EDUCATION INDICATORS IN FOCUS

2014 (December)

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education **data** education **evidence** education **policy** education **analysis** education **statistics**

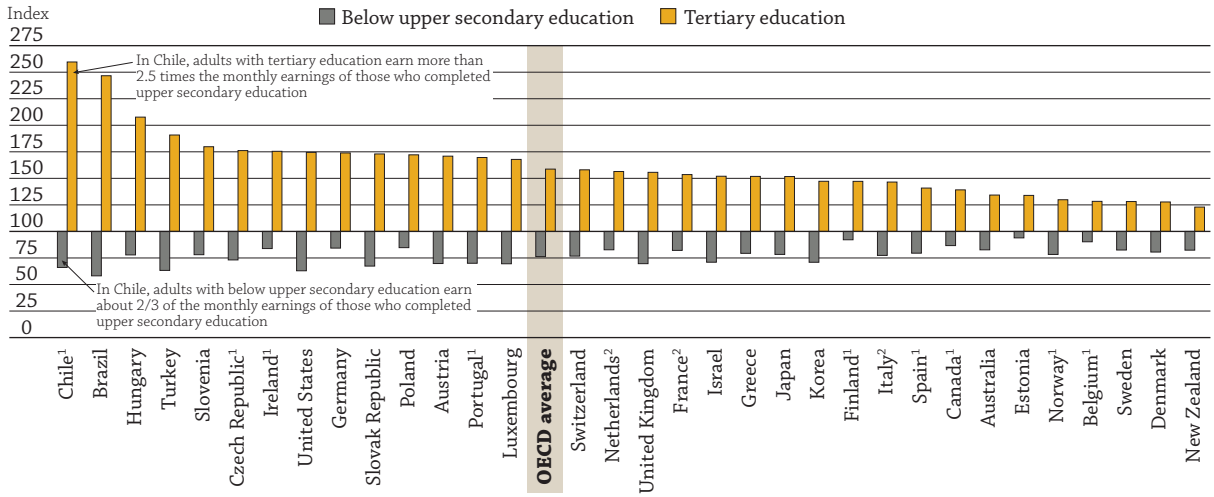
What are the earnings advantages from education?

- **Rising levels of tertiary attainment seem not to have led to an "inflation" eroding the labour-market value of qualifications. However, tertiary graduates have the highest relative earnings advantage when they live in a country with low tertiary attainment rates.**
- **On average, compared to those with an upper secondary education, tertiary-educated adults earn about 1.6 times more than their peers, while individuals without an upper secondary education earn 24% less.**
- **Higher educational attainment and literacy skills increase earnings, but the advantages are more pronounced for men than for women and seem to increase as adults get older.**
- **The crisis has widened the wage gap between less educated and highly educated individuals: across OECD countries, the average difference in earnings from employment between these two groups increased from 75 percentage points in 2008 to 79 percentage points in 2012.**
- **Qualifications are more rewarded than skills: attaining a higher level of education has a stronger positive impact on earnings than better literacy proficiency.**

Tertiary graduates earn more than 1.5 times the monthly earnings of adults with upper secondary education.

In all OECD countries, adults with tertiary education earn more than adults with upper secondary or post-secondary non-tertiary education, who, in turn, earn more than adults without upper secondary education (Figure 1).

Figure 1. **Relative earnings of workers, by educational attainment (2012)**
25-64 year-olds with income from employment; upper secondary = 100



Note: Income is net of income tax for Belgium, Ireland and Turkey.
1. Year of reference 2011.
2. Year of reference 2010.
Countries are ranked in descending order of the relative earnings of 25-64 year-olds with tertiary education.
Source: OECD (2014), *Education at a Glance 2014: OECD Indicators*, Indicator A6 (*www.oecd.org/edu/eag.htm*).

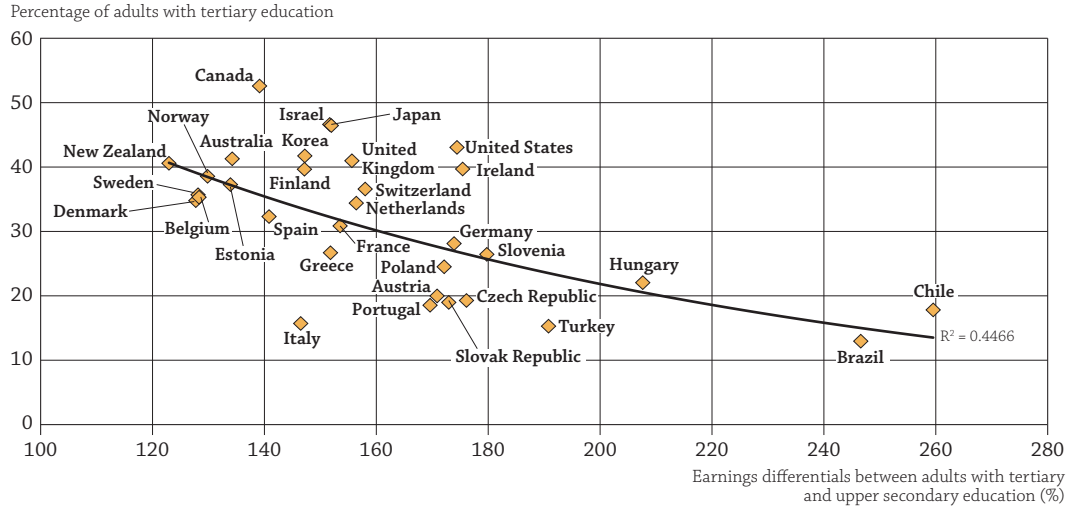
Brazil, Chile, Hungary, Turkey and the United States show the largest relative differences in earnings related to the level of education. In Brazil, Turkey and the United States, those without upper secondary education are the most penalised, as they earn less than 65% of the earnings of people who do have this qualification. In Brazil, Chile and Hungary, those with tertiary education are the most highly rewarded, relative to less qualified people, as they earn more than double the income of a person with upper secondary education (Figure 1).

Regular earnings data collection provides information based on an annual, monthly or weekly reference period, depending on the country. The length of the reference period for earnings also differs. Data on earnings are before income tax. Relative earnings are generally expressed in percentages of the earnings of adults with levels of education other than upper secondary relative to the earnings of those with upper secondary education.

Tertiary graduates have the highest relative earnings advantage when they live in a country with low tertiary attainment rates.

Generally, labour market segmentation and institutional factors severely limit the amount of open competition over wages. However, in countries where the number of new graduates is insufficient to replace workers going into retirement or to meet the labour market's ever-rising demand for highly skilled people, such a relative shortage of qualified people results in higher wages and larger benefits for tertiary graduates. This is particularly the case in Brazil and Chile where less than 20% of adults have tertiary credentials and where those who reached this level of education earn more than twice the monthly earnings of adults with upper secondary education (Figure 2).

Figure 2. **Percentage of 25-64 year-olds who have attained tertiary education and earnings differentials between adults with tertiary and upper secondary education (2012)**



Source: OECD (2014), *Education at a Glance 2014: OECD Indicators*, Indicators A1 and A6 (*www.oecd.org/edu/eag.htm*).

The increasing supply of well-educated workers has been matched by the creation of high-paying jobs.

Variations in relative earnings among countries reflect a number of factors, including the match/mismatch between the demand for skills in the labour market and the supply of workers at various levels of educational attainment, minimum wage laws, the strength of labour unions, and the coverage of collective-bargaining agreements.

Graduation rates from higher education have grown significantly in OECD countries in recent decades. Despite this expansion of tertiary education there have been, so far, no signs of "inflation" affecting the value of qualifications.

Moreover, the effects of the increase in the number of tertiary graduates have been positive both for individuals and societies in all OECD countries as demonstrated by the private and public returns associated with tertiary education (see Indicator A7 in OECD [2014]).

In general, countries have seen an increase in the earnings advantage for tertiary graduates during the last decade, even where tertiary expansion has been rapid. Nonetheless, in several contexts, countries seem to have undergone significant fluctuations. However, during the period 2000-12, among the countries in which tertiary attainment grew by 5 percentage points or more between 35-44 years-olds and 25-34 year-olds (see Table A1.3a in OECD [2014]), Hungary and New Zealand were the only countries in which such a rapid expansion in tertiary attainment was associated with a slight decline in the wage premium that tertiary attainment attracts.

The crisis has slightly widened the relative gap between less educated and highly educated individuals.

The earnings premium that tertiary-educated people typically enjoy in the labour market held firm during the crisis. Among countries with available data, on average the typical tertiary-educated employee earned 53% more than the typical employee with an upper secondary or post-secondary non-tertiary education in 2008. Despite the economic crisis, this premium increased slightly to 55% in 2012. Nonetheless, these averages conceal some significant fluctuations. Whereas in Austria and Ireland, the data available show fluctuations towards an increase of more than 10 percentage points between 2008 and 2012, in the Czech Republic and the Slovak Republic, tertiary-educated workers seem to have experienced a decline of more than 5 percentage points in their relative earnings over the same period.

The crisis has also widened the wage gap for less well-educated individuals. On average the typical employee without an upper secondary education earned 22% less than a corresponding worker with that level of education in 2008, across those countries with available data. This earnings disadvantage increased to 24% in 2012.

Higher levels of education do little to narrow the gender gap in earnings.

Unlike their effect on employment rates, higher levels of education do little to narrow the gender gap in earnings. Women earn considerably less than men regardless of the level of education attained. Across OECD countries, the difference in full-time earnings between 25-64 year-old men and women is the smallest for individuals with an upper secondary and post-secondary non-tertiary education, and largest for those with a tertiary qualification. On average, women with a tertiary qualification earn 73% of what men with similar qualifications are paid, while women with an upper secondary qualification earn 77% of their male peers' earnings.

There are only five countries where the earnings of tertiary-educated women are at least 80% of the earnings of men with similar qualifications. In Chile, Hungary and Italy, women who have obtained a tertiary degree earn 65% or less of what a tertiary-educated man would earn. However, the gender gap observed should be interpreted with some caution. It is partly explained by the under-representation of women at the highest levels of tertiary education, as well as in some fields of education such as engineering, manufacturing and construction, which are highly rewarded by the labour market.

Tertiary education is the best guarantee for better earnings in later life.

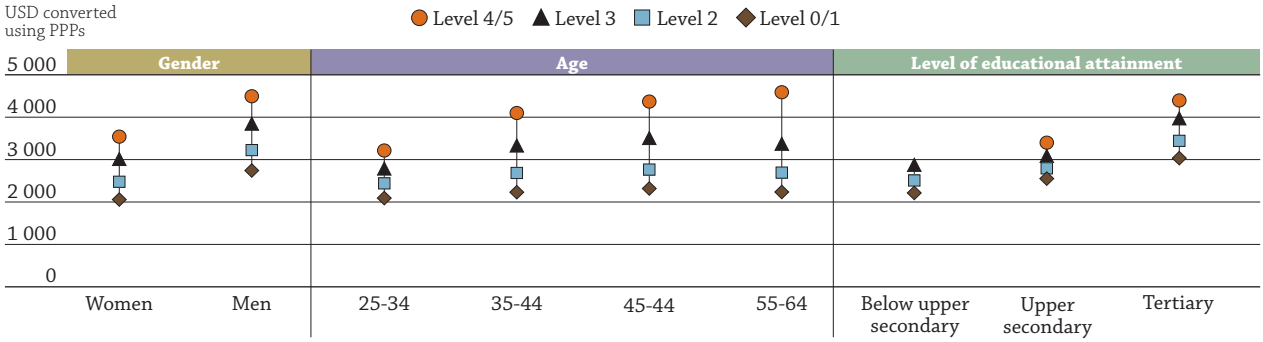
Individuals without an upper secondary qualification cannot expect their relative incomes to rise substantially as they grow older. Without a secondary education, 25-34 year-olds earn 83% of what their colleagues with a secondary education earn, on average, but this falls to 73% among 55-64 year-olds. By contrast, the wage premium for higher education increases with age. A 25-34 year-old with a tertiary education earns 40% more on average than an adult of the same age who has only an upper secondary education, while a 55-64 year-old earns 76% more. Higher educational attainment does not just give individuals a successful start in employment but has long-lasting and mutually reinforcing effects over a lifetime.

Better qualifications reap greater rewards than better skills.

A higher education degree clearly pays off in the long run but important differences are also observed between skill levels. Results from the Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), show the same pattern as for educational attainment. When analysing literacy skills in relation with gender and age, higher skills beget larger economic benefits for men than for women, and the increase in earnings among highly skilled individuals becomes more pronounced as they get older. However, as Figure 3 shows, a higher qualification pays off more than a higher level of literacy skills. The difference in earnings between two levels on the proficiency scale is between USD 242 and USD 310 for those with an upper secondary education, and between USD 409 and USD 532 for those with a tertiary education. Among individuals with the same level of literacy proficiency, the gap in earnings between those with an upper secondary qualification and a tertiary qualification is between USD 482 and USD 995.This greater benefit for qualifications over skills is probably due to the fact that society does not yet have the means to recognise skills as easily as it recognises qualifications.

Figure 3. **Mean monthly earnings in USD (using Purchasing Power Parities) of individuals, by literacy proficiency level, gender, age and educational attainment (2012)**

Survey of Adult Skills, 25-64 year-olds with income from employment working full time (30 hours or more per week)



Source: OECD (2014), *Education at a Glance 2014: OECD Indicators*, Indicator A6 (*www.oecd.org/edu/eag.htm*).

The bottom line: Relative earnings increase or decrease according to education, age, gender and skills. Each of these factors seems to play a role in an individuals' earnings advantage to different extents. The higher the qualification attained, the better placed individuals are to earn higher wages and to see increases in those wages over time. High skills proficiency also seems to pay off in the labour market, not only in employment rates but also in mean earnings. However, in many countries, gender gaps in earnings persist, regardless of the levels of education and skills.

For more information

OECD (2014), *Education at a Glance 2014: OECD Indicators*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eag-2014-en.*

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