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).

- In Italy, tertiary enrolment increased by 8% between 1995 and 2002. However, despite this increase, tertiary completion in Italy is still very low, with only 23% of an age cohort completing a first university degree, compared with an OECD average of 32% and 45% in Australia and Finland (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.

- At 50% (44% for men and 57% for women), the university entry rate in Italy is now at the OECD average level. However, almost 60% of those who enter university in Italy never
complete with a qualification, which represents the highest drop-out rate among OECD countries (on average, the dropout rate is 30%) (Table A3.2). This suggests some level of mismatch between the needs and aspirations of students and what current university programmes offer. It is noteworthy that drop-out rates in Italy are much shorter in programmes with a duration of 3 to 4 years than in the traditional long Italian university programmes, suggesting that the move towards a more flexible multi-level qualification structure may, over time, lead to gains in efficiency.

**Higher tertiary participation rates are becoming visible in the qualification of the workforce, but only slowly.**

- As for the education level of the workforce, the effect of rising enrolment is 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. Since 1991, the proportion of 25-64-year-olds in Italy who have attained a tertiary qualification has increased from 6% to 10%. However, other countries, including Australia, Austria, Belgium, Canada, Denmark, France, Iceland, Ireland, Japan, Korea, Spain and the United Kingdom have seen growth rates between 5 and 9 percent over the same period.

**Growing educational success pays off, for individuals…**

- In general, people with tertiary qualifications command significantly higher salaries than those with only secondary education. In Italy, earnings for tertiary graduates in the age group 25-64 years are 38% higher on average than those for people with only secondary education, but the earnings advantage is below the OECD average (50%). They also stand a much stronger chance of finding jobs: In Italy 88% of men and 77% of women with university degrees are in employment (which is around the OECD average), compared with only 79% of men and 39% of women who ended their education at secondary level. These differentials are much larger than at the OECD average level, where the employment rate of 25-65-year-olds without upper secondary education is still 73% for men and 49% for women (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 (for Italy no comparative data are available). 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.

- However, the analysis also shows that rates of return are markedly lower for individuals who enter tertiary education later in life. This 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 the 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.

...as well as for economies.

- 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 Italy, the contribution of improvements in levels of educational attainment between 1990 and 2000 to labour productivity growth was, at 0.58 percentage points, the largest after Portugal and the United Kingdom among the 15 countries with comparative data (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.

- 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 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). For Italy, no trend data are available.

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). Between 1998 and 2002, Italy has seen a rise of 24% in foreign enrolment. However, that increase has been well below the OECD average increase of 35% and Italy’s market share of foreign students has fallen to 2%, compared with 30% in the United States, 12% in Germany and the United Kingdom, 10% in Australia, or 9% in France.

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, and in Italy, the share of women among first university degree holders is, at 61%, one of the highest in the OECD (Table A4.2). 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 (Italy 69%) but the earnings disadvantage tends to decrease with rising educational attainment.

...but progress has been uneven across fields of study.

Furthermore, the share of women differs across fields of study. Italy is the only country in which the number of men and women graduating from mathematics and computer science is equal, whereas in many other countries large gender differences persist, with the OECD average proportion of women graduating from mathematics and computer science at 30%. Also in the field of engineering, construction and manufacturing, Italy has an above-average proportion of women graduates, but it is, at 28%, low in absolute terms.

Education in Italy 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. Italy shows one of the highest participation rates among 3 to 4-year-olds in education (Table C1.2). This is accompanied by comparatively high levels of investment, that show Italy, with 5972 US dollar per child, at rank four behind the United States, Norway and the United Kingdom.

Spending per primary student is also above-average, but the spending choices made by the system are not obvious.

Expenditure per primary student is, at 6783 US dollars, well above the OECD average of 4850 US Dollars (Table B1.1). However, much of these resources are invested in a very low student/teaching staff ratio which, at 10.6 students per full-time equivalent teacher, is the lowest among OECD countries (OECD average 16.6) (Table D2.2). By contrast, primary teacher salaries in Italy continue to be, at US$ 27726 for primary teachers with 15 years of experience, well below the OECD average of US$ 31366 and are lower only in the Slovak Republic, Hungary, Turkey, Mexico, the Czech Republic, Iceland, Greece and Sweden (comparison after an adjustment with purchasing power parities, note also that teachers in Sweden receive significant additional amounts in the form of various bonuses). In part, this is compensated by a comparatively low average number of annual hours that primary teachers have to teach (748 hours compared with an OECD average of 803 hours) (Table D4.2).

The situation is similar at the secondary level.

The situation is similar at the secondary level. Also here, spending per student is at 8258 US$ well above the OECD average of US$ 6510, with much of these resources invested in low student/teaching staff ratios, while teacher salaries remain comparatively low. The fact that the performance of 15-year-olds in the major subject areas of reading, mathematics and science, that together account for more than 35% of instruction time for 9-11 year-olds and 43% for 12-14 year-olds in Italy (Table D1.2a), is well below the OECD average (Tables A6.3, A7.1 and A7.2) raises questions about these spending choices. This is even more the case as the total number of instruction hours in Italy is among the highest in the OECD (Table D1.1).

Also at the secondary level, comparatively low teacher salaries are, in part, compensated by a comparatively low average number of annual hours that secondary teachers have to teach (612 hours compared with an OECD average of 717 hours at the lower secondary level and 674 hours at the upper secondary level) (Table D4.2).
Spending per student has grown in real terms in primary and secondary education, and even more so in tertiary education.

- Italy’s expenditure per student has grown in real terms between 1995 and 2001, by 12% in primary and secondary education (OECD average 21%) and by 20% in tertiary education (OECD average 30%) (Table B1.5). At primary and secondary levels, spending increased while enrolment fell while, at the tertiary level, spending increases outpaced rising enrolment.

- Italy is one of nine OECD countries, where public spending on education has risen faster than GDP, from 4.7% in 1995 to 4.9% in 2001. However, mainly because of the below-average share of private spending on education in the GDP, total spending on educational institutions as a percentage of GDP remains, at 5.3%, below the OECD average of 5.6%.

- In primary and secondary education, much of educational spending is absorbed by current spending, leaving only 5.3% for capital spending (OECD average 8.4%). Of current spending, 64% is absorbed by teacher compensation and another 17% by compensation for other staff, leaving only 19% for other current spending such as educational materials or other student services (OECD average 19%).

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.

- For decisions relating to the organisation of instruction in schools, schools in Italy have a strong role, with virtually all decisions in this area taken by schools. This is similar as in most other countries (Table D6.2). In contrast, schools play only a minor role in decisions concerning personnel management, with 33% of relevant decisions taken by schools, compared to an OECD average of 44%. Also for decisions relating to the deployment of resources, Italian schools have much less decision-making power than this is the case in most other countries, with only 17% of relevant decisions taken by schools, compared with an OECD average of 41%. With regard to decisions on planning and structures, the role of schools in decision-making reflects that OECD average level.

- Looking at the role of various levels of government in educational decision-making, the role of schools and central government in educational decision-making are slightly stronger than at the OECD average level, while the role of state, regional, sub-regional and local levels tends to be somewhat weaker (Table D6.1). Much of this is the result of recent developments. Between 1998 and 2003, the share of decisions made by schools and local government increased by 15 and 11%, respectively, while the share of decisions made by central and provincial/regional governments decreased by 18 and 9% respectively.

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.