Breaking gender stereotypes: Encouraging more women to study Science, Technology and Mathematics
Men and women do not study and start their careers in the same fields

Percentage of tertiary qualifications awarded to women in tertiary-type A and advanced research programs, by field of education (2012, OECD average)

15-year-old girls are less confident than boys in their ability to do mathematics ….

Source: OECD (2015) *The ABC of Gender Equality in Education*, Figure 3.9
… and in their ability to learn science (despite equal proficiency in science tests)

OECD average

- Learning advanced school science topics would be easy for me
- I can usually give good answers to test questions on school science topics
- I learn school science topics quickly
- School science topics are easy for me
- When I am being taught school science, I can understand the concepts very well
- I can easily understand new ideas in school science

Source: OECD (2015) The ABC of Gender Equality in Education, Figure 3.8
Parents are more likely to expect sons rather than daughters to enter STEM careers – even when they perform equally well in school

Percentage of students whose parents expect that they will work in STEM occupations

<table>
<thead>
<tr>
<th>Country</th>
<th>% Boys</th>
<th>% Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hungary (28)</td>
<td>33</td>
<td>30</td>
</tr>
<tr>
<td>Portugal (27)</td>
<td>30</td>
<td>25</td>
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<tr>
<td>Chile (28)</td>
<td>33</td>
<td>24</td>
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<tr>
<td>Italy (24)</td>
<td>30</td>
<td>22</td>
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<tr>
<td>Croatia (18)</td>
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<td>14</td>
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<tr>
<td>Germany (19)</td>
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<tr>
<td>Mexico (21)</td>
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<td>7</td>
</tr>
<tr>
<td>Hong Kong-China (13)</td>
<td>14</td>
<td>7</td>
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<tr>
<td>Korea (7)</td>
<td></td>
<td>11</td>
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<tr>
<td>Macao-China (10)</td>
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</tbody>
</table>

STEM stands for science, technology, engineering and mathematics.

Source: OECD (2015) *The ABC of Gender Equality in Education*, Figure 5.1
As a result, far more boys than girls expect to have a career in engineering or computing.

Percentage of students who expect a career in engineering or computing

Boys ▲ Girls

Percentage of all students who expect a career in engineering or computing.

The psychologist at the call center and the mathematician on the trading floor

For a given group of graduates by field:

- (2) Teacher training and education science
- (3) Humanities, languages and arts
- (4) Social sciences, business and law
- (5) Science, mathematics and computing
- (6) Engineering, manufacturing and construction
- (7) Agriculture and veterinary
- (8) Health and welfare
- (9) Service

>70% of graduates from humanities, languages and arts end up working in another sector.

Note: Cross-country averages.

What can be done to help attract and retain more women in STEM fields and men in caring professions?

• **Attracting:**
  – Review educational resources (textbooks, etc.) to avoid stereotyped representations.
  – Help teachers become aware of gender stereotypes in teaching.
  – Promote female role models in STEM fields and men in caring professions, and encourage more women to opt for these disciplines.
  – Ensure that boys and girls acquire better information about educational and career pathways through orientation programmes.
  – Help girls acquire hands-on experience about study and career opportunities in STEM.

• **Retaining:**
  – Ensure that research grants allow for flexibility relative to the researchers’ life events.
  – Provide paid parental leave and access to childcare to researchers.

• **Employers in the STEM field can:**
  – Ensure fair access for women to career development opportunities, training and sponsoring.
  – Provide training against implicit gender biases.
  – Make gender diversity a corporate priority.