Education at a Glance

OECD Indicators 2018

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Compounding inequality

The impact of social background on a person’s education and life can be compounded over time.
Socio-economic background can influence educational opportunities from the start

Enrolment rates of children under the age of 3, by mother's educational attainment (2014)
At secondary level, social background affects teenagers’ learning outcomes

Proportion of 15-year-olds achieving at least proficiency level 2 (PISA) in mathematics by gender, socio-economic status (ESCS), and location parity indices.
Equity in education has not improved significantly over the past decade.

Proportion of 15-year-olds achieving at least proficiency level 2 (PISA) in mathematics.


ESCS Parity Index

2015

2006
Two out of three adults from disadvantaged families attain a higher level of education than their parents, but most follow a vocational path.

Educational attainment of 25-64 year-olds whose parents had not attained upper secondary education (2012 or 2015)

The percentage in parentheses represents the share of 25-64 year-olds whose parents have below upper secondary education.
Inequality shaping life chances

Equal access to higher education can mean more equitable employment and social outcomes
Countries with lower educational attainment have higher earning disparities…

Percentage of adults (25-64 year-old workers) earning more than the median, by educational attainment (2016)

- Tertiary
- Upper secondary or post-secondary non-tertiary
- Below upper secondary

Countries with lower educational attainment have higher earning disparities…
Gender and education

Gender also affects participation in education and employment, but in different ways.
Men are more likely than women to not attain upper secondary education

Percentage of 25-34 year-olds without upper secondary education, by gender (2017)
Most repeaters in lower secondary schools are boys

Figure B1.2

Share of boys among repeaters in lower secondary education (2016)
Gender, education and life chances

Even though they attain higher levels of education than men, women have poorer employment outcomes.
Women – even if tertiary-educated – are more likely to be inactive

Percentage points

- Below upper secondary
- Upper secondary or post-secondary non-tertiary
- Tertiary

Gender differences in inactivity rates (women - men), by educational attainment (2017)
Women earn 26% less than men, although the pay gap has narrowed in some countries

Trends in women’s earnings as a percentage of men’s earnings for full-time workers with tertiary education (2005, 2016)
Lower earnings for women result in a lower financial return for a tertiary degree

Figure A5.1
Private net financial returns for a man or a woman attaining tertiary education (2015)
Migration and education

Migration is also profoundly changing our communities and education systems.
Those with an immigrant background are under-represented among new entrants to tertiary education.

Figure B7.2

Share of 18-24 year-olds who are first- or second-generation immigrants among new entrants to bachelor’s, long first degree or equivalent programmes and in the population (2015)

- Population
- New entrants

Chart showing the percentage of first- or second-generation immigrants among new entrants to tertiary education compared to the population in various countries.
However, a tertiary degree does not always lead to a job in their host country…

Employment rates of native- and foreign-born 25-64 year-olds with tertiary education, by age at arrival in the country (2017)

<table>
<thead>
<tr>
<th>Country</th>
<th>Native-born adults</th>
<th>Arrived in the country by the age of 15</th>
<th>Arrived in the country at 16 or older</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>24%</td>
<td>24%</td>
<td>24%</td>
</tr>
<tr>
<td>Switzerland</td>
<td>36%</td>
<td>36%</td>
<td>36%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>New Zealand</td>
<td>21%</td>
<td>21%</td>
<td>21%</td>
</tr>
<tr>
<td>Germany</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
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<tr>
<td>Netherlands</td>
<td>57%</td>
<td>57%</td>
<td>57%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>24%</td>
<td>24%</td>
<td>24%</td>
</tr>
<tr>
<td>Austria</td>
<td>11%</td>
<td>11%</td>
<td>11%</td>
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<tr>
<td>Latvia</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
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<tr>
<td>Poland</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Israel</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Denmark</td>
<td>21%</td>
<td>21%</td>
<td>21%</td>
</tr>
<tr>
<td>Portugal</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
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<tr>
<td>Belgium</td>
<td>12%</td>
<td>12%</td>
<td>12%</td>
</tr>
<tr>
<td>Estonia</td>
<td>15%</td>
<td>15%</td>
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<tr>
<td>France</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>EU23 average</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>OECD average</td>
<td>17%</td>
<td>17%</td>
<td>17%</td>
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<tr>
<td>Czech Republic</td>
<td>45%</td>
<td>45%</td>
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<tr>
<td>Hungary</td>
<td>20%</td>
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<tr>
<td>Chile</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Canada</td>
<td>28%</td>
<td>28%</td>
<td>28%</td>
</tr>
<tr>
<td>United States</td>
<td>19%</td>
<td>19%</td>
<td>19%</td>
</tr>
<tr>
<td>Spain</td>
<td>16%</td>
<td>16%</td>
<td>16%</td>
</tr>
<tr>
<td>Slovak Republic</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Italy</td>
<td>14%</td>
<td>14%</td>
<td>14%</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Mexico</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Greece</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
</tr>
</tbody>
</table>

The percentage in parentheses represents the share of foreign-born adults among 25-64 year-olds.
A tertiary degree does not always lead to higher earnings

Earnings of foreign-born workers as a percentage of earnings of native-born full-time workers, by educational attainment (2016)
Improving equity

One way to improve equity is to provide flexible pathways through education.
The share of young adults who hold a tertiary degree has grown significantly over the past decade.

Percentage of 25-34 year-olds with tertiary education, by level of tertiary education (2017)
In some countries, the majority of students graduate from vocational programmes

First-time upper secondary graduation rates for students below the age of 25 by programme orientation (2016)
Not every degree shines

Not all degrees lead to positive outcomes in the labour market
Across similarly-educated adults, workers who are overqualified for their jobs tend to be less skilled

Mean numeracy score among adults with tertiary-type A or advanced research programmes, by selected qualification match or mismatch among workers (2012 or 2015)

- Working in a job needing the same level of qualification (well matched)
- Working in a job needing upper secondary or below (overqualified)
Starting strong

Access and staff ratios have for small children have improved markedly
Enrolment of 3 to 5-year-olds increased by more than 10 percentage points on average in the past decade

Change in enrolment rates of children aged 3 to 5 years (2005, 2010 and 2016)
In many countries, most children under the age of three are not enrolled in early childhood education and care (ECEC). Figure B2.1 presents enrolment rates of children under the age of 3 in ECEC, by type of service (2016).
The number of pre-primary teachers has increased even more, resulting in a smaller teacher to child ratio.

Changes in number of children, number of teachers and number of children per teacher in pre-primary education (2005, 2016)

Index of change
- Change in number of children
- Change in number of teachers
- Change in number of children per teacher

Countries: Poland, Luxembourg, Germany, Switzerland, Austria, Mexico, Greece, Spain, Slovak Republic, Belgium, OECD average, EU23 average, Slovenia, Italy, Lithuania, Israel, United States, Czech Republic, Hungary, Portugal, Chile, Russian Federation.

Population growth: Poland, Luxembourg, Germany, Switzerland, Austria, Mexico, Greece, Spain, Slovak Republic, Belgium, OECD average, EU23 average, Slovenia, Italy, Lithuania, Israel, United States, Czech Republic, Hungary, Portugal, Chile, Russian Federation.

Teacher growth: Poland, Luxembourg, Germany, Switzerland, Austria, Mexico, Greece, Spain, Slovak Republic, Belgium, OECD average, EU23 average, Slovenia, Italy, Lithuania, Israel, United States, Czech Republic, Hungary, Portugal, Chile, Russian Federation.

Children per teacher: Poland, Luxembourg, Germany, Switzerland, Austria, Mexico, Greece, Spain, Slovak Republic, Belgium, OECD average, EU23 average, Slovenia, Italy, Lithuania, Israel, United States, Czech Republic, Hungary, Portugal, Chile, Russian Federation.
Investment in education
Spending on education institutions ranges from 3.1% of GDP in Russia to 6.4% in Norway.
Capital expenditure represents a significant share of total costs at the tertiary level

Share of capital expenditure as a percentage of total expenditure, by level of education (2015)

<table>
<thead>
<tr>
<th>Country</th>
<th>Primary, secondary and post-secondary non-tertiary</th>
<th>Tertiary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>10%</td>
<td>35%</td>
</tr>
<tr>
<td>Finland</td>
<td>15%</td>
<td>30%</td>
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<tr>
<td>Belgium</td>
<td>20%</td>
<td>25%</td>
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<tr>
<td>Israel</td>
<td>25%</td>
<td>45%</td>
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<tr>
<td>Iceland</td>
<td>20%</td>
<td>30%</td>
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<td>Ireland</td>
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<td>35%</td>
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<tr>
<td>United States</td>
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<td>40%</td>
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<tr>
<td>Canada</td>
<td>15%</td>
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<tr>
<td>Portugal</td>
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<tr>
<td>Austria</td>
<td>25%</td>
<td>45%</td>
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<tr>
<td>Greece</td>
<td>10%</td>
<td>40%</td>
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<tr>
<td>United Kingdom</td>
<td>15%</td>
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<td>France</td>
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<td>Germany</td>
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<td>Norway</td>
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<td>Poland</td>
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<tr>
<td>Turkey</td>
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<td>Luxembourg</td>
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<td>Lithuania</td>
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<td>5%</td>
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<tr>
<td>Latvia</td>
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<tr>
<td>Colombia</td>
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<td>45%</td>
</tr>
<tr>
<td>Greece</td>
<td>55%</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table C6.1
Investment in advanced skills

Greater resources are invested in tertiary education than in lower levels of education.
In some countries, the private sector funds a large share of tertiary education.

Distribution of public and private expenditure on tertiary educational institutions (2015)
Changes in public and private spending on tertiary education vary across countries

![Figure C3.3](image)

Change in relative share of public and private expenditure on tertiary educational institutions (between 2010 and 2015)

Index of change

- **Public sources**
- **Private sources**
Investment in foundations

Greater resources are invested in tertiary education than in lower levels of education
OECD countries spend USD 90 700 per student on average on primary and secondary education

Figure C1.2. Cumulative expenditure on educational institutions per student between the age of 6 and 15 (2015)

Equivalent USD converted using PPPs

- Primary
- Lower secondary
- Upper secondary

Luxembourg
Austria
Norway
United States
Iceland
Belgium
Korea
Sweden
Finland
Australia
Netherlands
Germany
Japan
Canada
EU23 average
OECD average
Ireland
New Zealand
Slovenia
Italy
Portugal
Israel
Spain
France
Czech Republic
Poland
Latvia
Slovak Republic
Estonia
Greece
Hungary
Czech Republic
Chile
Brazil
Turkey
Mexico
Teacher compensation makes up the largest share of current expenditure on primary and secondary education

Composition of current expenditure in public and private educational institutions (2015)

% 

- Compensation of all staff (if breakdowns not available)
- Compensation of teachers
- Compensation of non-teaching staff
- Other current expenditure

Countries: Greece, Belgium, Colombia, Portugal, Luxembourg, Italy, Japan, Russian Federation, Norway, Lithuania, Israel, Turkey, Germany, Spain, United States, Netherlands, France, Canada, Hungary, OECD average, Slovenia, EU23 average, Australia, United Kingdom, Poland, Korea, Austria, Iceland, Latvia, Estonia, Slovak Republic, Sweden, Finland, Czech Republic.
Investment in early learning
Figure B2.4
Expenditure on pre-primary (ISCED 02) education as a percentage of GDP (2005, 2010 and 2015)
Student learning conditions

Salaries and working time
Compulsory instruction time varies significantly across countries

Figure D1.1

Compulsory instruction time in general education (2018)

Total number of compulsory instruction hours

In parenthesis the duration of primary and lower secondary education, in years
Various factors contribute to the total salary cost of teachers per student
Teacher working conditions

Salaries and working time
In many countries teachers’ salaries are still low and the earnings progression is relatively flat.
In many countries teachers’ salaries are still low and the earnings progression is flat

Lower secondary teachers' salaries relative to earnings for tertiary-educated workers (2017)

Figure D3.1.

Teachers' actual salaries relative to earnings for tertiary-educated workers
Teachers' actual salaries relative to earnings for similarly educated workers (weighted averages)
The time teachers have for other things than teaching varies greatly.

Percentage of lower secondary teachers' working time spent teaching (2017)

Percentage of total statutory working time spent teaching

Number of teaching hours per year
Is leadership a rewarding career choice?
School heads can earn much more than teachers

Minimum and maximum statutory salaries for lower secondary teachers and school heads (2017)
Who decides?
### Only one in three decisions is taken at the school level on average across OECD countries

Percentage of decisions taken at each level of government in public lower secondary education (2017)

| Percentage of decisions taken at each level of government | Netherlands | Czech Republic | England (UK) | Flemish community | Iceland | Estonia | Australia | New Zealand | Slovenia | Scotland (UK) | Chile | Austria | Ireland | Slovak Republic | Lithuania | Luxembourg | EU23 average | Sweden | OECD average | Italy | Hungary | Denmark | Russian Federation | France | Germany | Israel | Japan | Luxembourg | Mexico | United States | Canada | Korea | Portugal | Norway | France | Spain | Switzerland | Greece | Turkey | Finland |
|----------------------------------------------------------|-------------|----------------|-------------|-------------------|----------|---------|-----------|------------|----------|-------------|-------|---------|---------|-----------------|-----------|------------|-------------|--------|-------------|-------|--------|---------|--------|-----------|-------|-------------|-------|--------|---------|--------|---------|-------|-------------|-------|--------|---------|-------|---------|
| School                                                   | 100         | 100            | 100         | 100                | 100      | 100     | 100       | 100        | 100      | 100          | 100   | 100     | 100     | 100                      | 100      | 100        | 100         | 100    | 100         | 100   | 100     | 100     | 100    | 100       | 100   | 100         | 100   | 100    | 100     | 100   | 100     |
| Local                                                    | 0           | 0              | 0           | 0                  | 0        | 0       | 0         | 0          | 0        | 0            | 0     | 0       | 0       | 0                      | 0        | 0          | 0           | 0      | 0           | 0     | 0       | 0       | 0      | 0         | 0     | 0          | 0      | 0      | 0       | 0      | 0       |
| Regional or Sub-regional                                 | 0           | 0              | 0           | 0                  | 0        | 0       | 0         | 0          | 0        | 0            | 0     | 0       | 0       | 0                      | 0        | 0          | 0           | 0      | 0           | 0     | 0       | 0       | 0      | 0         | 0     | 0          | 0      | 0      | 0       | 0      | 0       |
| Central or State                                         | 0           | 0              | 0           | 0                  | 0        | 0       | 0         | 0          | 0        | 0            | 0     | 0       | 0       | 0                      | 0        | 0          | 0           | 0      | 0           | 0     | 0       | 0       | 0      | 0         | 0     | 0          | 0      | 0      | 0       | 0      | 0       |
| Multiple levels                                          | 0           | 0              | 0           | 0                  | 0        | 0       | 0         | 0          | 0        | 0            | 0     | 0       | 0       | 0                      | 0        | 0          | 0           | 0      | 0           | 0     | 0       | 0       | 0      | 0         | 0     | 0          | 0      | 0      | 0       | 0      | 0       |
Decisions on teacher salary are often centralised while those on staff management are made at school level.

Figure D6.3: Decisions taken at each level of government in public lower secondary education, planning and structure (2017)

In number of countries and economies

- **Management of teachers**
  - Hiring
  - Dismissal
  - Duties
  - Conditions of service
  - Fixing of salary levels

- **In number of countries and economies**: 0, 5, 10, 15, 20, 25, 30, 35, 40
Internationalisation
The number of international students has more than doubled in less than 20 years.

Growth in international or foreign enrolment in tertiary education worldwide (1998 to 2016)

Millions of mobile students

- OECD
- Non-OECD

Total, 5.0
Non-OECD, 1.5
OECD, 3.5

Figure B6.a
The share of international students increases with each successive level of tertiary education
Thank you

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- All publications
- The complete micro-level database

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Twitter: SchleicherOECD
Wechat: AndreasSchleicher