

EDUCATION AT A GLANCE 2013

EUROPEAN UNION

The 2013 edition of *Education at a Glance* offers a snapshot of how education – and the people who participate in and benefit from it – fared during the first years of worst economic crisis in decades. The crisis in unemployment, particularly among young people, started early and then intensified in most European countries, hitting adults with low levels of education the hardest. The proportion of young people without an upper secondary education in Europe who were neither employed nor in education or training (NEET) grew by 1.8 percentage points between 2008 and 2011, even as the share of NEETs dropped 0.6 percentage point in the United States. While many EU21 countries* trimmed their education budgets, some continued to increase their investment in education, while others managed to offer teachers higher salaries. And as a result of a difficult labour market, more young people chose to continue their studies to prepare themselves for an eventual economic recovery: in most countries, participation in education among 15-19 year-olds increased between 2008 and 2010.

Unemployment rates among all adults remain high...

Between 2008 and 2011, unemployment rates climbed in most OECD and partner countries. Greece and Spain recorded the steepest rises in unemployment, but unemployment rates also climbed substantially in Estonia, Hungary, Ireland, Portugal, the Slovak Republic, Slovenia and the United States among all workers, regardless of their level of education. Chile and Germany were the only countries where unemployment rates fell among workers at all levels of education between 2008 and 2011. In Israel and Turkey, unemployment rates fell for those without an upper secondary education (Table A5.4a).

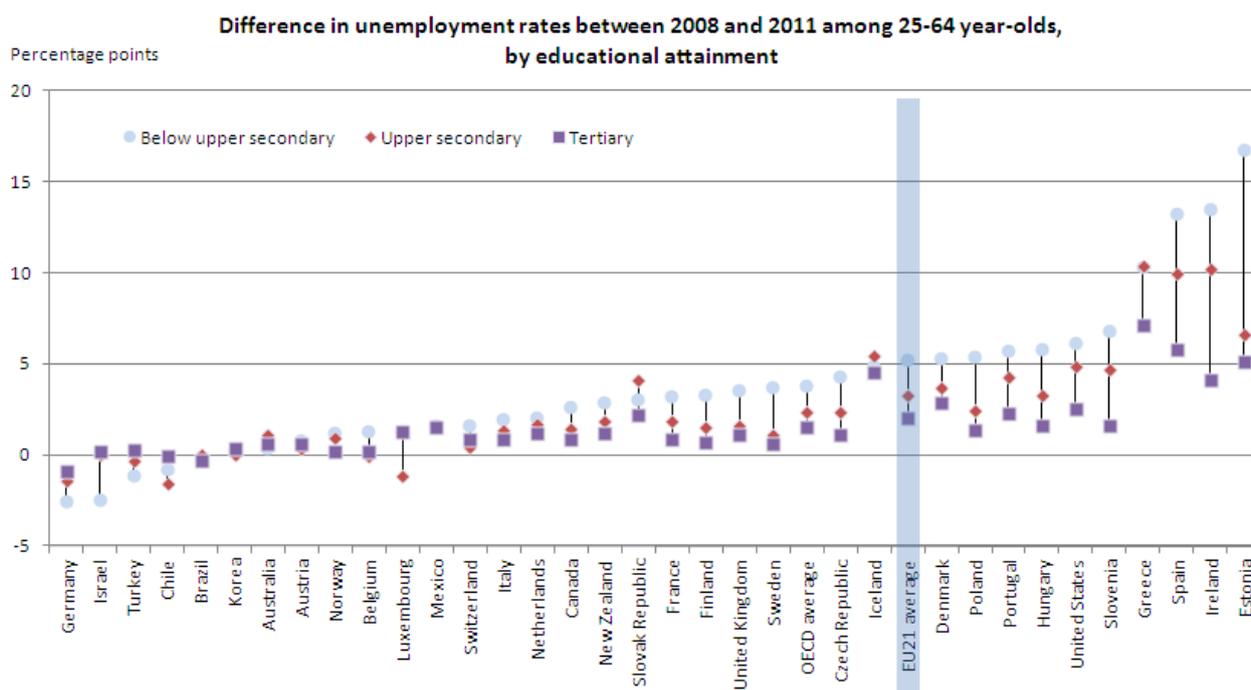
HIGHEST UNEMPLOYMENT RATE FOR ALL LEVELS OF EDUCATION (2011): SPAIN (19%), GREECE (16%), IRELAND (13%); ESTONIA (12%)
 LOWEST UNEMPLOYMENT RATE FOR ALL LEVELS OF EDUCATION (2011): NORWAY (2%), NETHERLANDS (3%), KOREA (3%), AUSTRIA, (4%)
 TABLE A5.2A

...but they are lower among the most educated workers.

The higher the level of education, the smaller the increase in unemployment rates. People without an upper secondary education were hit hardest: on average among EU21 countries, the unemployment rate among people with this level of education increased by more than 5 percentage points during the period, from 10.4% to 15.6%, (compared with a rise of 3.8 percentage points across OECD countries, from 8.8% to 12.6% and a 6 percentage-point rise in the United States, from 10.1% to 16.2%). During the same period, the unemployment rate for people with a tertiary degree increased by 2 percentage points in EU21 countries, from 3.2% to 5.2% (compared with a rise of 1.5 percentage points across OECD countries, from 3.3% to 4.8% and 2.5 percentage points in the United States).

HIGHEST UNEMPLOYMENT RATES AMONG ADULTS BELOW UPPER SECONDARY EDUCATED ADULTS (2011): SLOVAK REPUBLIC (39%), SPAIN (26%) ESTONIA (26%), HUNGARY (23%)
 LOWEST UNEMPLOYMENT RATES AMONG ADULTS BELOW UPPER SECONDARY EDUCATED ADULTS (2011): MEXICO (2%), KOREA (3%), CHILE (4%), NORWAY (5%)

HIGHEST UNEMPLOYMENT RATES AMONG ADULTS WITH TERTIARY EDUCATION (2011): GREECE (13%), SPAIN (12%), PORTUGAL (8%), ESTONIA (8%)
 LOWEST UNEMPLOYMENT RATES AMONG ADULTS WITH TERTIARY EDUCATION (2011): NORWAY (1.5%), AUSTRIA (2.3%), GERMANY (2.4%), SWITZERLAND (2.6%)
 TABLE A5.4A



In a few countries, unemployment rates fell.

While unemployment rates among 25-34 year-olds without an upper secondary education increased by almost 7 percentage points between 2008 (15%) and 2011 (22%), on average across EU21 countries, a few countries managed to buck this trend. In Austria, the unemployment rate among this age group dropped by 3.3 percentage points, in Germany by 2.1 percentage points, and in Luxembourg the unemployment rate dipped by 1.0 percentage point (Table A5.4a).

A worrying proportion of European youth are neither employed nor in education or training.

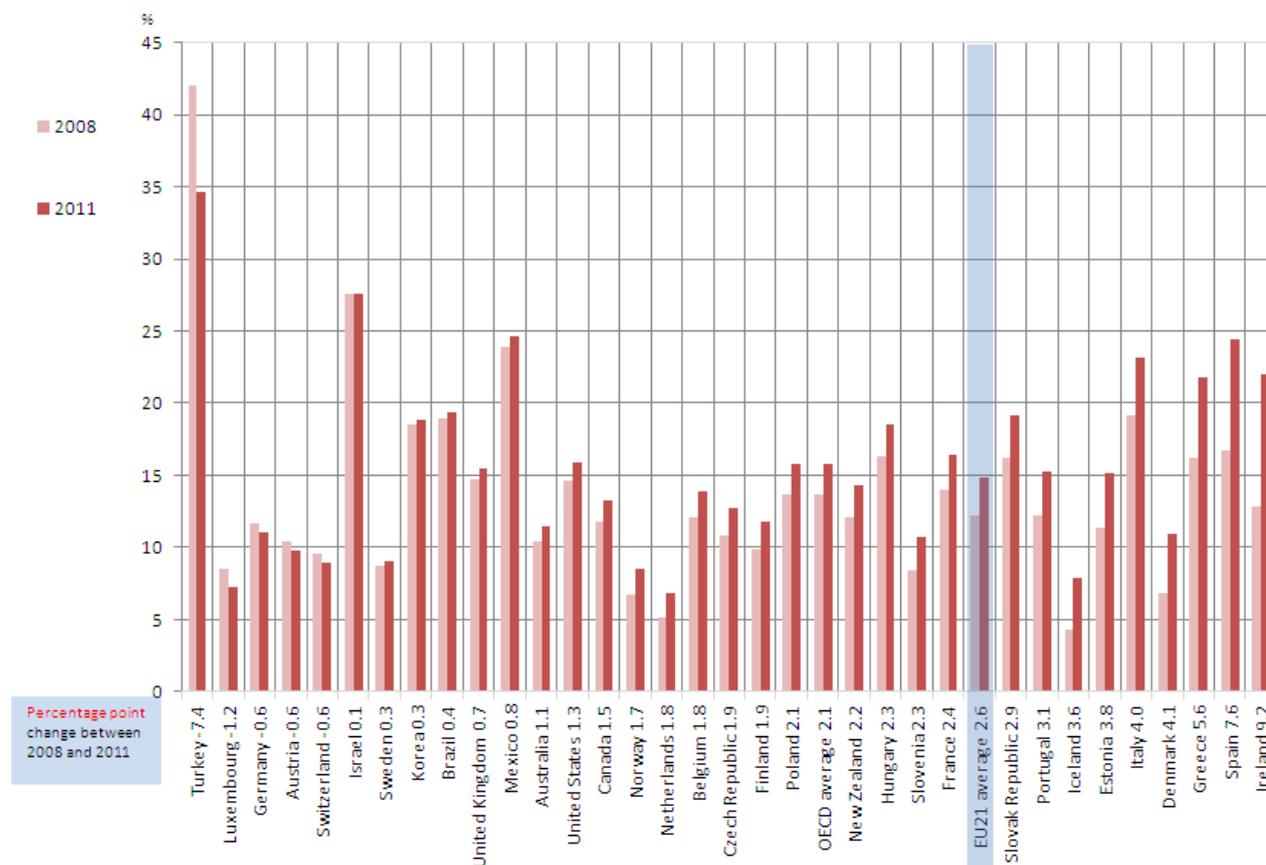
Young people were particularly hard hit by un- and underemployment as a result of the global recession, and the proportion of youth who were neither employed nor in education or training (NEET) increased between 2008 and 2011. Some 15.3% of 15-29 year-olds who had not completed upper secondary education were considered as NEET in 2011 (compared with 15.8% of the same age group and educational attainment in OECD countries, 5.9% in Korea, and 12.5% in the United States). This proportion ranges from less than 10% in Luxembourg, the Netherlands, Slovenia and Sweden, to more than 20% in Ireland, Italy, Spain and the United Kingdom (Table C5.5a). Since 2008, the proportion of NEETs has grown by 1.8 percentage points among EU21 countries (compared to an increase of 1.4 percentage points in OECD countries and a decrease of 0.6 percentage point in the United States). The largest increases (more than 4 percentage points) occurred in Estonia, Greece, Ireland and Spain (Table C5.4d, available on line).

HIGHEST NEET RATES AMONG 15-29 YEAR-OLDS WITH BELOW UPPER SECONDARY EDUCATION (2011): TURKEY (36%), SPAIN (29%), MEXICO (28%), CHILE (25%)

LOWEST NEET RATES AMONG 15-29 YEAR-OLDS WITH BELOW UPPER SECONDARY EDUCATION (2011): LUXEMBOURG (5%), KOREA (6%), ICELAND (7%), SWEDEN (8%)

TABLE C5.5A

Percentage of 15-29 year-olds who were neither in employment nor in education or training (NEET) in 2008 and 2011



While GDP rose (in real terms) in most countries between 2009 and 2010, public expenditure on educational institutions fell in one-third of OECD countries during that period, probably as a result of the financial crisis.

Although the initial impact of the crisis hit at different times and in different degrees, depending on the country concerned, data for 2010 indicate how countries responded to the crisis. For example, was spending on education cut as a result of the economic downturn? The findings show that the education sector was largely spared from budget cuts in the first full year of the crisis, 2009. However, although more recent data are not yet available, the persistence of the recession is likely to have led to severe cuts in public expenditure on education in a number of countries after 2010.

For all levels of education combined, public investment in education between 2008 and 2010 increased by an average of 4% in EU21 countries, compared to a 5% increase among OECD countries (and a 1% drop in the United States).

Among the 31 countries with available data for the 2008-10 period, only six countries cut public spending on educational institutions during that period: Estonia (by 10%), Hungary (by 10%), Iceland (by 12%), Italy (by 7%), the Russian Federation (4%) and the United States (by 1%). This translated into a drop in expenditure on educational institutions as a percentage of GDP only in Hungary, Iceland and Italy, as the drop in expenditure was larger than the decrease in GDP in these countries. In Estonia and the United States, the drop in GDP was similar to or larger than the decrease in public expenditure on education, so public expenditure on educational institutions as a percentage of GDP remained constant (in the United States) or increased slightly (in Estonia) (Chart B2.3)

However, a closer look at data during the period shows a significant change between 2009 and 2010. During that one-year period, public expenditure on educational institutions as a percentage of GDP fell by 2% on average among EU21 countries and 1% among OECD countries (Table B2.5). More recent estimations for the period 2010-12 show that the cuts in education budgets observed in one-third of countries in 2010 will begin to appear in more OECD countries over the next two years. During 2011-12, cuts of more than 5% were observed in Greece, Hungary, Italy, Portugal and the United Kingdom (Wales), whereas drops of between 1% and 5% were seen in Belgium (French Community), the Czech Republic, Estonia, France, Ireland, Poland, the Slovak Republic, Slovenia, Spain and the United Kingdom (Scotland).

(http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/147EN.pdf)

HIGHEST RATES OF PUBLIC EXPENDITURE ON EDUCATION (2010): KOREA (16%) CHILE (18%) NEW ZEALAND (20%) MEXICO (21%)

LOWEST RATES OF PUBLIC EXPENDITURE ON EDUCATION (2010): ITALY (9%) JAPAN (9%) CZECH REPUBLIC (10%) IRELAND (10%)

TABLE B4.2

LARGEST DECREASE IN PUBLIC EXPENDITURE ON EDUCATIONAL INSTITUTIONS (2009-10): CHILE (7%) ESTONIA (7%), SWITZERLAND (5%), HUNGARY (5%)

LARGEST INCREASE IN PUBLIC EXPENDITURE ON EDUCATIONAL INSTITUTIONS (2009-10): AUSTRALIA (4%), SLOVAK REPUBLIC (4%), ISRAEL (2%), MEXICO (2%)

TABLE B2.5

Nevertheless, expenditure per primary, secondary and post-secondary non-tertiary student increased in almost all countries between 2005 and 2010.

Between 2005 and 2010, expenditure per primary, secondary and post-secondary non-tertiary student by educational institutions increased by an average of 18% among EU21 countries (compared with a 17% increase among OECD countries and a 13% increase in the United States). The increase among EU21 countries exceeded 50% in Poland and the Slovak Republic. By contrast, in Denmark and France, expenditure at these levels of education increased by only 5% or less between 2005 and 2010. Only Hungary, Iceland and Italy showed a decrease in expenditure per primary, secondary and post-secondary non-tertiary student between 2005 and 2010 (Table B1.5a and Chart B1.6). Changes in expenditure by educational institutions largely reflect changes in the size of the school-age population and in teachers' salaries. With the exception of Hungary, lower enrolments do not seem to have been the main factor behind changes in expenditure at the primary, secondary and post-secondary non-tertiary levels of education. In fact, in the Czech Republic, Estonia, Poland and the Slovak Republic, a decrease in enrolment of more than 5% coincided with significant increases (over 5%) in spending per student by educational institutions between 2005 and 2010, suggesting that governments prioritised spending to improve the quality of the education provided. In Luxembourg, Slovenia and Sweden, a similar decline in enrolment at these levels of education coincided with only a slight increase in expenditure.

In 2010, EU21 countries spent an average of EUR 7 200 annually per primary, secondary and post-secondary non-tertiary student, compared to the OECD average of EUR 6 900 and EUR 9 600 for the United States.

LOWEST ANNUAL EXPENDITURE PER STUDENT IN PRIMARY AND SECONDARY EDUCATION (2010): TURKEY (EUR 1 600), MEXICO (EUR 2 000), CHILE (EUR 2 600), HUNGARY (EUR 3 700)

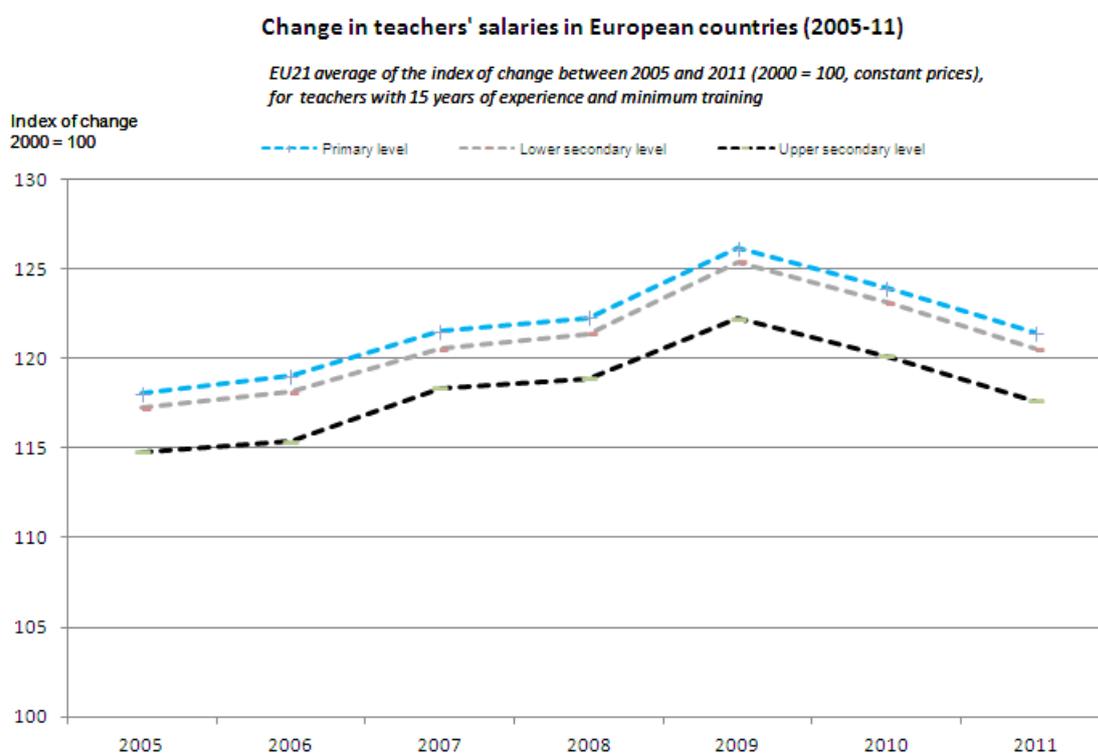
HIGHEST ANNUAL EXPENDITURE PER STUDENT IN PRIMARY AND SECONDARY EDUCATION (2010): UNITED STATES (EUR 9 600), NORWAY (10 600), SWITZERLAND (EUR 10 900), LUXEMBOURG (EUR 15 400)

TABLE B1.2

Teachers' salaries rose throughout most of the past ten years...

Between 2000 and 2011, teachers' salaries increased in real terms in most countries. On average in EU21 countries with available data, teachers' salaries rose by around 20% at all levels of education during the period. In contrast, in the United States, teachers' salaries remained stable during the same period. Only in France and Japan did teachers' salaries decrease in real terms by almost 10%. In the

Czech Republic, Estonia and Turkey, salaries at all levels of education increased by at least 50%. In most countries, they increased at a slower rate since 2005 than between 2000 and 2005 (Table D3.4).



...but were trimmed between 2009 and 2011 as the recession put pressure on public budgets.

The fiscal constraints imposed in response to the crisis significantly affected the salaries of civil servants and public-sector workers in general. The pressure to trim government spending in order to reduce national debt resulted in cuts in teachers' and other civil-service salaries in a growing number of countries. On average in EU21 countries with available data, teachers' salaries decreased for the first time since 2000 by around 4% in real terms, at all levels of education between 2009 and 2011.

Teachers' salaries were, for example, significantly affected by the crisis in Estonia, Greece, Hungary, Ireland and Spain. In Estonia, minimum teachers' salaries were cut back to their 2008 levels in 2009 and have been frozen at that level ever since. In Greece, various reductions in teachers' benefits and allowances affected teachers' salaries in 2010 and 2011. As a result, gross salaries fell by 17%, in real terms, between 2009 and 2011. In addition, Greek teachers also saw their net salaries shrink as a tax for solidarity was created. This tax increased the level of taxation on teachers' already-reduced gross salary; and the insurance coverage paid by teachers is still calculated based on their earlier, higher salaries. In Hungary, the 13th month of salary (a supplemental bonus that was paid to all employees) was suspended in 2009. Although a compensatory bonus was paid to all public-sector employees whose wages were under a certain threshold, the base salary of teachers was still considerably affected. In Spain, all civil servants saw their salaries reduced in July 2010. The extent of the decrease depended on the amount earned annually, but it affected both the base salary and bonuses. In Ireland, teachers' salaries were reduced as of 1 January 2010 as part of a public service-wide reduction in pay. In addition, teachers who entered the profession after 1 January 2011 are paid according to a new salary scale that is 10% lower than the salary scale that applied to those recruited prior to that date. Similar measures were implemented in other countries after 2011.

LARGEST DECREASE IN PRIMARY TEACHERS' SALARIES BETWEEN 2009 AND 2011: GREECE (-17%), ICELAND (-11%), ESTONIA (-8%), HUNGARY (-8%)

LARGEST INCREASE IN PRIMARY TEACHERS' SALARIES BETWEEN 2009 AND 2011: TURKEY (+3%), AUSTRALIA (+3%), MEXICO (+4%), ISRAEL (+9%)

TABLE D3.4

Teachers earn between 77% and 89% of what other tertiary-educated workers earn, depending on the level of education they teach.

The propensity of young people to participate in teacher training, and of graduates from teacher-training programmes to enter or stay in the profession, will be influenced by the salaries of teachers relative to those of similarly educated workers in other occupations and by the likelihood of salary increases over time. All OECD countries require a tertiary qualification to enter the teaching profession (see the Indicator “Who are the teachers?” in OECD, 2012), so the likely alternative to specific teacher education is a tertiary programme in another subject. Thus, to interpret salary levels in different countries and reflect comparative labour-market conditions, teachers’ salaries are compared with those of other similarly educated professionals: 25-64 year-old full-time, full-year workers with a tertiary education.

On average among EU21 countries, pre-primary teachers’ salaries amount to 77% of full-time, full-year earnings, on average, among 25-64 year-olds with tertiary education (in the United States, pre-primary teachers earn 65% of that benchmark salary); primary teachers earn 80% of that benchmark salary (66% in the United States), lower secondary teachers are paid 84% of that salary (67% in the United States), and upper secondary teachers earn 89% of that benchmark salary (compared to 70% in the United States).

LOWEST RATIO OF UPPER SECONDARY TEACHERS’ SALARIES TO EARNINGS FOR FULL-TIME, FULL-YEAR 25-64 YEAR-OLD WORKERS WITH TERTIARY EDUCATION (2011): SLOVAK REPUBLIC (44%), CZECH REPUBLIC (58%), ICELAND (61%), ESTONIA (64%)

HIGHEST RATIO OF UPPER SECONDARY TEACHERS’ SALARIES TO EARNINGS FOR FULL-TIME, FULL-YEAR 25-64 YEAR-OLD WORKERS WITH TERTIARY EDUCATION (2011): PORTUGAL (117%), LUXEMBOURG (124%), KOREA (134%), SPAIN (140%)

TABLE D3.2

The massive expansion of tertiary education has been accompanied by increases in public – and, to an even greater extent, private – investment...

On average, EU21 countries spend EUR 10 400 per tertiary student (Japan spends an average of EUR 13 000 per tertiary student and the United States spends an average of almost EUR 21 000). Among EU21 countries, expenditure per tertiary student by educational institutions ranges from less than EUR 6 500 in the Czech Republic, Estonia and the Slovak Republic, to nearly EUR 15 000 in Sweden (Table B1.1a and Chart B1.2).

LOWEST ANNUAL EXPENDITURE PER STUDENT IN TERTIARY EDUCATION (2010): ESTONIA (EUR 5 300), SLOVAK REPUBLIC (EUR 5 600), CHILE (EUR 5 800), CZECH REPUBLIC (EUR 6 200)

HIGHEST ANNUAL EXPENDITURE PER STUDENT IN TERTIARY EDUCATION (2010): SWEDEN (EUR 15 800), SWITZERLAND (EUR 17 700), CANADA (EUR 18 200) AND UNITED STATES (EUR 20 700)

TABLE B1.2

Since 1995, 14 of the 25 OECD countries with available information implemented reforms to tuition fees. Most of these reforms led to an increase in the average level of tuition fees charged by tertiary educational institutions. In all of these 14 countries except Iceland and the Slovak Republic, the reforms were combined with a change in the level of public support available to students.

Since 2009, further changes have been made to tuition fees and public support systems in various countries. For example, in the United Kingdom, tuition fees doubled – and nearly tripled in some universities – in 2012 as part of a government plan to stabilise university finances. Similarly, in 2011, Korea implemented reforms to increase the level of public support for higher education, with the goal of expanding access to and improving equity in tertiary-type A education.

...but many European countries still struggle to share the costs and benefits of higher education equitably between public and private entities.

The share of public funding for tertiary institutions decreased from 77% in 1995, to 76% in 2000, to 71% in 2005 and then to 68% in 2010, on average among the OECD countries for which trend data are available for all years (Table B3.3). This trend is mainly influenced by non-European countries, where tuition fees are generally higher and enterprises participate more actively in providing grants to finance tertiary institutions. In European countries, the share of public funding has also decreased; it is still 8 percentage points higher than the OECD average.

Between 2000 and 2010, the share of private funding for tertiary education increased in more than three-quarters of the countries (20 out of 25) for which comparable data are available. On average, this proportion grew by seven percentage points, and by more than nine percentage points in Italy, Mexico, Portugal, the Slovak Republic and the United Kingdom. The share of private funding also rose at the primary, secondary, post-secondary non-tertiary levels, and at all levels of education combined, on average among OECD countries, most significantly in the Slovak Republic and the United Kingdom.

LOWEST SHARE OF PUBLIC FUNDING (2010): CHILE (22%), UNITED KINGDOM (25%), KOREA (27%), JAPAN (34%)

HIGHEST SHARE OF PUBLIC FUNDING (2010): ICELAND (91%), DENMARK (95%), FINLAND (96%), NORWAY (96%)

TABLE B3.3

Among the European countries for which data are available, only public tertiary institutions in Italy, the Netherlands, Slovak Republic and the United Kingdom (government-dependent private institutions) charge annual tuition fees of more than EUR 1 000 per full-time national student. By contrast, tuition fees are higher than EUR 1 200 in one-third of the countries with available data, and they reach more than EUR 4 000 in Chile, Japan, Korea and the United States (Table B5.1 and Chart B5.2).

EU21 countries spend an average of about 20% of their public budgets for tertiary education on support to households and other private entities. This proportion ranges from less than 10% in the Czech Republic, France and Spain to 68% in the United Kingdom (Table B5.4). In comparison, Japan devotes 29% and the United States devotes 28% of their public budgets for tertiary education on support to households and other private entities, but tuition fees in these two countries are much higher, on average, than those in European countries (Chart B5.4).

Other findings

- **Some progress has been made towards reducing the share of workers without baseline qualifications.** Based on current patterns of graduation, it is estimated that an average of 83% of today's young people in EU21 and OECD countries will complete upper secondary education over their lifetimes; in 2000, less than 80% of young people did. In the United States, the graduation rates increased from 69% to 77% (Table A2.2a).

LOWEST FIRST-TIME GRADUATION RATES AT UPPER SECONDARY LEVEL (2011): MEXICO (49%), TURKEY (56%), AUSTRIA (67%), GREECE (68%)

HIGHEST FIRST-TIME GRADUATION RATES AT UPPER SECONDARY LEVEL (2011): SLOVENIA (99%), FINLAND (96%), JAPAN (96%), KOREA (93%)

TABLE A2.1A

- **The proportion of individuals in education has grown over time: only 10% of 15-19 year-olds are not in education across EU21 countries.**

Target for the Europe 2020 Strategy: Reduce early school leavers to below 10% by 2020

The rates of early school leavers are defined by the European Union as the proportion of the population aged 18-24 that has only lower secondary education or less, and is no longer in education or training. *Education at a Glance* measures the number of young people who are neither employed

nor in education or training (NEET) among 15-19 year-olds, 20-24 year-olds and 25-29 year-olds, at all levels of attainment, and among 15-29 year-olds and 25-29 year-olds by level of attainment.

In most OECD and EU countries, education policy seeks to encourage young people to complete at least upper secondary education. The effect of these efforts is seen in young people's participation in education beyond compulsory schooling (Table C5.2a). Many countries have attained near-universal access to education for 15-19 year-olds. On average across EU countries, 90% of 15-19 year-olds were in education in 2011, compared with the OECD average and the United States average of 86% (Table C5.3d, available on line). Since 2008, this rate increased by almost 2 percentage points. Between 2008 and 2011, the largest increases were seen in Ireland, Portugal, Spain, and the United Kingdom (+5 or +6 percentage points).

LOWEST PORPORTION OF 15-19 YEAR-OLDS IN EDUCATION (2011): TURKEY (60%), MEXICO (61%), ISRAEL (70%), CHILE (71%)

HIGHEST PORPORTION OF 15-19 YEAR-OLDS IN EDUCATION (2011): SLOVENIA (95%), LUXEMBOURG (95%), POLAND (94%), HUNGARY (94%)

TABLE C5.2D

- **Many EU21 countries can expect a significant increase in the proportion of their population that attains a tertiary education.** In 2011, an average of 37% of 30-34 year-olds in EU countries had completed tertiary education (compared with the OECD average of 39% and an average of 44% in the United States). Within the past ten years, the estimated percentage of students who will complete tertiary-type A education over their lifetime has increased by more than 10 percentage points among EU countries compared to 5 percentage points in the United States (Table A3.2a).

Target for the Europe 2020 Strategy: At least 40% of 30-34 year-olds completing tertiary education by 2020

Among EU21 countries, Belgium, Denmark, Estonia, Finland, France, Ireland, Luxembourg, the Netherlands, Spain, Sweden and the United Kingdom meet or exceed the 40% benchmark set by the European Union if the 30-34 year-old age group is analysed (Table A1.3a). Chart A1.3 and Indicator A3 on graduation rates in tertiary education show that most countries are likely to achieve this goal by 2020.

On average among EU21 countries in 2011, a higher proportion of women aged 30 to 34 had completed tertiary education than men (41% compared with 32%). This was true for all EU21 countries except Luxembourg, with the largest gender gaps – of more than 15 percentage points – observed in Estonia, Finland and Slovenia. The percentage of women in tertiary education ranged from 25% in Italy to 50% or more in Finland, Ireland, Sweden and the United Kingdom; the percentage of men in tertiary education varied from 16% in Italy to more than 40% in Ireland, Luxembourg and the United Kingdom (Table A1.3b, available on line).

LOWEST TERTIARY ATTAINMENT RATES FOR 30-34 YEAR-OLDS (2011): TURKEY (17%), MEXICO (20%), ITALY (20%), SLOVAK REPUBLIC (23%)

HIGHEST TERTIARY ATTAINMENT RATES FOR 30-34 YEAR-OLDS (2011): KOREA (64%), CANADA (58%), ISRAEL (53%), NORWAY (50%),

TABLE A1.3A

- **Although the gap in the employment rate between men and women aged 25-64 narrows among tertiary-educated individuals, the employment rate among women is far below that among men at all levels of education.** Policies that aim to boost labour-market participation among women can help to ensure that women's skills are used more effectively in the workplace.

Target for the Europe 2020 Strategy: 75% employment rate for women and men aged 20-64 by 2020 – achieved by getting more people into work, especially women, young, older and low-skilled people and legal migrants

In 2011 in EU21 countries, an average of 66% of men and 47% of women with a lower secondary education were employed (compared with 58% of men and 41% of women with the same level of

education in the United States). Among individuals in EU21 countries with a tertiary-type A (largely theory-based) degree, 88% of men and 81% of women were employed (compared with 86% of men and 76% of women with that level of education in the United States) (Table A5.1b).

LOWEST EMPLOYMENT RATES 25-64 YEAR-OLD WOMEN – ALL LEVELS OF EDUCATION (2011): TURKEY (31%), MEXICO (49%), GREECE (51%), ITALY (52%)
 HIGHEST EMPLOYMENT RATES 25-64 YEAR-OLD WOMEN – ALL LEVELS OF EDUCATION (2011): SWEDEN (80%), NORWAY (80%), ICELAND (79%), SWITZERLAND (76%)

LOWEST EMPLOYMENT RATES 25-64 YEAR-OLD MEN – ALL LEVELS OF EDUCATION (2011): HUNGARY (70%), SPAIN (71%), IRELAND (71%), GREECE (74%),
 HIGHEST EMPLOYMENT RATES 25-64 YEAR-OLD MEN – ALL LEVELS OF EDUCATION (2011): SWITZERLAND (90%), JAPAN (88%), MEXICO (88%), CHILE (87%)
 (TABLE A5.1B)

- **Even during a recession, the wage premium increases with higher levels of education in European countries**, but at a lower level than other countries, including the United States. The relative earnings premium for those with a tertiary education increased in most EU21 countries over the past ten years, indicating that the demand for more educated individuals still exceeds supply. On average among EU21 countries, a 25-64 year-old with tertiary education earned 58% more in 2011 than an adult in the same age group with an upper secondary education; in the United States, he or she earned 77% more. Among EU21 countries, the tertiary earnings premium ranged from less than 30% in Belgium, Denmark and Sweden, to more than 80% in Hungary and Slovenia (Table A6.1).
- **For most children in European countries, formal education begins well before they are five years old.** This is important, given that 15-year-old students who attended at least one year of pre-primary education perform better on the OECD Programme for International Student Assessment (PISA) than those who did not – even after accounting for socio-economic background. On average in 2011, 77% of children in EU countries (compared with only 50% of children in the United States) were enrolled in early childhood education at the age of 3. In Belgium, France, Italy, Norway, Spain and Sweden, more than 90% of 3-year-olds were enrolled. More than three-quarters of 4-year-olds (84%) were enrolled in early childhood education across OECD countries as a whole. Among OECD countries that are part of the European Union, 90% of 4-year-olds were enrolled, compared with only 78% of 4-year-olds in the United States (Table C2.1).

Target for the Europe 2020 Strategy: at least 95% of children between the age of four and the age for starting compulsory primary education should participate in early childhood education by 2020

Publicly-funded pre-primary education tends to be more strongly developed in the European countries of the OECD than in the non-European countries. Most European countries provide all children with at least two years of free, publicly-funded pre-primary education in schools before they begin primary education. With the exception of Ireland and the Netherlands, such access is generally a statutory right from the age of three (in some countries, even earlier), and for at least two years. Compared to primary, secondary and post-secondary non-tertiary institutions, pre-primary schools obtain the largest proportion of funds from private sources (11% for EU countries). However, this proportion varies widely, from 5% or less in Belgium, Estonia, Luxembourg and Sweden, to 25% or more in Austria and Spain (Tables B3.2a, C2.2 and Starting Strong III).

LOWEST ENROLMENT RATES FOR 4-YEAR-OLDS (2011): TURKEY (19%), SWITZERLAND (41%), CANADA (48%), FINLAND (57%)
 HIGHEST ENROLMENT RATES FOR 4-YEAR-OLDS (2011): NETHERLANDS (100%), SPAIN (100%), MEXICO (100%), FRANCE (99%)
 TABLE C2.1

- **Europe's ageing teaching force is an increasing concern and has a significant impact on public budgets.** Since 1998, the share of secondary school teachers aged 50 or older has increased from 30% to 36% on average among EU21 countries with available data for both years. In Austria, the share has more than doubled from 20% in 1998 to 43% in 2011. More than 40% of secondary school teachers in Austria, Estonia, Germany, Italy, the Netherlands and Sweden are 50 or older; in Italy, more than 60% of secondary school teachers are older than 50. By contrast, fewer than 30% of teachers are aged 50 or older in Luxembourg, Poland, Portugal and the United Kingdom (Table D5.2, available on line).

- **Europe is an attractive market for international students.** Europe is the top destination for students at the tertiary level of education enrolled outside their country of origin, hosting 48% of these students, followed by North America, which hosts 21% of all international students (Table C4.6).
- **Despite many initiatives to promote gender equality in OECD countries and at the EU level, little has changed since 2000.** For example, in 2000, the European Union established a goal to increase the number of tertiary-type A graduates in mathematics, science and technology by at least 15% by 2010, and to reduce the gender imbalance in these subjects. So far, progress towards this goal has been marginal. The Czech Republic, Germany and the Slovak Republic are the three European countries in which the proportion of women in science grew by at least 10 percentage points between 2000 and 2011. Among EU21 countries, the proportion of women in these fields has grown slightly from 40% in 2000 to 42% in 2011 – even as the proportion of female graduates in all fields grew from 55% to 60% during the same period. The proportion of women in engineering, manufacturing and construction is also relatively small, though it increased slightly, from 23% to 28%, over the past decade (Table A3.3, available on line).

LOWEST PERCENTAGE OF TERTIARY QUALIFICATIONS AWARDED TO WOMEN IN SCIENCES (2011): NETHERLANDS (25%), JAPAN (26%), CHILE (32%), NORWAY (34%)

HIGHEST PERCENTAGE OF TERTIARY QUALIFICATIONS AWARDED TO WOMEN IN SCIENCES (2011): PORTUGAL (55%), ITALY (54%), TURKEY (51%), ESTONIA (49%)

TABLE A3.3

Education at a Glance 2013 features data on education from the 34 OECD member countries as well as Argentina, Brazil, China, India, Indonesia, the Russian Federation, Saudi Arabia and South Africa. The EU average is calculated as the unweighted mean of the data values of the 21 OECD countries that are members of the European Union for which data are available or can be estimated. These 21 countries are Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Poland, Portugal, Slovenia, the Slovak Republic, Spain, Sweden and the United Kingdom.

Please note: all Tables, Charts and Indicators are found in *Education at a Glance 2013*

(www.oecd.org/edu/eag.htm)

<p>Questions can be directed to: Andreas Schleicher Advisor to the Secretary-General on Education Policy, Deputy Director for Education and Skills Email: Andreas.Schleicher@oecd.org Telephone: +33 6 07 38 54 64</p>	<p>Country Note Author: Corinne Heckmann Corinne.Heckmann@oecd.org</p>
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Key Facts for EU21 average in Education at a Glance 2013

Table	Indicator	EU21 average		OECD average		Rank among OECD countries and other G20 countries*
Educational Access and Output						
	Enrolment rates	2011	2005	2011	2005	
C2.1	3-year-olds (in early childhood education)	77%	73%	67%	64%	17 of 36
	4-year-olds (in early childhood and primary education)	90%	84%	84%	79%	21 of 36
C1.1a	5-14 year-olds (all levels)	98%		99%		22 of 38
	Percentage of population that has attained below upper secondary education	2011	2000	2011	2000	
A1.4a	25-64 year-olds	25%	34%	26%	34%	16 of 35
	Percentage of population that has attained upper secondary education	2011	2000	2011	2000	
A1.4a	25-64 year-olds	48%	46%	44%	44%	12 of 36
	Percentage of population that has attained tertiary education	2011	2000	2011	2000	
	25-64 year-olds	28%	20%	31%	22%	24 of 36
A1.3a	30-34 year-olds	37%		39%		24 of 34
A1.4a	25-34 year-olds	36%	24%	39%	26%	25 of 36
	55-64 year-olds	21%	14%	24%	15%	22 of 36
	Entry rates into tertiary education	2011	2000	2011	2000	
C3.1a	Vocational programmes (Tertiary-type B)	15%	11%	19%	16%	21 of 32
	University programmes (Tertiary-type A)	59%	46%	60%	48%	19 of 36
	Graduation rates	2011	2000	2011	2000	
A2.1a	Percentage of today's young people expected to complete upper secondary education in their lifetime	83%	77%	83%	76%	18 of 27
A3.1a	Percentage of today's young people expected to complete university education (tertiary-type A) in their lifetime	41%	27%	39%	28%	12 of 26
Economic and Labour Market Outcomes						
	Unemployment rate of 25-64 year-olds - Men and Women	2011	2008	2011	2008	
A5.4b	Below upper secondary	15.6%	10.4%	12.6%	8.8%	10 of 35
	Upper secondary and post-secondary non-tertiary	8.5%	5.2%	7.3%	4.9%	11 of 36
	Tertiary	5.2%	3.2%	4.8%	3.3%	9 of 36
	Unemployment rate of 25-64 year-olds - Women	2011	2008	2011	2008	
A5.4d	Below upper secondary	15.1%	11%	12.2%	9.5%	9 of 35
	Upper secondary and post-secondary non-tertiary	9.1%	6.1%	8.0%	5.7%	11 of 35
	Tertiary	5.5%	3.6%	5.1%	3.6%	10 of 36
	Average earnings premium for 25-64 year-olds with tertiary education**	2011 or latest year available		2011		
A6.1	Men and women	158		157		15 of 33
	Men	164		162		12 of 33
	Women	161		161		15 of 33
	Average earnings penalty for 25-64 year-olds who have not attained upper secondary education**	2011 or latest year available		2011		
A6.1	Men and women	77		76		17 of 33
	Men	78		77		15 of 33
	Women	75		74		18 of 33
	Percentage of people not in employment, education or training for 15-29 year-olds, by level of education attained	2011	2008	2011	2008	
C5.4d	Below upper secondary	15.3%	13.5%	15.8%	14.4%	16 of 34
	Upper secondary	15.1%	11.8%	16.2%	13.6%	17 of 34
	Tertiary	12.3%	9.6%	13.3%	10.6%	19 of 34

Key Facts for EU21 average in Education at a Glance 2013

Table	Indicator	EU21 average		OECD average		Rank among OECD countries and other G20 countries*
Financial Investment in Education						
	Annual expenditure per student (in equivalent USD, using PPPs)	2010		2010		
B1.1a	Pre-primary education	7085 USD		6762 USD		11 of 32
	Primary education	8277 USD		7974 USD		17 of 34
	Secondary education	9471 USD		9014 USD		16 of 34
	Tertiary education	12856 USD		13528 USD		18 of 33
	Total expenditure on educational institutions as a percentage of GDP	2010	2000	2010	2000	
B2.1	As a percentage of GDP	5.9%	5.2%	6.3%	5.4%	21 of 33
	Total public expenditure on education	2010	2000	2010	2000	
B4.1	As a percentage of total public expenditure	11.4%	11.4%	13.0%	12.6%	20 of 32
	Share of private expenditure on educational institutions	2010	2000	2010	2000	
B3.2a	Pre-primary education	11.3%		17.9%		19 of 28
B3.2a	Primary, secondary and post-secondary non-tertiary education	6.1%	5.6%	8.5%	7.1%	20 of 31
B3.2b	Tertiary education	22.7%	14.3%	31.6%	22.6%	19 of 30
B3.1	All levels of education	10.7%	7.9%	16.4%	12.1%	19 of 29
Schools and Teachers						
	Ratio of students to teaching staff	2011		2011		
D2.2	Pre-primary education	13 students per teacher		14 students per teacher		19 of 31
	Primary education	14 students per teacher		15 students per teacher		22 of 35
	Secondary education	12 students per teacher		14 students per teacher		22 of 36
	Total intended instruction time for students (hours)	2011		2011		
D1.1	Primary education	m		4717 hours		m
	Lower secondary education	m		3034 hours		m
	Number of hours of teaching time per year (for teachers in public institutions)	2011	2000	2011	2000	
D4.2	Pre-primary education	977 hours		994 hours		14 of 29
	Primary education	777 hours	776 hours	790 hours	780 hours	19 of 31
	Lower secondary education	669 hours	658 hours	709 hours	697 hours	14 of 30
	Upper secondary education	651 hours	635 hours	664 hours	628 hours	13 of 31
	Index of change in statutory teachers' salaries for teachers with 15 years of experience/minimum training (2000 = 100)	2011	2008	2011	2008	
D3.4	Primary school teachers	121	122	120	120	8 of 23
	Lower secondary school teachers	121	121	116	116	6 of 22
	Upper secondary school teachers	118	119	117	118	8 of 22
	Ratio of teachers' salaries to earnings for full-time, full-year adult workers with tertiary education	2011		2011		
D3.2	Pre-primary school teachers	0.77		0.80		11 of 22
	Primary school teachers	0.80		0.82		15 of 27
	Lower secondary school teachers	0.84		0.85		13 of 27
	Upper secondary school teachers	0.89		0.89		12 of 27

* Countries are ranked in descending order of values.

** Compared to people with upper secondary education; upper secondary = 100.

'm': data is not available.