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Policy Brief

**The economics of knowledge:  
Why education is key for Europe's success**

by Andreas Schleicher





## Lisbon Council Policy Brief

### The economics of knowledge: Why education is key for Europe's success

by Andreas Schleicher

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The opinions expressed in this article are those of the author alone.

More information about PISA can be found at <http://www.pisa.oecd.org>.

# 'The challenge for Europe is clear'

WHEN EUROPEAN UNION heads of state and government met at a summit in Lisbon in 2000, they set the goal of making Europe “the most competitive and dynamic knowledge-based economy in the world.” Today, it is worth remembering that the development of a modern “knowledge economy” reflects a larger transition from an economy based on land, labour and capital to one in which the main components of production are information and knowledge. Because of that, the most effective modern economies will be those that produce the most information and knowledge – and make that information and knowledge easily accessible to the greatest number of individuals and enterprises.

The time when Europe competed mostly with countries that offered low-skilled work at low wages is long gone. Today, countries like China and India are starting to deliver high skills at low costs – and at an ever increasing pace. This is profoundly changing the rules of the game. There is no way for Europe to stop these rapidly developing countries from producing wave after wave of highly skilled graduates. What economists call “barriers to entry” are falling. Individuals and companies based anywhere in the world can now easily collaborate and compete globally. And we cannot switch off these forces except at great cost to our own economic well-being.

## Education pays off – always

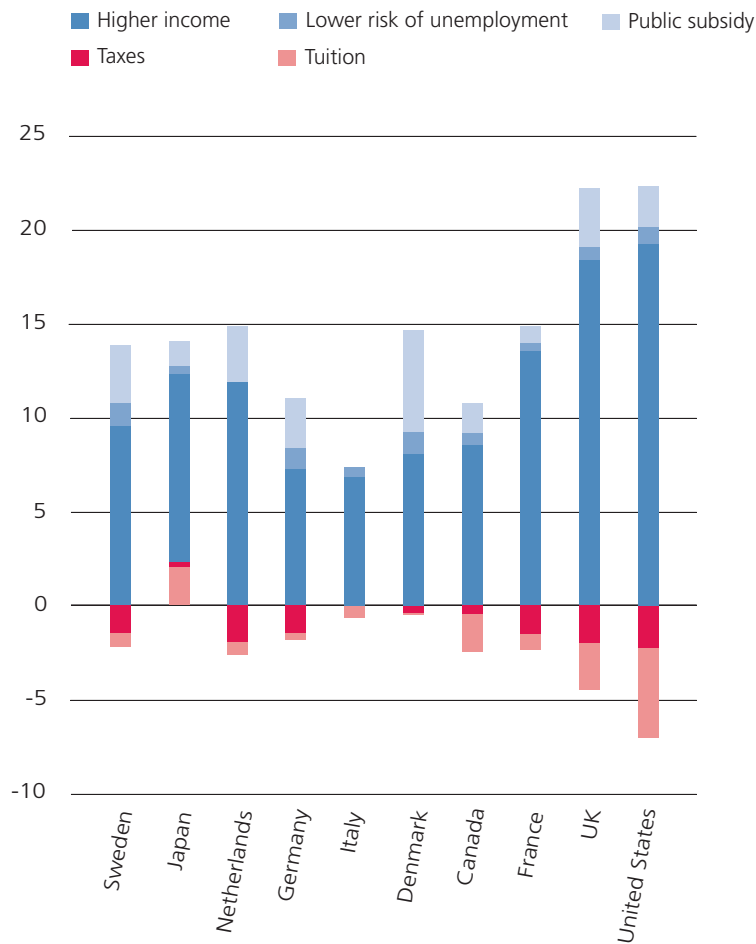
The challenge for Europe is clear. But so is the solution: evidence shows – consistently, and over time – that countries and continents that invest heavily in education and skills benefit economically and socially from that choice. For every euro invested in attaining high-skilled qualifications, tax payers get even

more money back through economic growth. Moreover, this investment provides tangible benefits to all of society – and not just to the individuals who benefit from the greater educational opportunities. Faced with a rapidly changing world, Europe’s school systems will have to make considerable headway if they are to meet the demands of modern societies. Some of these changes will require additional

**'The most effective modern economies will be those that produce the most information and knowledge.'**

investment, particularly in the early years of schooling. But the evidence also shows that money is not a guarantee for strong results. Put simply, European school systems must learn to be more flexible and effective in improving learning outcomes. And, they must scale back the inherent class bias and sometimes catastrophically regressive way of funding existing educational opportunities – taxing the poor to subsidize educational opportunity for the rich – in existing systems. In short, if Europe wants to retain its competitive edge at the top of the global value-added chain, the education system must be made more flexible, more effective and more easily accessible to a wider range of people.

OECD studies show that money spent on obtaining university qualifications pays dividends higher than real interest rates, and often significantly so (see Table 1). The difference in the amount of money that someone with tertiary education (i.e., college level or higher) can expect to earn compared to

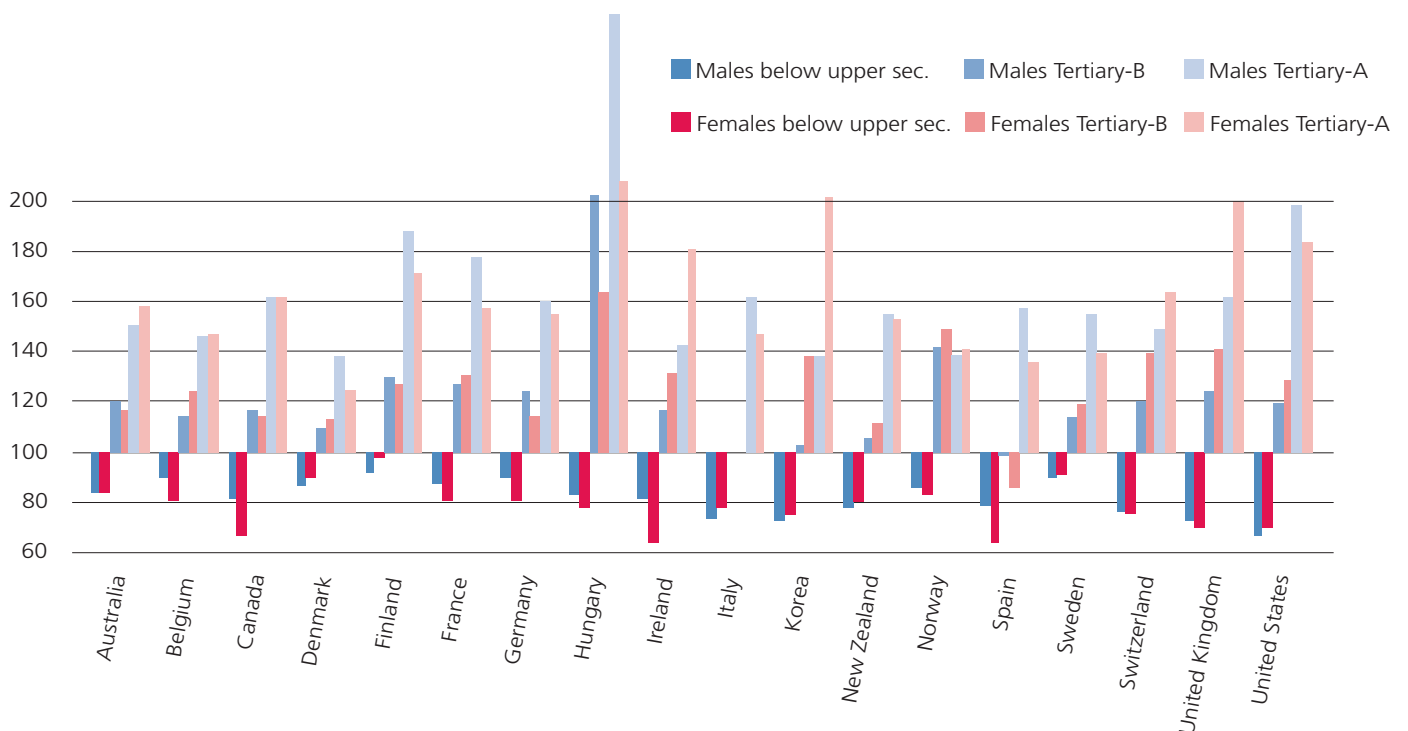


**Table 1: Investment in education gives higher returns than real interest rates**

Private internal rates of return (RoR) for an individual obtaining a university-level degree (ISCED 5/6) from an upper secondary and post-secondary non-tertiary level of education (ISCED 3/4), Males

**Table 2: Workers with high-level qualifications earn higher wages**

Relative earnings of 25- to 64-year-olds with income from employment (upper secondary education=100)



# 'Europe's school systems will have to make considerable headway if they are to meet the demands of modern societies'

the amount someone with only secondary education (i.e., schooling that finishes at ages 16-18) can expect to earn grew on average by one percentage point per year between 1997 and 2003 in 18 of the 22 OECD countries with available data. Moreover, the earnings differential between workers with secondary and tertiary education ranged from around 25% in Denmark and New Zealand to between 50% and 119% in the Czech Republic, Finland, France, Germany, Hungary, Ireland, Italy, Portugal, Switzerland, the United Kingdom and the United States (see Table 2). Countries that give individuals one additional year of education can boost productivity and

raise economic output by 3% to 6% over time (see Tables 3 and 4). Meanwhile, people without basic qualifications face a significantly higher – and growing – risk of unemployment and poverty.

'The time when Europe competed mostly with countries that offered low-skilled work at low wages is long gone.'

## Key Recommendations:

- 1) Create and maintain a system of diverse, **sustainable and high-quality educational institutions** with the freedom to respond to demand and accountable for the outcomes they produce
- 2) Ensure that the growth and development of tertiary educational systems are managed to **improve access, raise quality and enhance equity**
- 3) Implement financing and student-support policies which **mobilize public and private funding** in ways that better reflect the social and private benefits of tertiary education
- 4) Encourage universities to evolve so that their leadership and strategic management capacity matches that of modern enterprises, with appropriate strategic, financial and human resource techniques to ensure **long-term financial sustainability** and accountability requirements, and
- 5) Ensure that universities are governed by bodies that **reflect a much wider range of stakeholder interests** than the academic community



























