5.1. New university graduates

The number of new university graduates indicates a country's capacity to absorb, develop and diffuse knowledge and to supply the labour market with highly skilled workers.

In 2006, more than one young person in three graduated at the first-stage university level in the OECD area. This represents 7.1 million degrees awarded. Iceland, Australia and New Zealand had the highest graduation rates (over 50% of the relevant age cohort). Japan (39%) ranks slightly above the OECD average (37%). The United States (36%) and the EU (35%), the two main university systems with 2.9 million and 2.2 million degrees awarded, respectively, rank just below. In Europe almost twice as many degrees per age cohort were awarded in the Nordic countries, Poland and the Netherlands as in Belgium, Greece, Germany or Austria.

Emerging countries are also expanding their first-stage university system. The Russian Federation had 1.1 million graduates in 2006 and the graduation rate (45% of the relevant age cohort) was above the EU average. Brazil had 677 000 graduates (13.5%). In China the number of graduates (12%), albeit still low compared to OECD average, has almost tripled since 2000.

Most university degree recipients graduate in the social sciences. Their share in total graduates exceeds 40% in Poland, Hungary or Australia, where many studied business and administration, or in Mexico, France and Switzerland, where many received law degrees. Scientific studies are more popular in Korea and the Nordic countries. Science and engineering degrees account for 37% and 29% of Korean and Finnish awards, respectively. In Denmark and Sweden, over 25% of degrees are in the health sciences.

OECD governments are concerned about the low level of female participation in scientific studies. On average 45% of women in the relevant age group received a university degree compared to less than 30% of men. However, they are less well represented in science and engineering (S&E) studies. Their presence is overwhelming in humanities and the arts (67%), health (74%) and education (75%) but minor in engineering (23%) or computing (23%). The female deficit is striking in Japan, where no more than 15% of S&E degrees are awarded to women.

Graduates and graduation rates

The higher education system is the main source of human resources in science and technology (HRST). Immigration and job-to-job mobility complement the labour supply for highly skilled.

University graduates obtain tertiary degrees at levels 5A and 6 of the 1997 International Standard Classification of Education (ISCED 1997). The first stage (ISCED 5A) of university education is composed of long-stream programmes largely theoretically based or preparatory to research which provide qualifications to enter advanced research programmes at level ISCED 6 or professions with high skill requirements.

Science degrees include: life sciences; physical sciences; mathematics and statistics; and computing. Engineering degrees comprise: engineering and engineering trades; manufacturing and processing; and architecture and building.

Graduation rates represent the share of persons receiving a degree in the population at the typical age of graduation. Figures refer to net graduation rates, summing graduation rates by individual years of age. Up to 2004, rates were calculated on a gross basis as the share of graduates in the population at the typical age of graduation. For several countries for which net rates were not available, gross rates were used instead.

Source

OECD, Education Database, 2009.

UNESCO, Institute for Statistics, 2009.

China Statistical Yearbook, 2008.

Going further

OECD and Eurostat (1995), "Manual on the Measurement of Human Resources Devoted to S&T – 'Canberra Manual'", OECD general distribution document, OCDE/GD(95)77, *www.oecd.org/dataoecd/34/0/2096025.pdf*.

OECD (2008), *Education at a Glance 2008: OECD Indicators*, OECD, Paris, *www.oecd.org/edu/eag2008*.

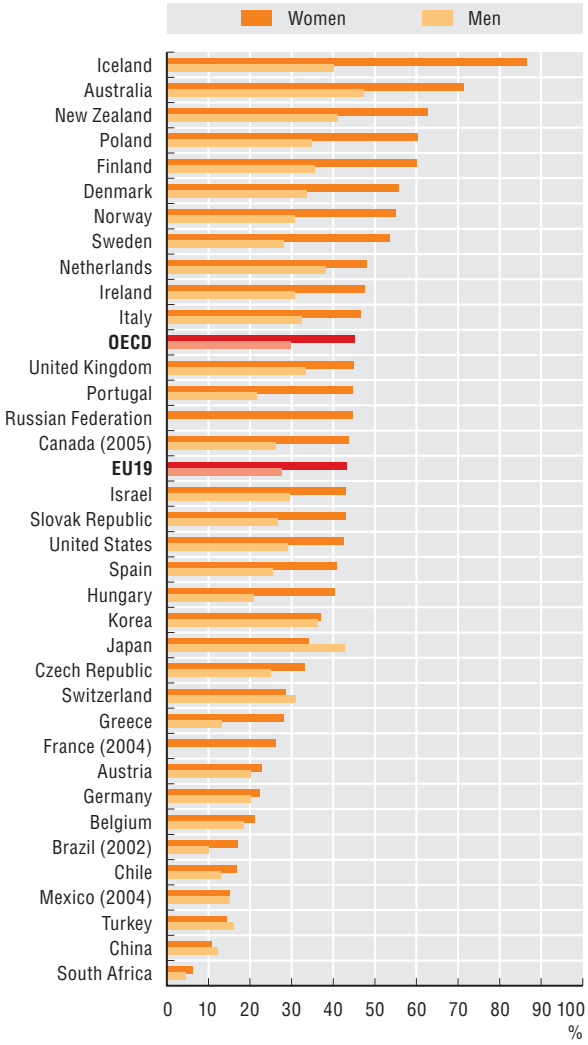
Figure notes

A breakdown by gender is not available for France or the Russian Federation. The bar for women corresponds to graduation rates for both men and women.

For Brazil and the Russian Federation, ISCED 6 programmes are included. For South Africa, ISCED 5B and 6 programmes are included.

Graduation rates at first-stage university level by gender, 2006

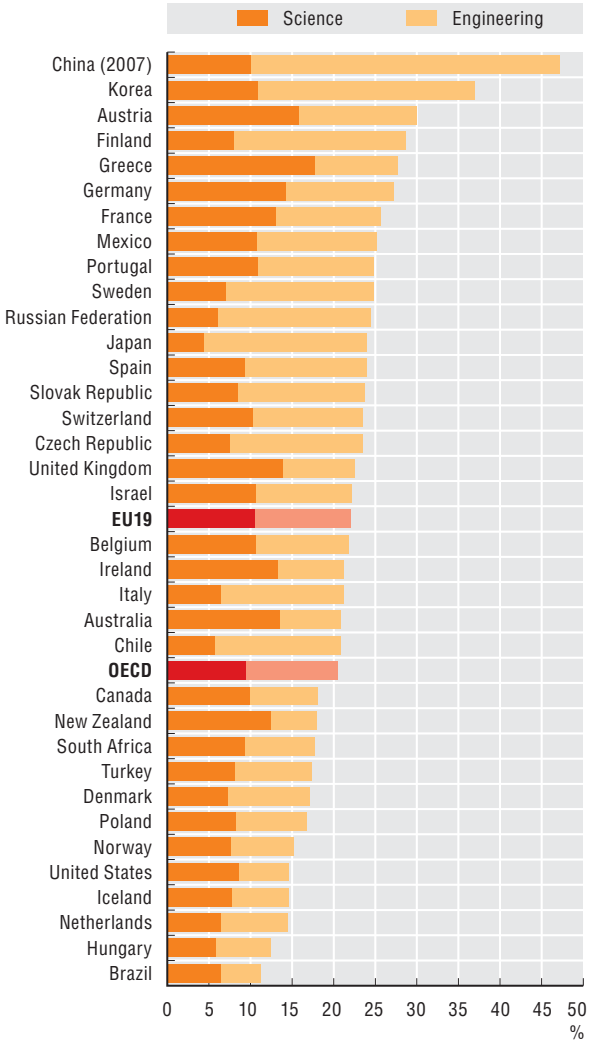
As a percentage of the relevant age cohort



StatLink http://dx.doi.org/10.1787/746387282741

Science and engineering degrees at first-stage university level, 2006

As a percentage of all new degrees at first-stage university level



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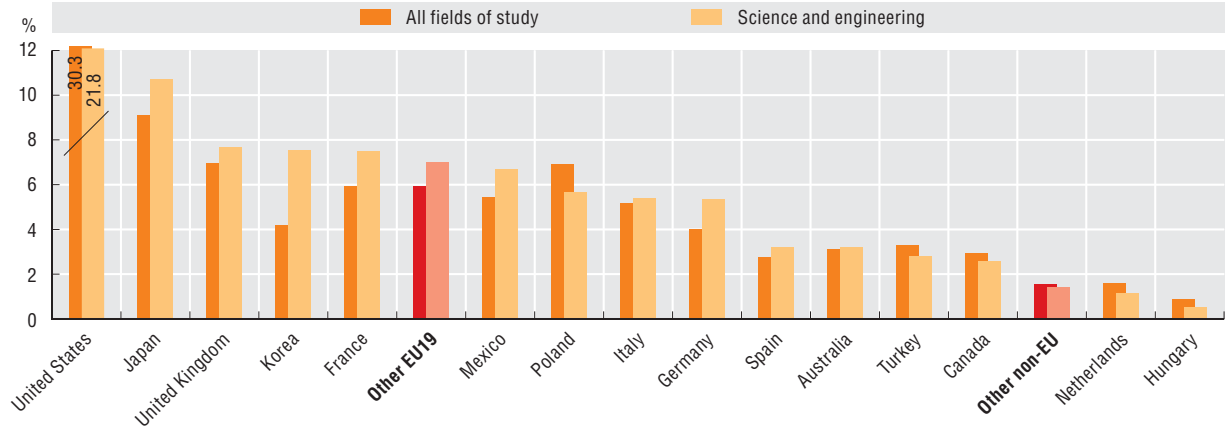
New OECD first-stage university graduates by main country of graduation, 2006

As a percentage of total OECD new first-stage university graduates



StatLink http://dx.doi.org/10.1787/746455641217