

Education at a Glance 2002

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Briefing notes – United Kingdom

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There are compelling incentives for individuals and societies to raise levels of education.

- With very few exceptions, university-level graduates have markedly higher labour force participation rates (93% for males and 87% for females in the **United Kingdom**) than those without upper secondary qualifications (67% for males and 51% for females in the **United Kingdom**). The differentials in the **United Kingdom** are significantly larger than at the OECD average level. While there is a gender gap in labour force participation rates, it is only half as big for university-level graduates than for those with lower qualifications. (Page 117)
- Unemployment rates for tertiary graduates in the age group 30 to 44 years are, at 2% for males and females in the **United Kingdom**, significantly lower than for those without upper secondary qualifications (12% for males and 8% for females). Again the educational advantage is larger in the **United Kingdom** than on average across OECD countries. (Page 118)
- Education and earnings are positively linked. Education beyond upper secondary brings a particularly high premium, with earnings of tertiary graduates in the age group 30 to 44 years old between 60% and 90% higher in the Czech Republic, Hungary, Portugal, the **United Kingdom** (51% for males and 83% for females) and the United States. Women, however, still earn less than men with similar levels of educational attainment. (Page 132)
- It is possible to contrast 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, in terms of the tuition fees they need to pay, lost earnings during their studies or higher tax rates later in life. Similar to the annual interest rate for money invested in a savings account, the 2002 edition of *Education at a Glance* calculates an annual rate of return on the investment that individuals incur when completing a tertiary degree between the ages of 25 and 64 years. In all countries, this private rate of return is higher than real interest rates, and often significantly so, with the rate of return on a tertiary qualification ranging for males from around 7% in Italy and Japan to 17% in the **United Kingdom**, the highest observed value among the 10 countries for which comparable data are available. Earnings differentials and the length of education tend to be the prime determinants of the returns, but there are other factors, including taxes which reduce the returns, lower risks of unemployment which increase the returns, tuition fees which reduce the returns, and public grant or loan arrangements which boost returns. The high rates of return in the **United Kingdom** are to a large extent accounted for by relatively short university studies. In a similar way, it is possible to estimate the economic benefits of additional education to society. The resultant social rates of returns to tertiary education are typically lower than the returns for individuals since they also account for the opportunity cost of having people not participate in the production of output and the full cost of the provision of education rather than only the costs borne by the individuals who complete a tertiary qualification. Nevertheless, the social returns (15% for males and 14% for females in the **United Kingdom**) are still well above risk-free real interest rates. (Page 134)

- The improvement in human capital has been a strong and common factor behind economic growth in recent decades, and in some countries accounted for more than half a percentage point of growth in the 1990s. Increases in educational attainment are estimated to have accounted for almost half a percentage point (0.44) of the annual average growth in the economy in the **United Kingdom** in the 1990s (OECD average 0.39 percentage points). Like in many other OECD countries, the impact of increases in educational attainment on economic growth is stronger than that of other factors commonly associated with growth such as trade exposure (0.25 percentage points), size of government (0.03 percentage points), variability of inflation (0.01 percentage points), or the investment share (0.08 percentage points). (Page 139)

The education system in the United Kingdom has responded with a significant increase in the output of tertiary educational institutions...

- On average across OECD countries, four out of ten school leavers enter a tertiary programme leading to the equivalent of a bachelors' degree or higher. In Australia, Finland, Hungary, Iceland, the Netherlands, New Zealand, Norway and Sweden it is between 51 and 71% (46% for the **United Kingdom**; 42% for men, 49% for women). (Page 231)
- The number of persons enrolled in tertiary programmes in the **United Kingdom** rose, from already high levels, further by 12% between 1995 and 2000, despite a 3% decline in the size of the youth cohort. (Page 232)
- The **United Kingdom** continues to show the highest first degree graduation rate among the 17 countries for which comparable data are available, with 38% of the typical age-group completing a degree. On average across OECD countries, the first degree graduation rate is 26% and graduation rates range from about one-third or more in Australia, Finland, Iceland, Poland, the **United Kingdom** and the United States, to less than 20% in Austria, the Czech Republic, Denmark, Germany, Italy and Switzerland. (Page 46)
- The high first-degree graduation rate in the United Kingdom is not only the result of many school leavers entering tertiary education, but also because the **United Kingdom** shows one of the lowest drop-out rates (12%). By contrast, in Italy and Sweden more than half of the entrants to first-degree programmes do not complete their programme successfully. (Page 47)
- The **United Kingdom** also has the second largest share of overseas students (14%), after the United States with 28%. If the size of countries is taken into account the United Kingdom remains, with 11% of all tertiary students foreign, at the fourth position, with only Switzerland (16.6%), Australia (12.5%) and Austria (11.6%) show a larger proportion of foreign students. By contrast, the large number of foreign students in the United States amounts to only 3.6% of the national student population, below the OECD average of 4.9%. (Page 243)
- Among older age groups, women have attained lower levels of education than men, but for younger people, this pattern has reversed in virtually all OECD countries. In the **United Kingdom**, first-degree graduation rates for women exceed those for men in all fields of study except mathematics and computer science and engineering, manufacturing and construction. (Page 62)

...while at the upper secondary level, progress was limited...

- The proportion of individuals in the population who have not completed upper secondary education (see notes on definition) has been falling in almost all OECD countries, and rapidly in some. In the majority of OECD countries, the ratio of upper secondary graduates to the population at the typical age of graduation now exceeds 70%, and in five countries, it exceeds 90%. Upper secondary attainment in the **United Kingdom** remains, at 63%, around the OECD average of 64%. Ranked by upper secondary educational attainment, the **United Kingdom** occupies the 13th position among 55-64-year olds in the 30 OECD countries (i.e. those who

completed school some 40 years ago) but only the 24th position among 25-34-year-olds. By contrast, Korea ranks 24th among 55-64-year-olds but 1st among 25-34-year-olds. (Page 37)

...and the significant minority of persons not having completed the upper secondary level faces comparatively poor employment and earnings prospects...

- A 30-44 year-old person in the **United Kingdom** without an upper secondary qualification gains, on average, only 68% of the earnings of an upper secondary graduate. (Page 132)
- The likelihood of unemployment for persons without upper secondary qualifications in the **United Kingdom** is almost twice as high as for persons with an upper secondary degree. (Page 118)
- In the **United Kingdom** more than 10% of 15-19 year olds are neither in education nor in employment and those with low levels of education are particularly disadvantaged. (Pages 261 and 262)

...and education combines with other influences to make adult training least common among those who need it most.

- On average across 19 OECD countries with comparable data, 36% of the adult population participated in any form of continuing education and training within a 12-month period. 28% of the adult population participated in job-related continuing education and training. Participation rates range from 18% or lower in Hungary, Poland and Portugal, to more than 50% in Denmark, Finland, Sweden and the United States. For the **United Kingdom**, the corresponding figure is 45% for all continuing education and training activities, of which 40% is accounted for by job-related continuing education and training. (Page 251)
- However, in 8 out of the 19 OECD countries, adults with tertiary qualifications are between 3 and 8 times more likely to participate in continuing education and training than adults who have not completed upper secondary education. In the **United Kingdom** the ratio is 2.3, below the OECD average of 3.6, but still considerable. Thus initial education combines with other influences to make adult training least common among those who need it most. (Page 251)

OECD's assessment of student skills shows large variability in the quality of educational outcomes, both within and across countries...

- The **United Kingdom** ranks among the best performing countries in reading, mathematical and scientific literacy of 15-year-olds, according to OECD's PISA 2000 assessment. In reading literacy, defined as the ability to understand, use, and reflect on written texts to participate effectively in life, the **United Kingdom** comes 7th among 32 countries and was only clearly outperformed by Finland and Canada. In mathematical literacy, defined as the ability to recognise, formulate and solve mathematical problems in situations encountered in life, the **United Kingdom** comes 8th and was only clearly outperformed by Japan and Korea. In scientific literacy, defined as the capacity to acquire and use scientific knowledge and to draw evidence-based conclusions, the **United Kingdom** comes 4th, and was only clearly outperformed by Korea. (Pages 69, 74 and 77)
- High average performance in the UK is thus not associated with excessive disparities in student performance. However, the results shows a proportion of low performers which, though smaller than at the OECD average level, remains significant: 4% of students in the **United Kingdom** fall below Level 1, the lowest level of reading proficiency considered by PISA. A further 9% only make it to Level 1 which requires students to just complete very basic reading tasks, such as locating a simple piece of information or identifying the main theme of a text. As a result, 13% of 15-year-olds in the **United Kingdom** (OECD average 18%) show serious gaps in the foundation of literacy skills needed for further learning. They may not be able to fully benefit from available educational opportunities and fail to acquire the necessary knowledge and skills to do so effectively in their further school career and beyond. Countries such as Finland (7%) and Korea

(6%) demonstrate that high average performance can be achieved with even smaller levels of low performance. (Pages 71 and 72)

...with the impact of socio-economic background in the United Kingdom significantly larger than on average across OECD countries.

- Among the 12 countries that perform above the OECD average level in reading literacy, the **United Kingdom** is one of three countries in which the socio-economic background of students has a higher-than-average impact on student performance, indicating that students from disadvantaged backgrounds tend to perform less well. Among the same countries there are six – Canada, Finland, Iceland, Japan, Korea and Sweden – in which relatively high quality of student performance is combined with relatively high equality between different socio-economic groups. This shows that it is possible for a country to achieve high performance levels while maintaining a relatively high degree of equality between advantaged and disadvantaged socio-economic groups. (Page 101)

Public expenditure on education tended to grow faster than total government spending, but not as fast as GDP.

- On average, OECD countries spent, in 1999, US\$ 4148 per primary student, US\$ 5465 per secondary student and US\$ 9210 per tertiary student (the corresponding figures for the **United Kingdom** are US\$ 3627, US\$ 5608 and US\$ 9554). There is large variation in spending per student among countries. However, lower unit expenditure cannot automatically be equated with poorer quality educational services. Australia, Finland, Korea and the **United Kingdom**, for example, which have moderate per student education expenditure at primary and lower secondary levels, are among the OECD countries with the highest performance levels among 15-year-olds in reading, mathematics and science. (Page 158)
- In some OECD countries, moderate annual expenditure per university-level student still translates into high overall costs of tertiary education, because of the length of studies, most notably in Austria, Finland and Germany. The reverse is true for the **United Kingdom**, where comparatively short study durations and above-average annual expenditure in 1999 translated into below-average total costs (US\$ 33835 compared to the OECD average of US\$ 38668). (Page 160)
- On average, OECD countries spent, in 1999, 5.5% of their collective GDP on their educational institutions compared with 5.2% of GDP in the **United Kingdom**. (Page 170)
- Public investment in educational institutions grew by only 6% in the **United Kingdom** between 1995 and 1999 compared to an average growth of 16% across 23 OECD countries for which data are available. However, among the 5 other G7 countries shown, only France had a growth rate higher than the **United Kingdom**. While public expenditure on education tended to grow faster than total government spending, it generally did not grow as fast as GDP. (Pages 165 and 173)

In many countries, tuition fees covers a rising share of the costs of tertiary education.

- The share of tertiary expenditure that originates from private sources ranged, in 1999, from 3% or less in Austria, the Flemish Community of Belgium, Denmark, Finland, Greece and Switzerland, to 78% in Korea. The **United Kingdom** is with 37% still significantly above the OECD average of 21%. (Page 191)
- In ten out of 19 OECD countries, private expenditure on tertiary education grew by more than 30% between 1995 and 1999. In most countries, however, this growth in private spending was not associated with a decrease in public-sector spending on tertiary education. There was little change in the **United Kingdom** in this period. (Page 191)
- Very few primary and secondary educational institutions are financed predominantly by households as compared to governments. However, in some OECD countries, governments pay

most primary and secondary education costs, but leave the management of educational institutions to the private sector to broaden the range of learning opportunities without limiting the participation of students from low-income families. In Belgium and the Netherlands, the majority of primary and secondary students are enrolled in such government-dependent private institutions. In the **United Kingdom**, the proportion is negligible in primary and lower secondary education but more than two-thirds at the upper secondary level. (Page 234)

Countries also differ significantly in terms of student learning conditions,...

- A 9 year-old students spends, depending on the country, between 630 and 1020 hours per year in the classroom (**England** 890 hours, **Scotland** 1000 hours). At age 14, this ranges from 740 to 1260 hours (**England** 940 hours, **Scotland** 1000 hours). (Page 283).
- 15-year-old students spend an average of 4.6 hours per week on homework and learning in the language of instruction, mathematics and science in addition to instruction time spent in the classroom. In the **United Kingdom** this is 5.4 hours. (Page 286)
- The **United Kingdom** has comparatively large class sizes in the first years of schooling (27 students per class at the primary level in public institutions compared with an OECD average of 22, and 25 students per class at the lower secondary level compared with an OECD average of 24). Only Japan, Korea and Turkey have larger primary class sizes. (Page 292)

...the availability and use of information technology at school and at home,...

- On average across countries, the typical 15-year-old attends a school with 13 students for one computer but this varies widely across countries and, in some countries, between regions and schools. The **United Kingdom** is one of the countries with the highest level of student access to computers, with only 8 15-year-olds sharing a computer. Nevertheless, more than half of the school principals in the **United Kingdom** in the schools in which 15-year-olds are enrolled consider that learning is hindered to some extent or a lot by a lack of computers for instruction. Different from many other countries, in the **United Kingdom** there are virtually no differences between public and private schools or by the size of community in computer access in schools. (Pages 302 and 304)
- On average, about one-third of 15-year-old students reported using a computer at school daily or at least a few times per week but the frequency of using a computer at home is almost double this. No data for this are available for the **United Kingdom**. (Page 306)
- On average, 15-year-old males are significantly more confident in their perceived ability to use computers than females. Gender differences are greatest in Denmark, Finland and Sweden, and smallest in Australia, New Zealand, Scotland and the United States. No data are available for this for the **United Kingdom**. (Page 313)

...classroom and school climate ...

- Compared to the OECD average, 15-year-olds in Australia, Canada, New Zealand, Portugal, Sweden, the **United Kingdom** and the United States reported receiving more support from their teachers than those in Austria, Belgium, the Czech Republic, Germany, Italy, Korea, Luxembourg and Poland. (Page 327)
- On average across countries, 39% of 15-year olds reported that more than five minutes are spent at the start of the class doing nothing (**United Kingdom** 41%) and 30% complained about noise and disorder (**United Kingdom** 27%). The **United Kingdom** is thus fairly typical on these measures of classroom climate. (Page 327)
- More than half the 15-year-olds in Australia, Denmark, Ireland, New Zealand, Norway, Sweden and the **United Kingdom** reported that they regularly use the science laboratory compared to less than 10% in Finland and Hungary. (Page 329)

- School resources tend to be used more frequently, schools tend to have a higher level of autonomy, teachers' morale and commitment tend to be higher, and teacher-student relations tend to be relatively better in high performing countries, whereas in countries with relatively low performance, negative school climate indices tend to cluster, and the indices on the use of school resources, teachers' morale and commitment, school autonomy and teacher-student relations tend to fall below the OECD average. (www.oecd.org/els/education/eag2002)
- The OECD indicators paint a fairly positive picture of student engagement with school in the **United Kingdom**. Only 7% of 15-year-olds in the **United Kingdom** report that school is a place where they feel an outsider (OECD average 9%), 91% report that it is a place where they make friends easily (OECD average 81%), 83% report that school is a place where they feel they belong (OECD average 75%), and 28% report that school is a place where they do not want to go (29%). Nevertheless, 54% of 15-year-olds in the **United Kingdom** report that school is a place where they often feel bored, compared with an OECD average of 48%. (Page 330).

...and teachers' working conditions.

- The mid-career statutory salaries of lower secondary teachers range from less than US \$ 10000 in the Czech Republic and Hungary to US \$ 40000 and more in Germany, Japan, Korea, Switzerland and the United States. Some countries make a major investment in human resources despite lower levels of national income. The starting salaries for teachers in **England** are fairly close to the overall OECD average (slightly above for primary, slightly below for secondary). Those with 15 years experience earn significantly above the OECD average at both primary and secondary levels, with a particularly large difference at primary level (over 20% above the OECD average). Scale rates for mid-career teachers in **England** are also above the OECD average, both at primary and secondary levels.
- Public primary school teachers teach an average of 792 hours per year; the figure ranges from 583 hours to 1139 hours. At the lower secondary level, teachers teach an average of 720 hours, but the figure ranges from 555 hours to 1182 hours. The figure for teacher working hours in **England** – 190 days available to be spent on instruction – is in the middle of a quite wide range (from around 180 to 200 days, though Korea's figure is 220 days). These figures are for statutory working time where countries have such a measure and so do not record actual hours worked.

NOTES

- First-degree university graduation rate - the proportion of school-leavers, based on current higher education participation rates, "expected" to graduate with a first university degree at some point in their lives.
- Tertiary-level education - higher education.
- Lower secondary education - schooling between the ages of 11 and 13.
- Upper secondary education - schooling from the age of 14, and further education.
- An "upper secondary graduate" - a person holding 5 or more GCSEs at grades A* to C, and / or an equivalent vocational qualification (NVQ level 2 or above). A person without an upper secondary qualification may be qualified, but to a lower level i.e. fewer than 5 GCSE grades A* to C or a vocational equivalent, or they may have no qualifications.
- Statutory salaries - The data on teacher pay are based on statutory pay (pay scales) in 2000 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. England and Scotland have separate systems of teacher pay and so, while the publication generally refers to the UK, 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).