

Regional differences in highly-skilled workers

The quality of human capital is central to increasing productivity, as the ability to generate and make use of innovation depends on, among other factors, the capacity and skill level of the labour force. The proportion of the labour force with tertiary education is a common proxy for a region's capacity to produce and absorb innovation.

Across OECD countries, large differences in the tertiary educational attainment of the labour force existed in 2014, ranging from 18% in Italy to 45% in Israel. At the same time, large disparities among regions within the same country can also be observed. The United States, Australia, Spain, Turkey, the Czech Republic and Japan show the largest regional disparities with gaps between the top and bottom regions of 25 percentage points or more. Among the top regions across the OECD are many country capitals. The Australian Capital Territory (Australia) is the OECD region with the highest share of tertiary-educated workers (64.6%), followed by the District of Columbia (United States), Greater London (United Kingdom) and Tokyo (Japan) (Figure 2.52).

Between 2000 and 2013 in all countries, both the top 20% and bottom 20% of regions experienced a growth in the share of their labour force with tertiary education (Figure 2.53). The average annual growth rates are relatively high in the majority of countries. Furthermore, in 22 out of 27 countries, the share in the bottom 20% regions grew faster, reducing the gap in tertiary-educated workers between the top and bottom 20% regions. Those countries with the highest increase of tertiary-educated workers in the top 20% regions were Italy, Poland, Slovenia and

Portugal, with average annual growth ranging between 5% and 7.7%. Poland, Portugal, Slovenia and Austria also experienced the highest average annual growth in the bottom 20%, with 7.1% per annum in Poland, followed by Portugal (6.6%) and Slovenia (5.4%) and Austria (5.4%).

In contrast, the inter-regional gaps in terms of R&D personnel do not show the same convergence trend as for tertiary-educated workers. Between 2000 and 2013, the gap between the top and bottom 20% regions for the rate of R&D personnel per 1 000 employees increased in 12 out of 19 countries. Those countries experienced higher growth rates in the share of R&D personnel in the top 20% regions. An even more worrying trend is that the bottom 20% regions actually showed declining values, not merely lower growth rates, in many countries (Figure 2.54). Where gaps are narrowing, the bottom 20% regions are increasing R&D personnel in the labour force at a faster rate. In the case of Ireland, Belgium, and the Slovak Republic, the leading regions are decreasing their share of R&D personnel at a faster pace than the bottom 20%. The drop in R&D personnel in the top 20% regions in Finland is likely due in part to the downsizing of the firm Nokia.

Source

OECD (2015), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en>.

Reference years and territorial level

All figures refer to TL2 level. Year range: 2.52: 2014, 2.53: 2000-14, 2.54: 2000-13.

Further information

OECD (2015), *Education at a Glance 2015: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2015-en>.

Figure notes

Estonia and Luxembourg are excluded in all figures as both consist of only one defined TL2 region.

2.52: Norway is excluded due to lack of data and/or comparable years.

2.53: Australia, Chile, Denmark, Greece and Turkey are excluded due to lack of data and/or comparable years.

2.54: Australia, Chile, Denmark, Estonia, France, Iceland, Israel, Japan, Luxembourg, Mexico, New Zealand, Switzerland, Turkey, United Kingdom and United States are excluded due to lack of data and/or comparable years.

Definition

The labour force with advanced educational qualifications is defined as the labour force aged 15 and over that has completed tertiary educational programmes. Tertiary education includes both university qualifications and advanced professional programmes (ISCED 5 and 6).

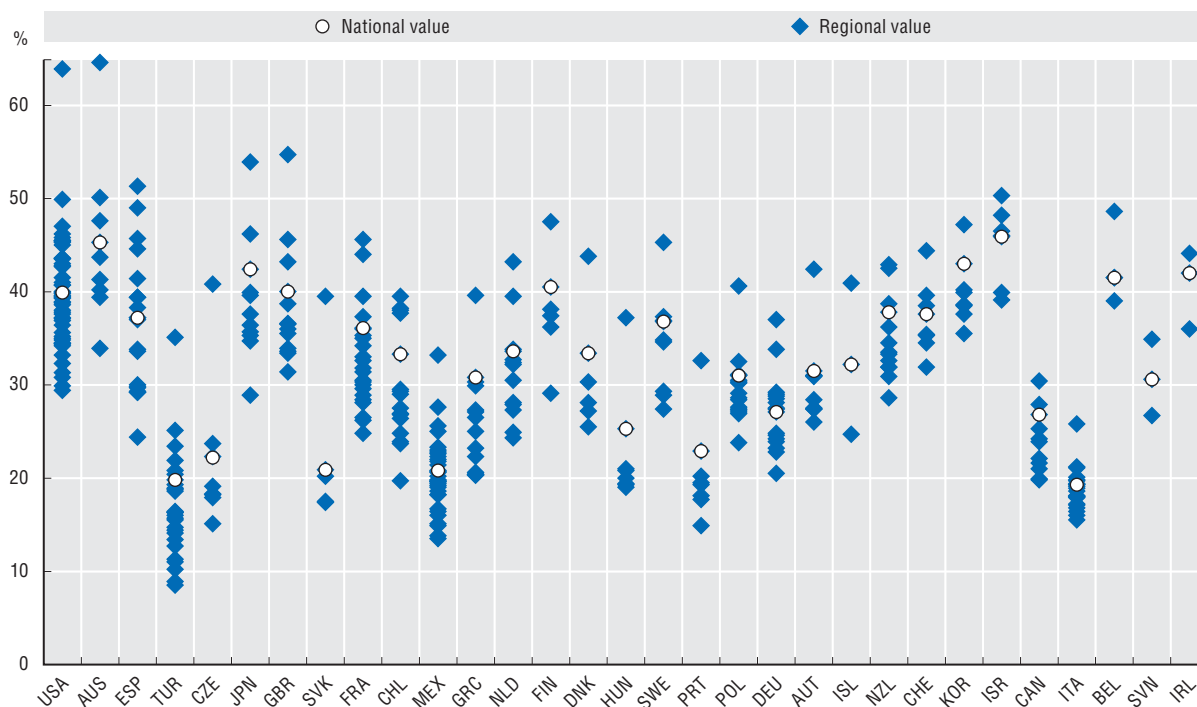
R&D personnel includes all persons employed directly in R&D activities, such as researchers and those providing direct services such as R&D managers, administrators and clerical staff. Data are expressed in headcounts per 1 000 employees.

The top 20% regions are defined as those with the highest value of the indicator until the equivalent of 20% of the national population is reached.

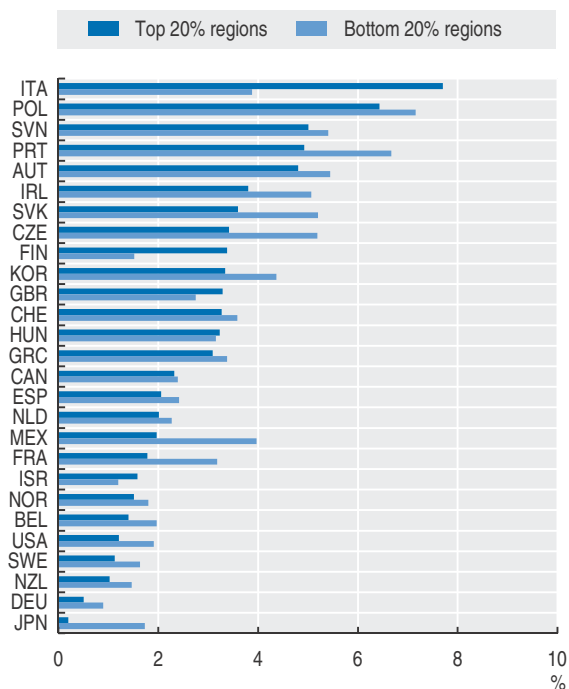
2. REGIONS AS DRIVERS OF NATIONAL COMPETITIVENESS

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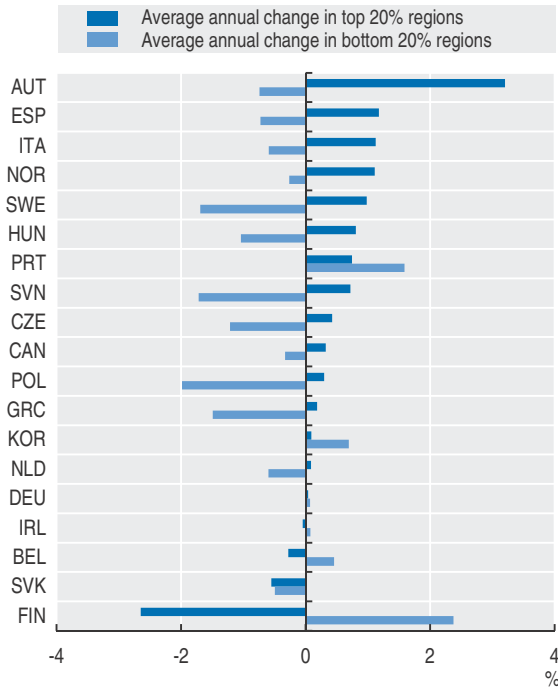
2.52. Regional range of labour force with tertiary educational attainment in TL2 regions, 2014

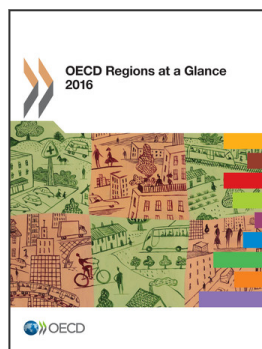


2.53. Average annual change in the share of the labour force with tertiary education in the top and bottom 20% regions, 2000-14



2.54. Average annual change in the share of R&D personnel in the top and bottom 20% regions, 2000-13





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