## 53. Education outputs

Education systems are integral to ensuring that countries have a strong, skilled workforce and an active citizenry to engage in democratic governance. Graduation rates and levels of educational attainment provide good measures of what education systems are producing.

Graduating from university (tertiary-type A) programmes is increasingly important in the OECD for individuals to find employment. On average, over 60% of students graduate from upper secondary school programmes oriented towards entering into type A tertiary education. Yet, just over half (56%) of these students actually go on to enter into tertiary-type A. In countries such as Ireland, France, Estonia and Belgium, the gap between those who graduate with an upper secondary education and enrol in university is more than 30 percentage points, suggesting that some people who could go on to university do not do so. Factors such as mandatory military service or the prevalence of vocationally-oriented tertiary education account for some of the gap. In Australia and New Zealand, the higher tertiary entry rates relative to upper secondary graduation rates can be explained partly by the large presence of international students.

Tertiary university entry rates, however, do not show how many students complete tertiary education. Education levels amongst the adult population, especially over time or between age groups, provide a better indication of the human capital or skills available in a population or labour force and whether these are improving over time or not. Tertiary attainment levels have increased considerably over the past 30 years. In almost all countries, 25-34 year-olds have higher tertiary attainment levels than the generation about to leave the labour market (55-64 year-olds).

Examining the relationship between education resources invested and learning performance according to standardised international assessments provides some insight into which systems can achieve the best student performance given the inputs used. There is a positive relationship between expenditures on primary and secondary education per student and reading test scores, but not a strong one. In addition to expenditures, learning outcomes depend on the quality of teachers, socio-economic backgrounds of students and school management practices, among other factors. Countries such as Korea, New Zealand and Finland spend less than average per student, however attain relatively better performance in reading. Austria, Italy and Luxembourg spend more yet performance is lower than average.

## Methodology and definitions

Upper secondary graduation rates (ISCED 3A) are net graduation rates, which represent the estimated percentage of the age cohort that will complete education at those levels. The entry rate into tertiary-type A education for a specific age is calculated by dividing the number of first-time entrants of that age by the total population in the corresponding age group.

Data on expenditures per student refer to the 2007 financial year and are based on data collection on education statistics administered by the OECD in 2009. Expenditures include educational core services and ancillary services such as transport, meals, housing provided by institutions and R&D. Spending per student equals the total expenditure by education institutions divided by the corresponding full-time equivalent enrolment. Due to differences across countries in the duration of courses, annual spending per student may not fully reflect the total spent on a student. See Chart B1.5 in Education at a Glance 2010 for additional estimations. The achievement scores were based on assessments of 15-year olds administered as part of the OECD's PISA programme, which focussed on reading in 2009.

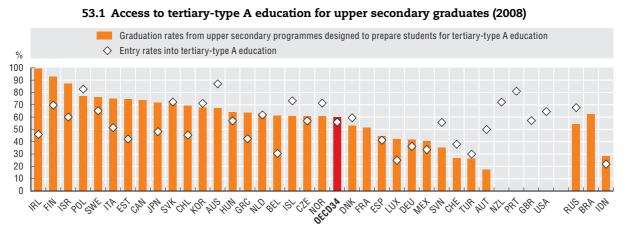
### **Further reading**

OECD (2010), Education at a Glance 2010: OECD Indicators, OECD Publishing, Paris.

#### **Figure notes**

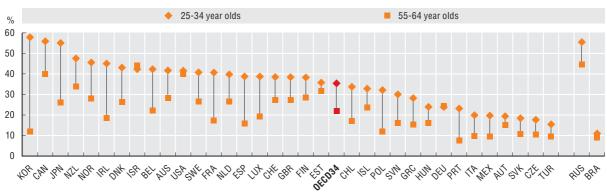
- 53.1: Data on upper secondary graduation rates are not available for New Zealand, Portugal, the United Kingdom and the United States. For Australia, graduation rates refer to 2007. Austrian data include ISCED 4A programmes (*Berufsbildende Höhere Schulen*).
- 53.2: Data for the Russian Federation refer to 2002. See Annex 3 of Education at a Glance 2010 for a complete set of notes (www.oecd.org/edu/eag2010).
- 53.3: Data are not available for Greece and Turkey. Expenditure data for Canada refer to 2006 and for Chile refer to 2008. Expenditure data for Hungary, Italy, Luxembourg, Poland, Portugal, Slovenia, Switzerland, the Russian Federation and Brazil refer to public institutions only.
- Information on data for Israel: http://dx.doi.org/10.1787/888932315602.

53. Education outputs



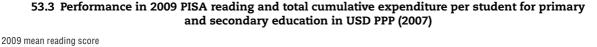
Source: OECD (2010), Education at a Glance 2010: OECD Indicators, OECD Publishing, Paris. Chart A2.2 based on Tables A2.1 and A2.3 (www.oecd.org/edu/eag2010).

StatLink and http://dx.doi.org/10.1787/888932391488



#### 53.2 Percentage of the population that has attained tertiary education (2008)

Source: OECD (2010), Education at a Glance 2010: OECD Indicators, OECD Publishing, Paris. Chart A1.1 and Table A1.3a.
StatLink mst http://dx.doi.org/10.1787/888932391507





Source: OECD (2010), Education at a Glance 2010: OECD Indicators, OECD Publishing, Paris, Table B1.3a and OECD (2010), PISA 2009 Results: What Students Know and Can Do – Student Performance in Reading, Mathematics and Science, Vol. I, OECD Publishing, Paris, Table I.2.3. StatLink and the Mtp://dx.doi.org/10.1787/888932391526



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