



# Is labour market demand keeping pace with the rising educational attainment of the population?

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# Is labour market demand keeping pace with the rising educational attainment of the population?

- Across OECD countries, the share of 25-64 year-olds with tertiary education has almost doubled over the past two decades to 36% while the share of those without upper secondary education has fallen by half to 22%.
- Despite the massive expansion of higher education, the employment rate of tertiary-educated adults is still higher than for those without. Over the past two decades, the employment advantage of higher education has shrunk in only about one-quarter of OECD countries.
- Completing upper secondary education makes a big difference to labour market participation. Moreover, the employment prospects for young men without upper secondary education have deteriorated in almost all OECD countries over the past two decades.

## During the two past decades the population has become more educated

During the past two decades, the educational attainment levels of the population have increased across OECD countries. The share of the population without upper secondary education has decreased and tertiary attainment has become more widespread. Between 1995 and 2016, the percentage of 25-64 year-olds without upper secondary education has almost halved, from 40% to 22%, while the percentage of those with tertiary education has almost doubled from 20% to 36%. In about half of OECD countries, tertiary education is now the commonest level of educational attainment, overtaking below upper secondary education and upper secondary or post-secondary non-tertiary education.

The increasing attainment of the population is in line with the changing education requirements of the labour market. Recent technological progress and continued globalisation have profoundly changed the labour markets in OECD countries. For instance, the new positioning of many OECD countries in the global value chain has led to deindustrialisation and the reallocation of employment from manufacturing to services (OECD, 2017a).

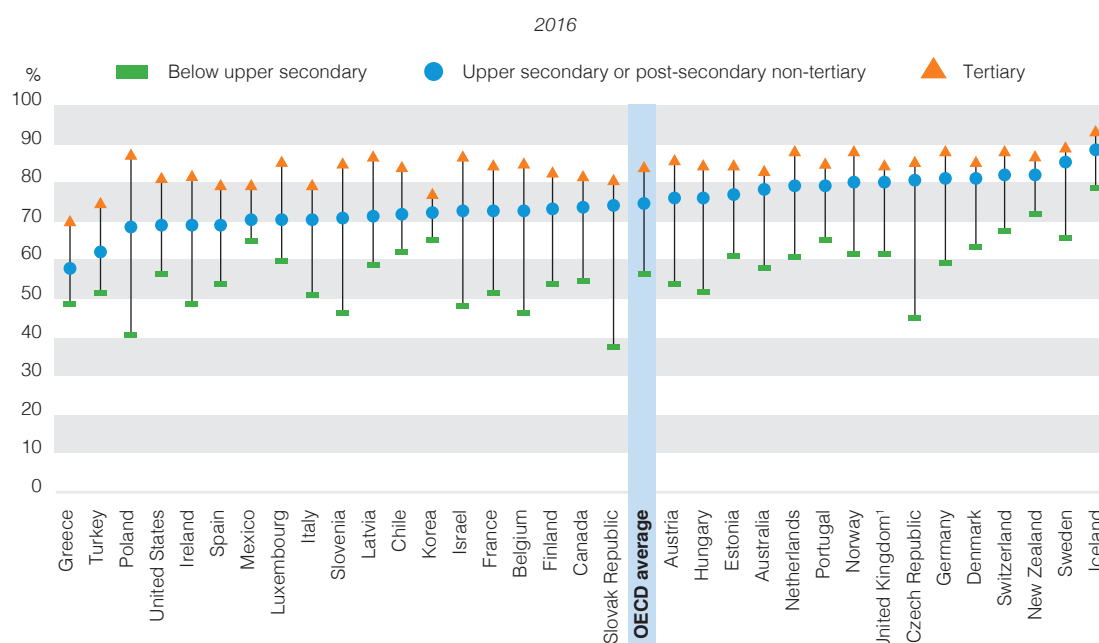
In many OECD countries, these changes have polarised employment into high-skill/high-paying jobs on the one hand and low-skill/low-paying jobs on the other. When classifying the jobs into different skills categories, OECD countries have seen an average increase of the proportion of jobs with high skill requirements of about 5 percentage points, but also an increase of about 2 percentage points of the proportion of jobs with low skill requirements, while employment in medium-skilled jobs decreased by 7 percentage points between 1995 and 2015 (OECD, 2017b).

## Higher attainment improves employment prospects

Participation in the labour market and employment prospects increase with educational attainment. On average across OECD countries, only 57% of 25-64 year-olds without upper secondary education

are employed, compared with 75% among those with an upper secondary or post-secondary non-tertiary education. Those holding a tertiary degree enjoy the best employment prospects: their employment rate amounts to 84% on average across OECD countries (Figure 1).

**FIGURE 1 / Employment rates of 25-64 year-olds, by educational attainment**



Note: Data for 2016 refer to 2015 in Chile and Ireland.

1. Data for upper secondary attainment include completion of a sufficient volume and standard of programmes that would be classified individually as completion of intermediate upper secondary programmes (16% of adults aged 25-64 are in this group).

Source: OECD (2017), Education at a Glance Database, <http://stats.oecd.org/>.

Across OECD countries, upper secondary education is commonly considered the minimum attainment level for successful labour market participation. In about one-third of OECD countries, the gap in employment rates between those with upper secondary education and those without exceeds 20 percentage points, with the gap reaching about 35 percentage points in the Czech Republic and the Slovak Republic. In contrast, the difference in employment rates between tertiary-educated adults and those with an upper secondary or post-secondary education remains below 20 percentage points in all OECD countries.

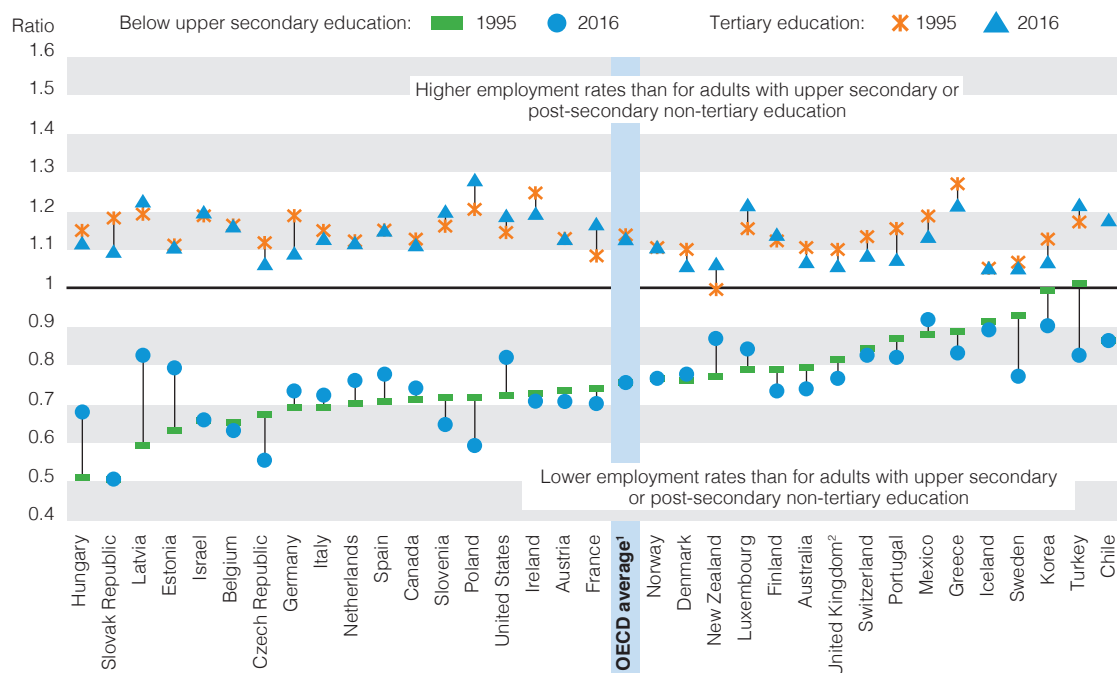
As shown by the recent snapshot for 2016 the supply of a more highly educated population corresponds to overall labour market demands. While the share of individuals with tertiary education has been increasing, their overall labour market outcomes surpass those of any less educated group.

## Despite the rise of higher education, the employment advantage of more highly educated people has remained stable on average across OECD countries

It might be thought that the positive labour market outcomes for tertiary-educated adults come at the expense of labour market outcomes of people with lower educational attainment levels. One way to analyse this is to compare the relative employment rates of different educational attainment groups. This ratio indicates that in 2016, tertiary-educated people were 13% more likely to be employed than those with upper secondary education or post-secondary non-tertiary education, on average across OECD countries. For the same year, the employment rate was 24% lower for those without upper secondary education than for those with upper secondary or post-secondary non-tertiary education (Figure 2).

**FIGURE 2 / Relative employment rates of 25-64 year-olds, by educational attainment**

Ratio of employment rates; upper secondary or post-secondary non-tertiary education = 1



Note: Data for 1995 refer to 1997 in Estonia, Hungary, Mexico, the Slovak Republic and the United Kingdom; to 1996 in Latvia; to 2001 in Israel; to 2000 in Finland, Luxembourg and Slovenia; and to 2003 in Iceland. Data for 2016 refer to 2015 in Chile and Ireland.

1. Excludes Chile.

2. Data for upper secondary attainment include completion of a sufficient volume and standard of programmes that would be classified individually as completion of intermediate upper secondary programmes (16% of adults aged 25-64 are in this group).

Source: OECD (2017), Education at a Glance Database, <http://stats.oecd.org/>.

Relative employment rates show a large variation in the employment advantage or disadvantage across countries. For instance, the employment advantage of a tertiary degree over an upper secondary or post-secondary non-tertiary qualification is much higher in Greece, where employment rates are the lowest, than in Iceland, where employment rates are the highest (Figures 1 and 2). In general, the employment advantage for individuals with tertiary education is lower in countries where the rate of those with upper-secondary or post-secondary non-tertiary education is high. In contrast, this relationship cannot be found for those without upper secondary education.

Relative employment rates over time show that in about two-thirds of OECD countries the advantage of having a certain level of education in the labour market has changed little over the last two decades (a change of less than 0.05 points). This means, the increasing supply of tertiary-educated adults – which has doubled over the past two decades – is in line with the increase in demand. Nevertheless, in about one-quarter of OECD countries, the employment advantage of a tertiary education has fallen over the same period (a change of more than 0.05 points) due to falling employment rates among the tertiary-educated population.

However, the demand for higher education and skills is more subtle than employment trends may suggest. As the share of tertiary graduates has expanded, the average skill levels of graduates may have declined, reducing the marginal value of higher education. The Survey of Adult Skills (PIAAC) shows that tertiary attainment does not always translate equally into high skill proficiency: around 30% of 25-64 year-old tertiary-educated adults have a literacy or numeracy proficiency at or below level 2 (on a scale from level 0 to level 5, OECD, 2016). In addition, stable relative employment rates for tertiary-educated adults may also mask qualification mismatches in the labour market. Among countries and subnational entities that participated in the Survey of Adult Skills (PIAAC), around one-fifth of workers reported that their job required a lower qualification than the level they held (OECD, 2013).

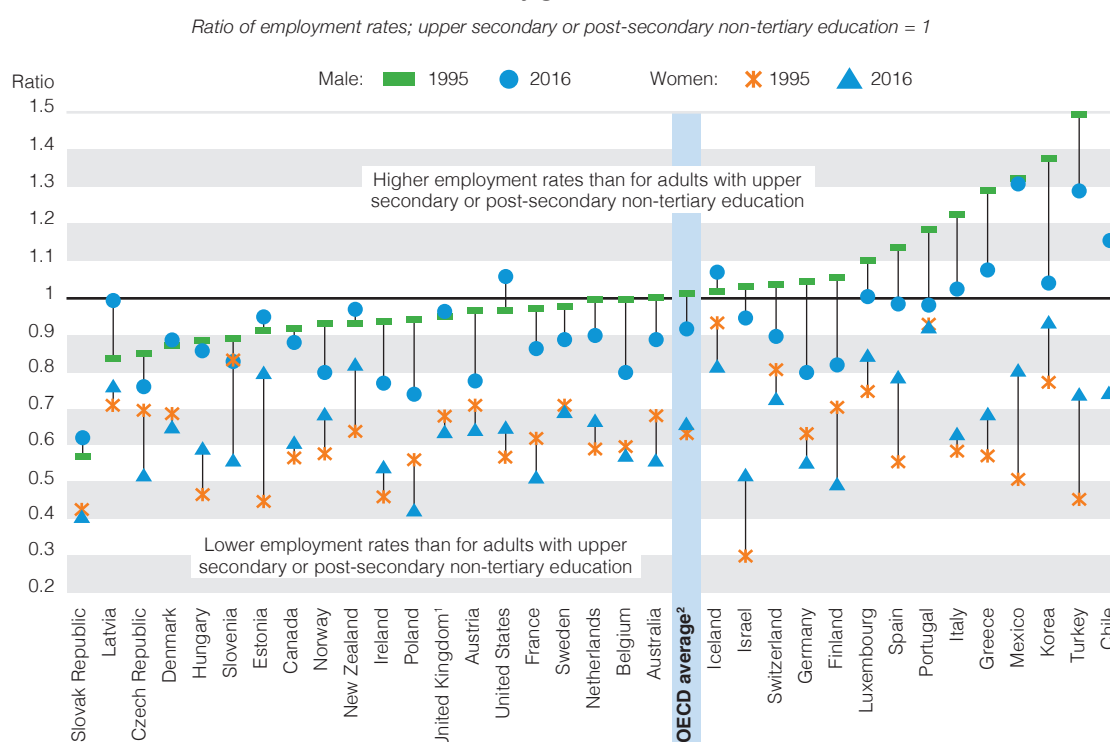
For those without upper secondary education the picture is also mixed. Figure 2 shows that the relatively lower employment rates of those without upper secondary education have remained stable in about half of OECD countries (changes of less than 0.05 point). This suggests that there are fewer low-educated people in the population, and there are fewer jobs for them to fill.

However, in the Czech Republic, Estonia, Hungary, Latvia, Poland, Sweden and Turkey, the employment ratio has either declined or increased by 0.1 or more, which may indicate some structural adaptation taking place in the labour markets of these countries.

## The relative employment prospects of low-skilled men and women have evolved differently over time

The breakdown by gender shows large differences and these are particularly marked for younger adults. Figure 3 shows the relative employment rates of 25-34 year-old men without upper secondary education. In 1995, young men in many countries had similar employment rates, whether or not they had upper secondary education (indicated by a ratio of employment rates of around 1.0). In a few countries, including Greece, Italy, Korea, Mexico and Turkey, the employment prospects of young men without upper secondary education exceeded those with upper secondary and post-secondary non-tertiary education by more than 20%.

**FIGURE 3 / Relative employment rates of 25-34 year-old men without upper secondary education, by gender**



Note: Data for 1995 refer to 1997 in Estonia, Hungary, Mexico, the Slovak Republic and the United Kingdom; 1996 in Latvia; 2001 in Israel; 2000 in Finland, Luxembourg and Slovenia; and 2003 in Iceland. Data for 2016 refer to 2015 in Chile and Ireland.

1. Data for upper secondary attainment include completion of a sufficient volume and standard of programmes that would be classified individually as completion of intermediate upper secondary programmes (16% of adults aged 25-64 are in this group).

2. Excludes Chile.

Source: OECD (2017), Education at a Glance Database, <http://stats.oecd.org/>.

However, over the last two decades the relative employment rates of young men without upper secondary education have decreased in almost all OECD countries by more than 0.05 points on average and by more than 0.2 points in Germany, Greece, Korea and Turkey. In 2016, in 4 out of 5 countries, the ratio of employment rates has fallen below 1 indicating poorer employment prospects for those without upper secondary education than for those with upper secondary education.

Young women without upper secondary education have poorer relative employment prospects than men overall and their employment rate was 34% lower (ratio of 0.66) in 2016. However, the changes between 1995 and 2016 vary much more across countries for women than for men. In almost half of OECD countries, the relative employment rates of women in this group have improved, especially in

Estonia, Israel, Mexico, Spain and Turkey (the ratio increased by more than 0.2 points). In a few countries, their relative employment rates fell (the ratio decreased by more than 0.05 points) during this period.

A number of different factors may lie behind these gender-specific patterns in relative employment rates. One factor could be gender differences in the distribution of employment between the public and private sectors. Another factor could be industry-and-gender specific dynamics such as the marked decline in construction activities (traditionally a male-dominated sector) during the recession following the financial crisis in 2007 and 2008, and the specific type of jobs concerned (e.g. personal care is traditionally more female-dominated) (OECD, 2015). The availability of affordable childcare may also affect these patterns.

## The bottom line

Across OECD countries, more and more individuals have attained tertiary education and the share of those with less education has declined. Although there are more tertiary-educated individuals than ever before, they still achieve good labour market outcomes. This confirms that labour market demand is generally keeping pace with rising educational attainment. Only in about one-quarter of OECD countries, the employment advantage of tertiary-educated adults over adults with upper-secondary or post-secondary education has declined over the past two decades, which may be a sign that demand for tertiary-educated people is slowing down. Countries also need to address the situation of young men and women who have not completed upper secondary school and who face low employment prospects.

### FOR MORE INFORMATION:

OECD (2017a), *OECD Skills Outlook 2017: Skills and Global Value Chains*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264273351-en>.

OECD (2017b), *OECD Employment Outlook 2017*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/empl-outlook-2017-en>.

OECD (2017c), *Education at a Glance 2017: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2017-en>.

OECD (2016), *Education at a Glance 2016: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2016-en>.

OECD (2015), *OECD Science, Technology and Industry Scoreboard 2015: Innovation for Growth and Society*, OECD Publishing, Paris, [http://dx.doi.org/10.1787/sti\\_scoreboard-2015-en](http://dx.doi.org/10.1787/sti_scoreboard-2015-en).

OECD (2013), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264204256-en>.

### VISIT

[www.oecd.org/education/education-at-a-glance-19991487.htm](http://www.oecd.org/education/education-at-a-glance-19991487.htm)

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