



## Education at a Glance 2006

No media or wire transmission before 5:00 a.m. US EDT, 12 September 2006

### OECD Briefing Note for the United States

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#### **The 2006 edition of *Education at a Glance***

*As reported in the OECD's Economic Outlook, the US economy remains strong and competitive internationally. GDP per capita remains higher than any other OECD country except Luxembourg and productivity growth over recent years has been strong. Research shows the important role that education plays in achieving economic success with OECD figures estimating that the long-term effect on economic output of one additional year of education generally lies between 3% and 6%. The education indicators in this year's *Education at a Glance* show the strengths and weaknesses of the education system in the US compared to its competitors and lay out potential future challenges.*

*The US education systems produce high levels of educational attainment, at relatively high cost, with greater gender equality than most countries and permits the more highly qualified members of the population to reap healthy benefits in the labour market. But whereas in the past the US topped the league on these measures, other countries are catching up and in some cases surpassing the US performance. In addition, the upper secondary and university graduation rates of the most recent cohorts in the US are now both below the OECD average. Projecting these trends forward 10 years would see the US share of the OECD-wide pool of highly qualified people fall from 41% to 36%.*

*An opportunity as well as a challenge arises from the dramatic growth in the internationalisation of education. While the US is still the most popular destination for foreign student, in a four year period when the number of international students worldwide has increased by 41%, the US share of the international tertiary student market has fallen from 25% to 22%.*



## Participation and attainment in education

*In most OECD countries, educational participation has continued to rise, and most young people can now expect to undertake some tertiary education during their lives.*

- In most OECD countries, a child at the age of five can now expect to undertake between 16 and 21 years of education during his or her lifetime either full or part-time, if present patterns of participation continue. Australia and the United Kingdom, at 20.7 years, show the highest educational expectancy among OECD countries, while in the **United States** a five year old can expect almost 4 years of education less than that during his/her lifetime. (Table C1.1, p.303).
- In every country, educational expectancy measured in these terms has risen since 1995 with the OECD average increase at 13%. Much of the increase in OECD countries has occurred at the tertiary level of education, where the expected years increased by 53% on average since 1995, whereas at primary and secondary levels, expectancy increased by a mere 7% on average across OECD countries (Table C1.1, p.303).

## Participation in education- tertiary level

*At the tertiary level, the United States continues to produce a high proportion of highly qualified people, but other countries are catching up.*

- In the **United States** some 39% of the adult population aged 25-to-64 years are qualified to the tertiary level, well above the OECD average of 31%. These attainment rates have been historically very high but now other countries are matching and exceeding this attainment level (Table A1.3a, p.39).
- Changes over time in the attainment rates of a country can be approximated by comparing the attainment rates for older and younger age groups. With 36% of 55-to-64 year-olds in 2003 having completed a tertiary qualification, the **United States** had the highest tertiary education attainment in the period 35 to 45 years ago, just ahead of Canada with 35%. No other country was above 27%. The **United States'** rate of 39% for 25-to-34 year olds reveals only a small synthetic growth over the intervening 30 years during which Canada (53%), Japan (52%), Korea (49%) have all grown well clear while Sweden (42%), Belgium (41%) and Ireland (40%) now also surpass the tertiary attainment level of the **United States**. In rank, the **United States** has slipped from 1<sup>st</sup> to equal 7<sup>th</sup> of OECD countries (Table A1.3a, p.39)

*Current tertiary entry and graduation rates suggest that these patterns are likely to continue into the future.*

- Across many OECD countries, university graduation rates continue to grow, fuelling further the increases in tertiary attainment. Across OECD countries, some 35% of young people in the typical age of graduation graduated in university level (Tertiary-type A) programmes in 2004, and in virtually every country with comparative data, these graduation rates increased between 2000 and 2004. Although the graduation rate for the **United States** increased slightly over this period, from 33% to 34%, other countries rates' grew faster with the result that the graduation rate for the **United States** in 2004 was slightly below the OECD average and well below the highest rates of over 45% reported by Australia, Denmark, Finland, Iceland, New Zealand and Norway (Table A3.1, p.58). It should be noted that the graduation rate provides a measure of the



quantitative output of education systems and does not allow inferences as regarding to the quality of competences acquired by degree holders.

- Rates of current participation suggest that even more countries are likely to catch up and surpass the **United States** graduation rates. The increase in tertiary enrolment between 1995 and 2003, which will influence future graduation rates in the **United States**, was, at 21%, considerably below the OECD average level of 38% (Table B1.5, p.193) and well below increases in Australia, the Czech Republic, Greece, Hungary, Ireland, Korea, Mexico, Poland, Portugal, the Slovak Republic and Sweden, that ranged from 33% to 169% during the same period.

*Graduation rates are a product of entry rates and in student drop out.*

- Some 53% of today's young people in OECD countries will enter a university level or equivalent (Tertiary-type A) programme during their lifetime. These entry rates are 70% or more in Australia, Finland, Iceland, Poland and Sweden and as high as 89% in New Zealand.(Table C2.2, p.277)
- Comparatively high drop out rates in the **United States** are contributing to the **United States'** relative standing against other countries. On average across OECD countries some 70% of those who enter tertiary-type A programmes go on to successfully graduate. The "survival rate" for the **United States** is however one of the lowest of OECD countries for which data are reported, with only just over 50% of the entry cohort achieving graduation, similar to the rate for Mexico and New Zealand (Table A3.2, p.59)

*The result of these trends is a projected fall in the US market share of individuals with tertiary qualifications.*

- If these trends in tertiary attainment are projected into the future some notable shifts in countries' share of the pool of tertiary graduates is projected to take place. While countries like Japan and Korea are projected to increase their share of the tertiary graduates in the OECD, the share held by the **United States** is projected to fall from 41% to 36% over the next ten years (Table A1.4, p. 40).

*For the United States, higher education still very much provides a worthwhile investment for individuals.*

- The labour-market and financial incentives for attaining tertiary qualifications remain high for both men and women, even in countries with rapid growth in qualifications. On average, people with tertiary qualifications command significantly higher salaries than those with only secondary education and in the **United States**, these wage premia are particularly high: In the **United States**, earnings for tertiary graduates in the 25-to-64 year old age group are 72% higher on average than those for people with only secondary education, a differential that is higher in only two other countries: the Czech Republic (82%) and Hungary (117%) (Table A9.1a, p.136). Tertiary graduates also have a much greater chance of finding jobs (Table A8.1a, p.112).
- The private financial benefits can be explored more systematically when contrasting the advantages of tertiary education for individuals in terms of higher average earnings, lower risks of unemployment and the public subsidies they receive during their studies, with the costs that individuals incur when studying, such as tuition fees, lost earnings during studies and higher tax rates later in life. In all countries with comparable data, the private rate of return for those who acquire tertiary degrees immediately following school is higher than real interest rates, and often significantly so. In all eleven countries for which data are available - with the exceptions of Denmark, New Zealand and Sweden -



the private rate of return for both males and females is at least 10%. In the **United States** the rates are 14.3% for males and 13.1% for females (Table A9.6, p.150).

*Rising levels of tertiary attainment seem not to have led to an “inflation” of the labour-market value of qualifications.*

- In general, countries have seen an increase in the earnings advantage for tertiary graduates even in countries where tertiary expansion has been rapid. Among the countries in which the tertiary attainment grew by 5% or more between 35-to-44-year-olds and 25-to-34-year-olds, Spain is the only country in which the rapid expansion in tertiary attainment was associated with a significant decline in the wage premium that tertiary attainment attracts during the period 1997 to 2004. (Tables A1.3, p.39 and A9.2a, p.138). In the **United States** the earnings advantage of tertiary graduates in the 25-to-64-year-old population, relative to upper secondary graduates increased from 68% in 1997 to 72% by 2004. Over the same period, the fastest growing relative earnings returns on tertiary degrees were evident in Germany (20 percentage points), Hungary (38 percentage points) and Switzerland (9 percentage points) (Table A9.2a, p.138). Similar results can be observed when comparing trends in unemployment among tertiary graduates with the expansion of tertiary education (Table A8.4a, p. 118).

*As the internationalisation of tertiary education proceeds rapidly, the United States remains the most popular country for foreign study ...*

- In 2004, 2.7 million tertiary students were enrolled throughout the world. outside their country of citizenship, representing an increase of 8% on the previous year. Since 2000, international student numbers have increased by 41% (Table C3.6, p.312).
- The **United States** remains by far the most popular destination for international students with 22% of foreign students worldwide enrolled in the country. It is twice as popular as the United Kingdom (11% of foreign students), the next most popular destination and higher still than the next most popular destinations Germany (10%), France (9%), Australia (6%) and Canada (5%) (Chart C3.2, p.288 and Web-based Table C3.8). This is largely a function of the size of the tertiary system: The percentage of international students in total tertiary enrolment is only 3.4% in the United States, compared with an OECD average of 6.5% and 16.6% in Australia, 13.4% in the United Kingdom, 12.7% in Switzerland and 11.3% in Austria (Table C3.1, p.303).

*...but the United States is losing its market share of international students ...*

- Although international student numbers have increased in the **United States** between 2000 and 2004, other countries have taken more of the increasing market. Compared to 2000, the **United States** saw its share on the international education market decline by about 3 percentage points from 25 to 22%. The largest increases in market shares took place in Australia, France, Japan and New Zealand and in the partner countries the Russian Federation and South Africa (Chart C3.3, p. 289 and Web-based Table C3.8).

*... and the fees charged to international students can influence these trends.*

- Compared with other English-speaking countries, the fees charged to international students in the **United States** are relatively high. At USD 12 000, the average level of fees charged to international students in public institutions in the **United States** is higher than in Australia (USD 11 000) and Canada (USD 8 000), though lower than the highest fees charged in the United Kingdom (USD 18 000) (Box C3.3 and Table B5.1, p. 240).



*Almost two-thirds of the US intake of international students originates from Asia.*

- Students from Asian countries are the most populous amongst the international student community in the **United States**. In total, Asian students comprise some 62% of the foreign student intake to tertiary education in 2004, with 15% of international students coming from China, 14% from India, 9% from Korea and 7% from Japan (Table C3.2, p. 305). Indeed, for students from Japan, Korea and India, the **United States** is by far the most popular destination for foreign study with over 50% of international students from these countries choosing to study in the **United States**. For students from China, on the other hand, though the **United States** remains the most popular single destination, the market is more widely spread with Australia, Japan and the United Kingdom also being popular destinations for study.
- For **United States** students who opt to study elsewhere, Canada (17% of travelling US students) and the United Kingdom (29%) are the most popular destinations (Table C3.3, p.309).

*Instruction in the English language and the existence of magnet programmes in sciences and engineering but also in humanities, arts, social sciences, business and law are likely factors attracting international students to the United States in large numbers...*

- Education systems providing tertiary education in the English language have a natural advantage in attracting international students – especially from Asia – given the importance of English for communication in an increasingly interconnected global economy. The rapid growth in the market shares of some English-speaking destinations since 2000 (Australia, but most significantly New Zealand and South Africa) underlines this (Chart C3.3). Several European countries have started delivering programmes in the English language as a way of overcoming language barriers and attracting international students to their education systems. This trend is most significant in Denmark, Finland, the Netherlands and Sweden (Box C3.2, p. 291).
- As is the case in most OECD countries, the most popular programmes for international students to study in the **United States** are in the social sciences, business and law (31% of the total), though science (19%) and engineering (16%) are also notably popular (Chart C3.4 and Table C3.5, p. 311).

## Participation in education – baseline qualifications

*Attainment levels at upper secondary level are high in the United States but have stalled as other countries continue to progress ...*

- The **United States** has traditionally had a high proportion of the adult population who have completed upper secondary education. The rate for the **United States** in 2004, at 87% for 25-to-34-year-olds, was well above the OECD average but has changed little over the years. In more than half of all OECD countries, the proportion of 25-to-34-year-olds with upper secondary qualifications now exceeds 80%, and in Canada, the Czech Republic, Japan, Korea, Norway, the Slovak Republic and Sweden it exceeds 90% (Table A1.2a, p. 38). The change over time can be approximated by looking at the attainment of younger and older age cohorts. Ranked by upper secondary educational attainment in the population, the **United States** occupies the 1<sup>st</sup> position among 55-to-64-year-olds in the 30 OECD countries (*i.e.* those who completed school some 40 years ago) but only the 11<sup>th</sup> position among 25-to-34-year-olds, who completed school a decade ago. By contrast, Korea ranks 24<sup>th</sup> among 55-to-64-year-olds but 1<sup>st</sup> among 25-to-34-year-olds



(Table A1.2a). Note that the individuals (25-to-34-year-olds in 2004) in this analysis passed the age of sixteen in between 1985 and 1995.

- The contrast is even more pronounced when comparing the current output of high schools: The proportion of the typical age cohort graduating from upper secondary education in 2004 was 90% or more in Denmark, Finland, Germany, Ireland, Japan, Korea and Norway. At 75%, the graduation rate for the **United States** was below the OECD average of 81% (Table A2.1, p.48)

*...and those without upper secondary education face considerable and increasing penalties in the labour market ...*

- The penalties from not completing upper secondary education are visible in earnings levels and their distribution and these penalties are more severe in the **United States** than in almost every other OECD country. For instance, the earnings of a 25-to-64-year-old without upper secondary completion in the **United States** are only 65% of someone who has these qualifications, the greatest income disadvantage of all OECD countries reporting data (Table A9.1a, p.136).
- The severe earnings disadvantage for those in the **United States** without upper secondary qualifications is illustrated further by an examination of the distribution of earnings. Some 44% of those without upper secondary qualifications in the **United States** have low incomes (defined here as half of the country median or less), a higher proportion than all other countries except Denmark (Table A9.4a, 141).
- Moreover, generally across OECD countries, people without upper secondary qualifications are less likely to be in employment than those that have these qualifications. In the **United States** the employment rates for those aged 25 to 64 years who do not have upper secondary level education are, at 68% for men and 47% for women, below the corresponding OECD averages of 72% and 49% (Table A8.1a, p. 112).

## Quality and equity of schooling at age 15

*Equipping young people with the competencies needed to successfully progress to further study or employment is a fundamental goal of schooling*

- Results relating to 2003 from the OECD's Programme for International Student Assessment (PISA) have previously highlighted the comparatively poor performance in mathematical proficiency, on average, of 15-year-olds in the **United States**. Out of the 30 OECD countries taking part in PISA 2003, the average performance for the **United States** was statistically significantly higher only than that of five countries (Portugal, Italy, Greece, Mexico and Turkey) and statistically lower than that of 20 countries. (Table A4.3, p. 72)
- Across OECD countries, students from the least socio-economically disadvantaged backgrounds are on average 3.5 times more likely to be low mathematics performers (i.e. at or below Level 1), than those from the most socio-economically advantaged backgrounds. The picture in the **United States** is similar to the OECD average and statistically significantly worse in countries like Belgium and the Slovak Republic where students from the most disadvantaged backgrounds are over 5 times more likely to be low performers in mathematics than those from the most advantaged backgrounds. (Table A6.1, p.91)





## Participation in education – learning throughout life

### *Participation in non-formal job-related education and training is high in the United States ...*

- In many countries, non-formal continuing education and training now also plays a significant role in raising the stock of knowledge and skills. In the **United States** along with Denmark, Finland and Sweden, more than 35% of employees take part in non-formal job-related education and training each year, the highest participation rate among OECD countries. At the other end of the scale, Greece, Hungary, Italy, the Netherlands, Poland, Portugal and Spain provide such training to fewer than 10% of employees (Table C5.1a, p.341).
- In addition, the intensity of participation in non-formal job-related education and training in the **United States** is comparatively high. In the **United States**, between the ages of 25 and 64, the total expected number of hours in non-formal job-related training per worker is 471, well above the OECD average of 389 hours (Table C5.1a, p.341).

### *...though job-related education and training is still least common among those who need it most.*

- As in all OECD countries, on average, the participation rate in non-formal continuing education and training among employees in the **United States** is much less for those who have not completed upper secondary education than it is for those with upper secondary education and much less still than those with tertiary education. In the **United States**, only 12% of those who have not completed upper secondary education and training participate in non-formal continuing education and training, compared with 32% for those with upper secondary qualifications and 56% for those with tertiary qualifications. These findings are important because they show continuing inequalities in terms of access to job-related continuing education and training in the **United States**, as is the case in other countries. They also suggest that continuing education and training currently do not succeed in making up for skill gaps emerging from initial education but, in first, tend to reinforce disparities that result from initial education (Table C5.1a, p.342).

## Gender differences

### *Across OECD countries, significant progress has been achieved in reducing the gender gap in educational qualifications.*

- The balance of educational attainment between males and females in the adult population remains unequal in most OECD countries. However, significant progress has been achieved in recent decades in reducing the gender gap in formal educational qualifications. For the generation aged 45 to 54 years, the difference expressed in average duration of formal study favours females in only eight countries and for the generation around 60 years of age this difference favours females in only three countries. In contrast, the situation of the generation aged 25 to 34 years testifies to a complete inversion. For those around 30 years old, the average number of years of study completed is higher among females in 20 out of the 30 OECD countries, while in the remaining countries the differences between the genders are generally small (Table A1.5, p.41).

### *In the United States there is more gender equality than in most countries...*

- In terms of years of formal schooling in the population, there is more gender equality in the **United States** than in any other OECD country. For the 25-to-64-year-old population



there is virtually no difference between males and females in terms of the number of years spent in formal education, though for younger age groups females have established a slight advantage (Table A1.5, p.41). This more recent pattern is influenced by the fact that the graduation rate from upper secondary education is now higher for females (79%) than for males (72%).

*...but some gender differences do show up in relation to earnings.*

- Greater differences show up when comparing the earnings differences between the genders. Tertiary education enhances earnings relative to upper secondary education more for males than for females in all countries except Australia, Canada, Ireland, Korea, the Netherlands, Norway, Spain, Switzerland and the United Kingdom. Males aged 25-to-64 years in the **United States** with tertiary level qualifications earn 79% more than those males who have only upper secondary level qualifications, whereas the earnings premium for females is only 66% (Table A9.1a, p.135).

*...where females still earn considerably less than males with similar degree levels.*

- Although both males and females with upper secondary, post-secondary non-tertiary or tertiary attainment have substantial earnings advantages compared with those of the same gender who do not complete upper secondary education, earnings differentials between males and females with the same educational attainment remain substantial. For the **United States** this is most evident at the tertiary level where women aged 30-to-44 with a tertiary-type A qualification will earn only 60% of a similarly qualified male, an earnings disadvantage which is greater than every other country reporting data except Switzerland. The gap in earnings between males and females is influenced by many factors, including differences in the amount of time that males and females spend in the labour force, and the high incidence of part-time work among females. To some extent it may also be due to different career and occupational choices (Table A9.1b, p.137).

## **Overall investment in education**

OECD countries are expanding the scope of their education systems, but at the same time trying to contain costs in the context of hard-pressed public budgets. Conflicting pressures have produced varying trends across OECD countries.

*Spending levels in the United States are some of the highest amongst OECD countries ...*

- Spending on educational institutions in the **United States** as a percentage of GDP was at 7.5% in 2003, the 3<sup>rd</sup> equal highest rate with Korea and after Israel (8.5%) and Iceland (8.0%). For the **United States**, educational expenditure has matched or exceeded growth in national income so that the percentage of expenditure relative to GDP has generally increased over the years from 7.0% in 2000. This is not true, however, of all OECD countries as one third of the countries with available data saw expenditure as a proportion of GDP decline over this period (Chart B2.1 based on Table B2.1a, p. 205).

*... and accounts for an above average share of the public spending budget generally.*

- The spending commitment on education from public sources accounts for some 15.2% of total public expenditure, which is above the OECD average of 13.3% but some way below the highest levels recorded by Mexico (23.8%) and New Zealand (22.6%) (Table B4.1, p. 228).





*The additional resources were invested fairly evenly between school and tertiary education.*

- For the **United States**, the additional (public and private) resources were invested fairly evenly between school education, where expenditure increased between 1995 and 2003 by 37% in absolute terms (the OECD average increase was 33%), and tertiary education where spending increased by 33%, though the additional spending on tertiary was below the OECD average level of 46% (Table B1.5, p.193).

*An above-average share of spending on schools comes from private sources...*

- The extent of private funding of education in the **United States** is higher than in any other OECD country except Korea, though it has declined since 1995. Some 28% of funding for all levels of education in total was provided by private sources in the **United States** in 2003, significantly more than the OECD average of 12% but some way behind the country that relies most heavily on private funding, Korea, with 40%. While spending overall has increased since 1995, the proportion of funding called on from private sources has in fact declined from 31% to its level in 2003 of 28% (Table B3.1, p.218).
- Private spending originates both in households and other private entities (e.g. companies, charities) and can go to private as well as public institutions. Much of the difference between the **United States** and Korea in the extent of private expenditure arises from household expenditure. While both countries call on some 8% of funding from other private entities, the funding from household amount to 32% of all funding in Korea but only 20% in the **United States** (Table B3.1, p.218).

*Spending pressures are likely to increase in the next decade*

- Demographic trends can influence educational spending. Countries with larger proportions of young people in the population must allocate a larger proportion of their national income to initial education than those with smaller youth populations but similar participation rates. Rising population numbers in virtually all education-going age-groups are projected for the **United States** over the next decade. If the **United States** wished to maintain current levels of participation and spending per student, these trends would point to the need for a 7% increase in funding over the period 2005-2015, a higher projected increase than in any other OECD country (Table A11.1, p.166).

**How investment in education translates into spending per student, student learning conditions and teacher working conditions**

*At primary, secondary and tertiary levels, spending per student is above the OECD average...*

- To assess their potential impact on the quality of educational services, the resources invested in education need to be seen in relation to the number of students enrolled. On that measure, spending per student across all levels of education (excluding pre-primary education) in the **United States** is, at US\$ 12,023 (equivalent), higher than all other OECD countries except Switzerland which has spending per student at similar levels (US\$ 12,071). Indeed, spending per student at primary (US\$ 8,305) and secondary (US\$ 9,590) levels is well above the corresponding OECD averages (US\$ 5,450 and US\$ 6,962 respectively). At US\$ 21,566 (excluding research expenditures), spending at the tertiary level is more than two and a half times the OECD average of US\$ 8,093 and some US\$ 5,000 per student more than the next highest country, Canada (Table B1.1a, p.186).



*...and the United States also stands out in respect of the high level of spending per child at the pre-primary level, but with relatively low participation rates.*

- The **United States** invests more than any other country per child at the pre-primary level (at US\$ 7,755) considerably more than the OECD average spending per child of US\$ 4,508) (Table B1.1a). And yet, the **United States** has one of the lowest rates of participation amongst under 5-year-olds in education. The rate of participation of 4-year-olds and under as a percentage of the 3-to-4-year-old population in 2004 stands at only 53%, below the OECD average of 66% and well below the highest rates of participation, many of which are approaching 100% (Table C1.2, p. 266). Part of the explanation for this lies in the low student to contact staff ratios at the pre-primary level in the United States which at 11.9 pupils per contact staff member are well below the OECD average of 15.2 students per contact staff member (Table D2.2, p.371).
- Different supply and demand factors have influenced variation in spending per student across countries. In the **United States**, spending on primary and secondary education increased by 37% while enrolments rose by 7%, resulting in a spending increase per student of 28% between 1995 and 2003. That is less than the OECD average increase of 33% in per-student spending. However, the **United States** had above average growth in student numbers (the OECD average was 0%) (Table B1.5, p. 193).

*Despite high spending per student, class sizes in primary schools remain above average in the United States ...*

- Despite above average spending per primary-level student, the **United States** has, with 23 students per class, class sizes that are above the OECD average of 21 (Table D2.1, p. 370).
- In lower secondary education, and considering public and private institutions together, there are on average 24 students per class in the **United States**, which matches the OECD average level (Table D2.1, p.370).

*...which to some extent is explained by above-average teacher salaries.*

- Above-average teacher salaries provide part of the explanation for this. At US\$ 39,740 for a primary school teacher with minimum training and 15 years of experience, salaries in the **United States** are some 13% above the OECD average. (Table D3.1, p. 384). However, this gap diminishes somewhat when comparing salaries to GDP per capita.

*...which are accompanied by a high number of class contact hours that US teachers are required to teach.*

- At the primary level teachers in the **United States** are required to teach 1,080 hours per year, which is more than in any other OECD country and considerably higher than the OECD average of 805 hours (Table D4.1, p.405).
- All of these relationships are similar at the secondary level of education, though salary differences between the **United States** and the OECD average tend to be smaller at the secondary level.

*In tertiary education, a below-average increase in spending in the United States exceeded the below-average increase in student enrolment.*

- At the tertiary level, a below-average increase in spending in the **United States** (33%) exceeded the below-average increase in student enrolment (21%), such that spending per student increased between 1995 and 2003 by 10%. This exceeded the average OECD spending per tertiary student which rose only by 6% over the same period (Table B1.5,



p.193). There are also countries where spending per student has fallen by about 10% or more, as spending levels have not kept pace with expanding student numbers, such as in the Czech Republic, Poland and the Slovak Republic.

***Schools and colleges in the United States spend more on ancillary services than any other country.***

- Expenditure on ancillary services (e.g. transport, meals, housing etc) is a much larger feature of education expenditure in the **United States** than any other OECD country, particularly at the tertiary level. Some 8% of public and private expenditure on tertiary educational institutions is devoted to such services, around double the rate for OECD countries on average (Table B6.1, p. 252).

***The provision of ICT resources in schools influences expenditures and shapes the learning environment at schools***

- Among OECD countries, the level of provision of computers in schools attended by 15-year-olds is highest in the **United States**. Based on school principal reports in PISA 2003, there are on average one computer for nearly 3 students, a figure that is higher than in any other OECD country and around half the OECD average of around one computer per 6 students. In OECD countries, the lowest levels of computer provision per student are in Turkey where there are on average 25 students enrolled per school computer (Table D5.1, p. 414).
- Not surprisingly, in the light of these high levels of computer provision in **United States** schools, the extent to which school principals report that instruction is hindered by a shortage of ICT resources is below the OECD average (Table D5.2, p. 415).

## Notes

- “Non-formal education” is defined as any organised and sustained educational activities that are not typically provided in the system of schools, colleges, universities and other formal institutions that constitutes a continuous ladder of full-time education for children and young people. Non-formal education may take place both within and outside educational institutions, and cater to persons of all ages. For detailed definitions, see Indicator C5 in *Education at a Glance*.
- “Tertiary-level education” is defined as higher education (HE). Indicators cover both the current performance of the HE system and the proportion of the adult population (25-to-64-year-olds) who have attained HE qualifications. There are splits by gender and type of course – divided into vocational courses and full-length (duration of more than three years) theory-based degrees (Type A), including bachelor and masters degrees. Graduation rate is defined as the ratio of tertiary graduates to the population at typical age of graduation.
- “Lower secondary education” is defined as schooling between the ages of 11 and 14.
- “Upper secondary education” identifies a level of attainment, not necessarily reached while the individual was actually participating in secondary education.
- “Statutory salaries”. The data on teacher pay are based on statutory pay (pay scales) in 2004 and do not attempt to capture actual average pay which will include discretionary allowances for extra duties as well as reflecting the age structure of the teacher labour force. Furthermore, the figures are for classroom teachers and so do not reflect the pay of teachers promoted to heads and deputy headships. They also do not include bonuses and supplementary payments, which are considerable in some countries.



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