#### Education at a Glance 2008

NO MEDIA OR WIRE TRANSMISSION BEFORE 9 SEPTEMBER 2008, 11:00 PARIS TIME

# OECD Technical Note For Spain

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 Spain** 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 <a href="www.oecd.org/edu/eag2008">www.oecd.org/edu/eag2008</a>

Questions can be directed to: Andreas Schleicher Head, Indicators and Analysis Division OECD Directorate for Education

Tel: +33 1 45 24 93 66, email Andreas.Schleicher@OECD.org

#### 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. **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, by 20 percentage points on average in OECD countries. Between 2000 and 2006, growth 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-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

#### **Key results for Spain**

In Spain, the proportion of people attaining tertiary education has increased substantially and is, in 2006, above the OECD average for younger age groups.

- In Spain, the proportion of people aged 25 to 34 that have attained tertiary qualifications is more than twice as high as among 55 to 64-year-olds (39% compared to 15%). As a result of this rapid expansion, the proportion of young persons with tertiary qualifications is now above the OECD average (Table A1.3a).
- For vocationally oriented tertiary-type B programmes growth has been particularly rapid: The proportion of people aged 25 to 34 that have attained tertiary-type B education (13%) is more than four times as large as among 55 to 64-year-olds (3%) (Table A1.3a).

More recently, the expansion of tertiary outputs is mainly the result of the development of vocationally oriented programmes.

- Since 2004, university-level tertiary-type A graduation rates in Spain have been below the OECD average (Table A3.2), standing in 2006 at 25.5% for males and 40.8% for females compared to 29.8% and 45.2% on average for OECD countries (Table A3.1). In contrast, there has been a significant increase in graduation and entry rates for vocationally oriented tertiary-type B programmes, which can be attributed to the development of new advanced-level vocational training programmes.
- The largest concentration of university qualifications awarded to students is in the combined fields of social sciences, business, law and services (more than one-third of tertiary-type A and advanced research qualifications awarded) followed by the humanities, arts and education (24%) and then, health and welfare (15%) (Table A3.4a).

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).

## 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

#### There are private benefits to further education in Spain but this trend is less marked than in the majority of countries

- Spain, but also New Zealand, has seen a marginal decrease in the earnings premia for those with tertiary education over the past ten years. Whether this is an indication of weakening demand for tertiary educated people or whether these figures reflect the fact that younger tertiary educated individuals with relatively low starting salaries have entered the labour market, cannot be derived from the indicators.
- On a number of measures, individuals in Spain benefit from undertaking further education. In Spain, among those aged 25 to 64 years, the earnings advantage for tertiary graduates over persons with an upper secondary qualification is 32% (compared to 52% on average). In addition, individuals aged 25 to 64 with a level of education below the upper secondary level have an earnings disadvantage as they earn only 85% of the earnings of persons holding an upper secondary qualification (Table A9.1a).
- Although private rates of return for males and females are positive (respectively 7.6 and 8.7%), the rewards for tertiary education are relatively low in Spain compared to the OECD average an indication of comparatively weaker incentives to continue education (Table A10.2).

In Spain, individuals with better education are more likely to be employed and less likely to be unemployed than those with lower levels of education, but this is much more pronounced for females than for males.

• The unemployment rate for women in Spain is considerably higher than for men (the rate for females is 10.2% compared to 5.3% for males). However, for women the rates differ substantially with regard to educational attainment: while unemployment stands at 13.9% for women without upper secondary education, it is just over half that rate (6.5%) for women that have attained tertiary-type A education. (Table A8.2a). Similar patterns are evident in employment rates (Table A8.1a).

## The earnings gap between men and women in Spain is closing among younger cohorts.

• For females aged 55 to 64, the average earnings are 65% of the earnings of men in the same age group. By contrast, in the younger cohort (30 to 44), women earn 75% of men in the same age group. And the income gap between men and women also narrows at higher education levels (Table

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 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).

A9.1b).

### 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).

### Spain saw shifts to both the high and low end of the skill distribution.

• As in most other countries, the proportion of skilled jobs in Spain increased between 1998 and 2006 (from 29 to 32%), but unlike other countries, Spain also saw a rise in the proportion of unskilled occupations from 14 to 15% - making this the largest share among OECD countries (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. However, in most countries, there are still 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

## The number of skilled jobs to be filled in the labour market is close to the current supply of tertiary educated individuals.

- In Spain, 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 only 5 percentage points in Spain, indicating a fairly close match between the supply and demand for high end skills. This may mean that individuals with tertiary education may find it increasingly difficult to find skilled jobs- at least until the growth of skilled occupations outpaces the growth in attainment (Tables A1.3a and A1.6).
- Indeed, in Spain, the proportion of the working population with tertiary-type A or advanced research qualifications who are in skilled jobs (78%) is quite low compared to other OECD countries (Table A1.7).

country Slovenia do substantially better in finding a skilled job given the labour market conditions for those with tertiary education (Tables A1.6, A1.7 and A3.2).

## 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).
- 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

### Spain attracts relatively few international and foreign students.

- In tertiary education in Spain, there are relatively few international and foreign students. As a percentage of all tertiary enrolment, international students (defined on the basis of their country of residence) comprise only 1.0% of enrolments compared to the OECD average of 6.9%. (Table C3.1).
- Among the foreign and international students who do enrol in Spain, a sizeable percentage is enrolled in advanced research programmes. More than one-third of international students in Spain are enrolled in these programmes (Table C3.4), accounting for 8.5% of total enrolments at that level, compared with an OECD average of 15.9% (Table C3.1).

[No data available for Spain]

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).

• 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 inspectorates appear 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).

## There is no national requirement for monitoring school standards in Spain

- At the lower secondary level, Spain does not have national examinations in general education programmes nor does it have national periodical assessments (Tables D5.1 and D5.2).
- Furthermore, there is no requirement for school evaluations either to be carried by an inspectorate or by the schools themselves (Table D5.5 and D5.6).

#### 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

## USD 8 553 per Expenditure per student in Spain is below the OECD average.

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.

• Spain spends USD 7 134 per student annually between primary and tertiary education: USD 5 502 per primary student (OECD average USD 6 173), USD 7 211 per secondary student (OECD average USD 7 736) and USD 10 089 per tertiary student (OECD average USD 15 559).

**Key results for Spain** 

• 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.

Below tertiary education, expenditure per student has risen at a similar pace to that in other OECD countries...

- 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, 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).
- Expenditure per student in primary, secondary and post-secondary non-tertiary education institutions has risen by 15% between 2000 and 2005, which is close to the OECD average increase of 19%. This increase in expenditure per student is the result of a decline of 6% in the number of students, accompanied by an 8% increase in expenditure (Table 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).
- The decline in the number of students, in turn, is a result of demographic trends rather than changes in enrolment rates. The proportion of the population aged 15 to 19 enrolled in educational institutions is 80%, which is close to the OECD average of 82%. Moreover, this enrolment rate has risen from 77% in 2000 (Table C2.2).

- 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 notably higher than the OECD 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
- ....whereas spending per tertiary student rose significantly faster than the OECD average level.
- Austria and Spain were the only countries in which the number of tertiary students decreased between 2000 and 2005. Combined with a 14% increase in expenditure, this has meant that expenditure per student on tertiary education institutions has risen by 23% between 2000 and 2005. This is well above the OECD average increase of 11% (Table B1.5).

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

• Along with Portugal and Switzerland, Spain shows the highest teacher compensation cost per student (as a percentage of GDP per capita), which for Spain is driven by comparatively low class sizes (Table B7.2 and chart B7.1).

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 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).

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 and the United States, expenditure at this level reaches

Despite increases in educational investment, Spain invests still less of its GDP than the OECD average.

• Expenditure on educational institutions in Spain was 4.6% of GDP in 2005, which was significantly lower than the OECD average of 5.8%. This is close to the percentage that Spain spent in 2000 (4.8%) but less than in 1995 when expenditure on educational institutions as a percentage of GDP was 5.3% (Table B2.1). The decrease in expenditure in percentage of GDP observed between 1995, 2000 and 2005 is mainly explained by the demographic changes that have occurred in Spain (Table B1.5).

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 increases 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 private expenditure from entities other than

Spain relies on a slightly greater share of public funding on education than the OECD average.

• In Spain, the proportion of expenditure on educational institutions from public sources was 88.6% in 2005, which was slightly above the OECD average (85.5%). The 11.4% of private expenditure on education institutions come almost entirely from households (Table B3.1).

Spain and Ireland are the two countries which show a decrease in the level of private funding of tertiary education institutions

• Between 2000 and 2005, expenditure from public sources on tertiary education institutions grew by 19% whereas private expenditure on tertiary education institutions decreased by 1%. This is different from most other OECD countries, which have sought to increase the funding base for tertiary education through mobilizing private resources (Table B3.2b).

households is more significant (Table B3.2b).

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, with most of the resources invested at school level.

- The share of public expenditure that is devoted to education in Spain increased slightly between 1995 and 2005, though at a slower pace than in OECD countries on average. 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 in Spain over this ten-year period from 10.3 to 11.1%, while the OECD average increased by 1.3 percentage points (11.9 to 13.2%) (Table B4.1).
- As for most of the countries with available data, in Spain, the main increase in public expenditure on education relative to total public expenditure during this ten-year period took place between 1995 and 2000 with respectively 10.3 and 10.9% (Table B4.1).

There are large differences among OECD countries in the average tuition fees charged by tertiary-type A public institutions, as well as 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 countries. 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).
- 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 tertiary education budgets (Table B5.2).
- Low annual tuition fees charged by tertiary-type A

Spain has low tuition fees for tertiary-type A education and has a low proportion of students that benefit from public loans or scholarships/grants.

• Ninety-one per cent of tertiary students in Spain are enrolled in public institutions. These students pay low tuition fees compared to students in some OECD countries. It is estimated that average annual tuition fees charged by tertiary institutions in Spain are USD 795, which is considerably lower than some OECD countries such as Australia (USD 3 855) and Canada (USD 3 464) (Table B5.1a).

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 who can 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).
- Salaries for teachers with at least 15 years' experience in lower secondary education are over

## The proportion of current expenditure devoted to the compensation of teachers and other staff is comparatively high.

• The proportion of expenditure on teacher compensation relative to total expenditure on educational institutions is high in Spain compared to other OECD countries. Of current expenditure, the percentage devoted to the compensation of teachers is 71%, which is well above the OECD average of 63%. (Table B6.2b).

## Above average teacher salaries are part of the explanation.

- The annual statutory starting salaries of teachers in Spain are above the OECD average in primary and secondary education. For example, the annual statutory starting salary of lower secondary education teachers in Spain is USD 37 153. This is more than 20% higher than the OECD average of USD 30 047 (Table D3.1).
- Spain is virtually unique among OECD countries in that salaries at the primary and upper secondary levels in fact fell in real terms between 1996 and 2006 (Table D3.2).

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).

The low ratio of students to teachers also contributes to the large percentage of current expenditure devoted to teacher compensation.

- The ratio of students to teaching staff in Spain is lower than the OECD average at each level of education. In primary education, the ratio of students to teaching staff is two students per teacher lower than the OECD average (14.2 in Spain compared to the OECD average of 16.2). This gap narrows in lower secondary education but in upper secondary education the student-teacher ratio in Spain is 7.8, which is substantially lower than the OECD average of 12.6 students per teacher and the second lowest of all OECD countries. A similar gap exists in tertiary education with a student-teacher ratio in Spain of 10.8 students compared to the OECD average of 15.3 (Table D2.2).
- Student-teacher ratios are substantially higher in private education institutions than in public institutions. For example, in secondary education the ratio in private institutions is 14.3 students per teacher while in public institutions the ratio is only 9.4 students per teacher (Table D2.3).

#### But average class sizes are only around the average

• Despite relatively low student to teacher ratios, average class sizes in Spain are only around the OECD average: 20.7 students per class in primary education (OECD average of 21.5 students per class) and 24.7 students per class at lower secondary level (OECD average of 24.0) (Table D2.1).

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,

Students in Spain receive 6 836 hours of instruction between the ages of 7 and 14, around the OECD average, but the pattern varies between primary and secondary education

## 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 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).
- With 793 hours, Spain has similar annual intended instruction time for a 7-to-8-year-old as the OECD average (796 hours) but 37 hours less per year for a 9-to-11-year-old (Table D1.1). The pattern is reversed for 12 to 14 year-olds with 956 hours against 933 on average among OECD countries.

In Spain 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, both figures being close to the OECD average (Tables D1.2a and D1.2b).

# 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

## The teaching load for teachers is notably high for teachers of primary education

• The net teaching time for Spanish primary school teachers is, at 880 hours per year, the eighth highest among the 25 OECD countries with comparable data (the OECD average is 812 hours). The teaching time for lower secondary teachers, at 713 hours per year, is around the OECD average, while for upper secondary teachers, teaching time, at 693 hours per year, is above the OECD average (Table D4.1).

periods per week at each level of education.	

#### **EQUITY CHALLENGES**

On average across OECD countries, close to 8 out of 10 young adults have now a qualification at least at the upper secondary level of education, which was true for little more than half of 55 to 64-year-olds. In the last 11 years alone, the proportion of students graduating from upper secondary programmes has increased by seven percentage points in OECD countries. Despite this rapid progress towards universal upper secondary education Education at a Glance 2008 also shows that in most countries a significant minority of individuals remain without baseline qualifications at the upper secondary level. In many countries, these individuals are seeing rapidly-deteriorating labour market prospects. Education at a Glance 2008 also shows that access to education as well as educational success often remain closely tied to socio-economic conditions, which implies that countries do not fully capitalise on their human potential. 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 Spain

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).

Spain is among the countries with the highest participation rate of children aged 3 to 4 ...

• Spain is among a group of nine countries in which over 90% of children aged 4 and under (as a percentage of the population aged 3 to 4) are participating in preprimary programmes (OECD average: 70%).

...and for other age groups, enrolment rates are close to the OECD average.

- Since 1995, the enrolment rate for 15-to-19-year-olds in Spain has grown at a comparable rate to that of the OECD average: from 73% in 1995 to 80.2% in 2006, to stand now just below the OECD average of 81.5% (Tables C2.1 and C2.2).
- Enrolment rates among 20-to-29-year-olds have remained fairly stable over the same period, standing at 21.8% in 2006, slightly below the OECD average of 25.1% (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 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

In terms of the proportion of individuals who have completed upper secondary education, Spain still lags behind other OECD countries, despite significant progress...

- In Spain, the proportion of people who have attained at least upper secondary education is below the OECD average for all age groups. Overall, 50% of people aged 25 to 64 have attained at least upper secondary education in Spain compared to the OECD average of 68%. And despite strong growth in upper secondary attainment throughout the generations, the levels of this attainment even for the younger cohort aged 25 to 34 remains below the OECD average (64% compared to 78%) (Table A1.2a).
- And while the most recent trends in graduation rates at the upper secondary level show continued improvement,

#### (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)

current upper secondary graduation rates also remain below the OECD average, at 72% compared to 83% (Table A2.2).

...and while in Spain there are penalties for those who do not have upper secondary qualifications, they are not as great as in other countries.

- In Spain, those aged 25-34 without upper secondary education earn 94% of the earnings of those who have attained that level of education, a much higher percentage than in almost every other OECD country (Table A9.1a).
- Also, employment rates for Spanish men who have not completed the upper secondary level are, at 85%, well above the OECD average of 73%, whereas for women, these rates are similar for both Spain and the OECD average (approximately 50%) (Table A8.1a).
- The employment prospects between the different levels of educational attainment have improved over the decade in Spain, rising for those without upper secondary education from 48% to 60%. For individuals with upper secondary education, the employment rate has also risen over the period from 67% to 76% and for tertiary graduates it grew from 76% to 83% (Table A8.3a).

## 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

## The education and labour market situation of young people in Spain remains a concern

- One-fifth of the population aged 15 to 19 is not in education in Spain, the eighth highest percentage among OECD and partner countries (Table C4.2a).
- A closer examination of the trends in these rates over the 1995-2006 period, indicates that the situation of young people based on these measures has barely improved in Spain 22.7% in 1995 compared to 20.5% (Table C4.4a).

qualification is a serious impediment to finding employment, and a tertiary qualification further increases the likelihood of job seekers finding employment (Table C4.3).

## 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 1 000 in Denmark, Finland, France and Switzerland (Table C5.1a).
- 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).

#### In Spain, the number of hours of non-formal jobrelated training is substantially lower than in most OECD countries.

- In Spain, for workers between the ages of 25 and 64, the total expected number of hours in non-formal jobrelated training per worker is 237, considerably below the OECD average of 389 hours (Table C5.1a). This low level of training exists for both male and female workers.
- Substantial differences exist in the training provided for workers with different levels of education. In Spain, for workers with tertiary education, the total expected number of hours in non-formal job-related training per worker is 503. While this is below the OECD average of 669, it is nearly five times more hours than expected for workers in Spain with only lower secondary education. For these workers, the total expected number of hours in non-formal job-related training per worker is only 102, which is less than half the OECD average of 210 (Table C5.1a). The difference in the training received by workers with different levels of education in Spain would act to re-enforce initial inequities in educational attainment.

#### 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

## In Spain, access to higher education is among the most equitable among OECD countries.

- With regard to equity, the extent to which family socio-economic characteristics impact upon students' education is of prime importance. Spain provides highly equitable access to higher education compared to other OECD countries and has one of the most equal between-school differences in PISA 2000.
- Forty per cent of students in higher education (defined as ISCED levels 5B, 5A and 6) in Spain come from families where the father has a blue-collar occupation (Chart A7.1). In other countries such as Austria, France, Germany and Portugal the proportion is much lower. This is an indication that with regard to higher education in Spain, there is considerable inter-generational

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.

mobility.

• Results from PISA 2000 show that there is a relatively high degree of equity in performance across schools. Spain is below the OECD average in the proportion of total variation explained by between-school differences (17.2% compared to the OECD average of 33.6%). This means that differences in student performance are explained less by which school a student attends than is the case across OECD countries.

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).

## Just less than half of upper secondary students are enrolled in vocational programmes

• At the upper secondary level, the share of Spanish students in vocational programmes (42.5%) is slightly under the OECD average (44%). Engineering, manufacturing and construction attract most Spanish upper secondary graduates (30.8%), as is the case in the majority of other OECD countries (Tables C1.1 and C1.2).

[No data on comparative PISA performance of vocational and general programmes]

#### **NOTES**

- "Educational attainment" is defined as the highest grade completed within the most advanced level attended in the educational system of the country where the education was received. Some countries may also find it useful to present data on educational attainment in terms of the highest grade attended.
- "Lower secondary education" is defined as schooling between the ages of 11 and 13. It generally continues the basic programmes of the primary level, although teaching is typically more subject-focused. Lower secondary education may either be "terminal" (i.e. preparing students for entry directly into working life) and/or "preparatory" (i.e. preparing students for upper secondary education). This level usually consists of three years of schooling in OECD countries.
- "Non-formal education" is defined as 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 C5 in Education at a Glance 2008.
- "Post-secondary non-tertiary education" is defined as programmes straddling the boundary between upper secondary and post-secondary education from an international point of view, even though they might clearly be considered upper secondary or post-secondary programmes in a national context. Although their content may not be significantly more advanced than upper secondary programmes, they serve to broaden the knowledge of participants who have already gained an upper secondary qualification. The students tend to be older than those enrolled at the upper secondary level.
- "Pre-primary education" is defined as the initial stage of organised instruction, designed primarily to introduce very young children to a school-type environment, that is, to provide a bridge between home and a school-based atmosphere. They are centre or school-based, designed to meet the educational and developmental needs of children at least three years of age, and have staff qualified to provide an educational programme for children.
- "Primary education" usually begins at ages five, six or seven and generally lasts six years in OECD countries. Programmes at the primary level generally require no previous formal education, although it is becoming increasingly common for children to have attended a pre-primary programme before entering primary education. The boundary between pre-primary and primary education is typically the beginning of systematic studies characteristic of primary education, i.e. reading, writing and mathematics. It is common, however, for children to begin learning basic literacy and numeracy skills at the pre-primary level.
- "Statutory salaries" refers to teachers' salaries according to official pay scales. The salaries reported are defined as gross salaries (total sum of money that is paid by the employer for the labour supplied) minus the employer's contribution to social security and pension (according to existing salary scales). Salaries are "before tax", i.e. before deductions for income taxes.
- "Tertiary-level education" is defined as higher education (HE). Indicators in Education at a Glance 2008 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. Tertiary programmes are generally divided by type of course: "tertiary-type A" (largely theory-based and designed to provide sufficient qualifications for entry to advanced research programmes and professions with high skill requirements, such as medicine, dentistry or architecture) and "tertiary-type B" (typically shorter and focused on practical, technical or occupational skills for direct entry into the labour market). "Graduation rate" is defined as the ratio of tertiary graduates to the population at typical age of graduation.
- "Upper secondary" education corresponds to the final stage of secondary education in most OECD countries. Instruction is often more organised along subject-matter lines. The entrance age to this level is typically 15 or 16 years.