

Higher education funding across the globe:

An overview on funding of higher and further education and research, its political and socio-economic causes, and some consequences, across the globe

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Executive Summary

Education and skills are the crucial backbone of today's post-industrial knowledge economies. Education and knowledge have several positive consequences for individuals as well as for societies and economies. On the individual level, we know that more educated people tend to earn higher wages (Mincer 1958), are less likely to be unemployed and more likely to be employed in good working conditions (Breen & Jonsson 2005), are politically and socially more engaged (Mettler 2002), live healthier lives – and accordingly also live longer (DeWalt et al. 2004). On the country level, we know that more educated societies tend to have stronger economic growth (Barro 2001), more innovative economies, and more coherent, less polarised societies (Green et al. 2006) – to name but some of the “merits” of education.

Accordingly, funding of education and research is a key element of countries' economic and social well-being and a key objective of countries' governments. Yet, there are enormous differences in how

countries around the globe fund education and research. This paper offers an overview on funding of higher and further education across the globe. Drawing on the best available comparative data, it shows how education is funded in different ways. It discusses, for example, how much different countries spend on higher education, how spending has changed over time, how high tuition fees and financial student aid are, and to what extent performance-criteria are applied to allocate funding. Moreover, the paper summarises state-of-the-art knowledge on the causes and consequences of these differences, pointing at the political dynamics behind education funding and the far-reaching consequences.

The report is structured as follows. Using the best available indicators and most recent data, the first section provides a descriptive overview on the different ways countries fund higher and further education, focusing also on changes over time. Particular emphasis is placed on some of the most



recent changes during the so-called “poly-crisis”, i.e. a time when several crises happen simultaneously or shortly after each other, such as in Europe the 2007 Financial Crises followed by the Great Recession of the late 2000s, the so-called “Refugee crisis” in the mid-2010s triggered by rising refugee numbers and a radicalized political discourse, the Covid-19 pandemic, and the “Russia Crisis” with its war in Ukraine.

After having laid out the main patterns in funding of higher and further education, the next section asks how these differences can be explained. What causes variation in education funding? Drawing on a large body of political and social science research, three main groups of explanations are presented, focusing on:

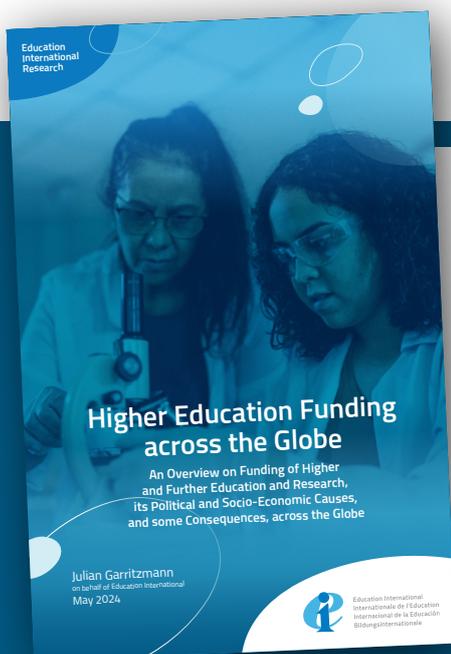
1. socio-economic factors (e.g., demographic ageing or globalisation),
2. political and economic actors (e.g., political parties, trade unions, or employer associations), and
3. institutional settings (e.g., the type of political and economic system).

The way education and research are funded has large-scale consequences. The last section of the report sketches some of these consequences, summarising some of the key insights that economists, sociologists, political scientists, and education scholars have produced on this topic. We will see, for example, how the type of education funding is related to patterns of educational and socio-economic inequalities, chances of upward mobility, and academic research output. The report concludes by pointing at a number of blind spots and “black boxes” that future work needs to address.

The paper offers the following main takeaways:

- A lot of data exists on education funding. Yet, the data quality is higher (and there is more information available) for the wealthy OECD democracies than for the rest of the world.
- Education spending is at the same time a very simple and a very complex phenomenon. On the one hand, numbers are very easy to compare, much easier than other dimensions of education such as didactical styles, teaching contents, or the like. On the other hand, the devil is in the details, as funding is a highly complex and technical field. Understanding some of these details is crucial, though, in order to understand the consequences (e.g. on inequalities) as well as the political dynamics around higher education funding.
- On average, governments around the globe spend 0.83 per cent of their GDP on higher education. Average public spending on higher education has increased in countries around the globe. Globally, the amounts spent on higher education have almost doubled between 2006 and 2018.
- At the same time, there are massive differences across countries. Generally speaking, countries in Nordic Europe and North America spend the highest amounts on higher education, while the lowest amounts are found in (Sub-Saharan) Africa and South East Asia.
- Historically, Europe and North America have spent the most on higher education; more recently, (South) East Asia is “catching up”, but most of these spending increases are driven by increases in student numbers. When we look at the amounts spent per higher education student, Europe and North America, as well as Oceania, clearly outspend every other region. Moreover, we find the largest increases in these “high-spending” countries.

- There is change over time, but most changes are incremental rather than radical, and spending is path dependent.
- Most of the money is spent on staff, but there are large country differences. There appears to be a relationship between funding and staff numbers, but we lack strong research to answer to what extent these relationships are causal.
- Private higher education funding plays a major role in some countries, but none in others. Private spending is particularly high in North America and parts of Latin America and North East Asia; in most of Europe, especially Nordic Europe, private spending is negligible.
- There are large differences in how much countries spend on research and development (R&D). Generally speaking, those countries that spend much on higher education also spend high amounts on R&D.
- Private R&D spending is (much) higher than public R&D spending in most countries.
- Public R&D spending (relative to GDP) has been constant over the last 40 years in most countries – it has neither decreased nor increased. Private R&D spending (relative to GDP) has increased a lot in several countries.
- Three groups of factors explain the variation in higher education funding: political actors (especially governing parties, unions, and employers); socio-economic factors (such as economic growth, technological change, or labour market change); and institutional factors (such as the political system).
- How exactly higher education is funded has large consequences on many important social, economic, and political phenomena, for example on wage inequality, gender inequality, educational inequality, economic growth, youth unemployment, and patterns of innovation.



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can be found here:
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