.

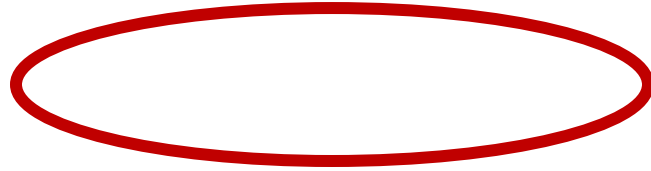
The goal of such adjustments is to provide a unit whose purchasing power is held fixed over time and across countries, such that one international dollar can buy the same quantity and quality of goods and services no matter where or when it is spent.

Read more in our article: [What are international dollars?](#)

Education investments have very high returns compared to other government programs

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Marginal value of public funds (MVPF) for different US expenditure and tax policies



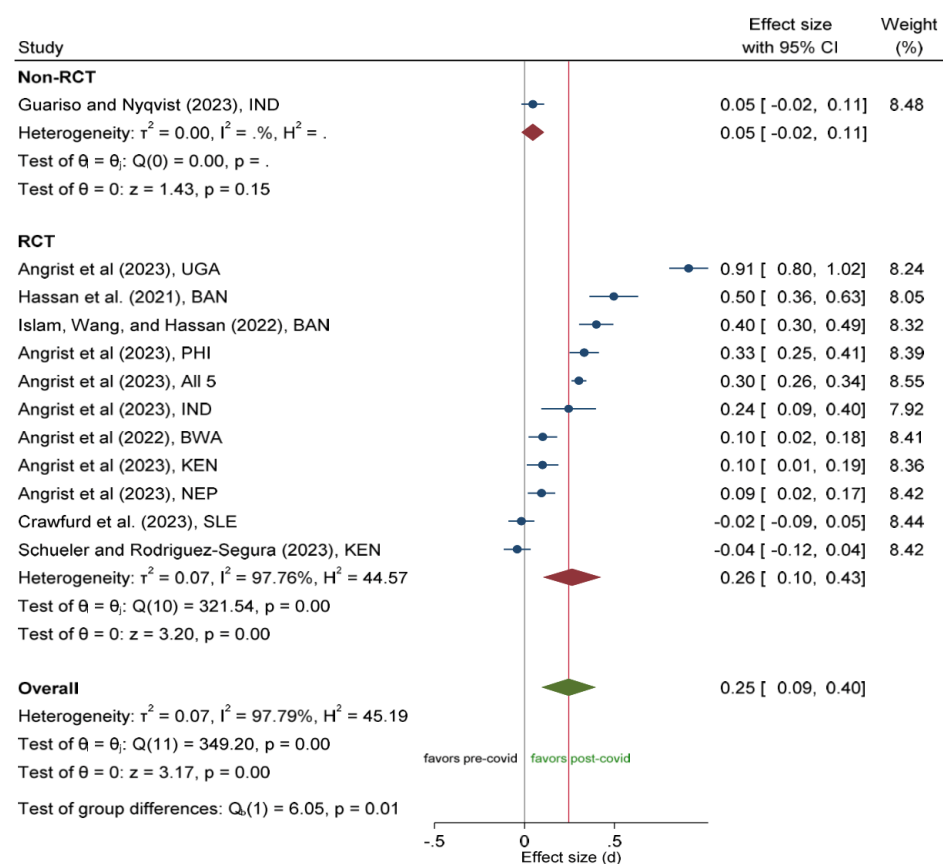
Source: Hendron and Sprung-Keyser (2020)

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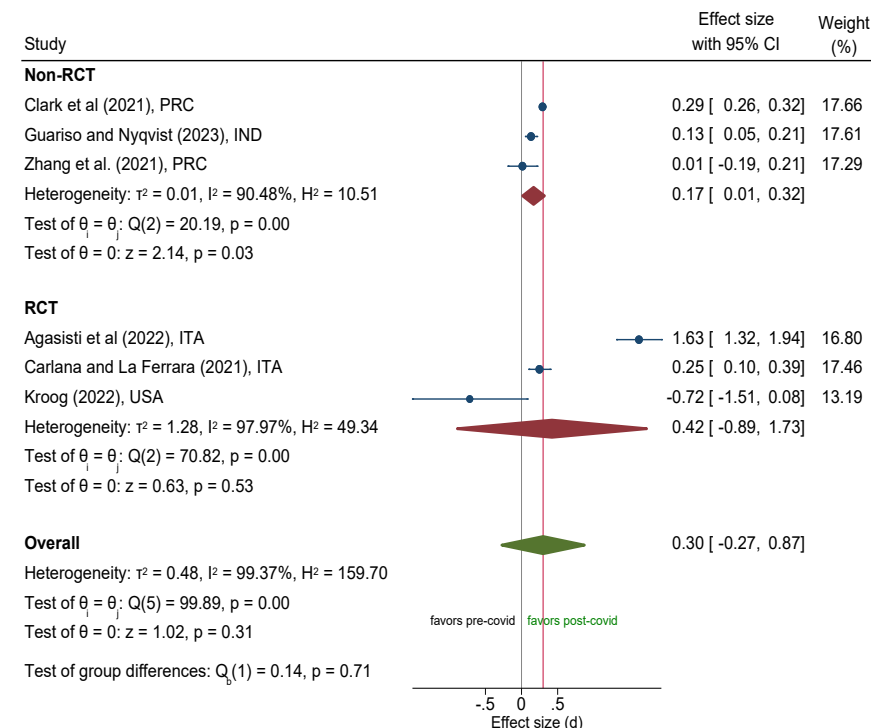
Lessons from the pandemic

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Tutorials via mobile phones



Online learning programs



Source: Dela Cruz et al. (2024)