

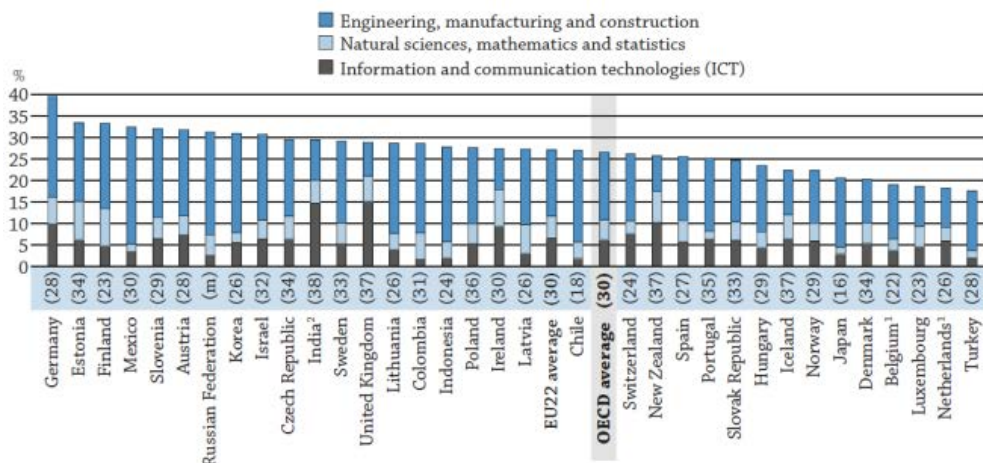
EDUCATION AT A GLANCE 2017

Education at a Glance: OECD Indicators is the authoritative source for information on the state of education around the world. It provides data on the structure, finances and performance of education systems in the 35 OECD countries and a number of partner countries.

Korea

- Among OECD countries, **Korea has relatively high shares of new entrants and graduates in STEM fields (science, technology, engineering and mathematics), particularly in the field of engineering, manufacturing and construction**: STEM fields account for 31% of new entrants and 30% of tertiary graduates, including 23% of new entrants and 22% of tertiary graduates in the field of engineering, manufacturing and construction.
- In Korea, **teachers with typical qualifications receive lower starting salaries than the OECD average**. However, their salaries rise with increasing work experience. For example, the starting salary for teachers in lower secondary education is USD 28 400, lower than the OECD average of USD 32 200. Yet, **their salary after 15 years is higher than the OECD average**: USD 49 700 compared with USD 44 600.
- **Between 2005 and 2014, the share of public expenditure on educational institutions increased by 10 percentage points both in primary, secondary, and post-secondary non-tertiary education and tertiary education. As a result, private expenditure as a share of total expenditure on educational institutions fell rapidly between 2005 and 2014, from 23% to 13% at primary, secondary and post-secondary non-tertiary level, and from 76% to 66% at tertiary level.**
- **In Korea, more than 90% of children at every age from 3 to 5 years old are enrolled in early childhood and primary education.** Enrolment rates are 92%, 91% and 92% for children aged 3, 4 and 5 respectively, all above the corresponding OECD averages of 73%, 86% and 82%. Also, the annual expenditure on pre-primary level education per student is USD 7 500, less than the OECD average of USD 8 700, and 83% of the expenditure is from public sources, equal to the OECD average share of 83%.

Figure 1. Distribution of new entrants to tertiary education, by STEM fields of study and share of women in these fields (2015)



Note: The number in parentheses corresponds to the share of female new entrants in STEM (science, technology, engineering and mathematics) fields of study.

1. Excludes new entrants at doctoral level.

2. Year of reference 2014.

Countries are ranked in descending order of the share of new entrants to tertiary education in STEM fields.

Source: OECD/UIS/Eurostat (2017), Table C3.1a. See Source section for more information and Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

StatLink <http://dx.doi.org/10.1787/888933558306>

Koreans are choosing to study STEM fields (Science, technology, engineering, and mathematics)

- In Korea, graduates from upper secondary vocational programmes tend to be concentrated in engineering, manufacturing and construction (44%) and business, administration and law (20%). In contrast, the fields of health and welfare (2%) and services (6%) each have a very low share compared to the OECD averages of 12% and 17% respectively.
- Korea has high shares of new entrants and tertiary graduates in the field of engineering, manufacturing, and construction, 23% and 22% respectively. Both are not only higher than the OECD averages of 16% and 14%, but also the third highest proportion among OECD countries with available data. The share of both new tertiary entrants (31%) and tertiary graduates (30%) in science, technology, engineering and mathematics (STEM) fields are relatively high in Korea compared to other OECD countries, where STEM fields account for 27% of new entrants and 23% of graduates on average (Figure 1).

Teachers' salaries start low, but rise rapidly with increasing experience

- Competitive remuneration levels for teachers can attract talented people to the profession, which in turn may enhance the overall quality of education. In Korea, starting salaries for teachers with typical qualifications in public educational institutions are low compared to other OECD countries, but they earn more than the OECD average after more than 15 years of experience, which can be an incentive to remain in teaching.
- For instance, teachers starting out in primary (USD 28 400) and lower secondary (USD 28 400) public educational institutions with typical qualifications earn 92% and 88% of the OECD average, respectively. However, after 15 years of experience, teachers in primary (USD 49 600) and lower secondary (USD 49 700) with typical qualifications earn 16% and 11% more than the OECD average respectively. In upper secondary public educational institutions, the statutory starting salary for teachers with typical qualifications is USD 27 700¹ per year, which is 82% of the OECD average of USD 33 800. However, as they gain more experience, their annual salaries increase rapidly. Their annual salary after 15 years of experience is USD 48 900, 5% higher than the OECD average of USD 46 600.
- Total statutory working time may affect teachers' teaching condition. In Korea, teachers' statutory working time is 1 520 hours a year at all levels of education from primary to upper secondary (general programmes for lower secondary and upper secondary levels). The OECD average is around 1 600 hours a year although this varies by level of education. Net teaching time is approximately 600 hours a year in Korea: 658 hours at primary, 548 hours at lower secondary and 551 hours at upper secondary. These are all below the OECD averages of 794 hours (primary), 712 hours (lower secondary) and 662 hours (upper secondary).

Expenditure on education from private sources is continuously falling as public expenditure increases

- Overall, Korea devoted a larger proportion of its GDP on education. In Korea, expenditure on primary to tertiary education amounted to 6.3% of gross domestic product (GDP) in 2014, the fourth highest proportion among OECD countries with available data and above the OECD average proportion of 5.2%. By level of education, 2.3% of GDP was spent on tertiary education and the rest 4.0% of GDP was spent on primary, secondary and post-secondary non-tertiary education, which are also higher proportion compared to the OECD averages of 1.6% and 3.6%.
- The expenditure can be also divided by source of funding. Out of the total expenditure on primary to tertiary education that amounts to 6.3% of GDP, public sources accounted for 4.6% of GDP and private sources accounted for the rest 1.7% of GDP.
- Expenditure on educational institutions can be subdivided by education level. In Korea, public and private expenditure on educational institutions each accounted for 3.5% and 0.5% of GDP at primary, secondary, post-secondary non-tertiary education, close to the OECD average of 3.4% and 0.3%. At tertiary level, in Korea, public

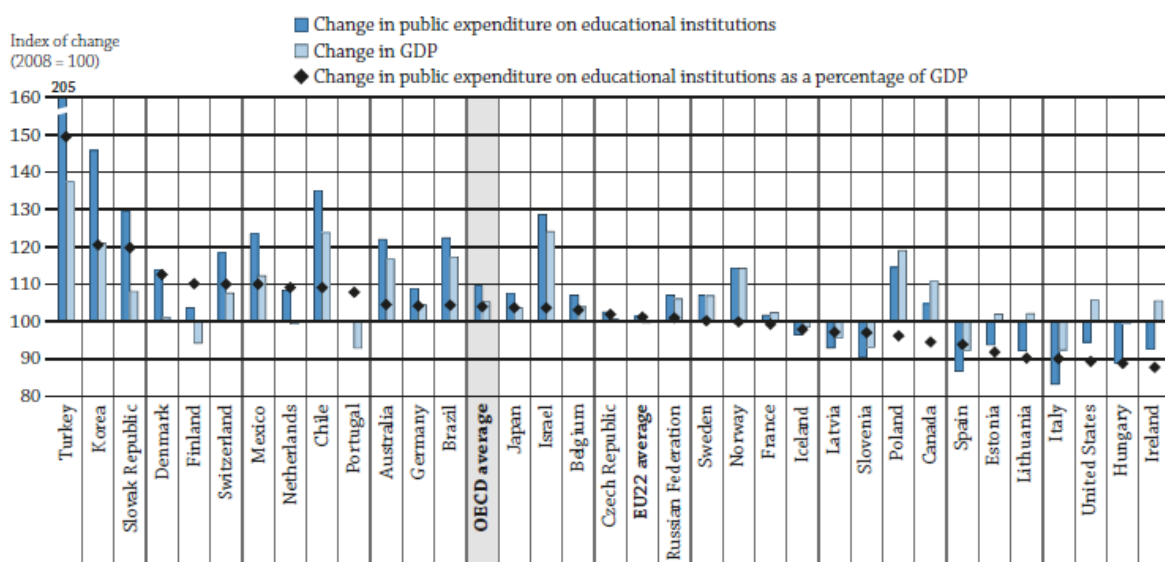
¹ Values reported in equivalent US dollars (USD) have been converted using purchasing power parities (PPPs).

and private sources each accounted for 1.0% and 1.2% of GDP. Private sources in Korea accounted for higher share of expenditure on tertiary institutions as percentage of GDP compared to the OECD average (0.5%), while public expenditures are similar to the OECD average.

- Although the relative proportion of private expenditure on education is still high compared to other OECD countries, it has fallen continuously over the last decade. Between 2005 and 2014, the share of expenditure from private sources fell from 23% to 13% for primary to post-secondary non-tertiary education and from 76% to 66% for tertiary education. Not many OECD countries have experienced such significant drops: Korea saw the largest fall for primary to post-secondary non-tertiary education, and the fourth largest for tertiary education among OECD countries with available data for 2005 and 2014. During the same period, the share of private expenditure remained almost constant on average across OECD countries.
- The absolute amount of spending on education from private sources has also been decreasing recently. Spending on private education from primary to post-secondary non-tertiary level was rising until 2010 but then started to fall. Taking 2010 as the baseline (100) and using constant prices, the indexes for each year are 84 (2005), 93 (2008), 100 (2010), 90 (2011), and 69 (2014), which means that expenditure on private education fell by 31% from 2010 to 2014, the largest drop across all OECD countries in that time. At tertiary level, although the index of change shows a smaller drop between 2010 and 2014, expenditure on education from private sources has fallen since 2011. The indexes for each year are 76 (2005), 99 (2008), 100 (2010), 105 (2011) and 96 (2014). This trend is in stark contrast with the OECD averages, which have seen a steady increase from 90 (2005) to 113 (2014) for primary to post-secondary non-tertiary and from 85 (2005) to 107 (2014) for tertiary education.
- At the same time, expenditure on education from public sources has increased in Korea. Taking 2010 as the baseline (100) and using constant prices, the index of change between 2005 and 2014 doubled from 64 (2005) to 132 (2014) for tertiary education and increased sharply from 68 (2005) to 111 (2014) for primary to post-secondary non-tertiary education. This outstripped the OECD averages which grew from 85 (2005) to 114 (2014) for tertiary education and from 89 (2005) to 103 (2014) for primary to post-secondary non-tertiary education.

Figure 2. Index of change in public expenditure on educational institutions and in GDP (2008 to 2014)

Index of change between 2008 and 2014 in public expenditure on education institutions as a percentage of GDP, from primary to tertiary levels of education (2008 = 100, 2014 constant prices)



1. Excluding subsidies attributable to payments to educational institutions received from public sources.

Countries are ranked in descending order of the change in public expenditure on educational institutions as a percentage of GDP.

Source: OECD/UIIS/Eurostat (2017), Table B2.4 (available on line). See Source section for more information and Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

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- Between 2008 and 2014, Korea’s GDP rose by 21% and public expenditure on educational institutions rose even faster, by 46%, meaning its ratio relative to GDP increased by 21%. Both figures are the second largest increase among OECD countries; on average across OECD countries the increases were 9% and 4% respectively (Figure 2).

- In 2014, public expenditure on education in Korea from primary to tertiary level amounted to 4.6% of GDP, below the OECD average of 4.8%. Including research and development, public expenditure on education accounted for 14.5% of total government expenditure, above the OECD average of 11.3% and the fourth highest share among OECD countries.

Early childhood education has high enrolment rates but expenditure is low

- Korea has high enrolment rates in early childhood and primary education. Approximately 90% of children between the ages of 3 to 5 years old are enrolled in early childhood and primary educational institutions: enrolment rates are 92%, 91% and 92% for children aged 3, 4 and 5 respectively, all above the corresponding OECD averages of 73%, 86% and 82%.
- In 2014, the annual expenditure on pre-primary educational institutions was USD 7 500 per student, which is below the OECD average of USD 8 700. Total expenditure on pre-primary educational institutions amounts to 0.5% of GDP, lower than the OECD average of 0.6%, and 83% is from public sources, equal to the OECD average (83%).

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Note regarding data from Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

References

OECD (2017), *Education at a Glance 2017: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2017-en>.

For more information on **Education at a Glance 2017** and to access the full set of Indicators, visit www.oecd.org/education/education-at-a-glance-19991487.htm.

Updated data can be found on line at **OECD.Stat** as well as by following the **StatLinks**  under the tables and charts in the publication <http://dx.doi.org/10.1787/eag-data-en>.

Explore, compare and visualise more data and analysis using:  **EducationGPS**
<http://gpseducation.oecd.org/CountryProfile?primaryCountry=KOR&treshold=10&topic=EO>.

Questions can be directed to:	Country note author:
Marie-Hélène Doumet	Junyeong Park
Senior analyst	Directorate for Education and Skills
Directorate for Education and Skills	Junyeong.Park@oecd.org
Marie-Helene.Doumet@oecd.org	

Key Facts for Korea in Education at a Glance 2017

Source	Main topics in <i>Education at a Glance</i>	Korea		OECD average	
Fields of study					
Graduates in upper secondary vocational programmes					
2015					
		%	% Women	%	% Women
Table A2.1	Business, administration and law	20%	76%	20%	66%
	Engineering, manufacturing and construction	44%	17%	34%	12%
	Health and welfare	2%	83%	12%	82%
	Services	6%	67%	17%	60%
New entrants to tertiary education					
2015					
		%	% Women	%	% Women
Table C3.1	Education	7%	77%	9%	78%
	Business, administration and law	14%	48%	23%	54%
	Engineering, manufacturing and construction	23%	21%	16%	24%
Tertiary students enrolled, by mobility status					
2015					
		International students ¹	National students	International students ¹	National students
Table C4.2.	Education	3%	6%	3%	8%
	Business, administration and law	30%	15%	27%	23%
	Engineering, manufacturing and construction	17%	25%	17%	12%
Tertiary-educated 25-64 year-olds					
2016					
Table A1.3	Education	**		13%	
	Business, administration and law	**		23%	
	Engineering, manufacturing and construction	**		17%	
Employment rate of tertiary-educated 25-64 year-olds					
2016					
Table A5.3	Education	**		83%	
	Business, administration and law	**		85%	
	Engineering, manufacturing and construction	**		87%	
Early childhood education					
Enrolment rates in early childhood education at age 3					
2015					
Table C2.1	ISCED 01 and 02	92%		78%	
Expenditure on all early childhood educational institutions					
2014					
Table C2.3	As a percentage of GDP	**		0.8%	
	Proportions of total expenditure from public sources	**		82%	
Vocational education and training (VET)					
Enrolment in upper secondary education, by programme orientation					
2015					
		General	Vocational	General	Vocational
Table C1.3	Enrolment rate among population aged 15-19 year-olds	46%	10%	37%	25%
Graduation rates, by programme orientation					
2015					
		General	Vocational	General	Vocational
Table A2.2	Upper secondary education - All ages	77%	16%	54%	44%
Employment rate, by programme orientation					
2016					
		General	Vocational	General	Vocational
Figure A5.3.	25-34 year-olds with upper secondary or post-secondary non-tertiary education as their highest educational attainment level	66%	**	70%	80%
Tertiary education					
Share of international or foreign students, by level of tertiary education					
2015					
Table C4.1.	Bachelor's or equivalent	1%		4%	
	Master's or equivalent	6%		12%	
	Doctoral or equivalent	9%		26%	
	All tertiary levels of education	2%		6%	
Educational attainment of 25-64 year-olds					
2016					
Table A1.1	Short-cycle tertiary	13%		8%	
	Bachelor's or equivalent	34%		16%	
	Master's or equivalent	**		12%	
	Doctoral or equivalent	**		1%	
Employment rate of 25-64 year-olds, by educational attainment					
2016					
Table A5.1	Short-cycle tertiary	77%		81%	
	Bachelor's or equivalent	77%		83%	
	Master's or equivalent	**		87%	
	Doctoral or equivalent	**		91%	
	All tertiary levels of education	77%		84%	
Relative earnings of full-time full-year 25-64 year-old workers, by educational attainment (upper secondary education = 100)					
2015					
Table A6.1	Short-cycle tertiary	115		122	
	Bachelor's or equivalent	145		146	
	Master's, doctoral or equivalent	190		198	
	All tertiary levels of education	141		156	

Korea - Country Note - Education at a Glance 2017: OECD Indicators

Source	Main topics in <i>Education at a Glance</i>	Korea		OECD average	
Adult education and learning					
Table C6.1a	Participation of 25-64 year-olds in adult education²	2012		2012³	
	Participation in formal education only	1%		4%	
	Participation in non-formal education only	45%		39%	
	Participation in both formal and non-formal education	4%		7%	
	No participation in adult education	50%		50%	
Financial investment in education					
Table B1.1	Annual expenditure per student, by level of education (in equivalent USD, using PPPs)	2014			
	Primary education	USD 9 656		USD 8 733	
	Secondary education	USD 10 316		USD 10 106	
	Tertiary (including R&D activities)	USD 9 570		USD 16 143	
Table B2.1	Total expenditure on primary to tertiary educational institutions	2014			
	As a percentage of GDP	6.3%		5.2%	
Table B4.1	Total public expenditure on primary to tertiary education	2014			
	As a percentage of total public expenditure	14.5%		11.3%	
Teachers					
Table D3.2a	Actual salaries of teachers in public institutions relative to wages of full-time, full-year workers with tertiary education	2015			
	Pre-primary school teachers	**		0.78	
	Primary school teachers	**		0.85	
	Lower secondary school teachers (general programmes)	**		0.88	
	Upper secondary school teachers (general programmes)	**		0.94	
Table D3.1a	Annual statutory salaries of teachers in public institutions, based on typical qualifications, at different points in teachers' careers (in equivalent USD, using PPPs)	2015			
		Starting salary	Salary after 15 years of experience	Starting salary	Salary after 15 years of experience
	Pre-primary school teachers	USD 28 352	USD 49 596	USD 29 636	USD 39 227
	Primary school teachers	USD 28 352	USD 49 596	USD 30 838	USD 42 864
	Lower secondary school teachers (general programmes)	USD 28 411	USD 49 655	USD 32 202	USD 44 623
Upper secondary school teachers (general programmes)	USD 27 703	USD 48 947	USD 33 824	USD 46 631	
Table D4.1	Organisation of teachers' working time in public institutions over the school year	2015			
		Net teaching time	Total statutory working time	Net teaching time	Total statutory working time
	Pre-primary school teachers	568 hours	1520 hours	1001 hours	1608 hours
	Primary school teachers	658 hours	1520 hours	794 hours	1611 hours
	Lower secondary school teachers (general programmes)	548 hours	1520 hours	712 hours	1634 hours
Upper secondary school teachers (general programmes)	551 hours	1520 hours	662 hours	1620 hours	
Table D5.1	Percentage of teachers who are 50 years old or over	2015			
	Primary education	15%		32%	
	Upper secondary education	30%		40%	
Table D5.2	Share of female teachers in public and private institutions	2015			
	Primary education	78%		83%	
	Upper secondary education	51%		59%	
	Tertiary education	35%		43%	
Table D2.2	Ratio of students to teaching staff	2015			
	Primary education	17		15	
	Secondary education	15		13	
	Tertiary education	**		16	
Equity					
Tables A4.1 and A4.2	Intergenerational mobility in education²	2012		2012³	
		Both parents have less than tertiary	At least one parent attained tertiary	Both parents have less than tertiary	At least one parent attained tertiary
	Less than tertiary education (30-44 year-olds' own educational attainment)	52%	21%	69%	31%
	Tertiary-type B (30-44 year-olds' own educational attainment)	23%	25%	12%	16%
Tertiary-type A and advanced research programmes (30-44 year-olds' own educational attainment)	25%	54%	20%	55%	
Transition from school to work					
Table C5.1	Percentage of people not in employment, nor in education or training (NEET)	2016			
	18-24 year-olds	**		15%	
Education and social outcomes					
Table A8.1	Percentage of adults who report having depression	2014			
		Men	Women	Men	Women
	Below upper secondary	**	**	10%	15%
	Upper secondary or post-secondary non-tertiary	**	**	6%	10%
Tertiary	**	**	5%	6%	

The reference year is the year cited or the latest year for which data are available.

Refer to Annex 3 for country-specific notes and for more information on data presented in this key facts table (www.oecd.org/education/education-at-a-glance-19991487.htm).

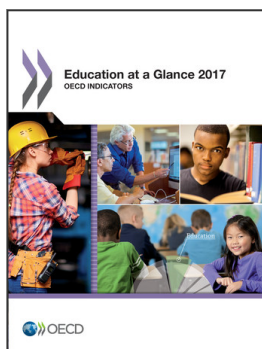
1. For some countries foreign students are provided instead of international students.

2. Data refer to ISCED-97 instead of ISCED-A 2011.

3. OECD average includes some countries with 2015 data.

** Please refer to the source table for details on this data.

Cut-off date for the data: 19 July 2017. Any updates on data can be found on line at <http://dx.doi.org/10.1787/eag-data-en>



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