Education at a Glance 2008

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OECD Briefing Note For Finland

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

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

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

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

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QUANTITY AND QUALITY CHALLENGES

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

Global trends

Education systems continue to expand at a rapid pace...

- Tertiary attainment levels have increased substantially, for the first time reaching one-third of the cohort of 25-to-34-year-olds, on average across OECD countries. In France, Ireland, Japan and Korea, there is a difference of 25 percentage points or more in tertiary attainment between the older and younger age group (Table A1.3a). Between 1995 and 2006 alone, the university-level graduation rate rose, on average across countries, from 20 to 37% (Table A3.2) and more than half of those at the typical age of graduation completed their first tertiary-type A degree in Australia, Finland, Iceland and New Zealand (Table A3.1).
- The social sciences, business and law are the major educational fields in most countries. Across OECD countries, they constitute 28% of the overall tertiary-type A attainment in the population. On average, there are 3.6 times as many individuals with degrees in these fields in the younger cohort entering the labour market than in the older one nearing retirement age. By contrast, in the field of education, this ratio is close to 1 in the OECD countries (Table A1.5).

...and current entry rates suggest that these trends will continue.

• Entry rates in tertiary-type A education increased substantially between 1995 and 2006, 20 percentage points on average in OECD countries. growth 2000 and 2006, exceeded 10 percentage points in 11 of the 25 OECD countries for which data are available. In 2006, in Australia, Finland, Hungary, Iceland, New Zealand, Norway, Poland, the Slovak Republic and Sweden, and the partner country the Russian Federation, it is estimated that 65% or more of young adults will enter tertiary-

Key results for Finland

38% of 25-to34-year-olds in Finland have a tertiary qualification.

- Whereas, 27% of 55-to-64-year-olds have attained a tertiary qualification, it is now 38% among 25-to-34-year-olds (OECD average 33%) (Table A1.3a).
- Finland comes in as number one in terms of graduation rates from upper secondary programmes designed to prepare students for tertiary-type A education, over 90% (Table A2.2). This is probably a main factor which helps to secure Finland's top-5 status in terms of entry rates into tertiary education (over 70%). Only Australia, Iceland and Poland have higher entry levels (Table A2.4).

Finland continues to produce an above-average tertiary graduation rate...

- The graduation rate for first degree programmes in Finland remains, at 47%, significantly above the OECD average of 37% (Table A3.1).
- 2.1% obtain an advanced research qualification such as a Ph.D. well above the OECD average of 1.4%, putting Finland among the six countries with highest results on this indicator.
- International students make an increasing contribution to the tertiary graduate output in Finland. Among tertiary-type A second degrees (mainly Masters programmes) and advanced research programmes (including PhDs), but still no more than one-tenth of the graduate output can be attributed to international graduates (3% for tertiary-type A degrees and 10% for advanced research programmes) (Table A3.3). Compared to 2000, the number of foreign students enrolled in tertiary education in 2006 increased by 61% (Table C3.1). The enhanced attractiveness of Finland is likely related to the provision of many education programmes in English, and the absence of tuition fees for international as for domestic students.

- type A programmes. In almost all countries, the majority of new entrants choose to follow tertiary programmes in the field of social sciences, business, law and services (Tables A2.4, A2.5 and A2.6).
- Overall, females represent 54% of new entrants in tertiary education in OECD countries. However, the breakdown by gender varies considerably according to the field of education. In the fields of health and welfare, the arts and humanities, and education between 68 and 75% of new entrants are women. The proportion of women choosing science studies (including life sciences, physical sciences, mathematics, computing, engineering, manufacturing and construction and agriculture) ranges from less than 25% in Japan, the Netherlands, Spain and Switzerland and the partner country Chile, to more than 35% in Denmark, Iceland, Italy and New Zealand (Table A2.6).

...but growth has levelled off ...

- In 2002 Finland had, at 49%, the highest graduation rates for tertiary-type A programmes, well above the OECD average which stood at 31% (Table A3.2). The graduation rate in Finland had decreased to 48% by 2006, while the OECD average increased to 37%, with three countries now showing higher graduation rates: Australia, Iceland, New Zealand (Table A3.2).
- Rates of current participation suggest that more countries are likely to surpass Finland graduation rates. The increase in tertiary enrolment between 1995 and 2005 was, at 18%, considerably below the OECD average level of 40% and well below increases in the Czech Republic, Greece, Hungary, Iceland, Korea, Mexico, Poland, Portugal, the Slovak Republic and Sweden and partner countries Brazil, Chile, Estonia and Israel, that ranged from 44% to 161% during the same period (Table B1.5).

...although a recent rise in new entrants may reverse the picture in the future.

- The most recent figures on entry rates to tertiary-type A programmes show a sharp rise from 73% in 2005 to 76% in 2006, the first increase since 2003 (Table A2.5). In Australia, Hungary, Iceland, New Zealand, Norway, Poland, the Slovak Republic, Sweden and the United States as well as the Russian Federation more than 60% of young people entered tertiary-type A programmes in 2006 (Table A2.4).
- Post-secondary practical, technical or occupational skills programmes ("Tertiary-type B") in Finland are being phased out and the proportion of the age cohort graduating from these programmes has consequently fallen rapidly.

Finland continues to turn out a high proportion of science graduates.

- In Finland, there are some 2 289 people with university-level or advanced research qualifications in science per 100 000 employed 25-34-year-olds, compared with an OECD average of 1 340. (Table A3.6).
- However, a comparison of younger to older age groups with science as a field of study shows that the increase in science graduates over recent decades has been faster in OECD countries on average than in Finland. The ratio of 25-to-34-year-olds with a university-level science qualification plus 30-to-39-year-olds with an advanced research qualification to 55-to-64-year-olds university-level or advanced research qualification in science is 1.6 in Finland, compared with an OECD average of 4.1. The largest difference between the young and the old age group in Finland is in the field of health and welfare where the ratio is 3.9 (only Portugal is doing better with 4.9) compared with an OECD average of 2.2, suggesting a substantial shift towards this field of education among

younger individuals (Table A1.5).

This expansion relates to strong labour-market outcomes for those with advanced qualifications.

- Earnings increase with each level of education. Those who have attained upper secondary, post-secondary non-tertiary or tertiary education enjoy substantial earnings advantages compared with those of the same gender who have not completed upper secondary education (Table A9.1a). In 15 out of 21 countries with available data, the earnings premium for those with tertiary education increased during the last decade, often despite massive growth in tertiary participation. In Germany, Hungary, and Italy this increase has been between 30 and 40 percentage points (Table A9.2a).
- On average across countries, completion of tertiary education yields a 12 and 11% return for males and females, respectively, and returns are above 22% for males in the Czech Republic, Poland and Portugal. The rewards for tertiary education are relatively small in Germany, Norway, Spain, and Sweden where the rate of return ranges from 5 to 8% (Table A10.2). In most countries, the returns to investment in tertiary education in mid-career are lower, but still substantial enough to motivate the investment without government intervention (Table A10.4).
- Employment rates rise with educational attainment. With few exceptions, the employment rate for graduates of tertiary education is markedly higher than the rate for upper secondary graduates. For males, the gap is particularly wide between upper secondary graduates and those without an upper secondary qualification (Table A8.1a).
- Those with low educational attainment are both less likely to be labour force participants and more likely to be unemployed. Differences in employment rates between males and females are also wider among less educated groups.
- The labour-market penalties for low levels of education are particularly high for females. The chance of being employed is 23 percentage points higher for males than for females among those without upper secondary qualifications but falls to 10 points for the most highly qualified (Tables A8.1a and A8.2a).
- Employment rates tend to drop long before the stipulated retirement age in most countries. On average, employment rates among 55-to-64-year-olds are approximately 20 percentage points below those of the total working-age population (25-to-64-year-olds). However, employment rates increase with educational attainment in most countries, and in all countries

The labour-market benefits of tertiary education are high in Finland ...

- In Finland, the earnings advantage for tertiary level graduates aged 25 to 64 over persons with an upper secondary qualification is 49% (Table A9.1a). Tertiary graduates in Finland also have a much greater chance of finding jobs (Table A8.3a).
- The earnings advantage of 25-64-year-old tertiary graduates increased slightly in Finland from 48% in 1997 to 49% in 2004 (Table A9.2a). This suggests that the incentives for obtaining a tertiary qualification remain stable, despite the growth in tertiary qualifications.

...but vary somewhat between males and females.

- Although evidence that higher education brings earnings advantage for both males and females, males benefit more than females in Finland. Conversely in Australia, Austria, Canada, Korea, the Netherlands, New Zealand, Norway, Spain, Switzerland, Turkey and the United Kingdom, tertiary education enhances earnings relative to upper secondary education more for females than for males, 25-64 year-old age group at tertiary level of education (Table A9.1a).
- The gender earnings differentials with the same educational attainment remain large. All levels of education included, the earnings of females between the age of 30 and 44 range from 51% of those of males in Korea, to 84% of those of males in Luxembourg; in Finland this rates is 70% (Table A9.1b).

The private rates of return for education are strong even if below the OECD average ...

- Regarding private rates of return to tertiary education as well as the private rates of returns to upper secondary education or post-secondary non-tertiary education for males, Finland has among the eight highest rates (out of 19 OECD countries with available data).
- The private rates of return to tertiary education study in Finland are at 10.7% for males and 9.3% for females, just below the OECD average rates 12% for males and 11% for females (Table A10.1). Private rates of returns to upper secondary education or post-secondary non-tertiary education are below rates for tertiary education, standing at 10.2% for males and 7.9% for females (table A10.2).
- Weighing up the costs and benefits of education, the private rates of returns to both upper secondary education or post-secondary non-tertiary education and tertiary education shows relatively large differencies between males and females in Finland (2.3 and 1.4 percentage point difference, respectively) (Tables A10.1 and A10.2).

except Iceland, tertiary attainment provides an important employment advantage at an older age. The advantage is particularly large in the Czech Republic, Italy, Luxembourg and the Slovak Republic (Table A8.4).

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

• Across OECD countries between 1998 and 2006, there was a marked shift from semi-skilled jobs to skilled jobs, with an increase of almost 4 percentage points in skilled occupations and a close to 4 percentage point decline in semi-skilled occupations. In most countries, the decline has not been at the very low end of the skills distribution but among semi-skilled jobs, with the proportion of the population working in unskilled occupations remaining substantially unchanged (Table A1.6).

The proportion of skilled jobs is generally larger than the potential supply of tertiary graduates...

• In OECD countries, the proportion of skilled jobs in the economy is generally larger than the potential supply of tertiary educated individuals. For countries in which work-based learning is central to occupational advancement, this difference is large. A broader initial skill base might require additional investment in higher education. In a few countries, tertiary attainment matches or marginally exceeds the proportion of skilled jobs, so that further expansion of higher education will to some extent depend on the growth of skilled jobs in the coming years (Tables A1.3a and A1.6).

...but more recently the growth in the proportion of people with tertiary qualifications has generally been faster than the growth in skilled jobs, suggesting that the gap is closing.

• The increase in skilled jobs has been met and exceeded in most OECD countries by increases in the proportion of the population with tertiary attainment. are However, in most countries, there substantially more skilled jobs than tertiary educated individuals. On average, across OECD countries, 69% of all those with a tertiary type 5B qualification and 85% of those with a tertiary 5A/6 qualification have skilled jobs. However the matching of higher education to skilled jobs varies substantially among countries. Those with a tertiary 5A/6 qualification in Denmark, Finland, Luxembourg and the partner country Slovenia do substantially better in finding a skilled job given labour market conditions for those with tertiary education (Tables A1.6, A1.7, A3.2).

Finland saw a shift towards more skilled jobs in labour markets..

- As in most other contries, the proportion of skilled occupations in Finland increased by as semi-skilled occupations decline.
- Between 1998 and 2006, Finland saw a rise in the proportion of skilled occupations from 44 to 48%, comparable to the OECD average of 4 percentage point (Table A1.6).

The number of skilled jobs to be filled still outnumbers the supply of tertiary educated individuals.

- The difference between the proportion of 25-to-64-year-olds in skilled jobs and the proportion of 25-to-64-year-olds with tertiary education is 13 percentage points in Finland indicating that further expansion of tertiary education can still be an option, although this difference is not as pronounced as in many other countries (Tables A1.3a and A1.6).
- In Finland, the proportion of the working population with tertiary-type A or advanced research qualification who are in skilled jobs (92%) is above the OECD average, but a larger proportion than the average are legislators, senior officials or managers (19% against and OECD average of 14% in that occupational group), the fourth highest proportion among OECD countries (Table A1.7).

The internationalisation of tertiary education is proceeding rapidly.

- In 2006, over 2.9 million tertiary students were enrolled outside their country of citizenship. This represented a 3% increase from the previous year in total foreign student intake reported to the OECD and the UNESCO Institute for Statistics (Box C3.1).
- Student mobility *i.e.* international students who travelled to a country different from their own for the purpose of tertiary study ranges from below 1 to almost 18% of tertiary enrolments across OECD countries. International students are most numerous in tertiary enrolments in Australia, Austria, New Zealand, Switzerland and the United Kingdom (Table C3.1).
- France, Germany, the United Kingdom and the United States receive 49% of all foreign students worldwide. The largest absolute numbers of international students from OECD countries are from France, Germany, Japan and Korea. Students from China and India comprise the largest numbers of international students from partner countries (Chart C3.2).
- International students make up 15% or more of the enrolments in tertiary education in Australia and New Zealand and more than 20% of enrolments in advanced research programmes in Belgium, Canada, New Zealand, Switzerland, the United Kingdom and the United States (Table C3.1).C3.1).
- 30% or more of international students are enrolled in sciences, agriculture or engineering in Finland, Germany, Hungary, Sweden, Switzerland and the United States (Table C3.5).

New analyses of PISA data provide a first picture of school education from the perspective of parents.

- Among the 10 OECD countries with available data, on average, 77% of parents "strongly agreed or agreed" that standards of achievement were high in their child's school. On average, their children scored 20 score points higher on the PISA 2006 assessment than students whose parents "disagreed or strongly disagreed" with that statement. Much of the advantage remains when taking into account socio-economic factors (Table A6.2).
- An average of 79% of parents reported being satisfied with the disciplinary atmosphere in their child's school and 85% felt that the school did a good job of educating students. In both cases, their children had a performance advantage of 12 score points on average (Table A6.2b).

0.3% of foreign students worldwide are enrolled in Finland (Table C3.3).

- The extent of internationalisation is most pronounced in advanced research programmes, where foreign students represent 7.5% of enrolments, (and 10% of PhD. graduates) compared with tertiary type A, where international students represent less than 3% (and 3% of tertiary type A graduates). This is much below the level observed in the OECD enrollements averages: 18.5 and 8.5%, respectively (Table C3.1).
- Between 2000 and 2006, the number of foreign students enrolled in Finland increased by 61%, as a consequence the international education market share of Finland increased very slightly from 0.29% to 0.31% (Table C3.1 and Table C3.7 on the web).
- international students enroll in science and engineering programmes (9.8% and 29.9% of the total respectively). Large proportionof international students also enroll in social sciences, business and law, as well as in humanities and arts (23.7% and 16.4%, respectively) (Chart C3.4 and Table C3.5).
- International students have no tuition fees to pay, hence they provide no source of income for national universities (Box C3.3).

[No data available for Finland]

• On average, 88% of parents "strongly agreed or agreed" that their child's teachers seemed competent and dedicated, but the relationship to student performance was inconsistent across countries, with an average advantage of 7 score points (Table A6.3a).

For the first time, the indicators compare approaches to monitoring school standards.

- A total of 22 OECD and partner countries undertake student examinations and/or assessments and 17 require schools to be evaluated (either self-evaluations and/or inspections by an external body) at regular intervals. Student assessments (evaluations without civil effect for the student) are practised in 17 OECD and partner countries, whereas national examinations (with a civil effect for the student) are practised in 10 OECD and partner countries (Tables D5.1 and D5.2).
- School self-evaluations are required in 14 countries, generally on an annual basis (Table D5.6).
- School inspections are required in 14 countries, generally once every three years (Table D5.5). Although school self-evaluations are held more often than school inspections, evaluations by school inspectoratesappear in general to have more influence on schools and teachers in terms of the implications of the evaluation and the accountability structure (Tables D5.5 and D5.6).
- Both school evaluation and student performance measures are mainly used to provide performance feedback to schools (Tables D5.3 to D5.6). In general, they have relatively little influence on school financing and other financial implications such as changes to the school budget, provision of rewards or sanctions for schools, or remunerations and bonuses received by teachers (Tables D5.3 to D5.6).
- In a larger number of countries, the influence of school evaluations is greater than student examinations for the performance appraisals of schools (13 countries, compared to 7 for student examinations), for the appraisal of the performance of school management (9 countries, compared to 1 for student examinations) and the appraisal of the performance of individual teachers (4 countries, compared to 1 for student examinations) (Tables D5.3 to D5.6).

Finland places relatively low emphasis on assessment and evaluation.

- At the lower secondary level, Finland does not have national examinations but national periodical assessments in place for mathematics and national language, which are compulsory (Tables D5.1 and D5.2).
- The potential influence of assessments on performance feedback to schools is moderate. Finland does not make the results of the assessments publicly available (Table D5.4).

RESOURCE AND EFFICIENCY CHALLENGES

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

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

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

Global trends

OECD countries as a whole spend USD 8 553 per student annually between primary and tertiary education: USD 6 173 per primary student, USD 7 736 per secondary student and USD 15 559 per tertiary student. These expenditures continue to rise in real terms.

- Expenditure on educational institutions per primary, secondary and post-secondary non-tertiary student increased in every country and on average by 35% between 1995 and 2005 during a period of relatively stable student numbers.
- The pattern is different at the tertiary level where spending per student has fallen in some cases, as expenditure has not kept up with the expansion in student numbers. However, from 2000 to 2005, expenditure on educational institutions per tertiary student increased by 11 percentage points on average in OECD countries after remaining stable from 1995 to 2000. Only Australia, Austria, Denmark, Greece,

Key results for Finland

Spending per student in Finland is above the OECD average at the tertiary level but below average at the primary and secondary levels.

- To assess their potential impact on the quality of educational services, the resources invested in education need to be seen in relation to the number of students enrolled. On that measure, spending per student across all levels of education (excluding pre-primary education) in Finland is, at USD 7 711 (equivalent), slightly above the OECD average of USD 7 527 (Table B1.1a).
- Spending per student at the primary level (USD 5 557) in Finland is below the corresponding OECD average (USD 6 252), and spending per student at the secondary level (USD 7 324) is similarly below the OECD average (USD 7 804). At USD 12 285, spending at the tertiary level exceeds the OECD average of USD 11 512 (Table B1.1a).
- Different supply and demand factors have influenced

Iceland, Mexico, Poland, Portugal, Spain, Switzerland and the United Kingdom saw a larger increase in expenditure on educational institutions per tertiary student than in GDP per capita (Tables B1.4 and B1.5).

- Seven out of the 11 countries in which student enrolments in tertiary education increased by more than 20 percentage points between 2000 and 2005 have increased their expenditure on tertiary educational institutions by at least the same proportion over the period, whereas Hungary, Sweden and the partner countries Brazil and Chile did not (Table B1.5).
- Teacher compensation cost per student at the upper secondary level varies from 3.9% of GDP per capita in the Slovak Republic (less than half the OECD average rate of 10.9%) to over five times that rate in Portugal (20.9%, nearly twice the OECD average). Four factors influence these trends - salary levels, the amount of instruction time for students, the amount of teaching time required of teachers and average class size - so that a given level of compensation cost per student can result from quite different combinations of the four factors. For example, in Korea and Luxembourg, the compensation cost per student (as a percentage of GDP per capita) is 15.5 and 15.2%, respectively, both higher the **OECD** notably than average. However, whereas in Korea higher than average teacher salary levels coupled with relatively large class sizes are the main influence on this, in Luxembourg, relatively low class size is the main factor which results in such a high teacher compensation cost per student (as a proportion of GDP per capita) compared to the OECD average (Table B7.2).
- In countries with the lowest compensation cost per student (as a percentage of GDP per capita) at the upper secondary level, low salary levels as a proportion of GDP is usually the main driver. This is the case in Iceland, Ireland, Norway, Poland, the Slovak Republic and Sweden. The main exception to this pattern is Mexico where teacher salary costs relative to GDP per capita are well above the OECD average but this is more than compensated for by large class sizes (Table B7.2).
- In contrast, among countries with the highest levels of compensation cost per student (Portugal, Spain, Switzerland), no single factor determines this position, but rather each of the four factors act to increase costs to varying degrees (Table B7.2).
- High spending per student cannot automatically be equated with strong performance by education systems. Spending per student up to the age of 15 in the Czech Republic is roughly one-third of, and in

variation in spending per student across countries. In Finland, between 1995 and 2005, spending on primary and secondary education increased by 38% while enrolments rose by 13%, resulting in a spending increase per student of 22%. That is significantly less than the OECD average increase of 34% in per-student spending (Table B1.5).

Finland shows low level of spending per child in preprimary education, consistent with low participation.

• Finland invests less per child than other countries (except Czech Republic, Japan, Korea, Mexico, Poland, Slovak Republic, Switzerland) at the pre-primary level (at USD 4 395, unit spending is lower than the OECD average spending per child of USD 4 888) (Table B1.1a). This is consistent with the relatively low rate of participation of 4-year-olds at 44% compared with 69.4% on average across OECD countries (Table C2.1)

At the upper secondary level, average costs per student are driven by higher average class sizes.

- In an analysis new to this year's edition of *Education at a Glance*, comparisons of salary costs per student (as a percentage of GDP per capita) at the upper secondary level are decomposed into factors that influence these costs. Finland has a lower than average salary cost per student at the upper secondary level. While below-average teaching time increase compensation cost per student relative to the OECD average, relatively high class sizes decrease significantly compensation cost per student relative to the OECD average. (Table B7.2 and chart B7.1).
- This analysis shows the contrasts with the policy choices made in some other countries. For example, in France, where costs per student are similar to those of the UK, these costs are instead driven by long instruction hours for students, which outweigh the effect of below average teacher salary costs. These comparisons show that the same levels of expenditure can be deployed quite differently and serve to illustrate the relationship between expenditure whv performance is not straightforward. Indeed, cumulative expenditure per student aged between 6 and 15 explains merely 15% of the variation in mean PISA performance in science. Despite cumulative expenditure below the OECD average in Finland (USD 64 363 against USD 67 895), Finland's mean score in PISA performance in science is the highest (Chart B7.2, Table B7.1).

In tertiary education, a below-average increase in spending in Finland exceeded the below-average increase in student enrolment.

• At the tertiary level, a below-average increase in spending in Finland (29% compared with 57% of

Korea roughly one-half of, spending levels in the United States. However, while both the Czech Republic and Korea are among the top ten performers in the PISA 2006 assessment of science achievement among 15-year-olds, the United States performs below the OECD average. Similarly, Spain and the United States perform almost equally well, but while the United States spends roughly USD 95 600 per student up to the age of 15 years, Spain only spends USD 61 860 (Table B7.1).

average across OECD countries) exceeded the belowaverage increase in student enrolment (18% compared with 40% of average across OECD countries), so that spending per student increased by 9% in real terms between 1995 and 2005. This was a lower increase in per student spending than across the OECD on average (12%). Finland has the third lowest increase in per student spending but overall the development of expenditure per student at tertiary level was close to OECD average (Table B1.5 and chart B1.7).

- Expenditure per student at the tertiary level is still well above the OECD average (Table B1.1a).
- Notably, however, there are also 6 countries where spending per student has fallen. In Hungary and Ireland, spending per student has fallen by about 10% or more, as spending levels have not kept pace with expanding student numbers (Table B1.5).
- In the context of increase in tertiary student numbers, the student to teacher ratio at tertiary type A level in Finland has slightly increased from 15.7 in 1999 to 15.8 in 2006, against the trend across OECDcountries, where the average ratios decreased from 16.2 to 15.3 (Table D2.2 and Education at a Glance 2001 Table D5.1).

High completion rates are an indicator of educational efficiency.

• In Finland, 72% of those who enter tertiary-type A programmes go on to successfully complete their programme. This is just above the OECD average of 69%. However, Finland was the 6th highest rate out of 19 OECD countries with available data (table A4.1).

OECD countries spend 6.1% of their collective GDP on educational institutions. However, the increase in spending on educational institutions between 1995 and 2005 fell behind growth in national income in nearly half of the 28 OECD countries for which data are available.

- The highest spenders on educational institutions are Denmark, Iceland, Korea, the United States and the partner country Israel, with at least 7% of GDP accounted for by public and private spending on educational institutions, followed by Mexico and New Zealand with more than 6.5%. By contrast, seven out of 28 OECD countries for which data are available as well as three out of six partner countries spend less than 5% of GDP on educational institutions; in Greece and in the partner country the Russian Federation, the figure is 4.2 and 3.8%, respectively (Table B2.1).
- Tertiary education accounts for nearly one-third of the combined OECD expenditure on educational institutions (2.0% of the combined GDP). In Canada

Starting from a comparatively high base by OECD standards, Finland investment in education has decreased, not in absolute terms but relative to national income.

- Over the period 1995-2005, spending on educational institutions in Finland increased by 36%, which is low compared to the OECD average, 42%. Over the same period, GDP increased by 43%, which is higher than the 37% on average across OECD. As a result, total expenditure on educational institutions as a percentage of GDP decrease by 0.30 percentage point while OECD on average registered an increase of 0.15 percentage point. (Tables B2.1 and B2.3).
- Finland is the 8th country among 12 OECD countries with the decreasing educational expenditures as a percentage of GDP over this 10-year period (Tables B2.1).
- Expenditure in school education increased between 1995 and 2005 by 36% and by 43% in tertiary education.

and the United States, expenditure at this level reaches up to 40% of expenditure on educational institutions (Table B2.1). Relative to GDP, the United States spends over three times more on tertiary education than Italy and the Slovak Republic and nearly four times more than the partner countries Brazil and the Russian Federation.

• On average across OECD countries, expenditure for all levels of education combined increased relatively more than GDP between 1995 and 2005. The increase in expenditure on educational institutions as a proportion of GDP exceeded 0.8 percentage points over this decade in Denmark, Greece, Mexico and the United Kingdom (Table B2.3).

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

- On average over 90% of primary, secondary and post-secondary non-tertiary education in OECD countries, and other than in Korea, no less than 80%, is paid for publicly (Table B3.2a).
- In tertiary education the proportion funded privately varies widely, from less than 5% in Denmark, Finland and Greece, to more than 40% in Australia, Canada, Japan, New Zealand, the United States and in the partner country Israel, and to over 75% in Korea and the partner country Chile. As with tertiary graduation and entry rates, the proportion of private funding can be influenced by the incidence of international students who form a relatively high proportion of the student body in Australia and New Zealand (Table B3.2b).
- On average among the 18 OECD countries for which trend data are available, the share of public funding in tertiary institutions decreased slightly from 79% in 1995 to 77% in 2000 and to 73% in 2005. However, the increase in private investment has not displaced but complemented public financing, the amount of public funding has simply tended to increase at a lower rate (Table B3.2b).
- In eight out of the 11 OECD countries with the largest increase in public expenditure on tertiary education between 2000 and 2005, tertiary institutions charge low or no tuition fees. The exceptions are Korea, the United Kingdom and the United States (Indicator B5).
- In tertiary education, households account for most private expenditure in most countries for which data are available. Exceptions are Canada, Greece, Hungary, the Slovak Republic and Sweden where

(Table B2.3).

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

- Below the tertiary level, the proportion of spending on capital costs in Finland is, at 8.6%, slightly above the OECD average level of 8.2% (Table B6.2b).
- In contrast, the share of capital spending at the tertiary level is, at 4.2%, considerably below the OECD average of 9.5% (Table B6.2b).

Public funding on educational institutions remains above the OECD average in Finland but private funding is increaseasing somewhat.

- Taking all levels of education together, private spending in Finland rose faster than public spending between 2000 and 2005 as was the case in nearly three-quarters of the countries with comparable data, but only Mexico, Portugal, the Slovak Republic and the United Kingdom recorded increase of more than 5 percentage points (Table B3.1). [Note that private spending originates both in households and other private entities and can go to private as well as public institutions.]
- The proportion of public expenditure on educational institutions for primary, secondary and post-secondary non tertiary education represented 99.5% in Finland in 1995 and remains at 99.2% in 2005 (Table B3.2a EAG 2007, Table B3.2a). In 2005, The proportion of public expenditure on educational institutions for all levels of education in Finland, 97.8% is the highest above the OECD average standing at 85.5% (Table B3.1).
- On the one hand, public spending on tertiary education in Finland rose by 14% between 2000 and 2005, while average relative proportion of public expenditure across OECD increased by 26%. At the same time, private spending increased by 62%, representing 1/3 of the OECD average increase (Table B3.2b).
- At the pre-primary level, where the relative proportions of public and private funding range from 100% public in Sweden to 41.1% in Korea, the public funding share in Finland remained at 91.1% in 2005, significantly above the OECD average of 80.2% (Table B3.2a).
- At the primary and lower secondary levels in Finland, the private share of funding increased from 0.7% to 0.8% (the smallest increase in percentage points with Belgium, France, Portugal and Sweden). Moreover, in

private expenditure from entities other than households is more significant (Table B3.2b).

both years this represented the lowest private funding proportions with Portugal and Sweden among the 26 OECD countries reporting data for both years (Table B3.2a).

On average, OECD countries devote 13.2% of total public expenditure to education, but values for countries range from 10% or below in the Czech Republic, Germany, Italy and Japan to more than 23% in Mexico.

- Between 1995 and 2005, education took a growing share of total public expenditure in most countries, and on average grew at a similar pace than GDP. Denmark, the Netherlands, New Zealand, the Slovak Republic, Sweden and the partner country Brazil saw the largest shifts in favour of education (Table B4.1).
- On average across OECD countries, 85% of public expenditure on education is transferred to public institutions. In two-thirds of OECD countries, as well as in the partner countries Brazil, Estonia and Slovenia, the share of public expenditure on education going to public institutions exceeds 80%. The share of public expenditure transferred to the private sector is larger at the tertiary level than at primary to post-secondary non-tertiary levels and reaches 26% on average among OECD countries for which data are available (Table B4.2).

Education has received a growing share of the public budget.

- Over 1995-2005 period, the share of all public spending devoted to educational institutions at all levels in the system, or paid in the form of subsidies to households, increased from 11.0 to 12.5% in Finland, while the OECD average increased by 1.3 percentage points (from 11.9 to 13.2%).
- The share of public expenditure devoted to education has increased in Finland mainly over the period 1995-2000 and has remained stable between 2000 and 2005 (Table B4.1).

There are large differences among OECD countries in the average tuition fees charged by tertiary-type A public institutions, as well in how students pay for them.

- In eight OECD countries public institutions charge no tuition fees, but in one-third of countries public institutions charge annual tuition fees for national students in excess of USD 1 500. Among the EU19 countries, only the Netherlands and the United Kingdom have annual tuition fees that represent more than USD 1 000 per full-time student; these relate to government-dependent institutions (Table B5.1a).
- When tuition fees are charged, tertiary institutions are responsible for setting tuition fee levels in almost all countriesas well as. Only the Netherlands, Spain and Switzerland have levels of tuition fees set exclusively by educational authorities (at central, regional or local levels) at least for some of their tertiary institutions (Table B5.1d).B5.1d).
- An average of 18% of public spending on tertiary education is devoted to supporting students, households and other private entities. In Australia, Denmark, the Netherlands, New Zealand, Norway, Sweden and the partner country Chile, public subsidies to households account for some 27% or more of public

Finland and its neighbours continue to not charge tuition fees for higher education.

• In Finland as well as the other Nordic countries (Denmark, Iceland, Norway and Sweden) tertiary education is typically free of any tuition fees (Chart B5.1). At the same time students in Finland, as well as the other Nordic countries, also generally enjoy generous government back scholarships and loans for covering living expenses during their tertiary studies (Chart B5.3) which makes higher education an attractive alternative for young adults. This is also evident in the entry rates at tertiary-type A level of education which is at 76% in Finland, substantially above the OECD average of 56% (table A2.5). These generous terms are however paid back later in the working life as individuals are progressively taxed in accordance with their earnings.

tertiary education budgets (Table B5.2).

- Low annual tuition fees charged by tertiary-type A institutions are not systematically associated with a low proportion of students who benefit from public subsidies. In tertiary-type A education, the tuition fees charged by public institutions for national students are negligible in the Nordic countries and in the Czech Republic and are low in Turkey. And yet more than 55% of the students enrolled in tertiary-type A education in these countries can benefit from scholarships/grants and/or public loans. Moreover, Finland, Norway and Sweden are among the seven countries with the highest entry rate to tertiary-type A education.
- OECD countries in which students are required to pay tuition fees and whocan benefit from particularly large public subsidies do not show lower levels of access to tertiary-type A education than the OECD average. For example, Australia (82%) and New Zealand (79%) have among the highest entry rates to tertiary-type A education, and the Netherlands (59%) and the United States (64%) are above the OECD average. The United Kingdom (51%) and partner country Chile (48%) are just below the OECD average (54%), although entry to tertiary-type A education increased by 4 and 6 percentage points, respectively, between 2000 and 2005 in these countries.

Instruction time, teachers' salaries, and studentteacher ratios vary widely among countries, which affects the level of expenditure per student.

- The choices countries make about how many hours and years students spend in the classroom and the subjects they study reflect national priorities and preferences. Budgetary considerations also help shape education: Teachers' salaries represent the largest single cost in providing school education and, as such, are a critical consideration for policy-makers striving to both maintain the quality of education and to contain spending. While class size has become a hot topic in many OECD countries, evidence on its impact on student performance is mixed.
- Differences in teachers' salaries, along with other factors such as student-to-staff ratios (see Indicator D2), provide some explanation of the differences in expenditure per student (see Indicators B1 and B7).
- Salaries of teachers with at least 15 years' experience at the lower secondary level range from less than USD 15 000 in Hungary and in partner countries Chile and Estonia to USD 51 000 or more in Germany, Korea and Switzerland, and exceed USD 90 000 in Luxembourg (Table D3.1).

Finland continues to support teachers with high salary increases but salaries are generally still below the OECD average.

- Newly qualified teachers in Finland at primary level can expect to earn a yearly salary of USD 27 708, just below the OECD average of USD 27 828. Salaries rise with experience: teachers in primary level earn USD 35 798 after 15 years of experience. The OECD average after 15 years is slightly higher at USD 37 832 (Table D3.1).
- As it is the case in most OECD countries, teachers's salaries also increase with the level of education being taught. For example, the salary of an upper secondary teacher with 15 years experience varies from 1% higher than that of a primary school teacher with the same experience in the United States to 47% in the Netherlands; Finland standing at 19% just above the OECD average at 15% (Table D3.1).
- Between the period 1996 and 2006, salaries in Finland for newly trained teachers rose by 32%, 30% and 27% for teachers in primary, lower secondary and upper secondary level respectively. This marks one of the highest salary increases in OECD area, with only Hungary providing a higher increase at all levels (Table D3.2).

- Salaries for teachers with at least 15 years' experience in lower secondary education are over twice the GDP per capita in Korea, whereas in Norway, and in partner countries Estonia and Israel, salaries are 75% or less than the GDP per capita.
- Teachers' salaries have risen in real terms between 1996 and 2006 in virtually all countries, with the largest increases in Finland, Hungary and Mexico (and in starting salaries in Australia) and in partner country Estonia. Salaries at the primary and upper secondary levels in Spain fell in real terms over the period, although they remain above the OECD average (Tables D3.1 and D3.2).
- On average in OECD countries, upper secondary teachers' salaries per teaching hour exceed those of primary teachers by 44%; the difference is 5% or less in New Zealand, Scotland and the partner country Chile and is equal to or greater than 75% in Denmark and the Netherlands (Table D3.2).

The average class size in primary education is slightly more than 21 students per class, but varies from 32 in Korea, to fewer than half that number in Luxembourg and the partner country the Russian Federation.

- The average class size in lower secondary education is 24 students per class, but varies from about 30 or more in Japan, Korea and Mexico and the partner countries Brazil, Chile and Israel, to 20 or fewer in Denmark, Iceland, Ireland (public institutions), Luxembourg and Switzerland and the partner country the Russian Federation (Table D2.1).
- Between 2000 and 2006, differences in average class sizes among OECD countries have somewhat diminished. Class size tended to decrease in countries that had relatively large class sizes in 2000 (such as Japan, Korea and Turkey) whereas it increased in some of the countries with relatively small class sizes (such as Iceland) (Tables D2.1 and D2.4 available online).

Although data is unavailable on average class sizes in Finland, information is available on student/teacher ratios which are low in Finland

• Figures on ratio of students to teaching staff demonstrates the high availability of resources in Finland: the ratio of students to teaching staff is 15.0 for primary schools (OECD average 16.2), 12.9 for secondary education (OECD average 13.2), and 15.8 for tertiary-type A education including advanced research programmes (OECD average 16.0).

Students in OECD countries are expected to receive, on average, 6 907 hours of instruction between the ages of 7 and 14, of which 1 591 hours take place between ages 7 and 8, 2 518 between ages 9 and 11, and 2 798 between ages 12 and 14. The large majority of intended hours of instruction are compulsory.

• In OECD countries, 7-to-8-year-olds receive an average of 770 hours per year of compulsory instruction time and 796 hours per year of intended instruction time in the classroom. Those aged 9 to 11 receive about 40 compulsory hours more per year than

Finland has the lowest instructions time of all OECD countries

• The average number of intended instruction hours, of which the large majority are compulsory, in public institutions per year is 2 210 hours in Finland (between 7 and 14 years) compared with the OECD average of 2 567. However, instruction time increase with student's age. In Finland, students between the ages of 7 and 8 receive 608 hours per year of compulsory instruction, whereas, students between 9 and 11 years receive 640 hours, students in the 12 to 14 year age bracket receive 777 hours and those aged 15 receive 856 hours (Table

7-to-8-year-olds and those aged 12 to 14 receive just over 86 hours more per year than 9-to-11-year-olds (Table D1.1).

• On average across OECD countries, the teaching of reading, writing and literature, mathematics and science represents nearly 50% of the compulsory instruction time for 9-to-11-year-olds and 40% for 12-to-14-year-olds. For 9-to-11-year-olds, the proportion of compulsory curriculum devoted to reading, writing and literature varies widely from 13% in Australia to 30% or more in France, Mexico and the Netherlands (Table D1.2).

The number of teaching hours in public lower secondary schools averages 717 hours a year but ranges from 548 hours in Korea to over 1 000 in Mexico (1 047) and the United States (1 080).

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

D1.1).

• Not surprisingly, and following trends in other OECD countries, reading, writing and literature takes up the most of instruction time followed by mathematics and science. However this difference between hours of instruction time by subject decreases with student's age. For example reading, writing and literature takes up 21% of compulsory instruction time for 9-to-11 year olds, compared with only 13% of time in 12-to-14 year olds group. For the younger age groups, 18% of time is spent on mathematic whereas it drops to 13% for older children (Table D1.2a and Table D1.2b).

In Finland, the teaching load remains comparatively low.

- The net teaching time for Finnish primary school teachers is, at 673 hours per year, the fourth lowest of the 25 OECD countries with comparable data (the OECD average is 812 hours) (Table D4.1).
- These relations are similar at the secondary level of education, although differences between the Finland and the OECD average tend to be smaller. For example, net teaching time for upper secondary is 589 hours in Finland and the OECD average is 717 hours.

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EQUITY CHALLENGES

While individuals with high level qualifications continue to see strong labour-market returns, those without strong baseline qualifications, defined by the OECD as those who have not attained a qualification at the upper secondary level, have seen rapidly-deteriorating labour market prospects in most countries. It is therefore increasingly important for education and training systems to ensure that young adults leave schools with strong baseline qualifications or attain these subsequently. **Education at a Glance 2008** provides a range of indicators on disparities in educational attainment and their labour-market consequences.

Global trends

Key results for Finland

In most OECD countries, virtually everyone now has access to at least 12 years of formal education and full enrolment (defined here as enrolment rates exceeding 90%) tends to begin between the ages of 5 and 6, but there is significant variability both at the beginning and ending of initial education.

- At least 90% of students are enrolled in education in an age range spanning 14 or more years in Belgium, France, Germany, Hungary, Iceland, Japan, Norway and Spain. In contrast, Mexico and Turkey have enrolment rates exceeding 90% for only nine and six years, respectively; the corresponding figure for the partner country the Russian Federation is nine years (Table C2.1).
- Enrolment rates for children 4 years or younger range from less than 25% in Korea and Turkey to over 90% in Belgium, Denmark, France, Germany, Iceland, Italy, New Zealand, Spain and the United Kingdom (Table C2.1). Young children are more likely to be enrolled in the countries of the European Union than in other OECD countries (the enrolment rate for 3-to-4-year-olds averages 76.7% for the EU19, while the OECD average is 69.4%) (Table C2.1).
- Enrolment rates for 15-to-19-year-olds increased on average from 74 to 81% from 1995 to 2006. In Belgium, Greece and Poland, and the partner country Slovenia, they reached more than 90% in 2006 (in Belgium they had already reached this level in 1995). The pattern is similar for 20-to-29-year-olds, an age group in which most students are enrolled in tertiary education; between 1995 and 2006, their enrolment rates increased in all OECD countries except Portugal (Table C2.2).

If Finland is among the countries with lowest participation rate of children below 4 years old, they keep improving.

- 44% of children 4 and under (as a percentage of the population aged 3 to 4) are participating in pre-primary programmes (OECD average 69%). The rate has almost doubled since 1998, when it was at 23.5% (Table C2.1 and Table C1.2 in *Education at a Glance 2000*).
- At 87.9%, the enrolment rate for 15-19 year olds in Finland is above the OECD average of 81.5% and just below rates of the top countries Belgium, Czech Republic, Germany, Greece, Netherlands and Poland (Table C2.1).
- In Finland, the population has long had high standards of education at the older stage. It is the fith highest enrolment rate of students aged 40 years old and over (3.2%), representing more than twice the OECD average (1.4%)(Table C2.1).

The proportion of individuals who have completed upper secondary education has been growing in almost all OECD countries and is now the norm among the younger cohorts, but a significant minority remains left out.

• In the last 11 years, the proportion of students graduating from upper secondary programmes has increased by seven percentage points on average in

Finland's effort to improve overall levels of education and make upper secondary education a norm started in the 1970s, it is thus not surprising for Finland to see its ranking improving along with younger age cohorts.

• Ranked by upper secondary educational attainment in the population, Finland occupies the 12th position among 55-to-64-year-olds (*i.e.* those who completed school some 40 years ago) in the 29 OECD countries OECD countries with available data. In 17 of 24 OECD countries, the ratio of upper secondary graduates to the population at the typical age of graduation is 80% or higher and in the Czech Republic, Finland, Germany, Greece, Iceland, Japan, Korea and Norway it exceeds 90%. However, in Luxembourg, Mexico, New Zealand, Spain, Sweden, Turkey and the United States, more than 20% leave school without attaining an upper secondary degree (Tables A1.2 and A2.2).

- Those who have attained at least upper secondary education enjoy substantial earnings advantages (Chart A9.4). For many countries, the earnings disadvantage of those without upper secondary qualifications has significantly worsened (Table A9.2a).
- Gender differences in employment and unemployment rates are largest among those without upper secondary education (Chart A8.1)

with data, the 8th position among 45-to-54-year-olds, the 7th position among 35-to-44-year-olds and the 6th position among 25-to-34-year-olds.

- By contrast, Korea's effort started later than in Finland but the increase has been greater. In 2006, Korea ranks 23rd among 45-to-54-year-olds but 1st among 25-to-34-year-olds.
- Note that the individuals (25-to-34-year-olds in 2006) in this analysis passed the age of sixteen in between 1986 and 1996 (Table A1.2a).

High upper secondary graduation rates suggest that this trend will continue.

• The upper secondary graduation rate in Finland is 95%, compared with an OECD average of 83% (Table A2.1).

In Finland, employment rates are are relatively favourable.

- Since 2001, employment rates among university, upper secondary as well as below upper secondary graduates in Finland have been at or above the corresponding OECD averages. However, the detailed rates for males and females tell a different story. Male employment rates are below OECD averages, while female employment rates are above OECD averages (Table A8.3a, b and c).
- For those who have not completed upper secondary level of education, employment rates are, at 58.4%, 17.2 percentage points below the corresponding rate for upper secondary education (75.6%), and 26.6 percentage points from the employment rate of those who have completed tertiary education (85.0%) (Table A8.3a). Differences in the employment probabilities accruing to different levels of educational attainment tend to have slightly decreased over the last decade, the differences in 1997 between the precited categories were 17.5 and 27.9 percentage points respectively (Table A8.3a).
- The penalties from not completing higher education measured as the proportion of the difference in employment rates between levels of education is higher for females than for males. For instance, employment rate of males without upper secondary education is 25 percentage points lower than for males with tertiary education, while the difference reaches 30 percentage points for females.
- Finland benefits from a balanced distribution of earnings around the median, indicating relatively low disparities.
- The penalties from not completing upper secondary education are also visible in the distribution of earnings. The share of 25-to-64-year-olds with high incomes

(defined here as twice the country median or more) is in most countries significantly higher among those with tertiary type A qualifications than among upper secondary graduates. Nonetheless, for Finland, the share of those with tertiary type A qualifications with high income is among the lowest of all OECD countries, at 23% (Table A9.4a). Among 25-to-64-year-olds in Finland without upper secondary qualifications, about 26% earn half or less than the national median (the OECD average is 24%) (Table A9.4a).

Some countries have been successful in improving educational opportunities among youths in difficult labour-market situations.

- Most OECD countries have expanded their education system to accommodate more of the younger cohorts. For 15-to-19-year-olds, recruitment to education has largely taken place among individuals outside the labour market (not in education or employment) and to a lesser extent among employed individuals. With few exceptions, policies to expand education systems have thus helped to lower unemployment and inactivity among young adults (Tables C4.1b).
- The 15-to-19-year-old population that is not in education is generally associated with being unemployed or out of the labour force. Some countries are better able than others to provide employment for young adults with relatively low educational attainment. In Iceland, Japan and Norway, more than 70% of this age group not in education have employment (Table C4.2a).
- On average, completing upper secondary education reduces unemployment among 20-to-24-year-olds by 7.4 percentage points and that of 25-to-29-year-olds by 6.2 percentage points. The lack of an upper secondary qualification is a serious impediment to finding employment, and a tertiary qualification further increases the likelihood of job seekers finding employment (Table C4.3).

Finland has been successful in improving educational opportunities among youths in difficult labour-market situations.

- In Finland, the 11.9% of the population aged 15-19 years not in education in 2003, dropped to 8.2% in 2006 (Table C4.4a). This is now the 4th lowest rate among OECD countries. In 2006, the percentage of this group who are not only out of education but also unemployed is, at 1.7%, the second lowest among the countries compared (Table C4.3).
- In Finland, the average number of expected years in education among 15-to-29-year-olds is higher for females: 8.8 years compared with 7.9 years for males. Both are much higher than the OECD average of 6.9 years for females and 6.5 for males (table C4.1a).
- School enrolment rates are high. Despite gains made by OECD country Greece and partner countries in Eastern Europe over the past decade, Finland has continued to rank 7th among OECD countries for enrolment rates among 15-to-19-year-olds (Table C2.2). Finland has ranked 1st for enrolment rates of 20-to-29-year-olds over the past decade, with 30% of 20-to-29-year-olds enrolled in education in 1996, 36% in 1999 and 43% in 2006.

Continuing education and training often does not reach those who need it most.

• In many countries, non-formal continuing education and training now also plays a significant role in raising the stock of knowledge and skills. There are major differences among countries in the number of hours that individuals can expect to spend in non-formal jobrelated education and training over a typical working life. At the tertiary level, it ranges from less than 350 hours in Greece, Italy and the Netherlands to more than 1000 in Denmark, Finland, France and Switzerland (Table C5.1a).

The intensity of participation in non-formal job-related education and training is comparatively high in Finland.

- In Finland, between the ages of 25 and 64, the total expected number of hours in non-formal job-related training per worker is 669, above the OECD average of 389 hours (Table C5.1a). Employed women can expect to spend more hours in non-formal job-related education and training than employed men, 701 versus 637, respectively.
- At below upper secondary level of education, the total expected number of hours in non-formal job-related

- The relative intensity (number of hours) of nonformal job-related education and training typically increases sharply with educational attainment (except in the United Kingdom, Italy and the Netherlands). The expected hours in non-formal job-related education and training among 25-64-year-olds with tertiary qualifications is, on average across countries, nearly twice as high as among those with upper secondary qualifications and more than three times as high as among those without upper secondary qualifications (Table C5.1a).
- An older worker with tertiary education can expect to receive at least 70% of the education and training of a younger worker in Denmark, Sweden and the United States, but the proportion falls below 20% in France, Hungary and the Netherlands. Adults with higher levels of educational attainment are more likely to participate in non-formal job-related continuing education and training than adults with lower educational attainment (Table C5.1a).

Countries vary greatly in how well they succeed in enabling students from blue-collar backgrounds to participate in higher education.

- Ireland and Spain stand out as providing the most equitable access to higher education, whereas in Austria, France, Germany and Portugal students from a blue-collar background are about one-half as likely to be in higher education compared with what their proportion in the population would suggest (Indicator A7).
- When measuring the socio-economic status of students in higher education by their fathers' educational background large differences between countries emerge. In many countries, students are substantially more likely to be in higher education if their fathers completed higher education. Students from such a background are more than twice as likely to be in higher education in Austria, France, Germany, Portugal and the United Kingdom than are students whose fathers did not complete higher education. In Ireland and Spain this ratio drops to 1.1 and 1.5, respectively.
- Among the countries providing information on the socio-economic status of students in higher education it appears that inequalities in previous schooling are reflected in the intake of students from less advantaged backgrounds. The countries providing more equitable access to higher education such as Finland, Ireland and Spain were also the countries with the most equal between-school performances, as show by data collected in 2000 by OECD PISA.

training per worker is almost 500 hours. At the tertiary level of attainment, the expected number of hours in non-formal job-related training per worker is more than 1 000 hours.

- In some instances individuals in Finland with attainment below the upper secondary level can expect to spend more hours in non-formal job-related continuing education and training than persons in other countries who have attained a tertiary level of education. Finland is thus one of the more equitable countries in providing education and training for all individuals regardless of their previous education.
- In line with this is also the high level of participation rate in non-formal job-related education and training (36%) in Finland compared with the OECD average (18%).
- Against the general trend, there is an increase in expected non-formal job-related learning between the ages of 25 to 34 and 35 to 44 in the Czech Republic, Denmark, Finland and Sweden (Chart C5.3).

Finland provides relatively equitable access to higher education

- In Finland, 48% of students in higher education had fathers who themselves also had a higher education qualification, while this was only the case for 28% of fathers of men in the same age group (Chart A7.2).
- Among the countries providing information on the socio-economic status of students in higher education it appears that inequalities in previous schooling are reflected in the intake of students from less advantaged backgrounds. Countries providing more equitable access to higher education such as Finland, Ireland and Spain were also the countries with the most equal between school performances in PISA 2000.

In almost half of the countries, the majority of upper secondary students are enrolled in vocational programmes. However, in key subject areas, the performance of students in vocational programmes tends to lag considerably behind student performance in general programmes.

- In 13 out of 28 OECD countries and the partner country Slovenia, the majority of upper secondary students are enrolled in pre-vocational and vocational programmes. In most OECD countries, a significant proportion of upper secondary vocational education is school-based (Table C1.1).
- In OECD countries with available data, vocational qualification is concentrated in engineering, manufacturing and construction at both the upper secondary (34%) and post-secondary non-tertiary (22%) levels (Table C1.2).
- The 14 OECD countries for which data are available spend, on average, USD 925 more per student on upper secondary vocational programmes than on general programmes (Table C1.3).
- PISA 2006 shows that 15-year-olds in prevocational and vocational programmes have statistically significant lower performance in science compared to students enrolled in general programmes in 12 out of the 14 OECD countries for which data are available. On average, 15-year-olds enrolled in general programmes score 35 points higher and after adjusting for socio-economic factors a difference of 24 points still remains (Table C1.4).

The majority of upper secondary students in Finland are enrolled in vocational programmes.

- 35% of upper secondary enrolment is in general programmes (OECD average 54%), while 65% is in vocational programmes (OECD average 44%) (Table C1.1).
- PISA score for pre-vocational and vocational programmes are not available (Table C1.4).