CO3.2: Gender differences in university graduates by fields of study

Definitions and methodology

This indicator provides information on the subjects that male and female students tend to study at university by looking at the gender distribution of graduates in certain subjects. This gives an insight into the skills and expertise that men and women then bring to the labour market, and into how differences in subjects studied at university affect future career and family income patterns.

Data on graduates by field of study are collected through the joint UNESCO-OECD-Eurostat (UOE) annual data collection on education systems. Graduates are classified as having successfully followed and completed a university programme and graduated in the specified year; this is then further disaggregated by gender and subject.

Key findings

Chart CO3.2.A shows that across all OECD countries, a majority of graduates in humanities and arts subjects are female. Included within this category are courses in fine arts, performing arts, audio-visual arts and media production (e.g. film and video production and photography), foreign languages, philosophy, linguistics and literature, history and archaeology. Some prospective careers stemming from these degrees include schoolteachers, interpreters and translators, and archaeologists.

Conversely, graduates in information and communication technologies are, in most countries, predominately male (Chart CO3.2.B). In all OECD countries except Mexico, and Turkey more than 70% of graduates in these subjects are male, and on average across OECD countries more than 80% of tertiary degrees in information and communication technologies are awarded to men. Courses in this area include computer science, database and network design, and software and applications development and analysis. Prospective careers are most likely to be found in technology.

Chart CO3.2.A Male and female share of degrees awarded in humanities and arts subjects, 2015

Distribution (%) of tertiary degrees awarded in humanities and arts qualifications by sex

Other relevant indicators: Employment profiles over the life course (LMF1.4); Male and female earnings in family income of couple families (LMF1.6); Gender neutrality in tax/benefit systems (PF1.4); Educational attainment by gender and average years spent in formal education (CO3.1); and, Literacy scores by gender at age 15 (CO3.4).
Another field of study dominated by male students is engineering, manufacturing and construction. This field encompasses a diverse range of subjects and thereby offers multiple job opportunities. Students study a range of courses including chemical engineering, mechanics, food and drink processing, mining and extraction, and architecture, construction and civil engineering. On average across OECD countries, women account for only 24.4% of all graduates in these subjects. The highest female share is in Poland (40.8%), and the lowest is in Japan (13.2%) (Chart CO3.2.C).
Comparability and Data issues

There should be few major issues with the cross-national comparability of data in this area. The UOE data collection manual gives detailed instructions to national correspondents on the mapping of subjects and fields of study. For more details and notes for specific countries, see the notes for Indicator A.3 provided in OECD (2017) Education at a Glance 2017 Annex 3 (http://www.oecd.org/edu/education-at-a-glance-19991487.htm).