

COUNTRY NOTE



Education at a Glance: OECD Indicators 2012

UNITED STATES

Under embargo until 11 September, at 11:00 am Paris time

Questions can be directed to:

Andreas Schleicher, Advisor to the Secretary-General on Education Policy, Deputy Director for Education

Email: Andreas.Schleicher@OECD.org

Telephone: +33607385464

Please visit our website: www.oecd.org/edu/eag2012 <http://dx.doi.org/10.1787/eag-2012-en>

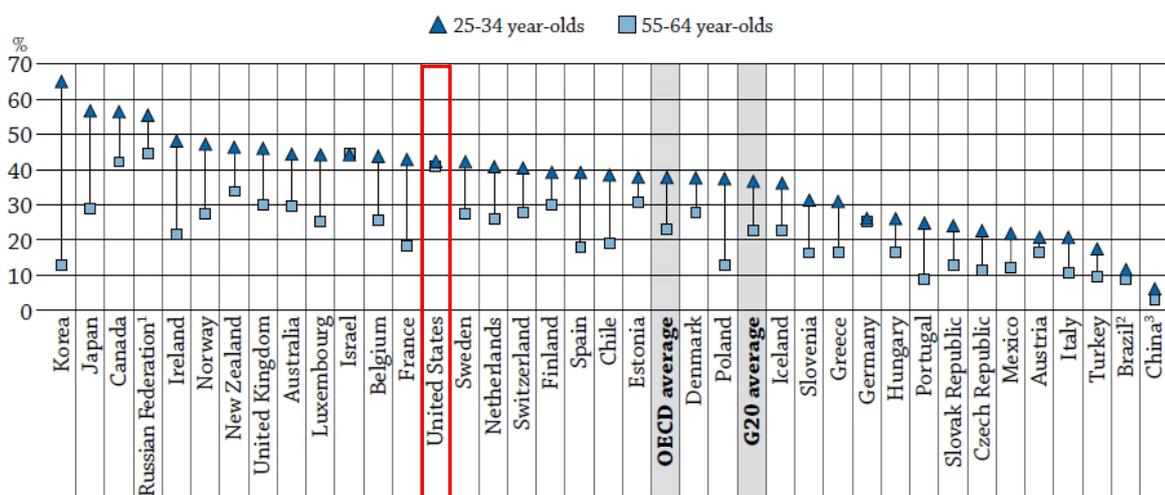
KEY FINDINGS

- The U.S. ranks 14th in the world in the percentage of 25-34 year-olds with higher education (42%).
- The odds that a young person in the U.S. will be in higher education if his or her parents do not have an upper secondary education are just 29% -- one of the lowest levels among OECD countries.
- The U.S. ranks 28th in the percentage of 4-year-olds in early childhood education, with a 69% enrolment rate.
- Across all OECD countries, 30% of the expenditure on higher education comes from private sources, while in the U.S., 62% does.
- Teachers in the U.S. spend between 1 050 and 1 100 hours a year teaching – much more than in almost every country.

The U.S.'s higher education attainment levels are quite high overall, but other countries are increasing attainment levels at a faster rate.

In the United States, 42% of all 25-64 year-olds have a tertiary (higher education) attainment, making it one of the most well-educated countries in the world. Only Canada (51%), Israel (46%), Japan (45%) and the Russian Federation (54%) have higher tertiary attainment levels among this age group (Table A1.3a). At the same time, a number of countries have now surpassed the U.S. in the percentage of younger adults with a tertiary attainment. The U.S. ranks 14th among 37 OECD and G20 countries in the percentage of 25-34 year-olds with higher education, at 42% - above the OECD average (38%), but far behind the leader, Korea (65%) (Chart A1.1).

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).

StatLink  <http://dx.doi.org/10.1787/888932661478>

Although overall tertiary attainment levels in the U.S. have been high for many years and remain well above the OECD average (30%), they are growing at a below-average rate compared to other OECD and G20 countries. For example, between 2000 and 2010, tertiary attainment in the U.S. grew an average of 1.3 percentage points a year, compared to 3.7 percentage points annually for OECD countries overall (Table A1.4).

Based on these trends, the U.S. may find that an increasing number of countries will approach or surpass its attainment levels in the coming years. Other countries in this situation include Estonia, Finland, Israel and the Russian Federation (Chart A1.3).

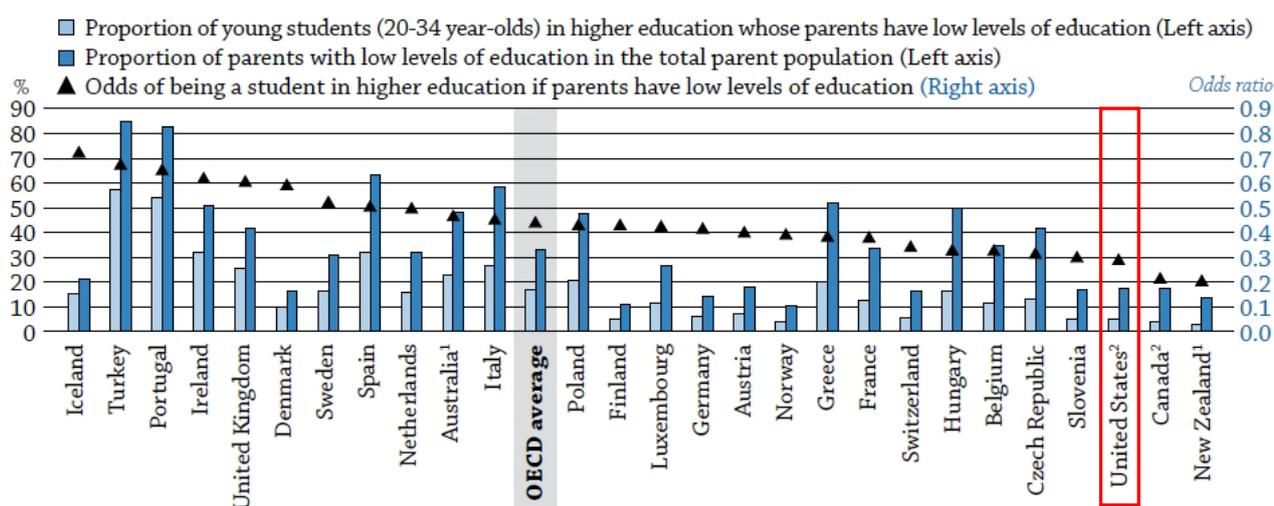
These trends are also mirrored in the graduate output of higher education institutions. In 1995, the U.S. ranked 2nd after New Zealand in terms of the higher education graduation rate among 19 OECD countries with comparable data. In 2010, it ranked 13th among 25 countries with comparable data. While the higher education graduation rate in the U.S. grew from 33% to 38% over this period, on average across OECD countries it virtually doubled, from 20% to 39% (Table A3.2).

The odds that a young person will be in higher education if his or her family has a low level of education are particularly small in the U.S.

One way countries can increase higher education attainment is by establishing a level playing field – for example, by working to assure that young people from educationally-disadvantaged backgrounds have a fair chance at entering higher education. In every OECD country, the odds that a 20-34 year-old will attend higher education increase with the educational attainment level of his or her parents. On average across OECD countries, a young person with at least one parent who has a tertiary degree is almost twice as likely (odds of 1.9) to be in higher education, compared to the proportion of such families in the population. A

young person whose parents have an upper secondary education has essentially even odds (1.03) of being in higher education, while a young person whose parents have not attained an upper secondary education has low odds (0.44) (Table A6.1).

Chart A6.1. Participation in higher education of students whose parents have low levels of education (2009)



Note: The number of students attending higher education are under-reported for Australia, Canada, New Zealand and the United States compared to the other countries as they only include students who attained ISCED 5A, while the other countries include students who attained ISCED 5A and/or 5B. Therefore, the omission of data on 5B qualifications may understate intergenerational mobility in these countries.

1. Data source from Adult Literacy and Lifeskills Survey (ALL) of 2006.

2. Data source from Adult Literacy and Lifeskills Survey (ALL) of 2003.

Countries are ranked in descending order of the odds of attending higher education.

Source: OECD. Table A6.1. See Annex 3 for notes (www.oecd.org/edu/eag2012).

StatLink <http://dx.doi.org/10.1787/888932661934>

While the percentage of parents who have not attained an upper secondary education is smaller in the U.S. than in many OECD countries – 17%, compared to 33% across all OECD countries – the odds that the children of these parents will be in higher education are particularly low, at just 29% (odds of 0.29). These odds are below every other OECD country except Canada and New Zealand (Note: due to differences in data reporting, intergenerational mobility in higher education in the U.S. may be understated) (Chart A6.1). By contrast, the odds that a young person in the U.S. will be in higher education if his or her parents have an upper secondary education are 74%, and 158% if one or more parent has attained higher education (Table A6.1).

Early childhood education is not as well-developed in the U.S. as in some other countries.

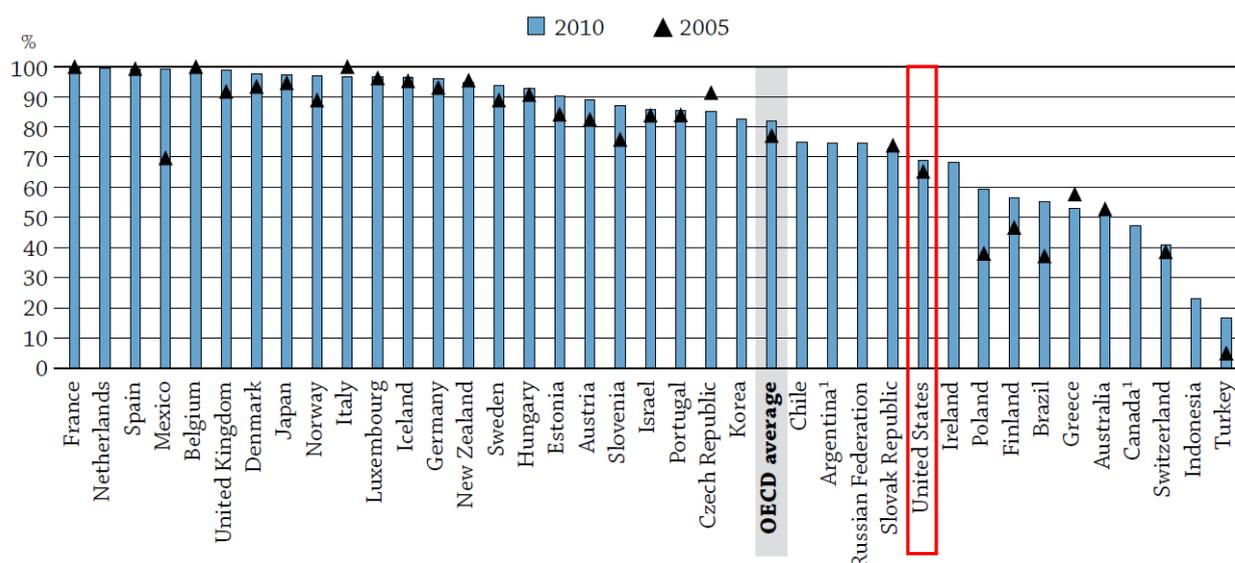
Increasing access to early childhood education is another way countries can help prepare students for academic progress later on. For example, OECD research finds that in most countries, 15-year-olds who have attended pre-primary education tend to perform better on the OECD's PISA assessment than those who have not, even after accounting for students' socio-economic backgrounds.

Early childhood education in the U.S. is somewhat less established than in other OECD countries, especially in Europe, where formal pre-primary education in the public school system is more often the norm. On average across OECD countries, 84% of pupils in early childhood education attend programmes in public schools or government-dependent private institutions, while in the U.S., 55% of early childhood pupils

attend programmes in public schools, and 45% attend independent private programmes. In the U.S. the typical starting age for early childhood education is 4 years old, while in 21 other OECD countries, it is 3 years old or younger (Table C2.2). In addition, education-only early childhood programmes in other countries are usually delivered by a qualified teacher and have a formal curriculum, while in the U.S., the situation can vary (Table C2.3).

Chart C2.1. Enrolment rates in early childhood and primary education at age 4 (2005 and 2010)

Full-time and part-time pupils in public and private institutions



1. Year of reference 2009.

Countries are ranked in descending order of the enrolment rates of 4-year-olds in 2010.

Source: OECD. Argentina and Indonesia: UNESCO Institute for Statistics (World Education Indicators programme). Table C2.1.

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

StatLink  <http://dx.doi.org/10.1787/888932663055>

The U.S ranks 28th among 38 OECD and G20 countries in the percentage of 4-year-olds in early childhood education, with a 69% enrolment rate (Chart C2.1; Table C2.1). It ranks 6th among 34 OECD and G20 countries in terms of annual expenditure per pupil at this level (USD 8 396; OECD average USD 6 670) (Table B1.a), although total public and private expenditure on early childhood education as a percentage of GDP (0.4%) is below the OECD average (0.5%). The ratio of pupils to teaching staff in early childhood programmes in the U.S. (14.6) is slightly above the OECD average (14.4), but when teachers' aides are factored in, the ratio drops below the OECD average (11.4 U.S.; 12.3 OECD average) (Table C2.2).

The personal costs of obtaining a higher education in the U.S. are large...

In the U.S., the total cost for an individual to obtain a higher education is quite large. On average, the total cost for a man in the U.S. to pursue higher education is more than USD 116 000 – about USD 71 000 in direct costs, and USD 45 000 in foregone earnings while he is in school. Only three other countries have total costs that exceed USD 100 000: Japan (USD 103 965), the Netherlands (USD 104 231), and the United Kingdom (USD 122 555). However, in these latter countries, the lion's share of the total costs consists of foregone earnings. For women in the U.S., the total costs of higher education are slightly higher: USD 117 000 on average, comprised of USD 71 000 in direct costs, and USD 46 000 in foregone earnings (Table A9.3).

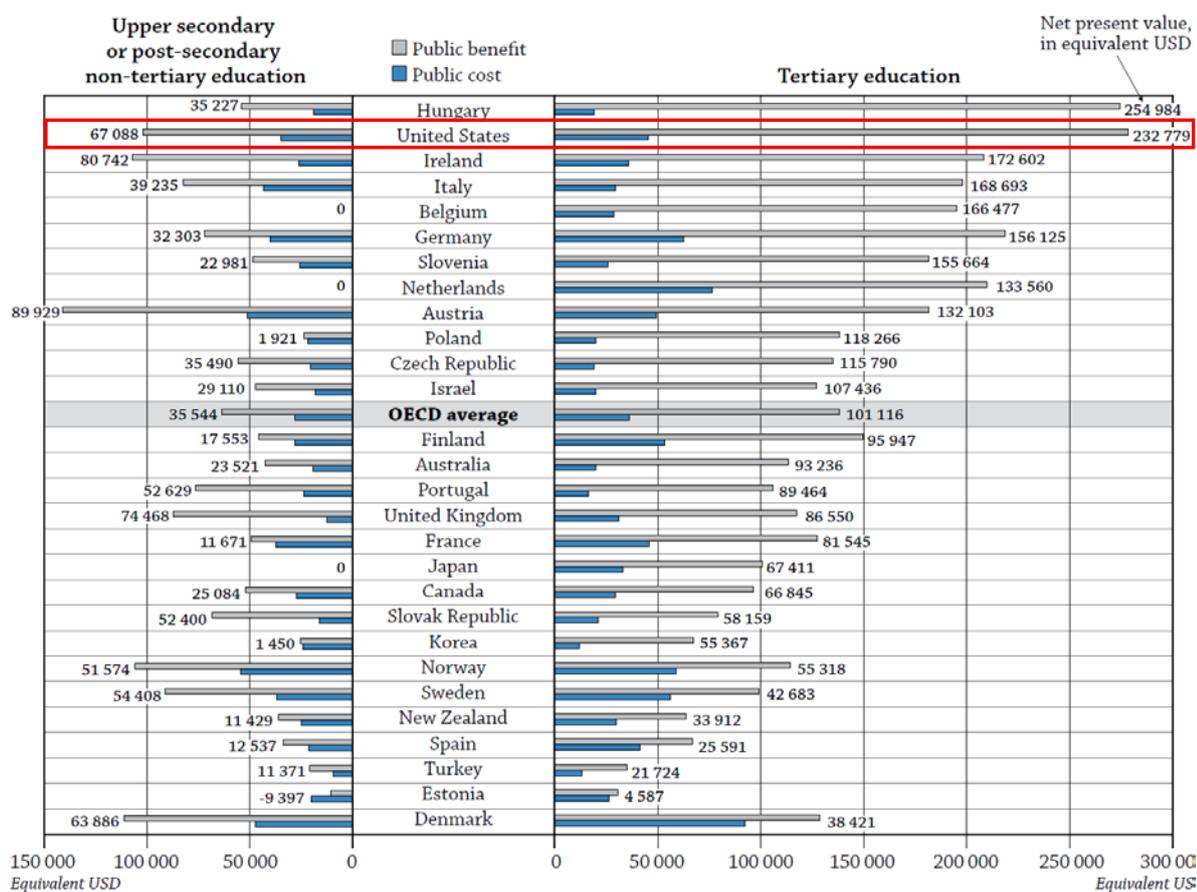
...but the long-term economic rewards are strong, both for individuals...

At the same time, the payoff for obtaining a higher education degree is much higher in the U.S. than in most OECD countries. For example, over the course of his working life, a tertiary-educated man in the U.S. can expect to earn almost USD 675 000 more than a man with no more than an upper secondary or postsecondary non-tertiary education – far more than in any other country. Meanwhile, a woman with tertiary education in the U.S. can expect to earn almost USD 390 000 more on average, an amount approached only by tertiary-educated women in Ireland, the Netherlands, Portugal, and the United Kingdom (Table A9.3). Over the last decade, the earnings advantage of tertiary graduates over high school graduates has increased in the U.S. from 181% to 184% among men and from 169% to 175% among women (Tables A8.2b and A8.2c). All told, the net present value of obtaining a higher education – that is, the long-term economic benefits, minus the associated costs – is almost USD 330 000 for a man in the U.S. and more than USD 168 000 for a woman. Only in Portugal is this amount higher (Table A9.3).

...and for the public purse.

U.S. taxpayers also realise a healthy return on the public funds that are used to support individuals in higher education. On average, they bear a cost (direct and indirect) of USD 45 554 to support a man in higher education and USD 45 618 to support a woman in higher education. Both amounts are higher than the OECD average, which is USD 36 085 for men and USD 35 281 for women. In the long run, however, taxpayers will recoup this investment many times over through the increased income taxes that tertiary-educated workers typically pay, as well as savings from the lower amount of social welfare benefits these individuals typically receive. Overall, the net public return in the U.S. amounts to USD 232 779 for each tertiary-educated man, and USD 84 313 for each tertiary-educated woman. For men, this public return is higher than in every country but Hungary; for women, it is the 7th-highest return among OECD countries (Table A9.4; Chart A9.4).

Chart A9.5. Public cost and benefits for a man obtaining upper secondary or post-secondary non-tertiary education and tertiary education (2008 or latest available year)



Notes: Japan is not included in the left-hand side of the chart because the data at lower and upper secondary levels of education are not broken down. Belgium and the Netherlands are not included in the left-hand side of the chart because upper secondary education is compulsory. Australia and Turkey refer to 2005; Portugal refers to 2006. Japan and Slovenia refer to 2007. All other countries refer to 2008. Cashflows are discounted at a 3% interest rate.

Countries are ranked in descending order of the net present value at tertiary level of education.

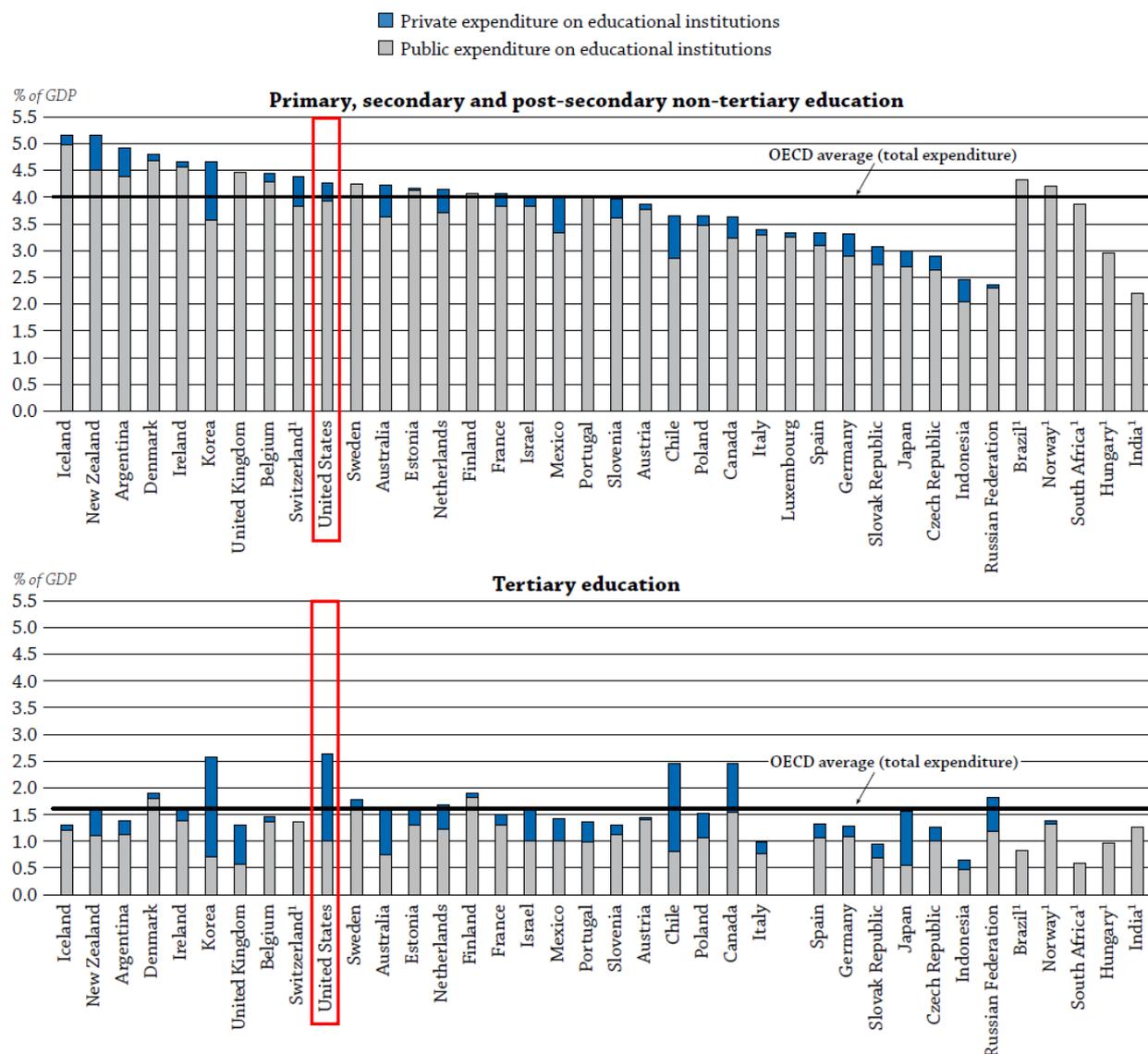
Source: OECD, Tables A9.2 and A9.4. See Annex 3 for notes (www.oecd.org/edu/eag2012).

StatLink <http://dx.doi.org/10.1787/888932669040>

The U.S. spends a large proportion of its national wealth on education – particularly higher education...

Taking into account spending from public and private sources, the U.S. spends 7.3% of its GDP on all levels of education combined. This is well above the OECD average (6.2%), and more than all other OECD countries except Denmark (7.9%), Iceland (8.1%), Korea (8.0%) and New Zealand (7.4%) (Table B2.1). Across all levels of education, annual per-student spending by educational institutions in the U.S. is higher than in any other country, at USD 15 812 (Table B1.1a).

Chart B2.2. Expenditure on educational institutions as a percentage of GDP (2009)
 From public and private sources, by level of education and source of funds



1. Public expenditure only (for Switzerland, in tertiary education only; for Norway, in primary, secondary and post-secondary non-tertiary education only). Countries are ranked in descending order of expenditure from both public and private sources on educational institutions in primary, secondary and post-secondary non-tertiary education.

Source: OECD. Argentina, India, Indonesia: UNESCO Institute for Statistics (World Education Indicators programme). South Africa: UNESCO Institute for Statistics. Table B2.3. See Annex 3 for notes (www.oecd.org/edu/eag2012).

StatLink  <http://dx.doi.org/10.1787/888932662599>

Looking at specific levels of education, however, the picture becomes more complex. As a percentage of GDP, public and private spending on education in the U.S. is slightly below the OECD average for early childhood education (U.S. 0.4%; OECD 0.5%), significantly above average for primary and lower secondary education (U.S. 3.2%; OECD 2.6%), and below average for upper secondary education (U.S. 1.1%, OECD 1.3%). The big difference is in higher education, on which the U.S. spends 2.6% of its GDP – much more than the OECD average (1.6%), and more than every other country but Korea (also 2.6%) (Table B2.2; Chart B2.2). On a per-student basis, annual spending by higher education institutions in the U.S. amounts to

UNITED STATES – Country Note – *Education at a Glance 2012: OECD Indicators*

USD 29 201. Only in Canada (USD 20 932) and Switzerland (USD 21 577) does spending exceed USD 20 000 on this measure (Table B1.2)

... a large share of which comes from private sources.

In general, a higher-than-average proportion of the U.S.'s spending on education comes from private sources. For all levels of education combined, public sources account for 72% of all expenditures on education in the U.S., while private sources account for 28%. By comparison, across all OECD countries, 84% of education expenditures are from public sources, and 16% of expenditures are from private sources (Table B3.2).

For higher education, however, the public-private breakdown in the U.S. is nearly the reverse of the situation across OECD countries. In the U.S., 38% of higher education expenditures come from public sources, and 62% are from private sources. Across all OECD countries, 70% of expenditures on higher education come from public sources, and 30% are from private sources. What is more, 45% of expenditures on higher education in the U.S. come from households (Table B3.2).

The U.S. is not alone in this situation; in fact, in Chile (68.1%), Japan (50.7%), Korea (49.2%) and the United Kingdom (58.1%) the percentage of higher education expenditures that come from households is even higher (Table B3.2). Nonetheless, the heavy reliance on private spending for higher education in these countries raises salient questions about the extent to which this may limit access to higher education, as well as the robustness of their student aid systems (see Indicator B5).

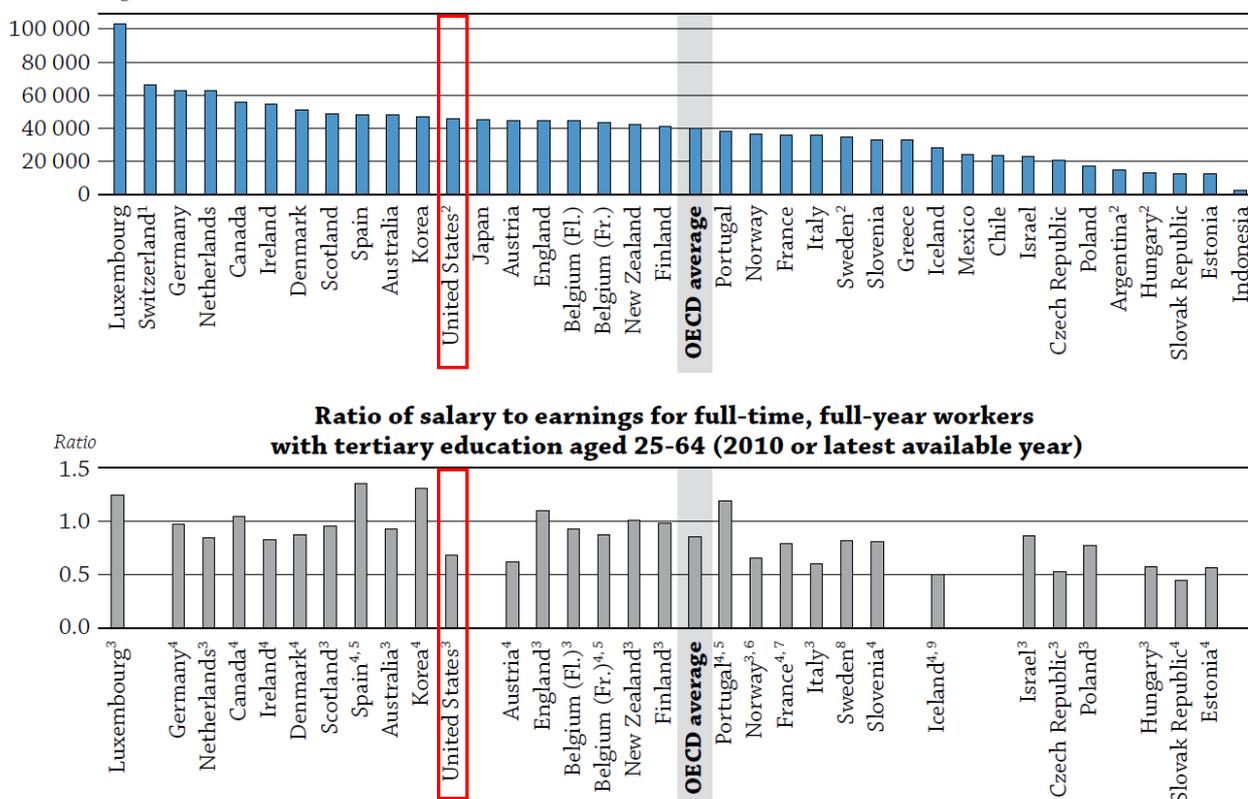
Teacher salaries in the U.S. compare poorly to salaries for other workers with higher education.

Despite high overall levels of spending on education, teacher salaries in the U.S. compare poorly. While in most OECD countries teacher salaries tend to be lower, on average, than the salaries earned by other workers with higher education, in the U.S. the difference is large, especially for teachers with minimum qualifications. On average, a primary schoolteacher in the U.S. can expect to earn 67% of the salary of the average tertiary-educated worker in the U.S. (OECD average: 82%). Similarly, a teacher in lower secondary education can expect to earn 69% of the salary of his or her peer with higher education (OECD average: 85%), while an upper secondary teacher can expect to earn 72% (OECD average: 90%). At each of these levels of education, 21 OECD countries have smaller salary differentials between average teacher salaries and the salaries of other workers with higher education (Table D3.1).

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).

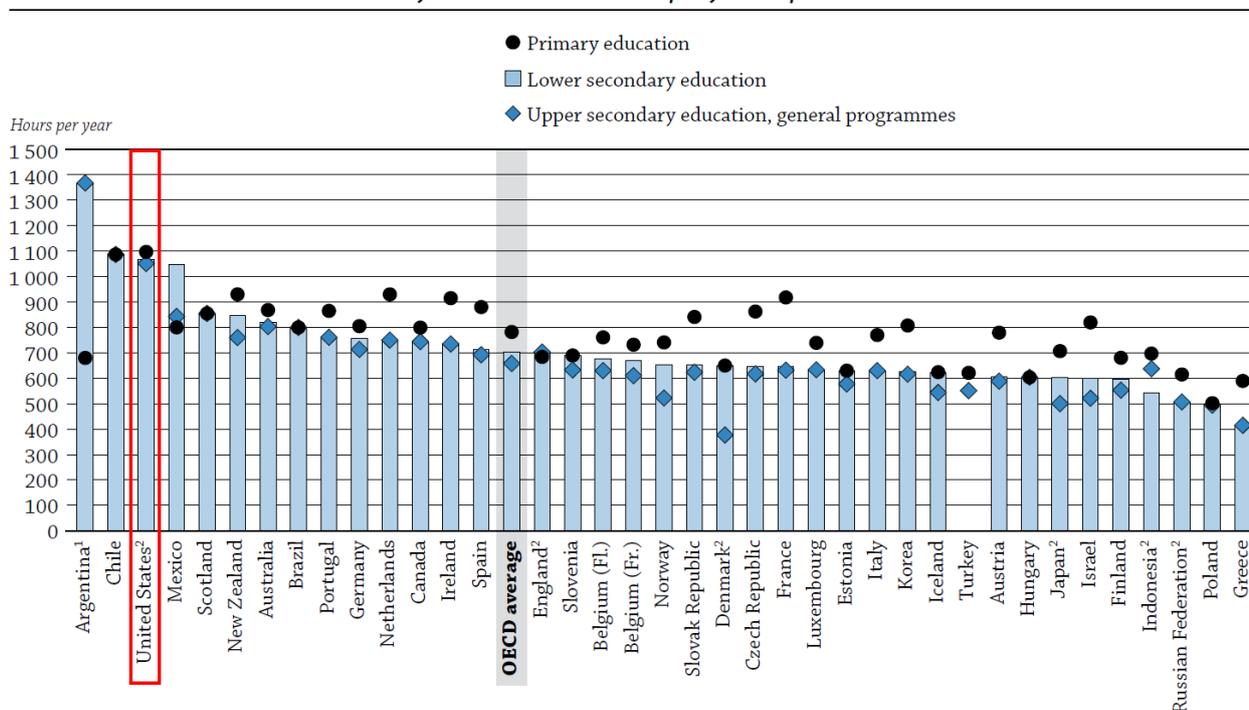
StatLink  <http://dx.doi.org/10.1787/888932663682>

Teachers in the U.S. spend much more time teaching than in other countries...

Compared to their peers in other countries, teachers in the U.S. spend a great deal of time in front of the classroom. On average, primary school teachers in the U.S. spend almost 1 100 hours a year teaching, while lower secondary teachers teach for about 1 070 hours, and upper secondary school teachers spend about 1 050 hours. With the exceptions of lower and upper secondary teachers in Argentina and Chile and lower secondary teachers in Mexico, teachers in the U.S. teach for many more hours than in other countries (OECD

average: 782 hours for primary education, 704 hours for lower secondary, and 658 hours for upper secondary). Notably, while the number of hours of teaching per year tends to decrease with each education level in most OECD countries, the number of teaching hours in the U.S. is roughly the same in primary, lower secondary and upper secondary education (Table D4.2; Chart D4.2).

Chart D4.2. Number of teaching hours per year, by level of education (2010)
Net statutory contact time in hours per year in public institutions



1. Year of reference 2009.

2. Actual teaching hours.

Countries are ranked in descending order of the number of teaching hours per year in lower secondary education.

Source: OECD. Argentina: UNESCO Institute for Statistics (World Education Indicators programme). Table D4.1. See Annex 3 for notes (www.oecd.org/edu/eag2012).

StatLink  <http://dx.doi.org/10.1787/888932663758>

Depending on the school level, teachers in the U.S. spend between 53% and 57% of their total statutory working time teaching, on average. In comparison, across all OECD countries, teachers spend between 39% and 47% of their statutory working time teaching (Table D4.1). The remainder is typically spent on activities like lesson preparation, grading, in-service training, and staff meetings.

...while student-teacher ratios hover around the OECD average.

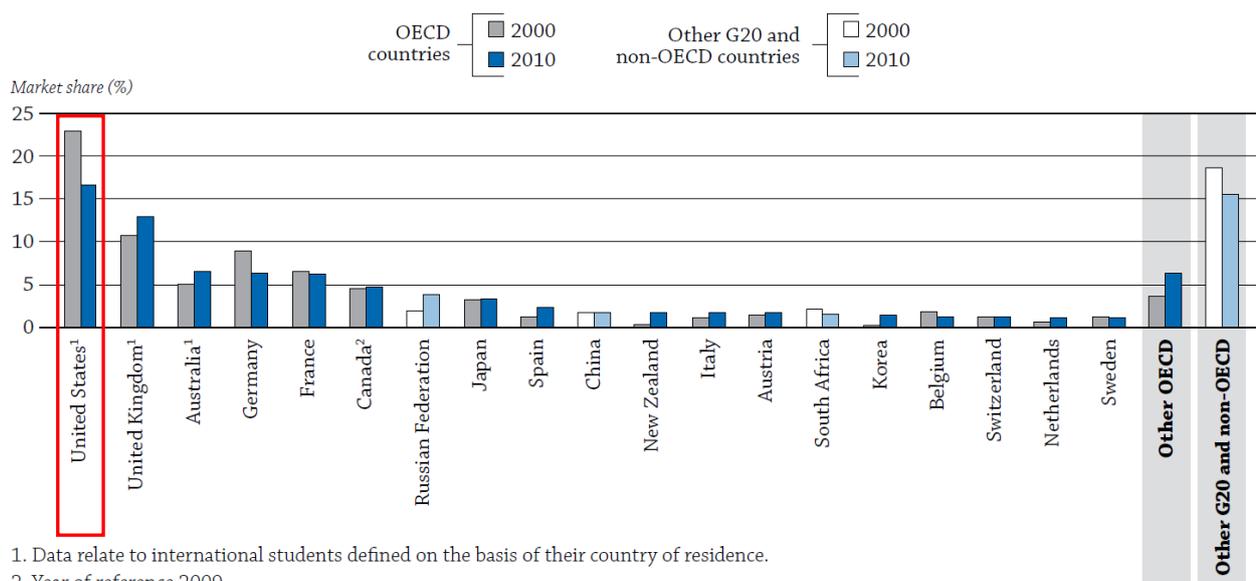
In general, the ratio of students to teaching staff in U.S. schools does not depart dramatically from the OECD average. In pre-primary education, the ratio is 14.6 (OECD average: 14.4), although the ratio of pre-primary students to all contact staff (11.4) is below the OECD average (12.3). In primary education, U.S. schools have a lower-than-average student teacher ratio of 14.5 (OECD average: 15.9).

Meanwhile, at the secondary level, the student-teacher ratio in the U.S. is higher-than-average for both lower secondary education (U.S.: 14.0; OECD average: 13.7) and in upper secondary education (U.S.: 15.0; OECD average: 13.8) (Table D2.2).

NOTABLE TRENDS

Though it's still the global leader, the U.S.'s market share of international students is continuing to decline.

Chart C4.3. Trends in international education market shares (2000, 2010)
Percentage of all foreign tertiary students enrolled, by destination



1. Data relate to international students defined on the basis of their country of residence.

2. Year of reference 2009.

Countries are ranked in descending order of 2010 market shares.

Source: OECD and UNESCO Institute for Statistics for most data on non-OECD countries. Table C4.7, available on line. See Annex 3 for notes (www.oecd.org/edu/eag2012).

StatLink  <http://dx.doi.org/10.1787/888932663207>

KEY FACTS

Indicator	United States	OECD average	United States rank*
Educational Access and Output			
Enrolment rates			
3-year-olds (in early childhood education)	51%	66%	25 of 36 countries
4-year-olds (in early childhood and primary education)	69%	81%	28 of 38 countries
5-14 year-olds (all levels)	97%	96%	29 of 39 countries
Percentage of population that has attained pre-primary or primary levels of education only			
25-64 year-olds	4%	m	24 of 37 countries
Percentage of population that has attained at least upper secondary education			
25-64 year-olds	89%	74%	4 of 40 countries
25-34 year-olds	88%	82%	11 of 36 countries
55-64 year-olds	90%	62%	1 of 36 countries
Percentage of population that has attained tertiary education			
25-64 year-olds	42%	31%	5 of 41 countries
25-34 year-olds	42%	38%	14 of 37 countries
55-64 year-olds	41%	23%	4 of 37 countries
Entry rates into tertiary education			
Vocational programmes (Tertiary-type B)	m	17%	m
University programmes (Tertiary-type A)	74%	62%	9 of 36 countries
Graduation rates			
Percentage of today's young people expected to complete upper secondary education in their lifetime	77%	84%	22 of 27 countries
Percentage of today's young people expected to complete university education (tertiary-type A) in their lifetime	38%	39%	14 of 28 countries
Economic and Labour Market Outcomes			
Unemployment rate of 25-64 year-olds			
Below upper secondary	16.8%	12.5%	7 of 33 countries
Upper secondary and post-secondary non-tertiary	11.2%	7.6%	7 of 34 countries
Tertiary	5.3%	4.7%	10 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	177	155	6 of 32 countries
Men	184	160	7 of 32 countries
Women	175	157	6 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	66	77	31 of 32 countries
Men	64	78	31 of 32 countries
Women	61	74	30 of 32 countries

UNITED STATES – Country Note – Education at a Glance 2012: OECD Indicators

Indicator	United States	OECD average	United States rank*
Percentage of people not in employment, education or training			
15-29 year-olds (2005 data)	13.1%	15.0%	16 of 32 countries
15-29 year-olds (2010 data)	16.1%	15.8%	14 of 32 countries
Financial Investment in Education			
Annual expenditure per student (in equivalent USD, using PPPs)			
Pre-primary education	8 396	6 670	6 of 34 countries
Primary education	11 109	7 719	4 of 35 countries
Secondary education	12 550	9 312	5 of 37 countries
Tertiary education	29 201	13 728	1 of 37 countries
Total public and private expenditure on education			
As a percentage of GDP	7.3%	6.2%	5 of 37 countries
Total public expenditure on education			
As a percentage of total public expenditure	13.1%	13.0%	15 of 32 countries
Share of private expenditure on educational institutions			
Primary, secondary and post-secondary non-tertiary education	7.9%	8.8%	16 of 32 countries
Tertiary education	61.9%	30%	5 of 31 countries
All levels of education	28%	16%	5 of 30 countries
Schools and Teachers			
Ratio of students to teaching staff			
Pre-primary education	14.6	14.4	17 of 32 countries
Primary education	14.5	15.8	24 of 36 countries
Secondary education	14.4	13.8	14 of 38 countries
Number of hours of compulsory instruction time per year			
7-8 year-olds	m	774 hours	m
9-11 year-olds	m	821 hours	m
12-14 year-olds	m	899 hours	m
Number of hours of teaching time per year (for teachers in public institutions)			
Primary education	1 097	782 hours	1 of 35 countries
Lower secondary education	1 068	704 hours	3 of 34 countries
Upper secondary education	1 051	658 hours	3 of 35 countries
Ratio of teachers' salaries to earnings for full-time, full-year adult workers with tertiary education			
Primary school teachers	0.67	0.82	19 of 27 countries
Lower secondary school teachers	0.69	0.85	19 of 27 countries
Upper secondary school teachers	0.72	0.90	19 of 27 countries

* Countries are ranked in descending order of values.

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

Visit: www.oecd.org/edu/eag2012

Country note author: J.D. LaROCK (E-mail contact: dirk.vandamme@oecd.org)