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EDUCATION INDICATORS IN FOCUS

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What are the returns on higher education for individuals and countries?

- **On average across 25 OECD countries, the long-term economic advantage to an individual of having a tertiary degree instead of an upper secondary degree is over USD 175 000 for a man and USD 110 000 for a woman.**
- **The long-term economic advantage to individuals with a tertiary education is about twice as large as the advantage for people with an upper secondary education as their highest educational level, on average across OECD countries.**
- **The net return to taxpayers on the public costs of supporting a man in higher education is over USD 91 000, and the return for supporting a woman in higher education is over USD 55 000, on average across OECD countries.**

Pursuing higher education can entail significant personal costs…

Investing in higher (tertiary) education is one of the more significant decisions a person can take. In some countries, such as Australia, Canada, Japan, Korea, and the United States, the direct costs of higher education can be large, often requiring a significant investment of an individual's personal funds, either in up-front payments or loan repayments later on. Even in countries where the direct costs of higher education to an individual are much lower, such as Finland, Norway, and Turkey, the time invested in pursuing a degree – and the opportunity cost of foregone earnings while an individual is in school – can be a major factor.

In light of the personal costs associated with pursuing a tertiary degree, how do the benefits compare? OECD analyses based on the most recent year of available data (2007 for most countries), suggest that as far as the long-term economic benefits of higher education are concerned, the return on investment is very good.

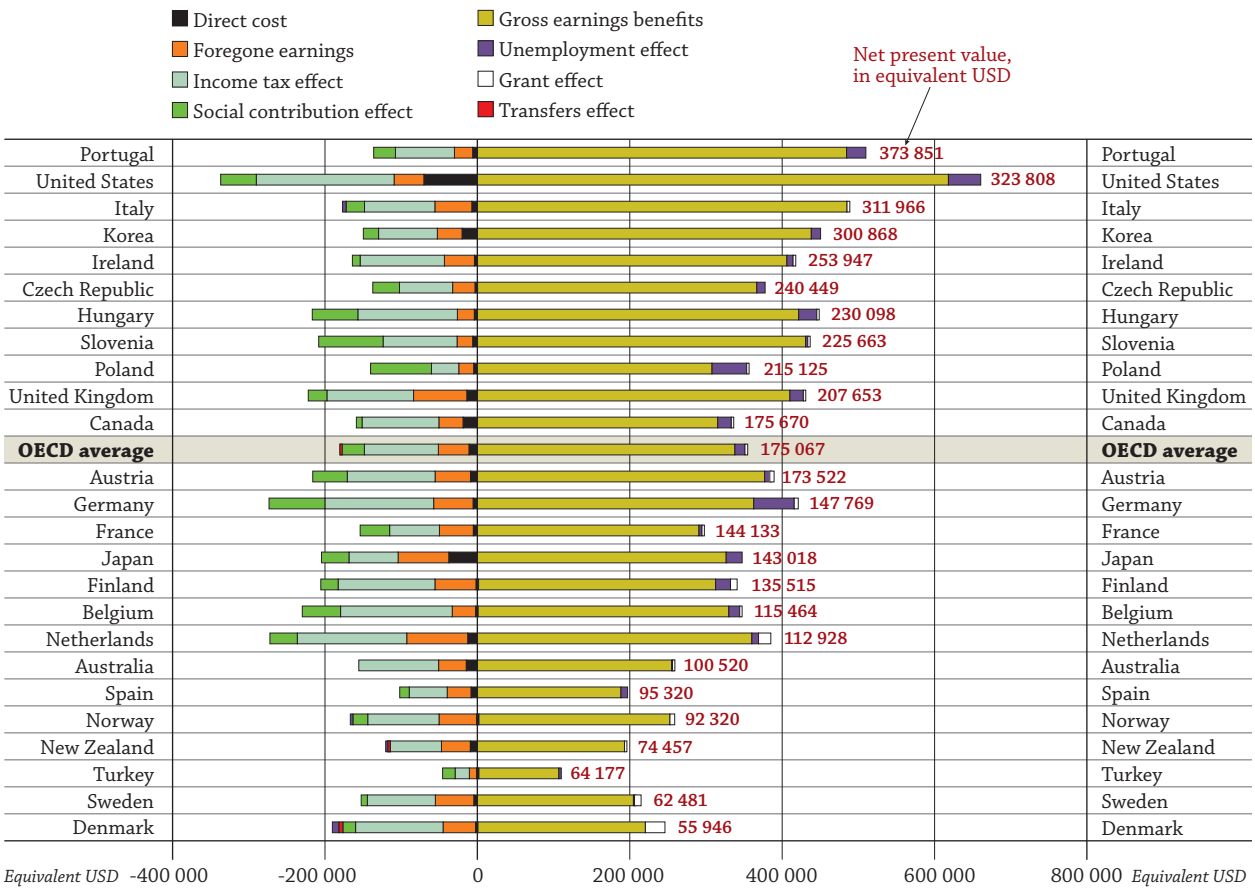
…but the long-term economic benefits to individuals are sizeable, too.

For example, the private net present value of having a higher education – that is, the long-term economic advantage of having a tertiary degree instead of an upper secondary degree, minus the associated costs – is more than USD 175 000 for a man and just over USD 110 000 for a woman, on average across OECD countries (see box for a more detailed explanation of private net present value). This economic advantage is particularly strong for men in Italy, Korea, Portugal and the United States, where obtaining a tertiary degree generates a long-term benefit of more than USD 300 000 for the average man, compared to a man with an upper secondary education only.

Meanwhile, the advantage for women is strongest in Ireland, Korea, Portugal, Slovenia, the United Kingdom, and the United States, where having a tertiary education yields an average long-term benefit of USD 150 000 or more, compared to a woman with an upper secondary education. Notably, the long-term economic rewards for investing in higher education are better for women than for men in Australia, Spain and Turkey.

On average across OECD countries, the long-term economic advantage of having a tertiary degree instead of an upper secondary degree (USD 175 067 for men and USD 110 007 for women) is roughly twice as large as the advantage that a person with an upper secondary education has over someone with a lower level of education (USD 77 604 for men and USD 63 035 for women). This reflects the fact that upper secondary education has become the norm in most OECD countries. It also suggests that today, most individuals need to go beyond upper secondary education in order to reap the higher levels of financial reward their country's labour market has to offer.

Private costs and benefits for a man obtaining higher education (in USD, 2007 or latest available year)



Notes: Data for Australia, Belgium and Turkey refer to 2005. Data for Italy, the Netherlands, Poland, Portugal and the United Kingdom refer to 2006. All other data refer to 2007.
Countries are ranked in descending order of the private net present value.
Source: *Education at a Glance 2011: OECD Indicators*, Indicator A9 (*www.oecd.org/edu/eag2011*).

What is the "private net present value" of higher education, and how is it calculated?

The private net present value of higher education is an **estimate of the net economic benefits to an individual who completes higher education, over his or her working life, expressed in the value of money today.** It is calculated by estimating the economic benefits that an individual with higher education receives compared to a person with an upper secondary or post-secondary non-tertiary education only, and then subtracting the costs to that individual that are associated with having a tertiary degree.

In this analysis, the **benefits** include the *increased earnings* that people with higher education typically enjoy, compared to a person with an upper secondary education; the *smaller likelihood of being unemployed,* expressed in monetary terms (the "unemployment effect"); and the grants that individuals often receive from governments to help pay for higher education. The **costs** include the *direct costs for education* (e.g. tuition fees and related expenses), *earnings foregone by the individual* while in higher education; and the *increased income taxes, transfers, and social welfare contributions* that individuals with higher levels of education typically pay to the government.

Although this analysis accounts for many of the economic costs and benefits associated with having a higher education, it does not capture all of them. Thus, the data should be interpreted with some caution.

Investing in higher education benefits the public sector as well.

Of course, individuals aren't the only ones who bear the costs of higher education. On average, OECD countries directly invest more than USD 30 000 in public sector funds to support an individual pursuing higher education. This includes taxpayer funds used to reduce the direct costs of higher education to individuals and support for grant and loan programs. Foregone tax revenues and social contributions while individuals are in education represent additional indirect costs.

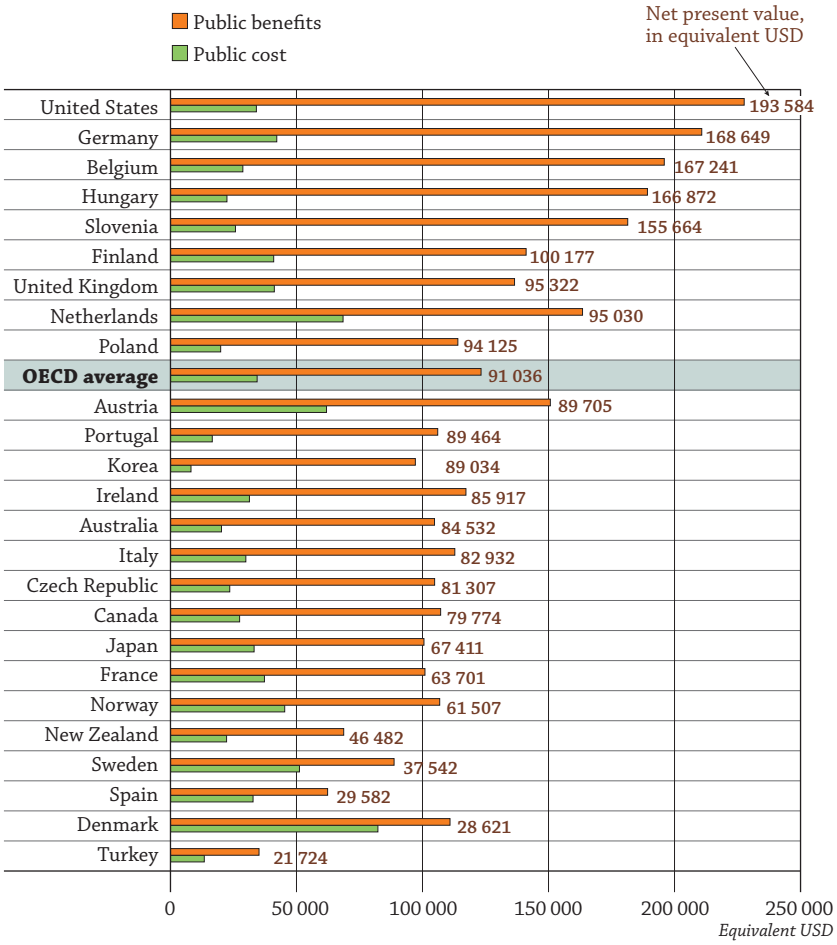
Over the long run, however, countries will recoup this investment – and then some – through increased tax revenues from these higher-educated people, as well as savings from the lower level of social transfers these individuals typically receive. For example, the net return on the public costs to support a man in tertiary education is more than USD 91 000, on average across OECD countries – more than three times the amount of the public investment. In Belgium, Germany, Hungary, Slovenia and the United States, this return is especially high, topping USD 150 000 for men in these countries.

By contrast, the net return on the public costs to support a woman in higher education is somewhat lower – USD 55 000, on average. Nonetheless, the return is positive in every OECD country except Denmark and Sweden. In both of these countries, public benefits for higher education are extremely high, and income inequality is comparatively low – two factors that likely influence these negative returns.

Recent changes in the economic and higher education landscapes are likely to affect the cost-benefit equation.

To be sure, the impact of the global economic crisis is likely to affect future analyses of higher education costs and benefits. For example, the higher unemployment rates spurred by the crisis are likely to have reduced the opportunity costs of foregoing work in order to pursue a tertiary degree.

Public costs and benefits for a man obtaining higher education (in USD, 2007 or latest available year)



Note: Data for Australia, Belgium and Turkey refer to 2005. Data for Italy, the Netherlands, Poland, Portugal and the United Kingdom refer to 2006. All other data refer to 2007.
Countries are ranked in descending order of the net present value.
Source: *Education at a Glance 2011: OECD Indicators*, Indicator A9 (*www.oecd.org/edu/eag2011*).

However, they also may have reduced some of the benefits of having a higher education, because unemployment rates rose among tertiary-educated people during the crisis.

Similarly, the continued global expansion of higher education could have different effects. As the supply of highly-educated individuals grows, the relative economic benefits of having a tertiary education may go down over time. However, if economies continue to become more knowledge-based – increasing the demand for highly-educated people even more – the economic benefits of higher education could continue to expand.

The bottom line **The long-term economic benefits of investing in higher education have been good for both individuals and countries – and will probably remain so in the future, as long as societies need more high-level skills.**

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