June 2013

What it means for higher education Closing the gender gap

How do men and women compare?

- Women have overtaken men in education in OECD countries:
 - More than four out of five women aged 25-34 years have completed at least upper secondary school and gender gaps are relatively small for many countries. 42% of women aged 25-34 years have completed tertiary education compared with only one-third of men.
 - At age 15, girls read better than boys and many more boys than girls lack basic reading skills. Boys are more likely to excel at mathematics than girls, but boys are more likely to fail and drop out.
 - □ In higher education, nearly 60% of degrees were awarded to women in 2010, but with stark gender differences across subjects, from 77% for education to only 20% for computing. But 46% of all doctorates were awarded to women in 2009, including 34% of doctorates in science and engineering.
- > But women are still at a disadvantage in careers and earnings, even if tertiary educated:
 - Women graduates are less likely to start their careers in professional positions and are more likely to become technicians, even though there are no significant gender differences in university grades.
 - Gender gaps in earnings for those in full-time work are slowly narrowing, but even women without children earn less than men of the same age: women with children face an even larger penalty.
 - □ Women with children may need to take a career break or scale back their hours if affordable, quality daycare is not available, and women still do more unpaid work than men.

What it means for higher education

- Closing gender gaps in entry into tertiary education increasingly depends on improving school outcomes for boys. In addressing these gaps, higher education institutions may now need to pay greater attention to encouraging more young men to pursue tertiary studies, through active outreach.
- Higher education institutions can help to reduce gender biases in subject choices through outreach and mentoring programmes with schools. They can also ensure that all courses welcome and encourage students of both genders and review course materials and practices to eliminate gender stereotypes.
- Higher education institutions could encourage their women graduates to pursue professional careers and ensure that their career counselling services are providing appropriate advice to both male and female students.
- Higher education institutions may also need to look at what they can do within their own institutions to facilitate the careers of women. This could include:
 - Ensuring that recruitment, tenure and other HR policies do not put women at a disadvantage
 - Offering mentoring and coaching programmes to help women academics advance their careers
 - Providing affordable early childhood education and care for faculty (and students)
 - Promoting more women into senior management roles
 - □ Strengthening gender awareness across the institution, with appropriate accountability mechanisms

Women have overtaken men in educational attainment

Over the past few decades, women have caught up and overtaken men in educational attainment. Nearly 83% of 25-34 year old women in OECD countries have completed at least upper secondary school, slightly more than men. But while the overall gender differences seem small, in some countries they are large. Attainment rates for this age group are lower overall in Portugal and Spain and especially so for young men, while for Turkey, around half the men in this age group have completed upper secondary school, compared with only 36% of women.

The gender gap grows significantly larger for tertiary education, with more than 41% of 25-34 year old women holding tertiary degrees compared with less than 33% of men in the same age bracket.

Girls are also performing significantly better than boys for reading at 15 years of age – with the gap, on average corresponding to the equivalent of a whole year's schooling. Gender gaps in reading are widest among the lowest performers, as many more boys than girls lack even basic reading skills.

Educational attainment levels

	25-34 years old		55-64 years old	
OECD, 2010	Men	Women	Men	Women
Share of population with at least upper secondary education	80	83	66	58
Share of population with tertiary education	33	42	25	21

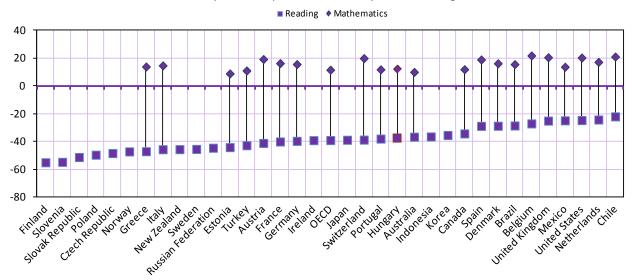
Source: OECD (2012), Education at a Glance 2012: OECD Indicators, OECD Publishing, doi: 10.1787/eag-2012-en

In many countries, boys still score higher in mathematics, but the gender gap is smaller and insignificant in some countries. And while there are about the same number of boys and girls who do poorly at maths, boys are more likely than girls to be among the highest performing students for maths.

But boys are also more likely to drop out of secondary education, particularly in high income countries, although girls are still less likely to start secondary education in some parts of Africa and South Asia.

Girls score significantly higher for reading, but boys tend to score higher in mathematics

PISA scores at age 15, boys' scores minus girls' scores, where statistically significant 20 points is equivalent to half a year's schooling



Source: OECD (2009), PISA 2009 Database, OECD, http://pisa2009.acer.edu.au/.

Women and men study different subjects at tertiary level

Although more women go on to tertiary education than men, their study choices are still likely to be quite different. The aspirations of 15 year olds indicate that one-third of both boys and girls plan to have a science-related career by age 30. But while 12% of boys are planning a career in engineering and computing, less than 2% of girls are.

Three-quarters of education, health and welfare graduates and two-thirds of humanities graduates were women. In contrast, only 20% of computing graduates and 27% of engineering, manufacturing and construction graduates were women.

Share of tertiary degrees awarded to women

OECD, 2010	%
Education	77
Health and welfare	74
Humanities and arts	67
Life sciences	64
Social sciences, business and law	58
Agriculture	54
Services	51
Mathematics and statistics	46
Physical sciences	44
Engineering, manufacturing and construction	27
Computing	20
All fields	58

Source: OECD (2012), Education at a Glance 2012: OECD Indicators, OECD Publishing, doi: 10.1787/eag-2012-en

Notwithstanding these sharp gender differences in subject choices, by and large, women and men perform equally well in tertiary education, achieving similar grade distributions in most countries. And women are increasingly continuing to advanced levels, with 46% of all doctorates awarded to women in 2009, including 34% of all doctorates in science and engineering.

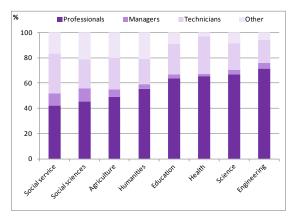
Gender gaps for graduates

Young women are more likely to aspire to careers as professionals than young men. But gender gaps emerge as soon as they embark on their career paths with their first job after graduation, with 66% of men going into manager and professional positions compared to 56% of women, while more women than men take jobs as technicians.

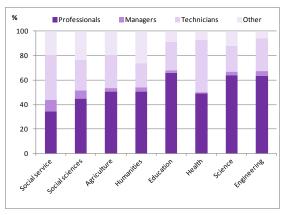
For the working age population as a whole, the gender gap in earnings is narrowing, but only slowly. In 2010, the median pay for men in full-time work was 15% higher than for women in full-time work and the gap widened to 20% for those in the top 10% of the earnings distribution. These gaps can only partly be explained by educational attainment and job characteristics.

Where graduates start their career by field of study

Men



Women



Source: OECD (2012), <u>Closing the Gender Gap: Act Now</u>, OECD Publishing, doi: 10.1787/9789264179370-en

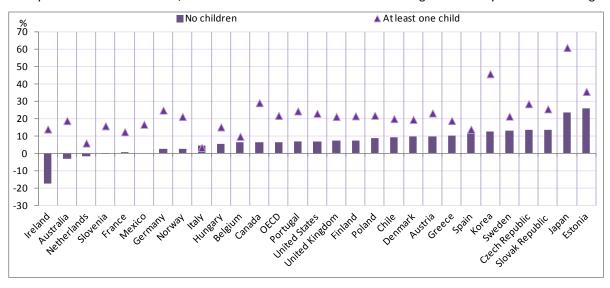
Women with children under 16 pay a particular gender penalty, even if they are working full-time. This may be partly due to taking a career break to look after young children, which in turn often reflects the availability and cost of childcare and after-school care.

Even among tertiary graduates, women are also more likely to work part-time. Only two-thirds of tertiary educated 35-44 year old working women were full time, compared with 88% of working men.

Surveys also show that women are also doing more unpaid work than men, even if they are in full-time work, which may make it harder for women to climb the career ladder. Indeed, across the OECD, only one third of managers are women.

Gender pay gaps for those in full-time work, with and without children

25-44 years old in full-time work, difference in men and women's median wages divided by male median wages



Source: OECD (2012), Closing the Gender Gap: Act Now, OECD Publishing, doi: 10.1787/9789264179370-en

To learn more about gender in education, employment and entrepreneurship

OECD (2012), Closing the Gender Gap: Act Now, OECD Publishing, doi: 10.1787/9789264179370-en

OECD (2013), "Recommendation of the Council on Gender Equality in Education, Employment and Entrepreneurship", C/MIN(2013)5/FINAL, OECD, Paris

To learn more about the OECD Higher Education Programme

The OECD Higher Education Programme (IMHE) is a permanent forum in which education professionals worldwide can exchange experiences and benefit from shared reflection, thought and analysis in order to address issues that concern them.

The Programme's activities have a global reach and include monitoring and analysing policy making; gathering data; and exchanging new ideas, as well as reflecting on past experience. These activities assist members to contribute to the development of higher education internationally, nationally and locally.

The Programme's strategic position within the OECD provides members with access to the OECD's rich evidence base, as well as to a recognised international network, drawing together higher education professionals, leaders, and policy makers, managers and researchers.

To learn more about the OECD Higher Education Programme, please visit our website: www.oecd.org/edu/imhe. Membership of the Programme is open to higher education institutions, government departments, agencies and other organisations involved in higher education. If you would like to join the OECD Higher Education Programme, please contact us at imhe@oecd.org.