New figures in Education at a Glance 2004 provide further evidence of the benefits accruing from education

The case for more and better education is often made, whether in terms of lifelong learning, expansion or diversification of the provision in particular sectors or simply improving the quality of the education that is already delivered. In all cases, there is a need for an assessment of the benefits that reform can bring both to individuals and to the nation as whole. Recognising these key issues, Education at a Glance examines the benefits and outcomes of education. In providing new analyses on trends in the employment prospects of those with different levels of education and with new analyses of the financial returns accruing to individuals' investment in education, the 2004 edition provides some key indicators that can help with that assessment.

More people around the world are completing university courses and other forms of tertiary education than ever before. However, progress has been uneven across countries and some have significantly fallen behind, potentially compromising their future ability to keep up with economic and social progress.

- Almost all OECD countries have seen a rise in the education levels of their citizens over the past decade, and in some the increase has been spectacular. Enrolment in tertiary education, which covers university-level education and high-level vocational programmes, increased between 1995 and 2002 by more than 50% in the Czech Republic, Greece, Hungary, Iceland, Korea and Poland, and by more than 20% in Australia, Finland, Ireland, Mexico, Portugal, Spain, Sweden and the United Kingdom. Austria, France and Germany were the only countries which did not see increases, mainly because rising enrolment rates could not make up for the demographic decline in these countries (Table C2.2).

- With 36% of a typical age cohort completing a first degree or masters course (“Type A” in the international classification), the United Kingdom performs well above the OECD average (32%) in 2002. However, it no longer tops graduation rates as it did in 2000 (reported in the 2002 edition of Education at a Glance), since first degree graduation rates now stand, for example, at 45% in Australia and Finland and at 41% in Iceland and Poland (Table A3.1).

- Today’s entry rates in universities suggest that the strive for higher qualifications will continue: on average across OECD countries, half of an age cohort now enters universities or other institutions offering similar qualifications at some stage during their life (Table C2.1), and in Australia, Finland, Iceland, Poland, Sweden it is 70% or more (United Kingdom: 47%). However, not all those who enter complete a degree: In fact, on average 30% of
entrants drop-out during their studies and this figure exceeds 40% in Austria, France, Italy and Sweden. The United Kingdom has, at 17%, one of the lowest drop-out rates, with only Japan (6%), Turkey (12%) and Ireland (15%) performing better (Table A3.2).

Higher tertiary participation rates are becoming visible in the qualification of the workforce.

- As for the education level of the workforce, the effect of rising enrolment is naturally only gradual. For instance, an increase in the graduation rate among young people 10 years ago will have affected about a quarter of people presently of working age. However, the United Kingdom has been more successful than many other countries in converting tertiary level expansion into higher levels of attainment in the population. The share of 25-64-year-olds who are qualified at the tertiary level grew from 16 to 27% between 1991 and 2002. Growth rates in adult attainment have been higher only in Korea (12 percentage points), Spain (14 percentage points) and Canada (15 percentage points) (Table A3.4a).

Growing educational success pays off, for the United Kingdom more so than for most other countries.

- In general, people with tertiary qualifications command significantly higher salaries than those with only secondary education. In the United Kingdom, earnings for tertiary graduates are 59% higher on average than those for people with only secondary education, a differential that is higher only in Hungary (110%), the United States (86%), the Czech Republic (79%) and Portugal (78%) (Table A11.1a). They also stand a stronger chance of finding jobs: on average in OECD countries, around 89% of men and 78% of women with university degrees are in employment, compared with around 84% of men and 63% of women who ended their education at secondary level (Table A10.1a).

- Education at a Glance 2004 contrasts 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. In all 9 countries with comparable data, the private rate of return for those who acquired tertiary degrees immediately following school, 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 Australia and Denmark to 14% in Finland and 20% in Hungary (United Kingdom: 11%). Social returns to tertiary education, which add public spending on education and forgone production of output during study on the investment side, and fiscal returns as well as productivity gains reflected in labour cost differentials on the returns side (but not externalities) range for males from 5% in Denmark to 16% in Hungary (United Kingdom 13%).

- However, the analysis shows also that rates of return are markedly lower for individuals who enter tertiary education later in life. For example, for males entering tertiary education in the United Kingdom at age 40 and who have to bear both the direct costs of tertiary education as well as foregone earnings, the private rate of return is only 4% and the social rate of return 6%. The fact that returns are generally higher when tertiary education is attained at an earlier age is mainly explained by the longer time horizon over which education-enhanced earnings accrue, as well as the lower level of foregone earnings in youth than in adulthood. Rates of return rise when direct tuition costs are eliminated. However, overall, the additional incentive created by eliminating tuition cost for those entering at age 40 is small, at 1.8% on average, suggesting that tuition is not a major barrier for adult participation in tertiary education (Table A11.5). Governments seeking to foster lifelong learning will need to examine the comparatively low rates of returns for late entrants closely. In interpreting the average rates of return, it needs to be also considered that returns on human capital accumulation are not risk-
free, as indicated by the wide dispersion of earnings among the better educated. The fact that the rate of return tends to be significantly above real interest rates may indicate obstacles for individuals making the investments, and high risk-adjusted private rates of return may provide grounds for policy intervention to alleviate the relevant constraints.

- Educational attainment also contributes to a country’s overall prosperity. Improved education helps to raise labour productivity and technological progress, boosting economic growth. The long-run impact in the OECD area of one additional year of education is to increase economic output by between 3% and 6%. In the United Kingdom, the contribution of improvements in levels of educational attainment between 1990 and 2000 to labour productivity growth was much larger than in the United States and indeed in any of the other 15 OECD countries studied except Portugal (Chart A12.2).

Rising tertiary education levels among citizens seem generally not to have led to an “inflation” of the labour-market value of qualifications.

- As newly available data show, rising tertiary education levels among citizens seem generally not to have led to an “inflation” of the labour-market value of qualifications. On the contrary, among the countries in which the proportion of 25-64 year-olds with tertiary qualifications increased by more than 5 percentage points since 1995 - Australia, Austria, Belgium, Canada, Denmark, France, Iceland, Ireland, Japan, Korea, Spain and the United Kingdom (Table A3.4a) - most have seen falling unemployment (Table A10.2b) and rising earnings benefits (Table A11.2) among tertiary graduates over the last years. In Australia, Canada, Germany, Hungary, Ireland and the United Kingdom the earnings benefit of tertiary increased by between 6 and 14 percentage points (United Kingdom 6 percentage points) between 1997 and 2001 and, among the 15 countries with comparable data, only three saw a decline in the earnings benefits of tertiary education over upper secondary education: New Zealand (-15 percentage points), Norway (-3 percentage points) and Spain (-20 percentage points).

Tertiary education is rapidly becoming an international domain…

- In 2002, 1.9 million students were enrolled in the OECD area outside their country of origin (Table C3.6), with nearly three quarters of them choosing Australia, France, Germany, the United Kingdom and the United States as their destination (Chart C3.2). …but the market share of the United Kingdom in this has declined.

- On average, foreign enrolment increased by 34% between 1998 and 2002 (Table C3.6) and the share of foreign students from throughout the world as a percentage of all students increased in the Czech Republic, Iceland, Korea, New Zealand and Sweden by 60% or more. In contrast, in Austria, Ireland, Switzerland and the United States, increases in the share of foreign enrolment ranged between only 8% and 13%, and Turkey (-26%), the United Kingdom (-6%) and Poland (-15%) saw declines in the share of foreign enrolment. As a result, the “OECD market share” of foreign students in the United Kingdom declined from 16% in 1998 to 12% in 2002.

Significant progress has been achieved in reducing the gender gap in educational qualifications…

- Younger women today are far more likely to have completed a tertiary qualification than women 30 years ago: in 19 of the 30 OECD countries, more than twice as many women aged 25 to 34 have completed tertiary education than women aged 55 to 64 do. In 21 of 27 OECD countries with comparable data, the number of women graduating from university-level programmes is equal to or exceeds that of men (Table A4.2). In the United Kingdom, the share of women graduates is above the OECD average at all tertiary levels. Last but not least,
15-year-old girls in OECD countries tend to show much higher expectations for their careers than boys of the same age (Table A9.1).

- What has remained broadly unchanged, though, is that women still earn less on average than men in all OECD countries, whatever their level of education, to some extent because of a higher incidence of part-time work. On average, women without upper secondary education obtain 60% of the earnings of men with the same level of education. Women with upper secondary and tertiary qualifications average 65% of equivalent male earnings (Table A11.3). For university-level educated women the earnings disadvantage in the United Kingdom is at the OECD average level, but at lower levels of education, it tends to be larger: for vocationally-oriented tertiary studies, such as HND, HNC or Foundation Degrees (Type B), 30-44 year-old women in the United Kingdom only earn 53% of men (OECD average 65%), for upper secondary graduates it is 50% (OECD average 65%) and for women without upper secondary education it is 55% (OECD average 62%) (Table A11.1b).

…but progress has been uneven across fields of study.

- Furthermore, in mathematics and computer science, gender differences in tertiary qualifications remain persistently high: the proportion of women among university graduates in mathematics and computer science is only 30%, on average, among OECD countries, and in Austria, Belgium, Germany, Hungary, Iceland, the Netherlands, Norway, the Slovak Republic and Switzerland it is only between 9% and 25% (United Kingdom 28%) (Table A4.2).

A significant minority of young people remains left out from the benefits of education…

- Good performance at age 15, as witnessed by OECD’s Programme for International Student Assessment (PISA) (Tables A6.3, A7.1 and A7.2) does not translate into high levels of participation post-16.

- 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 half of OECD countries, the proportion of 25-34-year-olds with upper secondary qualifications now exceeds 80%, and in the Czech Republic, Japan, Korea, Norway, the Slovak Republic and Sweden it exceeds 90% (Table A2.2) Ranked by upper secondary educational attainment in the population, 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 22nd position among 25-34-year-olds who completed school some 10 years ago. By contrast, Korea ranks 24th among 55-64-year-olds but 1st among 25-34-year-olds (Table A1.2).

- The percentage of the youth population neither in education nor in employment in the United Kingdom is around the OECD average (Table C4.2). However, 20-24-year-old males without upper secondary qualifications are particularly likely to be neither in education nor work (17%) in United Kingdom (OECD average 16%) (Table C4.2). The situation improves slightly in the age group 25-29 but the share remains, at 12%, at the OECD average level of 12%. Furthermore, 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 (OECD average 79%).

…but some catch up later in life.

- After compulsory education, participation rates the United Kingdom fall behind most other countries with 77% of those aged 15-19 still in education (Table C1.2), a figure that is lower
only in Italy, Luxembourg, Mexico, New Zealand, Portugal, the Slovak Republic and the United States.

- The United Kingdom does significantly better in the 20-29 age group, with a participation rate of 27% compared with an OECD average of 23%. Among 30-39-year olds, the United Kingdom shows the highest participation rate, at 16% (OECD average 5%) and the same holds for over 40-year-olds, at 8% (OECD average 2%).

- As a result, the United Kingdom is second only to Australia in terms of lifelong participation, according to the “expected years in education” measure which makes a forward projection on the basis of today’s enrolment rates at different stages of education (Table C1.1).

**Education in the United Kingdom can build on a strong foundation in early childhood.**

- OECD’s thematic review of early childhood education and care has underlined the importance of a strong start for children. The United Kingdom ranks, at 81%, eighth among OECD countries in the percentage of 3 to 4-year-olds taking part in education (Table C1.2). This is accompanied by comparatively high levels of investment, that show the United Kingdom at rank three in terms of spending per pre-primary student (at 7595 US dollars per student compared with an OECD average of 4187 US dollars) (Table B1.1). At the same time, the ratio of students to teaching staff at the pre-primary level in the United Kingdom is, at 27, the highest among OECD countries (OECD average 15) (Table D2.2).

**Spending per primary student is slightly below the OECD average level but investments in terms of student instruction time are high in the United Kingdom.**

- Expenditure per primary student is, at 4415 US dollars, slightly below the OECD average of 4850 US Dollars (Table D2.2). On the other hand, investments in students in terms of annual instruction time is, at 861 hours in England and 1000 hours in Scotland for 7-8 year-olds and 889 hours in England and 1000 hours in Scotland for 9-11 year-olds, well above the OECD average of 752 and 816 hours respectively. Above-average instruction time with below-average spending at the primary level is mainly achieved by comparatively high ratios of students to teaching staff (20 in the United Kingdom compared with 17 at the OECD average level) (Tables D1.1 and D2.2). Primary teachers’ salaries in the United Kingdom after fifteen years’ experience are above the OECD average. England, for example, ranks 8th in the OECD (Table D3.1). However, salary scales are comparatively flat in the England and Scotland, such that the monetary incentives for an experienced teacher to stay in the profession are smaller than elsewhere.

**Spending per secondary student is also below the OECD average but secondary schools attain strong results.**

- At the secondary level of education, the student-teaching staff ratio in the United Kingdom is, at 15, only slightly above the OECD average of 14. Secondary teachers’ salaries in the both England and Scotland after fifteen years’ experience are above the OECD average. However, at the top of the scale, salaries in England are below the OECD average and remain only slightly above the average in Scotland. Expenditure per secondary student is, at 5933 US dollars, below the OECD average of 6510 US dollars. However, lower expenditure cannot automatically be equated with a lower quality of educational services. Australia, Finland, Ireland, Korea and the United Kingdom, for example, which have moderate expenditure on education per student at primary and lower secondary levels, are among the OECD countries with the highest levels of performance by 15-year-old students in key subject areas in OECD’s PISA 2000 assessment.
Spending per student has grown significantly in real terms in primary and secondary education, but far less so in tertiary education...

- The United Kingdom’s expenditure per student has grown in real terms between 1995 and 2001, by 21% below the tertiary level of education (OECD average 21%) and by 8% in tertiary education (OECD average 30%) (Table B1.5). Below tertiary education, the spending increase outpaced rising enrolment, such that spending per student increased by 6%.

...where increases have not kept up with rising enrolment...

- In seven out of 24 OECD countries – Australia, the Czech Republic, Hungary, Mexico, Norway, Poland and the United Kingdom – expenditure on tertiary education per student declined between 1995 and 2001. In all of these countries except Norway, this was mainly the result of the rapid increase in the number of tertiary students (more than 10%) during the period (Table B1.5). In the United Kingdom, spending per tertiary student declined between 1995 and 2001 by 4% (Table B1.5).

...and the share of capital spending is now among the lowest in the OECD.

- Below the tertiary level, the proportion of spending on capital costs is, at 7.8%, around the OECD average level of 8.4%. In contrast, the share of capital spending at the tertiary level is, at 2.3%, among the lowest in the OECD (OECD average 11.5%), down from 4% in 1997 (2000 edition of Education at a Glance).

- Across all levels of education, public and private spending on education rose faster in the United Kingdom than GDP between 1990 and 1995 but the share of GDP invested in education has remained at 5.5% since then (Table B2.1).

Private spending on education in the United Kingdom is above the OECD-average level.

- Education institutions are still mainly funded from public sources: 88% of all funds for educational institutions come directly from public sources. Private funding is, however, significant in Korea (where it represents 43% of total spending), the United States (approaching one-third of total spending), Australia and Japan (around one-quarter of total spending) (Table B3.1). In the United Kingdom, private spending is at an above-average level of 15%.

- Tertiary institutions tend to obtain a much higher proportion of their funds from private sources than primary and secondary institutions. The private share ranges from less than 4% in Denmark, Finland, Greece and Norway, to over three-quarters in Korea (including private payments that are subsidised from public sources) (Table B3.2b). In the United Kingdom, the private share is, at 29%, above the OECD average of 22%.

- In the United Kingdom, the proportion of spending that comes from private sources is growing faster than in other EU countries but remains well behind the rate in other major English-speaking countries, Korea and Japan. Tables B2.2, B3.2a and B3.2b). In most countries, shifts towards private expenditure did not lead to a decrease in the real level of public sector spending.

Decision-making has become more decentralised

- For the first time, Education at a Glance 2004 also examines how the division of responsibilities between schools as well as local, regional and national authorities has evolved in response to demands for improving efficiency, increasing responsiveness to local communities and fostering the potential for innovation and quality improvement.
Schools in England have a comparatively strong role in decision-making, with 85% of all decisions analysed taken at school level (OECD average 42%). For decisions relating to the organisation of instruction, 100% of decisions are taken at school level in England (OECD average 81%). For decisions on personnel management, 83% of decisions are taken at school level (OECD average 44%), with the remaining 17% of decisions taken at the central government level (OECD average 35%). For decisions relating to planning and structures, the central government (29% of decisions) and local authorities (14% of decisions) play a stronger role in England, although schools still make 57% of decisions in this area (OECD average 36%). 100% of the decisions concerning the deployment of resources are taken at school level (OECD average 41%).

Across all areas of decision-making, in England 42% are taken by schools in full autonomy, and another 42% within a framework set by a higher authority.

Notes

- Tertiary-level education - higher education. Indicators cover both the current performance of the HE system and the proportion of the adult population (25-64) who have attained HE qualifications. There are splits by gender and type of course – divided into vocational courses like HND (Type B in OECD parlance) and full-length (3yr+) theory-based degrees (“Type A”). Graduation rate is defined as the ratio of tertiary graduates to the population at typical age of graduation.

- Lower secondary education - schooling between the ages of 11 and 13.

- The term “upper secondary education” identifies a level of attainment, not necessarily reached while the individual was actually participating in secondary education. In UK terms 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 UK Level 3: that is, A-levels or NVQ/SVQ3.

- Statutory salaries - The data on teacher pay are based on statutory pay (pay scales) in 2003 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 the, in some countries considerable, bonuses and supplementary payments. 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.)

*Education at a Glance* 2004 is available to journalists on the OECD’s password-protected website. For further information, journalists are invited to contact the OECD’s Media Relations Division (tel. [33] 1 45 24 97 00). Subscribers and readers at subscribing institutions can access the report via SourceOECD, our online library. Non-subscribers can purchase the report via our Online Bookshop.