

# *Education at a Glance 2008*

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## *OECD Briefing Note For the United Kingdom*

Governments are paying increasing attention to international comparisons as they search for effective policies that enhance individuals' social and economic prospects, provide incentives for greater efficiency in the provision of education, and help to mobilise resources to meet rising demands.

In response to this need, the OECD devotes a major effort to the development and analysis of quantitative, internationally comparable indicators, which are published annually in *Education at a Glance*. These indicators enable educational policy makers and practitioners alike to see their education systems in the light of other countries' performances and, together with OECD's country policy reviews, are designed to support and review the efforts that governments are making towards policy reform.

This note contrasts **key findings for the United Kingdom** with **global trends among OECD countries**, under the headings: quantity and quality challenges, resource and efficiency challenges and equity challenges.

*Education at a Glance 2008*, as well as its executive summary and the underlying data can be downloaded free of charge at [www.oecd.org/edu/eag2008](http://www.oecd.org/edu/eag2008)

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### ***QUANTITY AND QUALITY CHALLENGES***

*The decades-old expansion in educational participation and outputs continues – and at a pace that outstrips many past projections. With completion of upper secondary education close to universal in most OECD countries, the greatest recent expansion has come in the tertiary sector. While, in 1995, 37% of a cohort went into university-level programmes it is now 57%, on average across OECD countries. It is hard to predict the future from past trends. Will the expansion of tertiary education continue at this rapid pace, driven by an ever-rising demand for the highly skilled? Or will it level off and will relative earnings decline? At the beginning of the 20th century, few would have predicted that, among OECD countries, upper secondary education would be largely universal by the end of the century. So it is equally difficult to predict how tertiary qualifications will have evolved by the end of the 21st century. *Education at a Glance 2008* provides a profile of educational qualifications in populations as well as indicators on trends in the quantity and quality of the output of educational institutions. For the first time, it also relates the qualifications that are produced by the education system to their actual deployment across occupational groups.*

<i>Global trends</i>	<i>Key results for the United Kingdom</i>
<p data-bbox="71 241 667 309"><i>Education systems continue to expand at a rapid pace...</i></p> <ul data-bbox="71 331 726 1120" style="list-style-type: none"> <li>• Tertiary attainment levels have increased substantially, for the first time reaching one-third of the cohort of 25-to-34-year-olds, on average across OECD countries. In France, Ireland, Japan and Korea, there is a difference of 25 percentage points or more in tertiary attainment between the older and younger age group (Table A1.3a). Between 1995 and 2006 alone, the university-level graduation rate rose, on average across countries, from 20 to 37% (Table A3.2) and more than half of those at the typical age of graduation completed their first tertiary-type A degree in Australia, Finland, Iceland and New Zealand (Table A3.1).</li> <li>• The social sciences, business and law are the major educational fields in most countries. Across OECD countries, they constitute 28% of the overall tertiary-type A attainment in the population. On average, there are 3.6 times as many individuals with degrees in these fields in the younger cohort entering the labour market than in the older one nearing retirement age. By contrast, in the field of education, this ratio is close to 1 in the OECD countries (Table A1.5).</li> </ul> <p data-bbox="71 1153 694 1220"><i>...and current entry rates suggest that these trends will continue.</i></p> <ul data-bbox="71 1243 726 2027" style="list-style-type: none"> <li>• Entry rates in tertiary-type A education increased substantially between 1995 and 2006, by 20 percentage points on average in OECD countries. Between 2000 and 2006, growth exceeded 10 percentage points in 11 of the 25 OECD countries for which data are available. In 2006, in Australia, Finland, Hungary, Iceland, New Zealand, Norway, Poland, the Slovak Republic and Sweden, and the partner country the Russian Federation, it is estimated that 65% or more of young adults will enter tertiary-type A programmes. In almost all countries, the majority of new entrants choose to follow tertiary programmes in the field of social sciences, business, law and services (Tables A2.4, A2.5 and A2.6).</li> <li>• Overall, females represent 54% of new entrants in tertiary education in OECD countries. However, the breakdown by gender varies considerably according to the field of education. In the fields of health and welfare, the arts and humanities, and education between 68 and 75% of new entrants are women. The proportion of women choosing science studies (including life sciences, physical sciences,</li> </ul>	<p data-bbox="751 241 1428 309"><i>37% of 25-to-34-year-olds in the UK now have a tertiary qualification.</i></p> <ul data-bbox="751 331 1412 436" style="list-style-type: none"> <li>• Whereas 24% of 55-to-64-year-olds have attained a tertiary qualification, it is now 37% among 25-to-34-year-olds (OECD average 33%) (Table A1.3a).</li> </ul> <p data-bbox="751 459 1428 526"><i>The UK continues to produce an above-average tertiary graduation rate...</i></p> <ul data-bbox="751 548 1460 1198" style="list-style-type: none"> <li>• The graduation rate for first degree programmes in the UK remains, at 39%, above the OECD average of 37% (Table A3.1).</li> <li>• 2.2% obtain an advanced research qualification (such as a Ph.D.) (OECD average 1.4%), putting the UK at rank four (with Sweden) after Germany, Portugal and Switzerland (Table A3.1).</li> <li>• International students make a significant contribution to the tertiary graduate output in the UK. Among tertiary-type A second degrees (mainly Masters programmes) and advanced research programmes (including PhDs), more than one-third of the graduate output can be attributed to international graduates (36% for tertiary-type A second degrees and 40% for advanced research programmes) (Table A3.3). This large contribution of international students to the tertiary graduate output needs to be borne in mind when interpreting human capital formation in the UK, as well as tertiary participation rates.</li> </ul> <p data-bbox="751 1220 1460 1288"><i>...but growth has levelled off and is now below the OECD average...</i></p> <ul data-bbox="751 1310 1476 2004" style="list-style-type: none"> <li>• In 2000 the UK had, at 37%, the fourth highest graduation rates for tertiary-type A programmes, well above the OECD average which then stood at 28% (Table A3.2). Although the graduation rate in the UK had increased to 39% by 2006, the OECD average increased at a much faster rate to 37%, with eleven countries showing now higher graduation rates: Australia, Denmark, Finland, Iceland, Ireland, Italy, the Netherlands, New Zealand, Norway, Poland, Sweden (Table A3.2).</li> <li>• Rates of current participation suggest that more countries are likely to surpass UK graduation rates. The increase in tertiary enrolment between 1995 and 2005, which will influence future graduation rates, was, at 33%, considerably below the OECD average level of 40% and well below increases in the Czech Republic, Greece, Hungary, Iceland, Korea, Mexico, Poland, Portugal, the Slovak Republic and Sweden and partner countries Brazil, Chile, Estonia and Israel, that ranged from 44% to 161% during the same period (Table B1.5).</li> </ul>

<p>mathematics, computing, engineering, manufacturing and construction and agriculture) ranges from less than 25% in Japan, the Netherlands, Spain and Switzerland and the partner country Chile, to more than 35% in Denmark, Iceland, Italy and New Zealand (Table A2.6).</p>	<p><i>...even if a recent rise in new entrants may reverse the picture in the future.</i></p> <ul style="list-style-type: none"> <li>The most recent figures on entry rates to tertiary-type A programmes show a sharp rise from 51% in 2005 to 57% in 2006, putting the UK entry rates above the OECD average (56%) for the first time in 6 years (Table A2.5). In Australia, Finland, Hungary, Iceland, New Zealand, Norway, Poland, the Slovak Republic, Sweden and the United States as well as the Russian Federation more than 60% of young people entered tertiary-type A programmes in 2006 (Table A2.4).</li> </ul> <p><i>The UK continues to turn out a high proportion of science graduates.</i></p> <ul style="list-style-type: none"> <li>In the UK there are some 1 974 people with university-level or advanced research qualifications in science per 100 000 employed 25-34-year-olds, compared with an OECD average of 1 340. When tertiary-type B qualifications are included, there are 2 290 sciences graduates per 100 000 employed 25-34-year-olds in the UK, compared to only 1 694 on average. Only 6 OECD countries show higher proportion of science graduates: Australia, Finland, France, Ireland, Korea and New Zealand (Table A3.6).</li> <li>However, a comparison of younger to older age groups with science as a field of study shows that the increase in science graduates over recent decades has been faster in OECD countries on average than in the UK: the ratio of 25-to-34-year-olds with a university-level science qualification plus 30-to-39-year-olds with an advanced research qualification to 55-to-64-year-olds with a university-level or advanced research qualification in science is 2.8 in the UK, compared with an OECD average of 4.1 (Table A1.5).</li> </ul> <p><i>The UK has also one of the highest entry rates for vocational tertiary education (tertiary-type B).</i></p> <ul style="list-style-type: none"> <li>The UK shows an entry rate of 29% for vocational tertiary programmes in 2006, which has changed little over the last six years. Only in Belgium (36%), Greece (31%), Japan (32%), Korea (50%) and New Zealand (49%) and the partner countries Chile (34%), Estonia (32%), the Russian Federation (32%) and Slovenia (43%) are entry rates greater. Note that it is not possible to add tertiary-type A and tertiary-type B entry rates (Table A2.4).</li> </ul>
<p><i>This expansion relates to strong labour-market outcomes for those with advanced qualifications.</i></p> <ul style="list-style-type: none"> <li>Earnings increase with each level of education. Those who have attained upper secondary, post-secondary non-tertiary or tertiary education enjoy substantial earnings advantages compared with</li> </ul>	<p><i>The earnings advantage of completing tertiary education continue to be high in the UK.</i></p> <ul style="list-style-type: none"> <li>In the UK, the earnings advantage for tertiary level graduates aged 25 to 64 over persons with an upper secondary qualification is 59%, well above the OECD average. Only the Czech Republic, Germany, Hungary,</li> </ul>

those of the same gender who have not completed upper secondary education (Table A9.1a). In 15 out of 21 countries with available data, the earnings premium for those with tertiary education increased during the last decade, often despite massive growth in tertiary participation. In Germany, Hungary, and Italy this increase has been between 30 and 40 percentage points (Table A9.2a).

- On average across countries, completion of tertiary education yields a 12 and 11% return for males and females, respectively, and returns are above 22% for males in the Czech Republic, Poland and Portugal. The rewards for tertiary education are relatively small in Germany, Norway, Spain, and Sweden where the rate of return ranges from 5 to 8% (Table A10.2). In most countries, the returns to investment in tertiary education in mid-career are lower, but still substantial enough to motivate the investment without government intervention (Table A10.4).
- Employment rates rise with educational attainment. With few exceptions, the employment rate for graduates of tertiary education is markedly higher than the rate for upper secondary graduates. For males, the gap is particularly wide between upper secondary graduates and those without an upper secondary qualification (Table A8.1a).
- Those with low educational attainment are both less likely to be labour force participants and more likely to be unemployed. Differences in employment rates between males and females are also wider among less educated groups.
- The labour-market penalties for low levels of education are particularly high for females. The chance of being employed is 23 percentage points higher for males than for females among those without upper secondary qualifications but falls to 10 points for the most highly qualified (Tables A8.1a and A8.2a).
- Employment rates tend to drop long before the stipulated retirement age in most countries. On average, employment rates among 55-to-64-year-olds are approximately 20 percentage points below those of the total working-age population (25-to-64-year-olds). However, employment rates increase with educational attainment in most countries, and in all countries except Iceland, tertiary attainment provides an important employment advantage at an older age. The advantage is particularly large in the Czech Republic, Italy, Luxembourg and the Slovak Republic (Table A8.4).

Ireland, Italy Poland, Portugal and the United States and the partner country Slovenia show higher earnings differentials (Table A9.1a). Tertiary graduates in the UK also have a much greater chance of finding jobs (Table A8.3a).

- The earnings advantage of 25-64-year-old tertiary graduates increased slightly in the UK from 53% in 1997 to 59% in 2006 (Table A9.2a). This suggests that the incentives for obtaining a tertiary qualification remain strong, despite the growth in tertiary qualifications.

*The UK rates of return education are strong...*

- The private rates of return to tertiary education study in the UK are above average at around 14% for both males and females compared with OECD average rates of 12% for males and 11% for females (Table A10.2).
- The UK has the highest private rate of returns to upper secondary education or post-secondary non-tertiary education among the 19 OECD countries with available data (Table A10.1).

*...but vary significantly between males and females.*

- As in Australia, Austria, Canada, Korea, the Netherlands, New Zealand, Norway, Spain, Switzerland and Turkey, tertiary education enhances earnings relative to upper secondary education more for females than for males in the UK (25-34 year-old age group). The relative advantage for females in the UK is among the largest of the countries compared (Table A9.1a).
- Weighing up the costs and benefits of education, the private rates of returns to both upper secondary education or post-secondary non-tertiary education and tertiary education are similar between males and females in the UK (0.5 percentage point difference at most) (Tables A10.1 and A10.2).

*There are also marked shifts towards more skilled jobs in labour markets.*

<ul style="list-style-type: none"> <li>• Across OECD countries between 1998 and 2006, there was a marked shift from semi-skilled jobs to skilled jobs, with an increase of almost 4 percentage points in skilled occupations and a close to 4 percentage point decline in semi-skilled occupations. In most countries, the decline has not been at the very low end of the skills distribution but among semi-skilled jobs, with the proportion of the population working in unskilled occupations remaining substantially unchanged (Table A1.6).</li> </ul>	
<p><i>The proportion of skilled jobs is generally larger than the potential supply of tertiary graduates...</i></p> <ul style="list-style-type: none"> <li>• In OECD countries, the proportion of skilled jobs in the economy is generally larger than the potential supply of tertiary educated individuals. For countries in which work-based learning is central to occupational advancement, this difference is large. A broader initial skill base might require additional investment in higher education. In a few countries, tertiary attainment matches or marginally exceeds the proportion of skilled jobs, so that further expansion of higher education will to some extent depend on the growth of skilled jobs in the coming years (Tables A1.3a and A1.6).</li> </ul> <p><i>...but more recently the growth in the proportion of people with tertiary qualifications has generally been faster than the growth in skilled jobs, suggesting that the gap is closing.</i></p> <ul style="list-style-type: none"> <li>• The increase in skilled jobs has been met and exceeded in most OECD countries by increases in the proportion of the population with tertiary attainment. However, in most countries, there are still substantially more skilled jobs than tertiary educated individuals. On average, across OECD countries, 69% of all those with a tertiary type 5B qualification and 85% of those with a tertiary 5A/6 qualification have skilled jobs. However the matching of higher education to skilled jobs varies substantially among countries. Those with a tertiary 5A/6 qualification in Denmark, Finland, Luxembourg and the partner country Slovenia do substantially better in finding a skilled job given the labour market conditions for those with tertiary education (Tables A1.6, A1.7 and A3.2).</li> </ul>	<p><i>The number of skilled jobs to be filled still outnumbers the supply of tertiary educated students.individuals.</i></p> <ul style="list-style-type: none"> <li>• The difference between the proportion of 25-to-64-year-olds in skilled jobs and the proportion of 25-to-64-year-olds with tertiary education is 14 percentage points in the UK indicating that further expansion of tertiary education can still be an option, although this difference is not as strongly pronounced as in many other countries (Tables A1.3a and A1.6).</li> <li>• In the UK, the proportion of the working population with tertiary-type A or advanced research qualifications who are in skilled jobs (83%) is close to the OECD average, but a larger proportion than the average are legislators, senior officials or managers (21% against and OECD average of 14% in that occupational group), the third highest proportion among OECD countries (Table A1.7).</li> </ul>
<p><i>The internationalisation of tertiary education is proceeding rapidly.</i></p> <ul style="list-style-type: none"> <li>• In 2006, over 2.9 million tertiary students were enrolled outside their country of citizenship. This represented a 3% increase from the previous year in total foreign student intake reported to the OECD</li> </ul>	<p><i>The UK captures a relatively large section of the market of international students.</i></p> <ul style="list-style-type: none"> <li>• The UK remains an attractive destination for international students, with 11% of foreign students worldwide enrolled in the country. This is less than in the United States (20%), but the UK remains ahead of Germany (9%), France (9%), Australia (6%), Canada (5%) and</li> </ul>

<p>and the UNESCO Institute for Statistics (Box C3.1).</p> <ul style="list-style-type: none"> <li>• Student mobility – <i>i.e.</i> international students who travelled to a country different from their own for the purpose of tertiary study – ranges from below 1 to almost 18% of tertiary enrolments across OECD countries. International students are most numerous in tertiary enrolments in Australia, Austria, New Zealand, Switzerland and the United Kingdom (Table C3.1).</li> <li>• France, Germany, the United Kingdom and the United States receive 49% of all foreign students worldwide. The largest absolute numbers of international students from OECD countries are from France, Germany, Japan and Korea. Students from China and India comprise the largest numbers of international students from partner countries (Chart C3.2).</li> <li>• International students make up 15% or more of the enrolments in tertiary education in Australia and New Zealand and more than 20% of enrolments in advanced research programmes in Belgium, Canada, New Zealand, Switzerland, the United Kingdom and the United States (Table C3.1).</li> <li>• 30% or more of international students are enrolled in sciences, agriculture or engineering in Finland, Germany, Hungary, Sweden, Switzerland and the United States (Table C3.5).</li> </ul>	<p>Japan (4%) (Chart C3.2 and Table C3.7 on the web).</p> <ul style="list-style-type: none"> <li>• Between 2000 and 2006, the UK saw its share of the international education market decline slightly (from 11.8% to 11.3%) while the United States' share fell from 25% to 20% over the same period. The largest increases in market shares took place in Australia, France, Japan and New Zealand (Chart C3.3 and Table C3.7 on the web).</li> <li>• In the UK significant numbers of international students enrol in science and engineering programmes (14.1% and 14.8% of the total respectively). Large numbers of international students also enrol in social sciences, business and law (40.8%) (Chart C3.4 and Table C3.5). This latter pattern may result from the fact that a number of countries in Asia and Africa have legal systems based on the British model.</li> <li>• International students provide an important source of income for national universities and especially so in the UK where the fees charged to (non-EU/EEA) international students are not only higher than those charged to national students but relatively high compared with other OECD countries (Box C3.3).</li> <li>• Despite high fees, campuses in the UK are among the most internationalised of OECD countries, with international students accounting for 14.1% of total enrolments at the tertiary level. In this respect, the UK is third only to Australia (17.8%) and New Zealand (15.5%), and it is significantly above the OECD average (6.9%) (Chart C3.1 and Table C3.1).</li> <li>• The extent of internationalisation is most pronounced in the UK in advanced research programmes, where international students represent 40.8% of enrolments in the UK, second to Switzerland (44.4%) and more than twice the level observed in the OECD on average (15.9%) (Table C3.1).</li> </ul>
<p><i>New analyses of PISA data provide a first picture of school education from the perspective of parents.</i></p> <ul style="list-style-type: none"> <li>• Among the 10 OECD countries with available data, on average, 77% of parents “strongly agreed or agreed” that standards of achievement were high in their child’s school. On average, their children scored 20 score points higher on the PISA 2006 assessment than students whose parents “disagreed or strongly disagreed” with that statement. Much of the advantage remains when taking into account socio-economic factors (Table A6.2).</li> <li>• An average of 79% of parents reported being satisfied with the disciplinary atmosphere in their child’s school and 85% felt that the school did a good job of educating students. In both cases, their children had a performance advantage of 12 score</li> </ul>	<p>[No data available for the UK]</p>

<p>points on average (Table A6.2b).</p> <ul style="list-style-type: none"> <li>• On average, 88% of parents “strongly agreed or agreed” that their child’s teachers seemed competent and dedicated, but the relationship to student performance was inconsistent across countries, with an average advantage of 7 score points (Table A6.3a).</li> </ul>	
<p><i>For the first time, the indicators compare approaches to monitoring school standards.</i></p> <ul style="list-style-type: none"> <li>• A total of 22 OECD and partner countries undertake student examinations and/or assessments and 17 require schools to be evaluated (either self-evaluations and/or inspections by an external body) at regular intervals. Student assessments (evaluations without civil effect for the student) are practised in 17 OECD and partner countries, whereas national examinations (with a civil effect for the student) are practised in 10 OECD and partner countries (Tables D5.1 and D5.2).</li> <li>• School self-evaluations are required in 14 countries, generally on an annual basis (Table D5.6).</li> <li>• School inspections are required in 14 countries, generally once every three years (Table D5.5). Although school self-evaluations are held more often than school inspections, evaluations by school inspectorates appear in general to have more influence on schools and teachers in terms of the implications of the evaluation and the accountability structure (Tables D5.5 and D5.6).</li> <li>• Both school evaluation and student performance measures are mainly used to provide performance feedback to schools (Tables D5.3 to D5.6). In general, they have relatively little influence on school financing and other financial implications such as changes to the school budget, provision of rewards or sanctions for schools, or remunerations and bonuses received by teachers (Tables D5.3 to D5.6).</li> <li>• In a larger number of countries, the influence of school evaluations is greater than student examinations for the performance appraisals of schools (13 countries, compared to 7 for student examinations), for the appraisal of the performance of school management (9 countries, compared to 1 for student examinations) and the appraisal of the performance of individual teachers (4 countries, compared to 1 for student examinations) (Tables D5.3 to D5.6).</li> </ul>	<p><i>The UK places considerable emphasis on assessment and evaluation.</i></p> <ul style="list-style-type: none"> <li>• At the lower secondary level (equivalent to ages 11-13 years in England, and 12-14 years in Scotland), neither England nor Scotland have national examinations but both have national periodical assessments in place for lower secondary programmes, which are compulsory for schools in England but not in Scotland (Table D5.2).</li> <li>• In England, the potential influence of assessments on performance feedback to schools is high, whereas there is no such influence in Scotland. In England, assessments also influence the performance appraisal of the school management, assistance provided to teachers to improve their teaching skills, as well as decisions on school closure (Table D5.4).</li> <li>• Both England and Scotland make the results of the assessments publicly available (Table D5.4).</li> <li>• Both England and Scotland make comparatively intensive use of school three-yearly inspections and make the results of these publicly available (Table D5.5).</li> <li>• Both England and Scotland require schools to evaluate themselves on a yearly basis (Table D5.6).</li> </ul>

## **RESOURCE AND EFFICIENCY CHALLENGES**

*Meeting the demand for more education while improving quality is bound to create pressures for current levels of spending to be maintained or increased and to improve the efficiency of spending on education. Recent years have already seen considerable rises in spending levels, both in absolute terms and as a share of public budgets. The total amount of funds allocated to educational institutions across all levels of education rose in all countries with available data over the last decade, and by 19% on average in real terms between 2000 and 2005 alone. By 2005, OECD countries were spending 6.1% of their collective GDP on education at all levels, of which 86% came from public sources and all but 7 of the 28 OECD countries spent at least 5%. Another visible indication of the efforts made by governments can be found in the fact that from 1995 to 2005, public expenditure on education grew by more than one percentage point as a proportion of all public spending – from 11.9% to 13.2% in 2005. Education spending rose at least as fast as public spending in other sectors in all countries except Canada, France, Hungary, Portugal and Switzerland.*

*Alongside the increase in public spending on education, there has also been a search for new sources of funding to accommodate the rapid growth in student numbers (particularly at the tertiary level) and to increase the resources available to educational institutions. Although 86% of spending on education still originates from public sources for all levels of education combined, private spending increased more rapidly than public spending between 1995 and 2005 in nearly three-quarters of the countries examined. In some, the proportion of private funding of tertiary educational institutions is high enough to challenge the view that tertiary education is solely a state responsibility. In fact, this view is gradually being replaced by the perception that, given the shared public and private returns that education brings, costs and responsibilities for its provision should also be shared between those who directly benefit and society at large (i.e. private households and businesses as well as governments), at least at the tertiary level of education.*

*While significant additional investments in education will be important, it is equally clear that more money alone will not be enough. Investments in education will also need to become more efficient. The education sector has not yet re-invented itself in ways that other professions have done to improve outcomes and raise productivity. Indeed, the evidence suggests the reverse, namely that productivity in education has generally declined because the quality of schooling has broadly remained constant, while the price of the inputs has markedly increased. As the place and mode of educational provision have largely remained unchanged, the labour-intensiveness of education and the predominance of teachers' salaries in overall costs (with pay scales based on qualifications and automatic increases) have made personnel costs rise over time. This edition of Education at a Glance provides a first picture of the spending choices that different countries are making.*

<i>Global trends</i>	<i>Key results for the United Kingdom</i>
<p><i>OECD countries as a whole spend USD 8 553 per student annually between primary and tertiary education: USD 6 173 per primary student, USD 7 736 per secondary student and USD 15 559 per tertiary student. These expenditures continue to rise in real terms.</i></p> <ul style="list-style-type: none"> <li>• Expenditure on educational institutions per primary, secondary and post-secondary non-tertiary student increased in every country and on average by 35% between 1995 and 2005 during a period of relatively stable student numbers.</li> <li>• The pattern is different at the tertiary level where spending per student has fallen in some cases, as expenditure has not kept up with the expansion in student numbers. However, from 2000 to 2005, expenditure on educational institutions per tertiary student increased by 11 percentage points on average in OECD countries after remaining stable from 1995 to 2000. Only Australia, Austria, Denmark, Greece, Iceland, Mexico, Poland, Portugal, Spain, Switzerland and the United Kingdom saw a larger increase in expenditure on educational institutions per tertiary student than in GDP per capita (Tables B1.4 and B1.5).</li> <li>• Seven out of the 11 countries in which student enrolments in tertiary education increased by more than 20 percentage points between 2000 and 2005 have increased their expenditure on tertiary educational institutions by at least the same proportion over the period, whereas Hungary, Sweden and the partner countries Brazil and Chile did not (Table B1.5).</li> <li>• Teacher compensation cost per student at the upper secondary level varies from 3.9% of GDP per capita in the Slovak Republic (less than half the OECD average rate of 10.9%) to over five times that rate in Portugal (20.9%, nearly twice the OECD average). Four factors influence these trends – salary levels, the amount of instruction time for students, the amount of teaching time required of teachers and average class size – so that a given level of compensation cost per student can result from quite different combinations of the four factors. For example, in Korea and Luxembourg, the compensation cost per student (as a percentage of GDP per capita) is 15.5 and 15.2%, respectively, both notably higher than the OECD average. However, whereas in Korea higher than average teacher salary levels coupled with relatively large class sizes are the main influence on this, in Luxembourg, relatively low class size is the main</li> </ul>	<p><i>Spending per student in the UK is above the OECD average at the primary and tertiary levels but below average at the secondary level.</i></p> <ul style="list-style-type: none"> <li>• 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 UK is, at USD 7 741 (equivalent), slightly above the OECD average of USD 7 527 (Table B1.1a).</li> <li>• While spending per student at the primary level (USD 6 361) in the UK is above the corresponding OECD average (USD 6 252), spending per student at the secondary level (USD 7 167) is below the OECD average (USD 7 804). At USD 13 506, spending at the tertiary level exceeds the OECD average of USD 11 512 (Table B1.1a).</li> <li>• Different supply and demand factors have influenced variation in spending per student across countries. In the UK, between 1995 and 2005, spending on primary and secondary education increased by 60% while enrolments rose by 25%, resulting in a spending increase per student of 29%. However, that is still significantly less than the OECD average increase of 35% in per-student spending (Table B1.5).</li> </ul> <p><i>The UK stands out with respect its high level of spending per child in pre-primary education, even if participation increased rapidly as well.</i></p> <ul style="list-style-type: none"> <li>• The UK invests more per child than other countries (except Austria, Iceland and the United States) at the pre-primary level (at USD 6 420, unit spending is considerably higher than the OECD average spending per child of USD 4 888) (Table B1.1a). This is all the more impressive given the fact that, while increasing spending levels since 1998, the rate of participation of 4-year-olds and under as a percentage of the 3-to-4-year-old population also increased from 51% in 1998 to 90% in 2006 (Table B1.2, Table C2.1 and corresponding tables in <i>Education at a Glance 2000</i>).</li> </ul> <p><i>At the upper secondary level, average costs per student are driven by lower class sizes.</i></p> <ul style="list-style-type: none"> <li>• In an analysis new to this year’s edition of <i>Education at a Glance</i>, comparisons of salary costs per student (as a percentage of GDP per capita) at the upper secondary level are decomposed into some of the factors that influence these comparisons. The UK has a slightly higher than average salary cost per student at the upper secondary level, which is the result of two</li> </ul>

<p>factor which results in such a high teacher compensation cost per student (as a proportion of GDP per capita) compared to the OECD average (Table B7.2).</p> <ul style="list-style-type: none"> <li>• In countries with the lowest compensation cost per student (as a percentage of GDP per capita) at the upper secondary level, low salary levels as a proportion of GDP is usually the main driver. This is the case in Iceland, Ireland, Norway, Poland, the Slovak Republic and Sweden. The main exception to this pattern is Mexico where teacher salary costs relative to GDP per capita are well above the OECD average but this is more than compensated for by large class sizes (Table B7.2).</li> <li>• In contrast, among countries with the highest levels of compensation cost per student (Portugal, Spain, Switzerland), no single factor determines this position, but rather each of the four factors act to increase costs to varying degrees (Table B7.2).</li> <li>• High spending per student cannot automatically be equated with strong performance by education systems. Spending per student up to the age of 15 in the Czech Republic is roughly one-third of, and in Korea roughly one-half of, spending levels in the United States. However, while both the Czech Republic and Korea are among the top ten performers in the PISA 2006 assessment of science achievement among 15-year-olds, the United States performs below the OECD average. Similarly, Spain and the United States perform almost equally well, but while the United States spends roughly USD 95 600 per student up to the age of 15 years, Spain only spends USD 61 860 (Table B7.1).</li> </ul>	<p>opposite effects: above-average teaching time, acting to reduce compensation cost per student relative to the OECD average, and relatively low class sizes, which act to increase compensation cost per student relative to the OECD average. (Table B7.2 and chart B7.1). This contrasts with the policy choices made in some other countries. For example, in France, where costs per student are similar to those of the UK, these costs are instead driven by long instruction hours for students, which outweigh the effect of below average teacher salary costs.</p> <ul style="list-style-type: none"> <li>• These comparisons show that the same levels of expenditure can be deployed quite differently and serve to illustrate why the relationship between expenditure and performance is not straightforward. Indeed, cumulative expenditure per student aged between 6 and 15 explains merely 15% of the variation in mean PISA performance in science. Despite cumulative expenditure just below the OECD average in the UK (USD 66 833 against USD 67 895), the UK's mean score in PISA performance in science is significantly above the average (Table B7.1).</li> </ul> <p><i>In tertiary education, a below-average increase in spending in the UK exceeded the below-average increase in student enrolment.</i></p> <ul style="list-style-type: none"> <li>• At the tertiary level, a slightly below-average increase in spending in the UK (52%) exceeded the below-average increase in student enrolment (33%), such that spending per student increased by 15% in real terms between 1995 and 2005. This is the reason why, despite below-average increases in spending, the increase in spending <i>per student</i> was above the OECD average, and expenditure per tertiary student too is now well above the OECD average. There are other countries where spending per student has fallen by about 10% or more, such as in Hungary and Ireland (Table B1.5).</li> </ul> <p><i>High completion rates are an indicator of educational efficiency.</i></p> <ul style="list-style-type: none"> <li>• In the UK, as well as in Denmark and the partner country the Russian Federation, around 80% of those who enter tertiary-type A programmes (and more than 90% in Japan) go on to successfully complete their programme. This is well above the OECD average of 69%. Tertiary-type B completion rates are somewhat lower than those for tertiary-type A programmes, at 62% on average across OECD countries, and in the case of the UK, much lower at 43% (Table A4.1).</li> </ul>
<p><i>OECD countries spend 6.1% of their collective GDP on educational institutions. However, the increase in spending on educational institutions between 1995</i></p>	<p><i>The UK has shown large increases in educational investment, in terms of a rising share of GDP being devoted to education.</i></p>

*and 2005 fell behind growth in national income in nearly half of the 28 OECD countries for which data are available.*

- The highest spenders on educational institutions are Denmark, Iceland, Korea, the United States and the partner country Israel, with at least 7% of GDP accounted for by public and private spending on educational institutions, followed by Mexico and New Zealand with more than 6.5%. By contrast, seven out of 28 OECD countries for which data are available as well as three out of six partner countries spend less than 5% of GDP on educational institutions; in Greece and in the partner country the Russian Federation, the figure is 4.2 and 3.8%, respectively (Table B2.1).
- Tertiary education accounts for nearly one-third of the combined OECD expenditure on educational institutions (2.0% of the combined GDP). In Canada and the United States, expenditure at this level reaches up to 40% of expenditure on educational institutions (Table B2.1). Relative to GDP, the United States spends over three times more on tertiary education than Italy and the Slovak Republic and nearly four times more than the partner countries Brazil and the Russian Federation.
- On average across OECD countries, expenditure for all levels of education combined increased relatively more than GDP between 1995 and 2005. The increase in expenditure on educational institutions as a proportion of GDP exceeded 0.8 percentage points over this decade in Denmark, Greece, Mexico and the United Kingdom (Table B2.3).

- Starting from a comparatively low base by OECD standards, the UK has shown rises in its investment in education, not just in absolute terms, where increases were observed in most countries over recent years, but also relative to national income: over the period 1995-2005, spending on educational institutions in the UK increased by more than 50% (compared to 42% on average) and from 5.2% to 6.2% of GDP, a level slightly above the OECD average of 5.8%. The UK is one of the four OECD and partner countries with the largest increases in educational expenditure as a percentage of GDP over this 10-year period (Tables B2.1 and B2.3).
- Expenditure in school education increased between 1995 and 2005 by 60% and by 52% in tertiary education (Table B2.3).

*The UK's share of capital spending in tertiary institutions is only half of the OECD average.*

- Below the tertiary level, the proportion of spending on capital costs in the UK is, at 8.6%, slightly above the OECD average level of 8.2% (Table B6.2b).
- In contrast, the share of capital spending at the tertiary level is, at 4.8%, considerably below the OECD average of 9.5% (Table B6.2b).

*In all countries, public funding on educational institutions increased between 1995 and 2005. However, private spending increased faster in nearly three-quarters of these countries.*

- On average over 90% of primary, secondary and post-secondary non-tertiary education in OECD countries, and other than in Korea, no less than 80%, is paid for publicly (Table B3.2a).
- In tertiary education the proportion funded privately varies widely, from less than 5% in Denmark, Finland and Greece, to more than 40% in Australia, Canada, Japan, New Zealand, the United States and in the partner country Israel, and to over 75% in Korea and the partner country Chile. As with tertiary graduation and entry rates, the proportion of private funding can be influenced by the incidence of international students who form a relatively high proportion of the student body in Australia and New Zealand (Table B3.2b).

*Private sources of funding provide an above-average share of educational spending in the UK*

- Taking all levels of education together, private spending in the UK rose faster than public spending between 2000 and 2005 (as was the case in nearly three-quarters of the countries with comparable data), resulting in an increase in the share of private funding of more than 5 percentage points (only Mexico, Portugal and the Slovak Republic recorded such an increase in the private share of funding) (Table B3.1). [Note that private spending originates both in households and other private entities and can go to private as well as public institutions.]
- Looking specifically at the primary and lower secondary levels in the UK over the same period, the private share of funding increased from 11.3% to 17.0% (the largest increase in percentage points after the Slovak Republic). Moreover, in both years this represented one of the lowest public funding proportions among the 26 OECD countries reporting

<ul style="list-style-type: none"> <li>• On average among the 18 OECD countries for which trend data are available, the share of public funding in tertiary institutions decreased slightly from 79% in 1995 to 77% in 2000 and to 73% in 2005. However, the increase in private investment has not displaced but complemented public financing, the amount of public funding has simply tended to increase at a lower rate (Table B3.2b).</li> <li>• In eight out of the 11 OECD countries with the largest increases in public expenditure on tertiary education between 2000 and 2005, tertiary institutions charge low or no tuition fees. The exceptions are Korea, the United Kingdom and the United States (Indicator B5).</li> <li>• In tertiary education, households account for most private expenditure in most countries for which data are available. Exceptions are Canada, Greece, Hungary, the Slovak Republic and Sweden where private expenditure from entities other than households is more significant (Table B3.2b).</li> </ul>	<p>data for both years (Table B3.2a).</p> <ul style="list-style-type: none"> <li>• At the pre-primary level, where the relative proportions of public funding range from 100% in Sweden to 41.1% in Korea, the public funding share in the UK was 92.9% in 2005, significantly above the OECD average of 80.2% (Table B3.2a).</li> <li>• Public spending on tertiary education in the UK rose by 48% between 2000 and 2005, the largest rise after Greece, Iceland, Poland and the partner country the Russian Federation. However, this was accompanied by a 53% increase in private spending, with the result that the private share of funding in tertiary education in the UK increased slightly from 32.3% to 33.1% (though this was the smallest increase after the Netherlands) (Table B3.2b and Table B3.3).</li> </ul>
<p><i>On average, OECD countries devote 13.2% of total public expenditure to education, but values for countries range from 10% or below in the Czech Republic, Germany, Italy and Japan to more than 23% in Mexico.</i></p> <ul style="list-style-type: none"> <li>• Between 1995 and 2005, education took a growing share of total public expenditure in most countries, and on average grew at a similar pace than GDP. Denmark, the Netherlands, New Zealand, the Slovak Republic, Sweden and the partner country Brazil saw the largest shifts in favour of education (Table B4.1).</li> <li>• On average across OECD countries, 85% of public expenditure on education is transferred to public institutions. In two-thirds of OECD countries, as well as in the partner countries Brazil, Estonia and Slovenia, the share of public expenditure on education going to public institutions exceeds 80%. The share of public expenditure transferred to the private sector is larger at the tertiary level than at primary to post-secondary non-tertiary levels and reaches 26% on average among OECD countries for which data are available (Table B4.2).</li> </ul>	<p><i>The share of public expenditure the UK devotes to education increased over the 1995-2005 period, though at slower pace than in the OECD on average.</i></p> <ul style="list-style-type: none"> <li>• The share of all public spending devoted to educational institutions at all levels in the system, or paid in the form of subsidies to households, increased in the UK between 1995 and 2005 from 11.4 to 11.9%, while the OECD average increased by 1.3 percentage points (11.9 to 13.2%) (Table B4.1).</li> <li>• Whereas in most countries, the main increase in public expenditure on education relative to total public expenditure during this ten-year period took place between 1995 and 2000, in the UK the increase occurred between 2000 and 2005. In fact, in the UK, public expenditure on education as a proportion of total public expenditure had decreased in the period 1995 to 2000 (Table B4.1).</li> </ul>
<p><i>There are large differences among OECD countries in the average tuition fees charged by tertiary-type A public institutions, as well in how students pay for them.</i></p> <ul style="list-style-type: none"> <li>• In eight OECD countries public institutions charge no tuition fees, but in one-third of countries public institutions charge annual tuition fees for national</li> </ul>	<p><i>UK tertiary-type A institutions charge among the highest levels of tuition fees in the EU-19 area.</i></p> <ul style="list-style-type: none"> <li>• Among the EU-19 countries, the United Kingdom and the Netherlands, are the only countries where the tuition fees charged to national students by tertiary-type A institutions exceed USD 1 100. In the UK, these fees are on average about USD 1 860, though</li> </ul>

<p>students in excess of USD 1 500. Among the EU-19 countries, only the Netherlands and the United Kingdom have annual tuition fees that represent more than USD 1 000 per full-time student; these relate to government-dependent institutions (Table B5.1a).</p> <ul style="list-style-type: none"> <li>• When tuition fees are charged, tertiary institutions are responsible for setting tuition fee levels in almost all countries. Only the Netherlands, Spain and Switzerland have levels of tuition fees set exclusively by educational authorities (at central, regional or local levels) at least for some of their tertiary institutions (Table B5.1d).</li> <li>• An average of 18% of public spending on tertiary education is devoted to supporting students, households and other private entities. In Australia, Denmark, the Netherlands, New Zealand, Norway, Sweden and the partner country Chile, public subsidies to households account for some 27% or more of public tertiary education budgets (Table B5.2).</li> <li>• Low annual tuition fees charged by tertiary-type A institutions are not systematically associated with a low proportion of students who benefit from public subsidies. In tertiary-type A education, the tuition fees charged by public institutions for national students are negligible in the Nordic countries and in the Czech Republic and are low in Turkey. And yet more than 55% of the students enrolled in tertiary-type A education in these countries can benefit from scholarships/grants and/or public loans. Moreover, Finland, Norway and Sweden are among the seven countries with the highest entry rate to tertiary-type A education.</li> <li>• OECD countries in which students are required to pay tuition fees and who can benefit from particularly large public subsidies do not show lower levels of access to tertiary-type A education than the OECD average. For example, Australia (82%) and New Zealand (79%) have among the highest entry rates to tertiary-type A education, and the Netherlands (59%) and the United States (64%) are above the OECD average. The United Kingdom (51%) and partner country Chile (48%) are just below the OECD average (54%), although entry to tertiary-type A education increased by 4 and 6 percentage points, respectively, between 2000 and 2005 in these countries.</li> </ul>	<p>these are far below the highest tuition fees charged among the OECD countries, such as in Australia (USD 3855), Japan (USD 3920), Korea (USD 3883) and the United States (USD 5027) (Table B5.1).</p> <ul style="list-style-type: none"> <li>• The UK is among the countries that not only have comparatively high levels of tuition fees, but also well developed student support measures (including a public loans system to national students). In such systems there are fewer financial barriers for entry to tertiary education. Nevertheless, although entry to UK tertiary-type A education increased by 10 percentage points between 2000 and 2006, the rate (57%) is still only around the OECD average (56%) (Table A2.5).</li> </ul>
<p><i>Instruction time, teachers' salaries, and student-teacher ratios vary widely among countries, which affects the level of expenditure per student.</i></p> <ul style="list-style-type: none"> <li>• The choices countries make about how many hours</li> </ul>	<p><i>Teacher salaries are above-average...</i></p> <ul style="list-style-type: none"> <li>• The UK provides comparatively high teacher salaries. At USD 47 050 for a primary school teacher with minimum training and 15 years of experience,</li> </ul>

<p>and years students spend in the classroom and the subjects they study reflect national priorities and preferences. Budgetary considerations also help shape education: Teachers' salaries represent the largest single cost in providing school education and, as such, are a critical consideration for policy-makers striving to both maintain the quality of education and to contain spending. While class size has become a hot topic in many OECD countries, evidence on its impact on student performance is mixed.</p> <ul style="list-style-type: none"> <li>• Differences in teachers' salaries, along with other factors such as student-to-staff ratios (see Indicator D2), provide some explanation of the differences in expenditure per student (see Indicators B1 and B7).</li> <li>• Salaries of teachers with at least 15 years' experience at the lower secondary level range from less than USD 15 000 in Hungary and in partner countries Chile and Estonia to USD 51 000 or more in Germany, Korea and Switzerland, and exceed USD 90 000 in Luxembourg (Table D3.1).</li> <li>• Salaries for teachers with at least 15 years' experience in lower secondary education are over twice the GDP per capita in Korea, whereas in Norway, and in partner countries Estonia and Israel, salaries are 75% or less than the GDP per capita.</li> <li>• Teachers' salaries have risen in real terms between 1996 and 2006 in virtually all countries, with the largest increases in Finland, Hungary and Mexico (and in starting salaries in Australia) and in partner country Estonia. Salaries at the primary and upper secondary levels in Spain fell in real terms over the period, although they remain above the OECD average (Tables D3.1 and D3.2).</li> </ul> <p>On average in OECD countries, upper secondary teachers' salaries per teaching hour exceed those of primary teachers by 44%; the difference is 5% or less in New Zealand, Scotland and the partner country Chile and is equal to or greater than 75% in Denmark and the Netherlands (Table D3.2).</p>	<p>Scotland comes 7th among OECD countries, while England, at USD 43 058, comes 8th (Table D3.1). However, these figures are closer to the OECD average when comparing salaries to GDP per capita.</p> <p><i>...but teacher salaries have risen less than in many other countries.</i></p> <ul style="list-style-type: none"> <li>• Between 1996 and 2006, the salaries of experienced primary teachers increased in England by 7%, below the average increase of 15% among the 19 OECD countries with comparable data. The increase in Scotland matched that of the OECD average (Table D3.2).</li> </ul>
<p><i>The average class size in primary education is slightly more than 21 students per class, but varies from 32 in Korea, to fewer than half that number in Luxembourg and the partner country the Russian Federation.</i></p> <ul style="list-style-type: none"> <li>• The average class size in lower secondary education is 24 students per class, but varies from about 30 or more in Japan, Korea and Mexico and the partner countries Brazil, Chile and Israel, to 20 or fewer in Denmark, Iceland, Ireland (public institutions), Luxembourg and Switzerland and the partner</li> </ul>	<p><i>Despite above average spending per student, class sizes in primary schools remain very large in the UK.</i></p> <ul style="list-style-type: none"> <li>• Despite above average spending per primary-level student, the UK has, with 24.5 students per class, one of the largest average class sizes at this level of education. Only Japan, Korea and Turkey have larger classes, while in 14 OECD countries there are 20 or fewer students per primary-level class (the OECD average is 21.5) (Table D2.1).</li> <li>• The UK stands out as the OECD country with the</li> </ul>

<p>country the Russian Federation (Table D2.1).</p> <ul style="list-style-type: none"> <li>Between 2000 and 2006, differences in average class sizes among OECD countries have somewhat diminished. Class size tended to decrease in countries that had relatively large class sizes in 2000 (such as Japan, Korea and Turkey) whereas it increased in some of the countries with relatively small class sizes (such as Iceland) (Tables D2.1 and D2.4 available on- line).</li> </ul>	<p>largest difference in class sizes between public and private institutions: In primary education, there are 13 pupils more per classroom in public institutions than in private ones whereas on average across OECD countries, class sizes do not differ between public and private institutions by more than one or two students per class (Table D2.1).</p> <p><i>The UK is unusual in having lower class sizes at the lower secondary level than at the primary level.</i></p> <ul style="list-style-type: none"> <li>The relationship between costs and features of the education system are similar between primary and lower secondary education, although differences between the UK and the OECD average tend to be smaller at the lower secondary level.</li> <li>One notable difference, however, is that average class sizes in the UK are smaller at the lower secondary level than at the primary level, which is different in most other countries. Indeed, the average of 22.4 students per lower secondary class in the UK is well below the OECD average of 24. Of the 21 countries for which comparable data are available, only seven have a lower average class size at the lower secondary level: Denmark, Greece, Hungary, Iceland, Italy, Luxembourg and Switzerland (Table D2.1).</li> </ul>
<p><i>Students in OECD countries are expected to receive, on average, 6 907 hours of instruction between the ages of 7 and 14, of which 1 591 hours take place between ages 7 and 8, 2 518 between ages 9 and 11, and 2 798 between ages 12 and 14. The large majority of intended hours of instruction are compulsory.</i></p> <ul style="list-style-type: none"> <li>In OECD countries, 7-to-8-year-olds receive an average of 770 hours per year of compulsory instruction time and 796 hours per year of intended instruction time in the classroom. Those aged 9 to 11 receive about 40 compulsory hours more per year than 7-to-8-year-olds and those aged 12 to 14 receive just over 86 hours more per year than 9-to-11-year-olds (Table D1.1).</li> <li>On average across OECD countries, the teaching of reading, writing and literature, mathematics and science represents nearly 50% of the compulsory instruction time for 9-to-11-year-olds and 40% for 12-to-14-year-olds. For 9-to-11-year-olds, the proportion of compulsory curriculum devoted to reading, writing and literature varies widely from 13% in Australia to 30% or more in France, Mexico and the Netherlands (Table D1.2).</li> </ul>	<p><i>Young pupils have relatively long school hours per year.</i></p> <ul style="list-style-type: none"> <li>The combination of both higher than average expenditure per student and class sizes, is in part explained by the high annual duration of instruction time. At 890 hours, England has the 9th longest annual intended instruction time for a 7-to-8-year-old among the 30 OECD and partner countries with comparable data (the OECD average is 796 hours) (Table D1.1).</li> </ul>
<p><i>The number of teaching hours in public lower secondary schools averages 717 hours a year but</i></p>	<p><i>The teaching load for teachers has remained comparatively high.</i></p>

*ranges from 548 hours in Korea to over 1 000 in Mexico (1 047) and the United States (1 080).*

- The number of teaching hours in public primary schools averages 812 per year (9 more than in 2005), but ranges from less than 650 in Denmark, Turkey and the partner country Estonia to 1 080 in the United States (Table D4.1).
- The average number of teaching hours in upper secondary general education is 667, but ranges from 364 in Denmark to 1 080 in the United States (Table D4.1).
- The composition of teachers' annual teaching time, in terms of days, weeks and hours per day, varies considerably. For instance, while teachers in Denmark teach for 42 weeks per year (in primary and secondary education) and teachers in Iceland for 35-36 weeks per year, teachers in Iceland have more total annual teaching time (in hours) than teachers in Denmark (Table D4.1).
- Regulations concerning teachers' working time also vary. In most countries, teachers are formally required to work a specific number of hours; in some, teaching time is only specified as the number of lessons per week and assumptions may be made on the amount of non-teaching time required per lesson (at school or elsewhere). For example, in Belgium (French Community), additional non-teaching hours at school are set at the school level; the government only defines the minimum and maximum number of teaching periods per week at each level of education.

- The net teaching time for Scottish primary school teachers is, at 893 hours per year, the sixth highest among the 25 OECD countries with comparable data (the OECD average is 812 hours) (Figures are not available for England) (Table D4.1).

## ***EQUITY CHALLENGES***

*On average across OECD countries, close to 8 out of 10 young adults have now a qualification at least at the upper secondary level of education, which was true for little more than half of 55 to 64-year-olds. In the last 11 years alone, the proportion of students graduating from upper secondary programmes has increased by seven percentage points in OECD countries. Despite this rapid progress towards universal upper secondary education **Education at a Glance 2008** also shows that in most countries a significant minority of individuals remain without baseline qualifications at the upper secondary level. In many countries, these individuals are seeing rapidly-deteriorating labour market prospects. **Education at a Glance 2008** also shows that access to education as well as educational success often remain closely tied to socio-economic conditions, which implies that countries do not fully capitalise on their human potential. **Education at a Glance 2008** provides a range of indicators on disparities in educational attainment and their labour-market consequences.*

<i>Global trends</i>	<i>Key results for the United Kingdom</i>
<p data-bbox="70 241 718 448"><i>In most OECD countries, virtually everyone now has access to at least 12 years of formal education and full enrolment (defined here as enrolment rates exceeding 90%) tends to begin between the ages of 5 and 6, but there is significant variability both at the beginning and ending of initial education.</i></p> <ul data-bbox="70 465 718 1444" style="list-style-type: none"> <li>• At least 90% of students are enrolled in education in an age range spanning 14 or more years in Belgium, France, Germany, Hungary, Iceland, Japan, Norway and Spain. In contrast, Mexico and Turkey have enrolment rates exceeding 90% for only nine and six years, respectively; the corresponding figure for the partner country the Russian Federation is nine years (Table C2.1).</li> <li>• Enrolment rates for children 4 years or younger range from less than 25% in Korea and Turkey to over 90% in Belgium, Denmark, France, Germany, Iceland, Italy, New Zealand, Spain and the United Kingdom (Table C2.1). Young children are more likely to be enrolled in the countries of the European Union than in other OECD countries (the enrolment rate for 3-to-4-year-olds averages 76.7% for the EU-19, while the OECD average is 69.4%) (Table C2.1).</li> <li>• Enrolment rates for 15-to-19-year-olds increased on average from 74 to 81% from 1995 to 2006. In Belgium, Greece and Poland, and the partner country Slovenia, they reached more than 90% in 2006 (in Belgium they had already reached this level in 1995). The pattern is similar for 20-to-29-year-olds, an age group in which most students are enrolled in tertiary education; between 1995 and 2006, their enrolment rates increased in all OECD countries except Portugal (Table C2.2).</li> </ul>	<p data-bbox="750 241 1398 313"><i>The UK is now among the countries with the highest participation rate of children 3 to 4 years old.</i></p> <ul data-bbox="750 331 1430 533" style="list-style-type: none"> <li>• 90% of children 4 and under (as a percentage of the population aged 3 to 4) are participating in pre-primary programmes (OECD average 70%). This is all the more impressive as the rate increased from 51% in 1998 to 90% in 2006 (Table C2.1 and corresponding tables in <i>Education at a Glance 2000</i>).</li> </ul> <p data-bbox="750 564 1327 600"><i>But staying-on rates remain comparatively low.</i></p> <ul data-bbox="750 618 1430 788" style="list-style-type: none"> <li>• At 69.7%, the enrolment rate for 15-19 year olds in the UK is well below the OECD average of 81.5% and higher than the rates in only three countries: Mexico (48.8%), Turkey (45.2%) and the partner country Israel (65.0%) (Table C2.1).</li> </ul>
<p data-bbox="70 1489 689 1659"><i>The proportion of individuals who have completed upper secondary education has been growing in almost all OECD countries and is now the norm among the younger cohorts, but a significant minority remains left out.</i></p> <ul data-bbox="70 1677 718 2040" style="list-style-type: none"> <li>• In the last 11 years, the proportion of students graduating from upper secondary programmes has increased by seven percentage points on average in OECD countries with available data. In 17 of 24 OECD countries, the ratio of upper secondary graduates to the population at the typical age of graduation is 80% or higher and in the Czech Republic, Finland, Germany, Greece, Iceland, Japan, Korea and Norway it exceeds 90%. However, in Luxembourg, Mexico, New Zealand, Spain, Sweden, Turkey and the United States, more than</li> </ul>	<p data-bbox="750 1489 1423 1592"><i>In the adult population, a comparatively large share of individuals in the UK have not completed upper secondary education...</i></p> <ul data-bbox="750 1610 1423 2013" style="list-style-type: none"> <li>• Ranked by upper secondary educational attainment in the population, the UK occupies the 13th position among 55-to-64-year-olds (<i>i.e.</i> those who completed school some 40 years ago) in the 29 OECD countries with data, but only the 21st position among 25-to-34-year-olds, who completed school a decade ago. By contrast, Korea ranks 23rd among 55-to-64-year-olds but 1st among 25-to-34-year-olds. So, while upper secondary attainment rates have increased in the UK, the increase has been greater in many other countries. Note that the individuals (25-to-34-year-olds in 2006) in this analysis passed the age of sixteen in between</li> </ul>

<p>20% leave school without attaining an upper secondary degree (Tables A1.2 and A2.2).</p> <ul style="list-style-type: none"> <li>• Those who have attained at least upper secondary education enjoy substantial earnings advantages (Chart A9.4). For many countries, the earnings disadvantage of those without upper secondary qualifications has significantly worsened (Table A9.2a).</li> <li>• Gender differences in employment and unemployment rates are largest among those without upper secondary education (Chart A8.1)</li> </ul>	<p>1986 and 1996 (Table A1.2a).</p> <p><i>...and even if upper secondary completion rates are now above the OECD average...</i></p> <ul style="list-style-type: none"> <li>• The upper secondary graduation rate in the UK is 88%, compared with an OECD average of 83% (Table A2.1).</li> </ul> <p><i>...employment prospects for those who have no upper secondary qualification are particularly poor.</i></p> <ul style="list-style-type: none"> <li>• Employment rates among both university and upper secondary graduates in the UK are at or above the corresponding OECD averages. However, for those who have not completed the upper secondary level, employment rates are, at 60% for men and 48% for women, below the corresponding OECD averages of 73% and 50% (Table A8.1a). Differences in the employment probabilities accruing to different levels of educational attainment have grown over the last decade. For individuals with upper secondary education the employment rate in the UK increased between 1997 and 2006 from 79% to 81%, for tertiary graduates it grew from 87% to 88%, and for individuals without upper secondary education, it also slightly increased from 65% in 1997 to 66% in 2005 (Table A8.3a).</li> <li>• The penalties from not completing upper secondary education are also visible in the distribution of earnings. The share of 25-to-64-year-olds with low incomes (defined here as half of the country median or less) is in most countries significantly higher among those without upper secondary qualifications than among upper secondary graduates. For the UK, this share is the second highest of the countries compared, behind the United States (Table A9.4a). Among 25-to-64-year-olds in the UK without upper secondary qualifications, about 39% earn half or less than the national median (the OECD average is 24%), while only 2% (OECD average 3%) are in the group of top earners, whose average earnings exceed twice the country median (Table A9.4a).</li> </ul>
<p><i>Some countries have been successful in improving educational opportunities among youths in difficult labour-market situations.</i></p> <ul style="list-style-type: none"> <li>• Most OECD countries have expanded their education system to accommodate more of the younger cohorts. For 15-to-19-year-olds, recruitment to education has largely taken place among individuals outside the labour market (not in education or employment) and to a lesser extent among employed individuals. With few exceptions, policies to expand education systems have thus helped to lower unemployment and inactivity among</li> </ul>	<p><i>The education and labour market situation of young people in the UK remains an issue.</i></p> <ul style="list-style-type: none"> <li>• Some 24% of the population aged 15-19 years are not in education in the UK, one of the highest figures among OECD and partner countries. Moreover, the percentage of this group who are not only out of education but also unemployed is, at 5.3%, the highest among the countries compared (Table C4.2a).</li> <li>• Examining trends in these rates over the period 2000 to 2006 indicates that the situation of young people in the UK based on these measures has not improved in</li> </ul>

<p>young adults (Tables C4.1b).</p> <ul style="list-style-type: none"> <li>• The 15-to-19-year-old population that is not in education is generally associated with being unemployed or out of the labour force. Some countries are better able than others to provide employment for young adults with relatively low educational attainment. In Iceland, Japan and Norway, more than 70% of this age group not in education have employment (Table C4.2a).</li> <li>• On average, completing upper secondary education reduces unemployment among 20-to-24-year-olds by 7.4 percentage points and that of 25-to-29-year-olds by 6.2 percentage points. The lack of an upper secondary qualification is a serious impediment to finding employment, and a tertiary qualification further increases the likelihood of job seekers finding employment (Table C4.3).</li> </ul>	<p>the UK (Table C4.4a). In contrast, the labour market situation for those with a tertiary education is substantially better and the unemployment rate for 25-to-29-year-olds at 2.7% is among the lowest in OECD with only Australia and the Netherlands showing lower rates (Table C4.3).</p>
<p><i>Continuing education and training often does not reach those who need it most.</i></p> <ul style="list-style-type: none"> <li>• In many countries, non-formal continuing education and training now also plays a significant role in raising the stock of knowledge and skills. There are major differences among countries in the number of hours that individuals can expect to spend in non-formal job-related education and training over a typical working life. At the tertiary level, it ranges from less than 350 hours in Greece, Italy and the Netherlands to more than 1 000 in Denmark, Finland, France and Switzerland (Table C5.1a).</li> <li>• The relative intensity (number of hours) of non-formal job-related education and training typically increases sharply with educational attainment (except in the United Kingdom, Italy and the Netherlands). The expected hours in non-formal job-related education and training among 25-64-year-olds with tertiary qualifications is, on average across countries, nearly twice as high as among those with upper secondary qualifications and more than three times as high as among those without upper secondary qualifications (Table C5.1a).</li> <li>• An older worker with tertiary education can expect to receive at least 70% of the education and training of a younger worker in Denmark, Sweden and the United States, but the proportion falls below 20% in France, Hungary and the Netherlands. Adults with higher levels of educational attainment are more likely to participate in non-formal job-related continuing education and training than adults with lower educational attainment (Table C5.1a).</li> </ul>	<p><i>The intensity of participation in non-formal job-related education and training is comparatively low in the UK.</i></p> <ul style="list-style-type: none"> <li>• In the UK, between the ages of 25 and 64, the total expected number of hours in non-formal job-related training per worker is 315, considerably below the OECD average of 389 hours (Table C5.1a). This indicates a lower overall volume of training provision than the (relatively high) participation rate alone would suggest.</li> <li>• The intensity of participation is particularly low in the UK among persons without upper secondary qualifications (103 hours as compared with an OECD average of 210 hours) (Table C5.1a). These findings are important because they show continuing inequalities in terms of access to lifelong learning in the UK, as in other countries. They also suggest that continuing education and training currently does not succeed in making up for skill gaps emerging from initial education but tend to rather reinforce disparities that result from initial education.</li> </ul>
<p><i>Countries vary greatly in how well they succeed in enabling students from blue-collar backgrounds to</i></p>	<p><i>In the UK, more than half of those in higher education</i></p>

<p><b><i>participate in higher education.</i></b></p> <ul style="list-style-type: none"> <li>• Ireland and Spain stand out as providing the most equitable access to higher education, whereas in Austria, France, Germany and Portugal students from a blue-collar background are about one-half as likely to be in higher education compared with what their proportion in the population would suggest (Indicator A7).</li> <li>• When measuring the socio-economic status of students in higher education by their fathers' educational background large differences between countries emerge. In many countries, students are substantially more likely to be in higher education if their fathers completed higher education. Students from such a background are more than twice as likely to be in higher education in Austria, France, Germany, Portugal and the United Kingdom than are students whose fathers did not complete higher education. In Ireland and Spain this ratio drops to 1.1 and 1.5, respectively.</li> <li>• Among the countries providing information on the socio-economic status of students in higher education it appears that inequalities in previous schooling are reflected in the intake of students from less advantaged backgrounds. The countries providing more equitable access to higher education – such as Finland, Ireland and Spain – were also the countries with the most equal between-school performances, as show by data collected in 2000 by OECD PISA.</li> </ul>	<p><b><i>have fathers with university qualifications.</i></b></p> <ul style="list-style-type: none"> <li>• 54% of higher education students' fathers in the UK also had a higher education qualification, while this was only the case for 27% of fathers of men in the same age group (Chart A7.2a).</li> <li>• Among 10 OECD countries with comparable data, only Austria, Germany and Portugal had a more socio-economically uneven participation rate (Chart A7.2b).</li> </ul>
<p><b><i>In almost half of the countries, the majority of upper secondary students are enrolled in vocational programmes. However, in key subject areas, the performance of students in vocational programmes tends to lag considerably behind student performance in general programmes.</i></b></p> <ul style="list-style-type: none"> <li>• In 13 out of 28 OECD countries and the partner country Slovenia, the majority of upper secondary students are enrolled in pre-vocational and vocational programmes. In most OECD countries, a significant proportion of upper secondary vocational education is school-based (Table C1.1).</li> <li>• In OECD countries with available data, vocational qualification is concentrated in engineering, manufacturing and construction at both the upper secondary (34%) and post-secondary non-tertiary (22%) levels (Table C1.2).</li> <li>• The 14 OECD countries for which data are available spend, on average, USD 925 more per student on upper secondary vocational programmes than on</li> </ul>	<p><b><i>Participation patterns in the UK mirror those in other countries.</i></b></p> <ul style="list-style-type: none"> <li>• 58% of upper secondary enrolment is in general programmes (OECD average 54%), while 42% is in vocational programmes (OECD average 44%) (Table C1.1).</li> <li>• [No data are available by field of study or by student performance]</li> </ul>

general programmes (Table C1.3).

- PISA 2006 shows that 15-year-olds in pre-vocational and vocational programmes have statistically significant lower performance in science compared to students enrolled in general programmes in 12 out of the 14 OECD countries for which data are available. On average, 15-year-olds enrolled in general programmes score 35 points higher and after adjusting for socio-economic factors a difference of 24 points still remains (Table C1.4).

## **NOTES**

- “Non-formal education” is defined as 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 2008*.
- “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 like HND (Type B) 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 academic ages of 11 and 13 in England, and 12 and 14 in Scotland.
- “Upper secondary education” identifies a level of attainment, not necessarily reached while the individual was actually participating in secondary education. In the United Kingdom it means attainment of at least Level 2: that is, a minimum of five GCSEs/SCSEs at grades A\* to C, or an equivalent vocational qualification such as NVQ2/SVQ2. However, the international “upper secondary” band also includes the United Kingdom Level 3: that is, A-levels or NVQ/SVQ3.
- “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. England and Scotland have separate systems of teacher pay and so, while the publication generally refers to the United Kingdom, the teacher pay figures are shown separately for England and Scotland. The pattern of the Scottish pay comparisons closely follows that for England although Scottish pay levels are slightly below those in England for starting salaries, but are above those for England after 15 years of experience or at the top of the scale.