

COUNTRY NOTE



Education at a Glance: OECD Indicators 2012

ESTONIA

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KEY FINDINGS

- In 2010, Estonia had one of the highest unemployment rates among OECD countries. Prior to the global recession in 2007, its unemployment rates were below the OECD average.
- Historically, Estonia has had high levels of educational attainment, but younger adults have slightly lower upper secondary and tertiary attainment than older adults.
- Whereas expenditure on education and expenditure per student increased significantly between 2000 and 2009, Estonia has seen the largest drop in education funding since the global recession, compared to other OECD countries.
- Estonia has the largest gender gap in earnings for tertiary graduates among all OECD countries: women earn 63% of what men earn, compared to the OECD average of 72%.

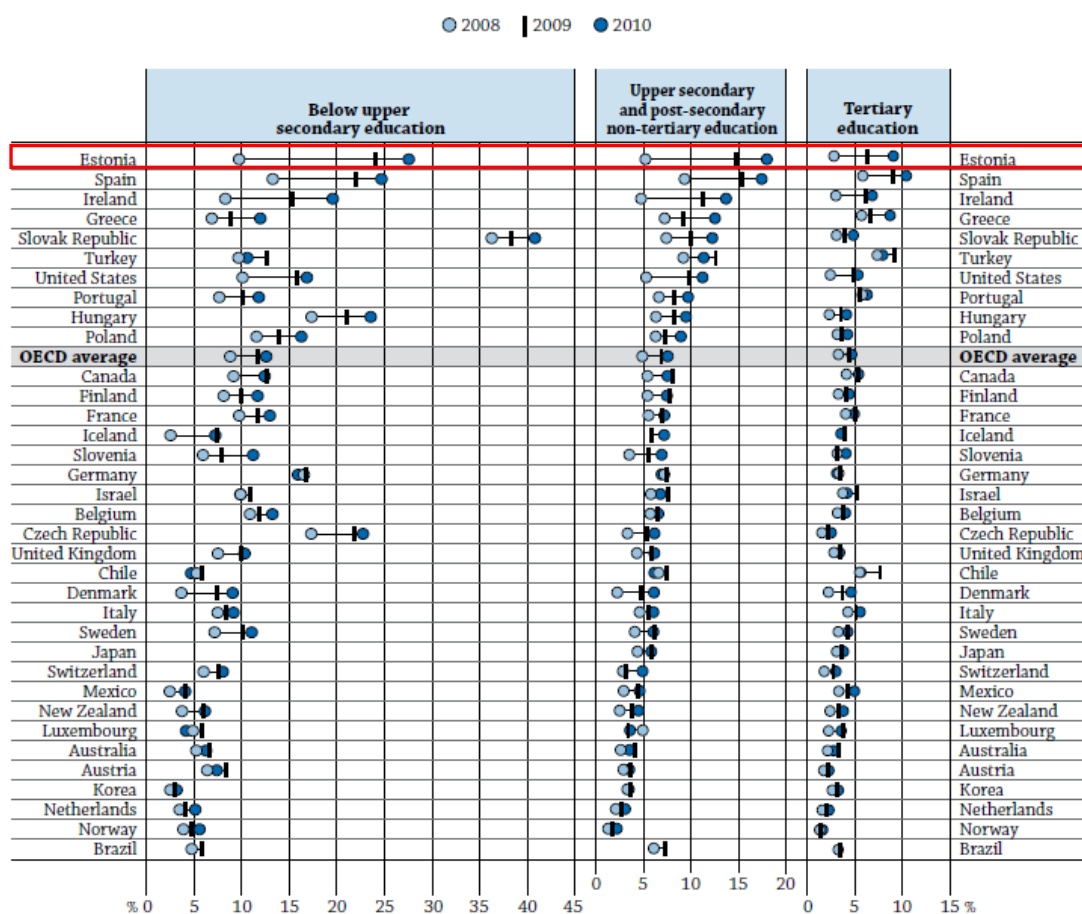
Unemployment in Estonia dropped below the OECD average before the global recession...

Through the early 2000s, Estonia's unemployment rates were well above the OECD average. In 2006, they began to converge with the OECD average and by 2007, Estonia's unemployment rates, broken down by educational attainment, dipped below the average. In 2007, 8.6% of 25-64 year-olds without an upper secondary education were unemployed, compared with 9.1% across OECD countries. Unemployment rate in Estonia was 4.6% for upper secondary and post-secondary non-tertiary graduates, compared to 4.9% across OECD countries. For those with a tertiary education, 2.4% were unemployed in Estonia, compared to 3.4% for OECD countries as a whole (Table A7.4a).

... but with the recession, unemployment rose to among the highest levels among OECD countries.

By measures of unemployment, Estonia has been hit harder by the recent recession than most countries. In 2010, Estonia had the highest rate of unemployment for those with an upper secondary or post-secondary non-tertiary education, at 18%, more than 10 percentage points more than on average in OECD countries (7.6%) This represents three times the level in 2008 (or a 12.8 percentage point increase between 2008 and 2010). Estonia had the second highest unemployment rate for those without an upper secondary education: 27.5%, or more than twice the OECD average of 12.5%. This represents a 17.8 percentage-point increase between 2008 and 2010. Estonia's unemployment rates for tertiary graduates (9.1%) are also the second highest among OECD countries, and nearly double the OECD average of 4.7%. This represents a 6.3 percentage-point increase from 2008 (Table A7.4a). Estonia recorded the biggest jump in unemployment of any OECD country – a 17.8 percentage-point surge in unemployment among those with the least education – between 2008 and 2010 (Chart A7.2, below).

Chart A7.2. Unemployment rates of 25-64 year-olds, by educational attainment level (2008, 2009 and 2010)



Countries are ranked in descending order of 2010 unemployment rate for individuals with upper secondary and post-secondary non-tertiary education.

Source: OECD, Table A7.4a. See Annex 3 for notes (www.oecd.org/edu/eag2012).

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In Estonia, nearly 90% of children aged three and older are enrolled in early childhood education.

Children in Estonia typically begin school at the age of three: 88% of three-year-olds are enrolled in pre-primary education, which is significantly higher than the 66% OECD average. This number increases to 90% for four-year-olds, topping the OECD average of 79% by 11 percentage points (Table C2.1). Since 2005, enrolment in pre-primary education has increased in Estonia at a faster rate than the OECD average. There was a seven percentage-point increase in enrolment of three-year-olds in Estonia between 2005 and 2010, compared to a two percentage-point increase across all OECD countries. Enrolment rates among four-year-olds increased by six percentage points compared to a two percentage-point increase on average among all OECD countries. This expansion of the early childhood education system has been accomplished almost exclusively based on public service (more than 97% of pupils are enrolled in public institutions, and nearly 99% of funds for pre-primary institutions come from public sources (Table C2.2).

Attainment levels are among the highest in OECD countries...

Some 54% of 25-64 year-olds have an upper secondary and post-secondary non-tertiary attainment as their highest level of education, compared to the OECD average of 44% (Table A1.4). The population that has attained *at least* an upper secondary education is also quite high in Estonia, at 89%, compared to 74%, on average, across OECD countries (Table A1.2a).

Tertiary attainment in Estonia is also high: 35% of 25-64 year-olds have attained this level of education, compared to 31% for the OECD average (Table A1.4). Estonia has the 14th highest tertiary attainment level among OECD and other G20 countries, behind Luxembourg and just ahead of Switzerland. As in most OECD countries, a larger proportion of women than men attain a tertiary education. In 2010, only 26% of men had a tertiary education, compared to 43% of women (Tables A1.3b and A1.3c). This difference is much more pronounced in Estonia than among OECD countries, as a whole, where the average gender gap in tertiary attainment is two percentage points (32% for women compared to 30% for men). Estonia ranks seventh among OECD countries in the percentage of women with a tertiary education, just behind Finland and the United States.

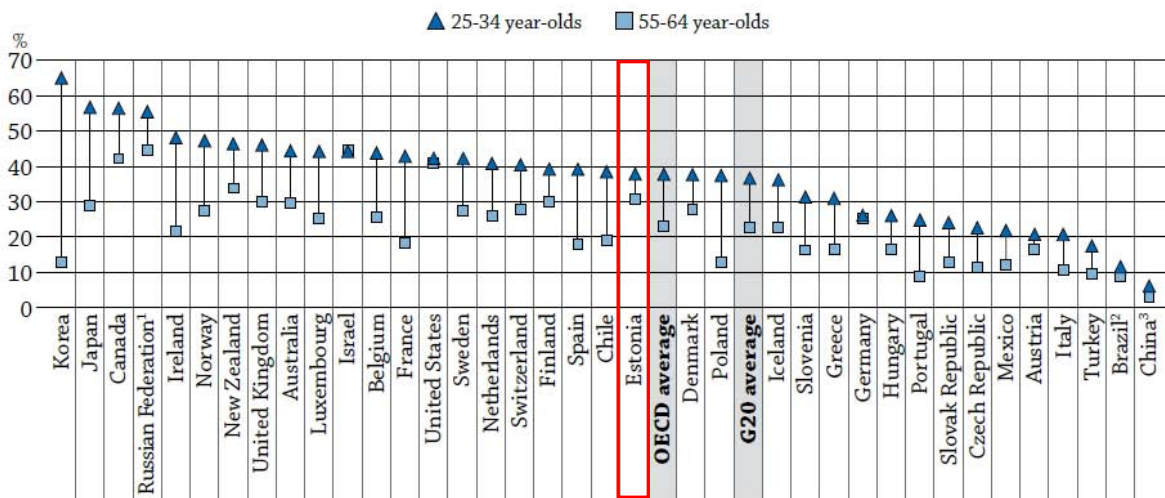
... but attainment levels have fallen from their historic highs.

Although Estonia has high attainment across all levels of education in 2010, upper secondary and tertiary attainment rates for younger age groups declined compared to older age groups. The proportion of people with at least an upper secondary education has decreased from a high of 94% among 45-54 year-olds (highest value among all countries with available data) to 86% among 25-34 year-olds (17th highest values among 36 OECD and other G20 countries) (Table A1.2a). For the same age groups, the OECD average shows a 10 percentage-point increase, from 72% to 82%. This drop in attainment is also found in Denmark, Germany, Norway and the United States, though it is most pronounced in Estonia. However, whereas in some countries such as Denmark and Norway, a significant proportion of people (10% or more) graduate from upper secondary level after the age of 25, late completion in Estonia is only marginal (4% or less).

At the tertiary level, attainment rates have also slightly decreased across age groups. In 2010, 39% of 45-54 year-olds had completed tertiary education, compared to 38% of 25-34 year-olds. Similar decreases in attainment rates between these age groups are recorded only in Finland, Germany and Israel. Unlike these other countries, Estonia does show an increase in tertiary attainment between 25-34 year-olds and the next oldest age group, 35-44 year-olds. The younger group has a tertiary attainment rate of 38%, five percentage points higher than the older group (Table A1.3a). This reflects recent expansions of Estonia's tertiary education system. Chart A1.1 shows the difference in tertiary attainment levels between 25-34 year-olds and

55-64 year-olds. Estonia is one of the few countries above the OECD average in tertiary attainment rates among 25-34 year-olds that does not also show a significant increase in attainment rates by age group.

Chart A1.1. Population that has attained tertiary education (2010)
Percentage, by age group



1. Year of reference 2002.

2. Year of reference 2009.

3. Year of reference 2000.

Countries are ranked in descending order of the percentage of 25-34 year-olds who have attained tertiary education.

Source: OECD. Table A1.3a. See Annex 3 for notes (www.oecd.org/edu/eag2012).

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Education spending in Estonia has increased, but expenditure per student remained below the OECD average.

Globally, expenditure on education represents 6.3% of the GDP in Estonia, slightly above the OECD average of 6.2%. Between 2000 and 2009, public expenditure on education increased more than the GDP. However, since the beginning of the crisis, expenditure and GDP fell (see Notable Trends section). Nevertheless, the overall increase between 2000 and 2009 translated also in increases in the level of expenditure per student.

Estonia's per-student expenditure at the primary, secondary and post-secondary non-tertiary levels amounts to USD 6 149, well below the OECD average of USD 8 617 (Table B1.1a). Despite a significant decrease of enrolments between 2000 and 2009, Estonia increased its expenditure on education by 47% during this time, and as a result, expenditure per student more than doubled (Table B1.5a). This is the third highest increase among OECD countries and demonstrates that education is a policy priority.

Spending on tertiary education has also increased to meet growing demand: there was a 40% increase in per-student spending between 2000 and 2009 – the third largest increase among OECD countries – as a result of a 63% increase in (public) expenditure compared to a 16% increase in the number of tertiary students (Table B1.5b).

In primary and secondary education, these low levels of expenditure are reflected in low salaries for teachers...

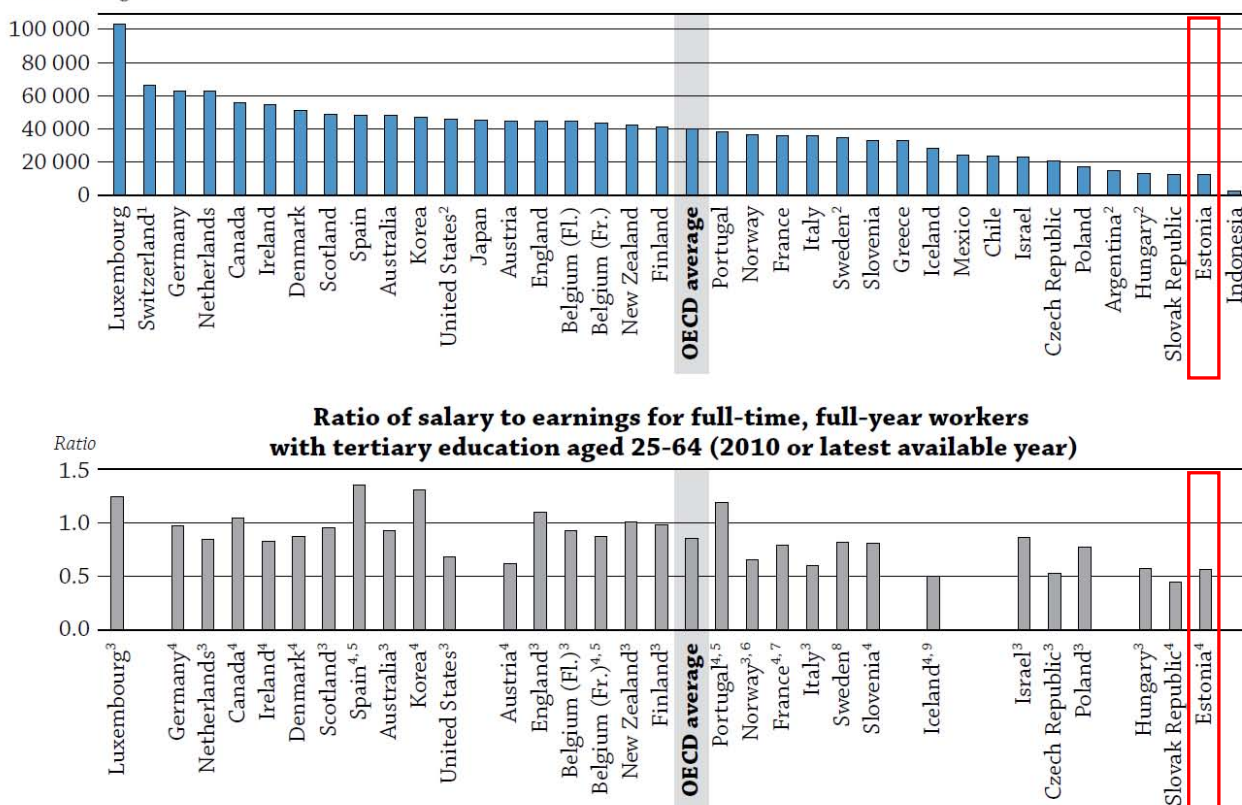
Teachers' salaries in Estonia are significantly lower than the OECD average. Starting salaries, salaries after 15 years of experience, and salaries at the top of the scale are all below the OECD average at primary, lower secondary and upper secondary levels of education. For example, in 2010, the top salary for a primary school teacher was USD 17 357, more than USD 27 000 lower than the OECD average of USD 45 100 (Table D3.1). Though teachers' salaries have increased significantly over the years, up 84% between 2000 and 2009, this increase slowed in 2010, when there was a 20% decrease from USD 12 576 to USD 15 758 at the primary, lower and upper secondary levels for teachers with 15 years of experience (Table D3.1, Table D3.2 and Table D3.1 EAG 2011).

Furthermore, teachers with a tertiary education are paid at just over half (0.57) of what of other tertiary graduates are paid for full-time jobs outside of the teaching field (Chart D3.1). This disparity is much higher in Estonia than the average of 0.85 across OECD countries (Table D3.1). Attracting high-quality teachers to the profession can be challenging as long as wages remain non-competitive.

Chart D3.1. Teachers' salaries in lower secondary education (2010)

Annual statutory teachers' salaries after 15 years of experience and minimum training in public institutions in lower secondary education, in equivalent USD converted using PPPs, and the ratio of salary to earnings for full-time, full-year workers with tertiary education aged 25-64

Equivalent USD
converted using PPPs



1. Salaries after 11 years of experience.

2. Actual base salaries.

3. Ratio of actual salary, including bonuses and allowances, for teachers aged 25-64 to earnings for full-time, full-year workers with tertiary education aged 25-64.

4. Ratio of statutory salary after 15 years of experience (minimum training) to earnings for full-time, full-year workers with tertiary education aged 25-64.

5. Year of reference 2009.

6. Year of reference 2007.

7. Year of reference 2008.

8. Ratio of actual teachers' salary after 15 years of experience (minimum training), not including bonuses and allowances, to earnings for full-time, full-year workers with tertiary education aged 25-64.

9. Year of reference 2006.

Countries are ranked in descending order of teachers' salaries in lower secondary education after 15 years of experience and minimum training.

Source: OECD. Argentina: UNESCO Institute for Statistics (World Education Indicators programme). Tables D3.1. See Annex 3 for notes (www.oecd.org/edu/eag2012).

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...but fewer hours of teaching are required and classes are smaller than the OECD average.

In Estonia, the school year is longer than on average in OECD countries, but students have fewer days and hours of instruction. The school year is one week longer than the average among OECD countries (39 compared to 38 weeks), though there are slightly fewer days of instruction (175 compared to 185 days) for primary through upper secondary programmes (Table D4.1).

The net teaching time in Estonia is also slightly lower than average: ranging from 630 hours for primary school (the OECD average is 782 hours) to 578 hours in upper secondary school (the OECD average is 658 hours). Globally, teachers have between 70 and 150 fewer hours of teaching than on average in OECD countries (Table D4.1).

Teachers also have classes that tend to be smaller than on average in OECD countries. Average class size is among the smallest in the OECD area: 17.9 students per class in primary schools and 18.5 in lower secondary schools, compared to 21.2 students and 23.4 students, respectively, across OECD countries (Table D2.1).

Students have fewer days of instruction, even though the school year is longer than the OECD average.

Between the ages of 7 and 14, students in Estonia have the least amount of instruction time among OECD countries: 5 644 hours, around 1 200 hours less than the OECD average of 6 862 hours (Table D1.1). Students spend about average time in reading, writing and literature, slightly more in physical education, and a more-than-average amount of time on modern foreign languages, particularly as children get older (Tables D1.2a, D1.2b and D1.2c).

At the age of 15, based on PISA 2009 results, the average performance of 15-year-old students in Estonia is above the OECD average in each of reading (501 points), mathematics (512 points) and (science 528 points).

Earnings differences between levels of education are smaller than the OECD average...

More education generally brings substantial benefits for individuals and the society. In Estonia, earnings differences between people with different levels of education seem smaller than on average in OECD countries. Those without an upper secondary education earn just 10% less than those with an upper secondary qualification, compared to 23% less on average across OECD countries; and tertiary graduates in Estonia earn 36% more than those with an upper secondary education, compared to 55% more on average across OECD countries (Table A8.1).

...but the gender gap in wages is wider.

In Estonia, earnings differ greatly by gender. Tertiary-educated women in Estonia earn, on average, 63% of what men with the same education earn – the widest gender gap in earnings among all OECD countries (on average in OECD countries, women earn 72% of what men earn). Women whose highest level of education is upper secondary or below upper secondary level earn 62% of what men earn, compared to the OECD average of 76% of men's earnings for women with upper secondary attainment and 75% of men's earnings for women without that level of education. Given these rates, Estonia has the second largest wage disparity between upper secondary-educated men and women, and the third largest wage disparity between men and women without that level of education, behind Belgium and Greece.

NOTABLE TRENDS

Estonia relies heavily on public funding for its education system...

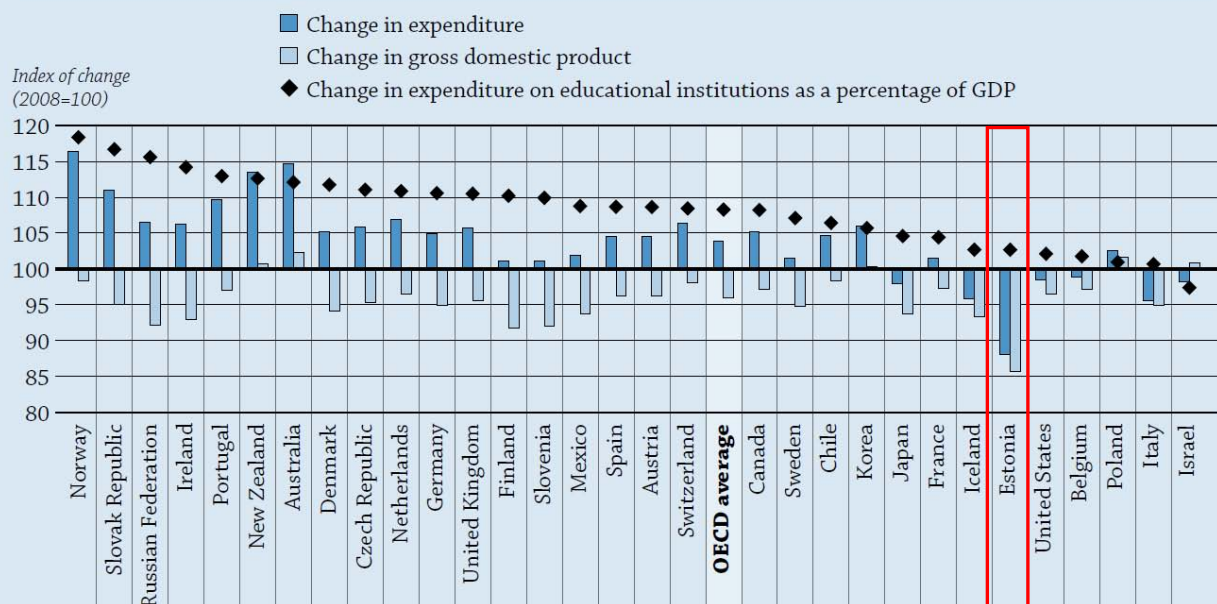
Estonia's education system is largely supported by public funds. In 2009, 94% of education funding comes from public sources, compared to 84% on average in OECD countries. The proportion of public funding varies from 98.6% at the pre-primary level (OECD average of 81.7%), to 98.7% at primary, secondary and post-secondary non-tertiary level (OECD average of 89.4%) and to 80.2% at the tertiary level (OECD

average of 70%) (Tables B3.1, B3.2a and B3.2b). At the primary, secondary and post-secondary non-tertiary levels of education, only in Finland, Sweden and Portugal is the share of public funding higher than in Estonia (Chart B3.2).

... which puts spending on education at risk during a recession.

Since the beginning of the crisis, GDP decreased in 26 of 31 OECD countries between 2008 and 2009, but public funding for education rose in 24 of 31 countries. Countries that were able to increase funding for education despite negative GDP growth during this period were often those whose education systems are less dependent on public funding. With one of the highest percentages of public funding of education and the largest drop in GDP, Estonia recorded the largest percentage-point decrease in expenditure for all levels of education: a fall of just over 10% between 2008 and 2009.

Index of change between 2008 and 2009 in expenditure on educational institutions as a percentage of GDP, for all levels of education (2008=100, constant prices)



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

Source: OECD. See Annex 3 for notes (www.oecd.org/edu/eag2012).

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How to read this chart

The chart shows investment in education as the proportion of national income that countries devoted to spending on educational institutions in 2008 and 2009, and changes in overall spending on educational institutions between 2008 and 2009. It includes direct and indirect expenditure on educational institutions from both public and private sources of funds.

KEY FACTS

Indicator	Estonia	OECD average	Estonia rank*
Educational Access and Output			
Enrolment rates			
3-year-olds (in early childhood education)	88%	66%	9 of 36 countries
4-year-olds (in early childhood and primary education)	90%	81%	17 of 38 countries
5-14 year-olds (all levels)	96%	96%	30 of 39 countries
Percentage of population that has attained pre-primary or primary levels of education only			
25-64 year-olds	1%	m	32 of 37 countries
Percentage of population that has attained at least upper secondary education			
25-64 year-olds	89%	74%	3 of 40 countries
25-34 year-olds	86%	82%	17 of 36 countries
55-64 year-olds	85%	62%	3 of 36 countries
Percentage of population that has attained tertiary education			
25-64 year-olds	35%	31%	14 of 41 countries
25-34 year-olds	38%	38%	21 of 37 countries
55-64 year-olds	31%	23%	6 of 37 countries
Entry rates into tertiary education			
Vocational programmes (Tertiary-type B)	29%	17%	7 of 33 countries
University programmes (Tertiary-type A)	43%	62%	29 of 36 countries
Graduation rates			
Percentage of today's young people expected to complete upper secondary education in their lifetime	m	84%	m
Percentage of today's young people expected to complete university education (tertiary-type A) in their lifetime	m	39%	m
Economic and Labour Market Outcomes			
Unemployment rate of 25-64 year-olds			
Below upper secondary	27.5%	12.5%	2 of 33 countries
Upper secondary and post-secondary non-tertiary	18%	7.6%	1 of 34 countries
Tertiary	9.1%	4.7%	2 of 34 countries
Average earnings premium for 25-64 year-olds with tertiary education (compared to people with upper secondary education; upper secondary = 100)			
Men and women	136	155	26 of 32 countries
Men	149	160	21 of 32 countries
Women	154	157	18 of 32 countries
Average earnings penalty for 25-64 year-olds who have not attained upper secondary education (compared to people with upper secondary education; upper secondary = 100)			
Men and women	90	77	3 of 32 countries
Men	88	78	4 of 32 countries
Women	87	74	2 of 32 countries

Percentage of people not in employment, education or training			
15-29 year-olds (2005 data)	14.8%	15.0%	11 of 32 countries
15-29 year-olds (2010 data)	19.1%	15.8%	8 of 32 countries
Financial Investment in Education			
Annual expenditure per student (in equivalent USD, using PPPs)			
Pre-primary education	2 551	6 670	29 of 34 countries
Primary education	5 493	7 719	24 of 35 countries
Secondary education	6 519	9 312	26 of 37 countries
Tertiary education	6 373	13 728	34 of 37 countries
Total public and private expenditure on education			
As a percentage of GDP	6.3%	6.2%	14 of 37 countries
Total public expenditure on education			
As a percentage of total public expenditure	13.5%	13.0%	12 of 32 countries
Share of private expenditure on educational institutions			
Primary, secondary and post-secondary non-tertiary education	1.3%	8.8%	29 of 32 countries
Tertiary education	19.8%	30%	19 of 31 countries
All levels of education	5.8%	16%	25 of 30 countries
Schools and Teachers			
Ratio of students to teaching staff			
Pre-primary education	6.0	14.4	32 of 32 countries
Primary education	16.2	15.8	19 of 36 countries
Secondary education	15.9	13.8	12 of 38 countries
Number of hours of compulsory instruction time per year			
7-8 year-olds	595	774 hours	28 of 33 countries
9-11 year-olds	683	821 hours	31 of 34 countries
12-14 year-olds	802	899 hours	26 of 34 countries
Number of hours of teaching time per year (for teachers in public institutions)			
Primary education	630	782 hours	29 of 35 countries
Lower secondary education	630	704 hours	22 of 34 countries
Upper secondary education	578	658 hours	25 of 35 countries
Ratio of teachers' salaries to earnings for full-time, full-year adult workers with tertiary education			
Primary school teachers	0.57	0.82	23 of 27 countries
Lower secondary school teachers	0.57	0.85	24 of 27 countries
Upper secondary school teachers	0.57	0.90	25 of 27 countries

* Countries are ranked in descending order of values.

See: *Education at a Glance 2012: OECD Indicators*

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