

Education at a Glance 2005

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OECD Briefing Note for the United Kingdom

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Several indicators in fields other than education confirm the UK's prominence in the global knowledge economy. Among the 30 OECD countries, only nine other nations have higher levels of GDP per capita and the United Kingdom has seen productivity growth over the last decades at rates well above the EU average. Among OECD countries, the United Kingdom is thirteenth on a measure of growth in GDP per hours worked. Finally, the OECD's index of inventive performance, diffusion of knowledge and internationalisation of innovative activities shows, based on patent data, the United Kingdom fifth after the United States, Japan, Germany and France (or 12th when measured on a per-capita basis).

This year's education indicators also point to strong performance and progress in the UK's education system over recent years both in terms of educational investments and outcomes for example at the pre-primary and primary level. However, they also show that in areas such as university-level education progress has now levelled off and no longer matches that in other countries. The indicators provide data until 2003, the latest point where internationally comparable data are available.

Summary of selected findings for the UK

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

The United Kingdom stands out in showing consistent rises in educational investment, both in terms of a rising share of GDP being devoted to education and in terms of a growing educational share in the public budget. Most of the additional resources were invested in school education.



Except for the pre-primary level, an above-average share of education spending in the United Kingdom, whether for private or for public institutions, comes now from private sources, and private spending has risen much faster than public spending, though it seemingly has not displaced public funds. In the UK, the shares of public and private investments in the various levels of education seem more in line with the respective social and private returns than is the case in many other OECD countries. For example, in Denmark, Norway, Germany, Austria and Finland, private sources contribute a much larger share of the costs of pre-primary education, where the social benefits dominate, than in tertiary education, where private benefits dominate.

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 (except the pre-primary level) in the United Kingdom is around the OECD average. However, the United Kingdom stands out in investing more than any other country per child at the pre-primary level, even though participation in pre-primary education has also been increasing.

Despite average spending per student, class sizes in primary schools remain very large in the United Kingdom. This apparent contradiction is, in part, explained by long school days, as well as by above-average teacher salaries. This is similar, though less pronounced, in secondary education. However, teacher salaries have fallen relative to those in other countries, while the teaching load for teachers remained comparatively high.

How do educational investments translate into individual and social benefits? The indicators show that the labour-market penalties for the significant share of individuals in the United Kingdom who have failed to reach OECD baseline qualifications are comparatively high. At the same time, they also show that the labour-market benefits for completing a university degree are well above the OECD average. Moreover, rising tertiary education levels among citizens seem generally not to have led to an “inflation” of the labour-market value of qualifications and new indicators show, moreover, that the gap between those without baseline qualifications and those with university degrees have been growing over recent years.

While growth in United Kingdom university participation has been strong over the last decade, new data show that this trend has now levelled off, with tertiary enrolment growing at much lower rates than at the OECD average and today’s entry rates to universities now well below the OECD average. Also, while the United Kingdom remains one of the most attractive destinations for foreign students, its international market share of foreign students has declined faster than in any other country, even if foreign enrolment has grown in absolute terms.

Initial education alone can no longer satisfy the rising and changing demand for skills and the United Kingdom shows an above-average rate of participation of the labour force in non-formal (see notes on definition) job-related continuing education and training. However, the intensity of participation in non-formal job-related education and training is comparatively low in the United Kingdom and, like in most other countries, job-related education and training continues to be least common among those who need it most: Participation rates among those who have not completed upper secondary education are less than half of those with upper secondary education and around a quarter of those with tertiary education. Furthermore, employees in upper-tier service industries are more likely to get training than those working in other sectors. More generally, adult education and training is: more common in large firms, the public sector and in sectors such as business services, banking or finance; usually for full-time or established workers in a firm; more prevalent for management and senior posts than for non-executive or unskilled jobs; more frequent for young and mid-career workers than for older workers; generally as accessible to women as to men; and likely to increase in line with an individual’s initial level of qualifications. 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 are not succeeding in making up for skill gaps emerging from initial education.

Overall investment in education

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

The United Kingdom stands out in showing consistent rises in educational investment, in terms of a rising share of GDP being devoted to education ...

- Starting from a comparatively low base by OECD standards, the United Kingdom stands out with consistent rises in its investment in education, not just in absolute terms, where increases were observed in all but one country over recent years, but also relative to national income: Spending on educational institutions increased from 4.3% of GDP in 1990 to 5.5% in 1995 and 5.9% in 2002, a value that – for the first time in this period – is now slightly above the OECD average of 5.8%. Only Turkey, Greece, Denmark, Mexico, Sweden and Portugal have seen faster rises between 1995 and 2002, while in half of the OECD countries with available data, spending on educational institutions did not match growth in national income, such that expenditure as a proportion of GDP actually declined. In Ireland, where the GDP grew particularly rapidly, spending on primary and secondary education grew only about half as fast, although tertiary spending nearly kept pace with GDP. In contrast, spending on educational institutions grew over twice as fast as GDP in New Zealand and Turkey at the primary and secondary level, and in Greece, Hungary, Italy, Japan, Mexico, Poland, Switzerland and Turkey at the tertiary level (Chart B2.3, based on Table B2.2 and Annex 2).

... as well as in terms of a growing educational share in the public budget.

- A similar picture emerges when examining the share of public expenditure that is devoted to education. Despite the fact that public expenditure in the UK declined when measured as a percentage of GDP between 1995 and 2002, the share of public spending that is devoted to educational institutions, or paid in the form of subsidies to households, increased in the United Kingdom from 11.4 to 12.7% over this period (OECD average increased by 1 percentage point) (Table B4.1).

Most of the additional resources were invested in school education.

- Most of the additional resources were invested in school education, where expenditure increased between 1995 and 2002 by 36% in absolute terms (OECD average increase 26%), while spending in tertiary institutions increased, at 18%, only half as fast as at the OECD average level (OECD average increase 36%) (Table B1.4).

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

- The relative proportions of public and private funding for educational institutions providing primary and secondary education range from 99.9% public in Portugal and Sweden to 77.4% public and 22.6% private in Korea. The United Kingdom's funding was 86.5% public in 2002 compared to 88.5% public in 1995 – in both years this was one of the lowest public funding proportions among the 19 OECD members reporting data for both years (Table B3.2a). Note that private spending origins both in households and other private entities and can go both to private as well as public institutions.



...and private spending has risen much faster than public spending...

- At all levels of education, private spending in the United Kingdom rose faster than public spending between 1995 and 2002, with an increase of the private share from 11.5% to 13.5% at the primary and secondary level of education (the largest increase in percentage points after Switzerland) (Table B3.2a) and an increase from 20% to 28% at the tertiary level of education (the largest increase after Australia and the Slovak Republic) (Table B3.2b).

...even if private spending has not led to a displacement of public funds.

- While, like in all other countries other than Australia, rising private expenditure on educational institutions have not led to a displacement of public expenditure, public spending on tertiary education in the United Kingdom rose by only 6% (compared with a 65% increase in private spending) – the smallest rise after Australia, where public spending actually declined (Table B2.2).

An exception is the pre-primary level.

- The reverse is true at the pre-primary level. Here, where the relative proportions of public and private funding range from 100% public in Sweden to 31.8% public and 68.2% private in Korea, the United Kingdom funding was at 95.8% public in 2002 significantly larger than the OECD average of 82.8% (Table B3.2a).

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

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

- To assess their potential impact on the quality of educational services, the resources invested in education need to be seen in relation to the number of students enrolled. On that measure, spending per student in the United Kingdom is at US\$ 6,691 across all levels of education (excluding pre-primary education) almost exactly at the OECD average level of 6,687 US\$. However, while spending per student is at primary (US\$ 5,150) and secondary (6,505 US\$) levels slightly below the corresponding OECD averages (US\$ 5,313 and US\$ 7,002 respectively), at the tertiary level it exceeds, at US\$ 11,822, the OECD average US\$ of 10,655 (Table B1.1).

...but the United Kingdom stands out in investing more than any other country per child at the pre-primary level, despite raising participation at the same time.

- The United Kingdom invests more than any other country per child at the pre-primary level (at US\$ 8,452, this amount is almost twice as large as the OECD average spending per child of US\$ 4,294) (Table B1.1). This is not only remarkable because it represents a significant increase in spending levels since 1998, but also because, at the same time, the rate of participation of 4-year-olds and under as a percentage of the 3-to-4-year-old population increased from 51% in 1998 to 77% in 2002 (Table B1.2, Table C1.2 and corresponding tables in *Education at a Glance 2000*).

In primary and secondary education, where in some countries – though not the United Kingdom – demography has caused a fall in enrolments, spending per student rose in almost all countries, and in many countries much faster than in the United Kingdom.

- Different supply and demand factors have influenced spending per student in varying ways across countries. In the United Kingdom, spending in primary and secondary



education increased by 36% while enrolments rose by 21%, resulting in an increase of 12% per student between 1995 and 2002. That is significant less than the OECD average increase of 26% in per-student spending but, on the other hand, the United Kingdom was also the country with the fastest rise in student numbers (OECD average 0%) (Table B1.4).

Despite average spending per student, class sizes in primary schools remain very large in the United Kingdom ...

- Despite roughly average spending per student at the primary level, the United Kingdom has, with 26 students per class, one of the largest average class sizes at the primary level of education. Only Turkey, Japan and Korea have larger classes and in all but nine countries there are between 16 and 21 students per primary class (OECD average 21.6) (Table D2.1).

...which is, in part, accounted for by long school days...

- This discrepancy is, in part, explained by long school days. With an average of 1,000 hours of annual intended instruction time for a 7-to-8-year-old, Scotland has the longest school days and England comes, with 890 hours, 8th among the 27 countries with comparable data (OECD average 788 hours) (Table D1.1).

...as well as by above-average teacher salaries.

- Another explanatory factor is comparatively high teacher salaries. With US\$ 43,363 for a primary school teacher having minimum training and 15 years of experience, Scotland comes 7th among OECD countries, while England, with US\$ 41,807, comes 9th (Table D3.1). However, that advantage diminishes somewhat when comparing salaries to GDP per capita.

However, teacher salaries have fallen relative to those in other countries...

- However, between 1996 and 2003, primary teacher salary increases in the United Kingdom have, at 6% in England and 7% in Scotland, been less than half the average increase of 15% among the 20 OECD countries with comparable data and, when relating these to GDP per capita, salaries have actually slightly fallen (Table D3.3).

...while the teaching load for teachers remained comparatively high.

- In addition, the net teaching time for Scottish primary school teachers is, at 950 hours per year, the third largest among the 26 OECD countries with comparable data (OECD average 795 hours) (Table D4.1).
- All of these relationships are similar at the secondary level of education, although differences between the United Kingdom and the OECD average tend to be smaller at the secondary level of education.

In tertiary education, a below-average increase in spending in the United Kingdom just matched the below-average increase in student enrolment.

- At the tertiary level, a below-average increase in spending in the United Kingdom (18%) just matched the below-average increase in student enrolment (18%), such that spending per student remained steady between 1995 and 2002, when comparing these figures in constant prices. By contrast, at the OECD average level spending per tertiary student rose by 12% over the same period (Table B1.4). However, there are also countries where spending per student has fallen by about 10% or more, as spending levels have not kept



pace with expanding student numbers, such as in the Czech Republic, Poland and the Slovak Republic, where enrolments have risen rapidly; and in Australia and Sweden, where they have grown at a slower rate.

- The student / teacher ratio in the United Kingdom increased from 16.7 in 1996 to 18.2 by 2003. Over the same time period the OECD average fell slightly from 15.7 to 14.9 (Table D2.2).

The share of capital spending in tertiary institutions is now among the lowest in the OECD.

- Below the tertiary level, the proportion of spending on capital costs is, at 8.6%, around the OECD average level of 8.2%.
- In contrast, the share of capital spending at the tertiary level is, at 4.3%, considerably below the OECD average of 11.6%, and it is lower only in Belgium and Mexico (Table B6.3).

Schools in the United Kingdom have above-average resources for non-staff goods and services.

- With only 75% of current expenditure at the primary and secondary levels devoted to the compensation of staff, schools in the United Kingdom have much greater capacity to purchase other goods and services than do OECD countries on average, where 81% are devoted to the compensation of staff.

Participation in education - and the costs of failing to reach OECD baseline qualifications

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

- A child at the age of five can now expect to undertake between 16 and 21 years of education during his or her lifetime, in most OECD countries, if present patterns of participation continue. In every country, educational expectancy measured in these terms has risen since 1995 (Table C1.1).
- Expected years in education for a child who was five in 2003 exceeds 16 years in all countries except Luxembourg, Mexico, the Slovak Republic and Turkey, and is the greatest in Australia, Belgium, Finland, Iceland, Sweden and the United Kingdom, at between 19 and 21 years. In the Czech Republic, Greece, Hungary, Iceland, Korea, Poland, Sweden, Turkey and the United Kingdom, educational expectancy grew by above 15% in the relatively short period from 1995 to 2003 (Table C1.1).

53% of today's young people in OECD countries will enter a university level or equivalent programme during their lifetime.

- 53% of today's young people in OECD countries will enter full-length higher education courses (referred to as tertiary-type A programmes in the OECD classification) or equivalent programme during their lifetime (Table C2.2). About 16% will enter other types of tertiary programmes (tertiary-type B) – but there is some overlap in these two groups. In Australia, Finland, Hungary, Iceland, New Zealand, Norway, Poland and Sweden, more than 60% of young people will enter tertiary-type A programmes. Other forms of tertiary education are most common in Korea and New Zealand, where more than half of young people can expect to participate in tertiary-type B education. *Note that due to the way in which these data are calculated, it is not appropriate to add type A and type B data together in order to derive an overall rate for tertiary education.*



Rapid growth in tertiary qualifications in the United Kingdom in the 1990s has now levelled off...

- With 38% 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 2003. However, it no longer tops graduation rates as it did in 2000 (reported in *Education at a Glance 2002*), since graduation rates for a first degree now stand, for example, between 42 and 49% in Denmark, Iceland, Poland, Finland and Australia (Table A3.1).

...with tertiary enrolment growing at much lower rates than at the OECD average level.

- Rates of current participation and new entrants suggest that this advantage is now diminishing, with further countries likely to catch up and surpassing United Kingdom graduation rates. As noted before, the increase in tertiary enrolment between 1995 and 2002, that will influence future graduation rates, was at 18% considerably lower than at the OECD average level of 28% (Table B1.4) and well below increased in Korea, Hungary, the Czech Republic, the Slovak Republic, Greece and Hungary, that ranged between 58 and 97% during the same period.

United Kingdom entry rates to universities are now well below the OECD average....

- An examination of today’s entry rates in universities underlines this trend. While the proportion of the United Kingdom age cohort entering tertiary-type A programmes was in 1998, at 48%, still significantly above the OECD average of 40%, in 2003 it was, at still 48%, significantly below the OECD average that has meanwhile risen to 53% (Table C2.2).

...although most who enter universities complete their courses successfully.

- However, in comparing these figures, it needs to be taken into account that a much higher proportion (83%) of those who enter university in the United Kingdom completes their degree successfully than is the case at the OECD average level (70%). In fact, this “survival rate” is higher only in Japan, Turkey and Ireland (Table A3.4), providing another facet of evidence for the efficiency of the United Kingdom university system.
- It also needs to be considered that the United Kingdom has one of the highest entry rates for ‘vocational’ tertiary education (“Type B” in the international classification). Between 1998 and 2003, the United Kingdom improved from 6th to 5th place among the 16 countries reporting data for both years and saw its net entry rate increase slightly from 27% to 30% (Table C3.1, *Education at a Glance 2000*; Table C2.2, *Education at a Glance 2005*).

Good performance at age 15, as shown by student performances in reading, mathematics and science in PISA 2000, does not translate into high levels of participation after that age.

- The United Kingdom has low levels of participation in the immediate post-16 years, though recent years have seen progress. Of OECD countries in 2001 only Greece, Turkey and Mexico had a lower proportion of their 17-year-old population enrolled in education than the United Kingdom. In 2002, the United Kingdom moved ahead of New Zealand and Portugal in terms of participation at age 17 (Table C1.4), and remained in the same position in 2003. However, while the gap between the OECD average and the United Kingdom is narrowing slightly but remains, at 75%, still 8 percentage points below the OECD average (Table C1.4). In contrast, at age 20, the United Kingdom’s participation rate is, at 51%, slightly above the OECD average of 48%.



Even if some catch up later in life...

- The United Kingdom does significantly better in the 20-to-29 age group though, with a participation rate of 26% compared with an OECD average of 23% (Table C1.2). Among 30-to-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%) (Table C1.2). 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).

... in the United Kingdom the significant share of individuals who do not complete upper secondary education...

- The proportion of individuals in the population who have not completed upper secondary education (see notes on definition at the end) has been falling in almost all OECD countries, and rapidly in some. In half of OECD countries, the proportion of 25-to-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 A1.2a). Ranked by upper secondary educational attainment in the population, the United Kingdom occupies the 13th position among 55-to-64-year olds in the 30 OECD countries (*i.e.* those who completed school some 40 years ago) but only the 22nd position among 25-to-34-year-olds who completed school a decade ago. By contrast, Korea ranks 24th among 55-to-64-year-olds but 1st among 25-to-34-year-olds (Table A1.2a). Note that the youngest individuals (25-year-olds in 2003) in this analysis passed the age of sixteen in 1994.
- There are also other OECD countries where large numbers failed to complete secondary education in the past are rapidly catching up in terms of upper secondary completion. In Belgium, France, Greece, Ireland and Korea, where around half of those born in the 1950s did not complete secondary school, between 72% and 97% of those born in the 1970s have done so. Young adults in Mexico, Portugal and Turkey remain less likely than those in other countries to have finished upper secondary education.

...face considerable and increasing penalties in the labour market, more so than the OECD average.

- While employment rates among both university and upper secondary graduates in the United Kingdom are clearly above the corresponding OECD averages. For those who have not completed the upper secondary level they are, at 62% for men and 47% for women, below the corresponding OECD averages of 73 and 49% (Table A8.1). These disparities have been increasing over the last decade. While for individuals with upper secondary education the employment rate increased between 1991 and 2003 from 78% to 80% and for tertiary graduates from 86% to 88%, for individuals without upper secondary education, it decreased from 61% in 1991 to 54% in 2003 (Table A8.3a).
- The penalties of not completing upper secondary education are also visible in the distribution of earnings. While 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, this share is particularly high in the United Kingdom on this indicator, second only to the United States (Table A9.4a). Among 25-to-64-year-olds in the United Kingdom without upper secondary qualifications, 37% earn half or less than the national median (OECD average 25%), while only 1% are in the group of top earners, whose average earnings exceed twice the country median (OECD average 3%) (Table A9.4a).



Initial education alone can no longer satisfy the rising and changing demand for skills...

- In many countries, non-formal continuing education and training now also plays a significant role in raising the stock of knowledge and skills. In Denmark, Finland, Sweden, Switzerland and the United States, more than 40% of employees now take part in non-formal job-related education and training each year. At 35%, the corresponding participation rate in the United Kingdom is also still well above the OECD average of 23%. At the other end of the scale, Greece, Hungary, Italy, Portugal and Spain provide such training to fewer than 10% of employees (Table C6.3).
- However, the intensity of participation in non-formal job-related education and training is comparatively low in the UK, with the mean number of hours per participant in the labour force, at 28 hours, being considerably below the OECD average of 62 hours (Table C6.2). This does not imply that short-duration courses imply lower quality, but could instead indicate better targeting. However, it does suggest a lower overall volume of training provision than the participation rate alone would suggest.

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

- In OECD countries, the participation rate in non-formal continuing education and training among employees who have not completed upper secondary education are often less than half of the rate of those with upper secondary education and around a quarter of the rate those with tertiary education. In the United Kingdom these disparities are significantly larger than in most OECD countries (Table C6.2).
- Similarly, the participation rate among 25-to-64-year-olds in employment is in the United Kingdom, at 35%, almost twice as high as for the corresponding group of unemployed (18%), while the OECD averages are 24% and 12%, respectively (Table C6.3).
- Like in most other countries, United Kingdom employees in upper-tier service industries are more likely to get training than those working in other sectors (Table C6.5).

These findings are important because they show continuing inequalities in terms of access to lifelong learning in the United Kingdom, as in other countries. They also suggest that continuing education and training currently do not succeed in making up for skill gaps emerging from initial education.

- More generally, adult education and training is: more common in large firms, the public sector and in sectors such as business services, banking or finance; usually for full-time or established workers in a firm; more prevalent for management and senior posts than for non-executive or unskilled jobs; more frequent for young and mid-career workers than for older workers; generally as accessible to women as to men; and likely to increase in line with an individual's initial level of qualifications.

The returns on high-level skills

For the United Kingdom, higher education pays off even more so than for most other countries.

- The labour-market and financial incentives for attaining tertiary qualifications continue to remain high for both men and women, despite the rapid growth in qualifications, as one can see when contrasting the advantages of tertiary education for individuals in terms of higher average earnings, lower risks of unemployment and the public subsidies they receive during their studies with the costs that individuals incur when studying, in terms of the tuition fees they need to pay, lost earnings during their studies or higher tax rates



later in life. In all 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. In Belgium, Italy and the Netherlands, the private rate of return for females is around 8%, in Switzerland it is 10% and in Finland and Norway 15 and 13% respectively (Table A9.6).

- 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 78% higher on average than those for people with only secondary education, a differential that is higher only in Hungary (135%) and the United States (91%) (Table A9.1a). They also stand a much stronger chance of finding jobs (Table A8.1a).
- New data on earnings also show that, over and above differences in average earnings by educational level, the dispersion of earnings among people with the same educational level varies across countries. For instance, across all educational levels combined, countries such as Belgium, France, Hungary and Luxembourg have relatively few individuals who earn below half of median earnings (Table A9.4a).
- 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 A10.2).

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

- 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-to-64-year-olds with tertiary qualifications increased by more than 5 percentage points since 1995 - Australia, Austria, Belgium, Canada, Denmark, France, Iceland, Ireland, Korea, Japan, Spain and the United Kingdom (Table A3.4a, *Education at a Glance 2004*) – most have seen falling unemployment and rising earnings benefits among tertiary graduates over the last years.
- The United Kingdom is among the countries in which this trend was most pronounced. While in 1997 the earnings advantage of tertiary graduates in the 25-to-64-year-old population was still 53%, in 2003 it had risen to 62% (Table A9.2a). Countries with faster growing earnings returns on tertiary degrees were only Hungary (39 percentage points), Italy (26 percentage points), Germany (20 percentage points) and Australia (9.4 percentage points). Only Norway, Spain and New Zealand saw a decline in the relative earnings of tertiary graduates.

Tertiary education is rapidly becoming an international domain, and the United Kingdom remains one of the most attractive destinations for foreign students...

- In 2003, 2.12 million people studying in OECD countries were foreign students, *i.e.* enrolled outside their country of origin. This represented an 11.5% increase in total foreign students' intakes reported to the OECD since the previous year.



...even though its market share has significantly declined.

- Australia, France, Germany, the United Kingdom and the United States receive 70% of foreign students in OECD countries. However, while United Kingdom's market share is still second, it has seen the fastest decline among all OECD countries, from 16.2% in 1998 to 13.5% in 2003 (Table C3.7) and is now only marginally larger than Germany's share. While, like in virtually all OECD countries, foreign enrolment in the United Kingdom has grown in absolute terms, this growth rate was much smaller than in other countries.
- Proportional to their size, Australia (19%), Switzerland (18%), Austria (14%), New Zealand (13%), Belgium (11%) and the United Kingdom (11%) take in the most foreign students (Table C3.1).
- In absolute numbers, students from France, Germany, Greece, Japan, Korea and Turkey represent the largest sources of intakes from OECD countries. Students from China, India and Southeast Asia comprise the largest numbers of foreign students from partner countries.

Gender differences

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

- The balance of educational attainment between males and females in the adult population remains unequal in most OECD countries. Historically, females did not have sufficient opportunities and/or incentives to reach the same level of education as males and are generally overrepresented among those who did not proceed to upper secondary education and underrepresented at the higher levels of education. However, these differences are mostly attributable to the large gender differences in older age groups and significant progress has been achieved in recent decades in reducing the gender gap in formal educational qualifications. For the generation aged 45 to 54 years, the difference expressed in average duration of formal study favours females in only seven countries and for the generation around 60 years of age this difference favours females in only two countries. In contrast, the situation of the generation aged 25 to 34 years testifies to a complete inversion. For those around 30 years old, the average number of years of study completed is higher among females in 21 out of the 30 OECD countries, while differences between the genders were reduced in the other nine countries (Table A1.4).

In the United Kingdom tertiary education enhances earnings more for females than for males...

- Tertiary education enhances earnings relative to upper secondary education more for females than for males in Australia, Belgium, Ireland, Korea, Norway, Switzerland and the United Kingdom while the reverse is true in the remaining countries, with the exception of Belgium where, relative to upper secondary education, the earnings of males and females are equally enhanced by tertiary education (Table A9.1a).

...even if females earn still considerably less than males with similar qualifications.

- Nevertheless, although both males and females with upper secondary, post-secondary non-tertiary or tertiary attainment have substantial earnings advantages compared with those of the same gender who do not complete upper secondary education, earnings differentials between males and females with the same educational attainment remain



substantial. When all levels of education are taken together (*i.e.* total earnings are divided by the total number of income earners, by gender) the earnings of females between the ages of 30 and 44 range from 51% of those of males in Korea to 86% of those of males in both Hungary and Luxembourg; in the United Kingdom it is 56%. The gap in earnings between males and females may be explained by many factors, including differences in the amount of time that males and females spend in the labour force, and the relatively high incidence of part-time work among females. To some extent at least, it may also be due to different choices of career and occupations (Table A9.1b).

Large gender differences in educational attainment remain between the fields of university studies...

- Changing opportunities in the job market, relative earnings in different occupations and sectors, and admission policies and practices of tertiary education institutions may affect which fields students choose to study. However, there is no intrinsic reason why these patterns should vary across the genders. Nevertheless, the indicators show that, despite the rapid progress in the educational attainment of women, large gender differences remain across the different fields of study. Examining the share of female university-level science graduates as a proportion of 25-to-34-year-olds in employment provides one way of gauging the recent output of high-level skills in one sector. This share ranges from around 20% in Japan, Switzerland and the Netherlands to more than twice that percentage in France, the Slovak Republic, Korea, the United Kingdom (43%), New Zealand, Spain, Ireland, Portugal, Italy, Mexico and Turkey (Table A3.2).
- It is noteworthy that countries with a similar relative share of young women with science degrees differ markedly in the absolute number of young women with science degrees. For example, in Korea and the United States the share of female science graduates is both around 78%, but while, in Korea, there are more than 3,459 female science graduates per 100,000 25-to-34-year-olds in employment, in the United States this is 1,002. This underlines that countries differ markedly in their success in attracting women to science-related studies: in all countries women tend to be somewhat underrepresented in science fields. Similar variation can be observed at the other end of the scale. In Japan, Switzerland, the Netherlands, Austria, Norway and Germany, the share of young women in science employees is low both in relative (between 33 and 63%) and absolute terms (between 300 and 600 science graduates per 100,000 25-to-34-year-olds in employment) while, in Ireland and the United Kingdom, it is high in both relative (around 85%) and absolute terms (2,373 and 1,865 women per 100,000 25-to-34-year-olds in employment). Such differences suggest that these are outcomes that can be shaped by national contexts, policies and practices.
- An examination of today's graduate patterns as a predictor for the qualification of the future labour force shows that, overall, graduation rates no longer show significant differences between males and females in half of the OECD countries with available data. In fact, graduation rates for females exceed those for males in 18 out of 21 OECD countries for which total upper secondary graduation rates can be compared between the genders (Table A2.1). However, the results reveal still significant variation across fields of education for university study. While in the humanities, arts, education, health and welfare, more than two-thirds of university-level graduates are females, on average in OECD countries, this is less than one-third of mathematics and computer science graduates and less than one-fifth of engineering, manufacturing and construction graduates are females. But there are major differences among countries (*Education at a Glance 2004*). In Australia, Austria, Belgium, the Czech Republic, Denmark, France, Germany, Hungary, Iceland, the Netherlands, New Zealand, Norway, the Slovak



Republic, Spain, Switzerland, the United Kingdom and the United States, the proportion of females obtaining a first tertiary-type A qualification in mathematics and computer science is less than one third, while in Finland, Italy, Korea, Mexico, Portugal, Sweden and Turkey, it is between 40 and 52% (Table A3.6). These patterns have not significantly changed over recent years. In the field of mathematics and computer science, for example, only Finland and Sweden have seen marked increases in the share of female graduates since 1998 (Table C4.3a, *Education at a Glance 2000*). The results suggest that gender differences in occupational choices are not merely a reflection of historical patterns, but remain reflected in today's output of educational institutions.

... even if gender differences are often no longer visible in school performance.

- Many countries have launched initiatives to improve the attractiveness of mathematics and science-related university studies for female students, but to what extent do choices of educational and career pathways relate to prior performance and educational experiences much earlier in life? OECD's PISA results suggest that whilst gender differences in student performance in mathematics and science are modest (Table A4.2), there are marked differences between males and females in their interest in and enjoyment of mathematics as well as in their self-related beliefs, emotions and learning strategies related to mathematics (Table A3.3).

Notes

- “Non-formal education” is defined as any organised and sustained educational activities that are not typically provided in the system of schools, colleges, universities and other formal institutions that constitutes a continuous ladder of full-time education for children and young people. Non-formal education may take place both within and outside educational institutions, and cater to persons of all ages. For detailed definitions, see Indicator C6 in *Education at a Glance*.
- “Tertiary-level education” is defined as higher education (HE). Indicators cover both the current performance of the HE system and the proportion of the adult population (25-to-64-year-olds) who have attained HE qualifications. There are splits by gender and type of course – divided into vocational courses like HND (Type B in OECD parlance) and full-length (duration of more than three years) 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” is defined as schooling between the ages of 11 and 13.
- “Upper secondary education” identifies a level of attainment, not necessarily reached while the individual was actually participating in secondary education. In 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 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 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).



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