

Education at a Glance 2008

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OECD Briefing Note For Korea

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 Korea** 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.*

<i>Global trends</i>	<i>Key results for Korea</i>
<p data-bbox="73 248 667 309"><i>Education systems continue to expand at a rapid pace...</i></p> <ul data-bbox="73 331 724 1122" style="list-style-type: none"> <li data-bbox="73 331 724 763">• 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). <li data-bbox="73 786 724 1122">• 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). <p data-bbox="73 1155 691 1216"><i>...and current entry rates suggest that these trends will continue.</i></p> <ul data-bbox="73 1238 724 2033" style="list-style-type: none"> <li data-bbox="73 1238 724 1742">• 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). <li data-bbox="73 1765 724 2033">• 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, 	<p data-bbox="751 248 1362 309"><i>Korea has made a remarkable journey in terms of providing education to its population...</i></p> <ul data-bbox="751 331 1465 837" style="list-style-type: none"> <li data-bbox="751 331 1465 495">• 97% of 25-to-34-year-olds now complete an upper secondary education, which put Korea on the top of the chart among OECD countries, compared with only 37% achieving this attainment level among 55-to-64-year-olds (Table A1.2a). <li data-bbox="751 517 1465 748">• The increase in tertiary education is similarly impressive with 53% of the 25-to-34-year-old population completing this level of education compared with only 11% for the 55-to-64-year-olds. This close to five fold increase in attainment levels over a 30 year period has put Korea among the top four OECD countries in terms of tertiary attainment among the younger population (Table A1.3a). <li data-bbox="751 770 1465 837">• [No data available on educational fields in the total population] <p data-bbox="751 871 1442 931"><i>....and this expansion of tertiary education will continue in the coming years</i></p> <ul data-bbox="751 954 1465 1308" style="list-style-type: none"> <li data-bbox="751 954 1465 1084">• Trend data on entry rates at tertiary level and university graduation rates also suggest that this expansion of tertiary attainment will continue in the near future (Tables A2.5 and A3.3). <li data-bbox="751 1106 1465 1308">• Close to half of tertiary students graduate from tertiary type B programmes, whereas the remainder graduate from type A and advanced research programmes. Tertiary type B programmes thus play a more prominent role in the tertiary system in Korea than in most other OECD countries (Table A3.3). <p data-bbox="751 1341 1442 1402"><i>Korea continues to produce more graduates in key areas than other nations....</i></p> <ul data-bbox="751 1424 1465 2033" style="list-style-type: none"> <li data-bbox="751 1424 1465 1733">• A large proportion of the students graduate in Science. Korea is the country with the highest number of science graduates per 100,000 employed 25-34-year-olds among OECD countries, both for males and females. In 2006, 4,735 males and 2,596 females per 100,000 25-34-year-olds in employment graduated in science subjects which is well above the OECD average of 2,118 and 1,172 science graduates for males and females, respectively (Table A3.6). <li data-bbox="751 1756 1465 2033">• In tertiary type A and advanced research programmes, more than a quarter of all students graduate from the field of engineering, manufacturing and construction which is more than twice the OECD average in this field of education (11.9%). Approximately a quarter of the students graduate from social science, business, law and services and another quarter from humanities, arts, and education.

<p>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).</p>	<p><i>...and female students are well represented in tertiary education.</i></p> <ul style="list-style-type: none"> • About half of all new entrants to tertiary education are females although females are somewhat more likely to enrol in shorter programmes (type B programmes) than males. However, the representation of female students in engineering, manufacturing and construction is stronger than in most OECD countries with 24% of females and 25% of males entering this field of education (Tables A2.4 and A2.6).
<p><i>This expansion relates to strong labour-market outcomes for those with advanced qualifications.</i></p> <ul style="list-style-type: none"> • 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 	<p><i>In Korea, the earnings advantage of completing tertiary education is below the OECD average, but with a substantial variation between different groups</i></p> <ul style="list-style-type: none"> • In Korea, the earnings advantage for tertiary level graduates aged 25 to 64 over persons with only an upper secondary qualification is 41%. The earnings advantage for females are substantially more pronounced (76%) than for males (27%). • Similarly, the earnings advantage is significantly more pronounced at an older age. The earnings advantage for tertiary graduates among 55-64-year-olds stands at 81% whereas this drops to 25% among the younger cohort (25-34-year-olds) reflecting either the large influx of new graduates or the importance of seniority and age in Korean working life (table A9.1a). (Chart A9.3). <p><i>Considering the high level of private funding needed for higher education in Korea, the rates of return to tertiary education are still providing the incentive to make the investment</i></p> <ul style="list-style-type: none"> • The private rates of return to tertiary education in Korea are 9% for males and just over 11% for females. The rates of return to an upper secondary education are just above 1% for females but close to 10% for males. The incentives for females to continue into higher education are thus significant in Korea with a 10 percentage point increase in returns compared with the returns for only completing an upper secondary education (Tables A10.1 and A10.2). • Korea together with USA and Canada are the countries where private direct costs (such as tuition fees) for higher education make up a sizable part of the overall investment made by the individual. Approximately 15% of the overall costs for investing in tertiary education are tied to private direct costs (tuition fees) in Korea and this figure is only higher in the USA (20%) among the OECD countries for which rates are calculated (Chart A10.2). <p><i>...and an investment in tertiary education still makes sense for a 40-year old and for the public at large.</i></p> <ul style="list-style-type: none"> • Despite the high tuition fees for tertiary education the

<p>without upper secondary qualifications but falls to 10 points for the most highly qualified (Tables A8.1a and A8.2a).</p> <ul style="list-style-type: none"> • 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 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). 	<p>incentives for a 40-year old to go back into education are in place. The private rate of return at age 40 for investing in tertiary education is 7% for males and more than twice that rate for females (16%). A key issue is thus to improve access to higher education for older age groups that are willing to go back into education (Table A10.4).</p> <ul style="list-style-type: none"> • Weighing up the public costs and benefits of education, the investments in tertiary education also make sense from the public side as these investments generate returns of around 10% for tertiary education when it is taken as part of initial education and over 15% if the individual returns to education at age 40 (Tables A10.5 and A10.6). • As in other OECD countries employment rates rise with educational attainment but this benefit of education is less pronounced in Korea than elsewhere. In 2006, the employment rate for those without upper secondary qualifications stood at 66.2% in Korea (OECD average 58.4%), while the upper secondary employment rate was 70.3% (OECD average 75.9%), and the tertiary employment rate was 77.2% (OECD average 84.4%). Employment rates are thus higher among lower educated and lower among higher educated in Korea compared with other OECD countries (Tables A8.3). • A large portion of this deviation from the OECD average is explained by female employment rates. Higher educated females are less likely to participate in the labour market (close to 20% lower employment rates than the OECD average) and lower educated females show a substantially higher employment rate than what is the norm in OECD countries. • Unemployment rates are lower across all educational categories in Korea than the OECD average and among those with below upper secondary education the unemployment rates are particularly low. In 2006, below upper secondary unemployment rates stood at 2.6% in comparison with an average of 9.6% for OECD countries, while upper secondary unemployment rates stood at 3.5% (OECD average 5.4%) and tertiary unemployment rates were 2.9% compared with 3.5% across OECD (Table A8.5a). •
<p><i>There are also marked shifts towards more skilled jobs in labour markets.</i></p> <ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • • [No data available] •

<p>population working in unskilled occupations remaining substantially unchanged (Table A1.6).</p>	
<p><i>The proportion of skilled jobs is generally larger than the potential supply of tertiary graduates...</i></p> <ul style="list-style-type: none"> • 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). <p><i>...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.</i></p> <ul style="list-style-type: none"> • 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 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). 	<ul style="list-style-type: none"> •
<p><i>The internationalisation of tertiary education is proceeding rapidly.</i></p> <ul style="list-style-type: none"> • 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>i.e.</i> 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 	<p><i>The number of foreign students in Korea is very low but on the rise...</i></p> <ul style="list-style-type: none"> • Despite a substantial increase since 2000, Korea has relatively few foreign students enrolled in its tertiary education. The enrolment of foreign students as a percentage of all tertiary enrolment stands at 0.7% but this figure increases to 4.7% in advanced research programmes (Table C3.1). • However, a substantial amount of Korean students are enrolled abroad and make up over 10% of the international student body in the USA and over 17% of the international students in Japan (Table C3.2). Among OECD countries, Korea, together with France, Germany and Japan provides the largest number of international

<p>(Table C3.1).</p> <ul style="list-style-type: none"> • 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). 	<p>students. There are in fact over 100,000 Korean students studying throughout the world (Table C3.7).</p> <ul style="list-style-type: none"> •
<p><i>New analyses of PISA data provide a first picture of school education from the perspective of parents.</i></p> <ul style="list-style-type: none"> • 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). • 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). 	<p><i>Parents to 15-year-old students in Korea are generally more critical towards the performance of schools and teachers than in other countries.....</i></p> <ul style="list-style-type: none"> • Despite being one of the countries with the highest average scores in the PISA assessments, parents in Korea are less satisfied with the standards of achievements in schools than in most other countries. 71.5% of parents “strongly agreed or agreed” that standards of achievement were high in their child’s school compared with 77% across 10 OECD countries (Table A6.2a). • The relationship between parents opinion’s about standards of achievement and PISA score is among the strongest among the 10 countries with available data (10 percentage point higher than the average). • Korean parents are as satisfied with the disciplinary atmosphere in their child’s school 78.4% (79% country average) but 79.4% felt that the school did a good job of educating students compared with the average of 85% among the countries with available data (Tables A6.2b and A6.2c).
<p><i>For the first time, the indicators compare approaches to monitoring school standards.</i></p> <ul style="list-style-type: none"> • 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 	<p><i>And the formal accountability system appears weak...</i></p> <ul style="list-style-type: none"> • Korea has no national examination within lower secondary education, though there are national periodical assessments in place for lower secondary programmes in all subjects (Table D5.2). • School inspections are required in Korea, generally once every three years. Although school self-evaluations are

<p>(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).</p> <ul style="list-style-type: none"> • 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). 	<p>held more often than school inspections, the implications of the evaluation and the accountability structure appears weak in comparison with other countries, with these having low or no influence on the performance feedback to the school or on the resourcing of schools (Tables D5.5 and D5.6)</p> <ul style="list-style-type: none"> • The results of school evaluations carried out by inspectors are made publicly available but with no comparison with the performance of other schools (Table A5.5)
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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 pay scales 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.

<i>Global trends</i>	<i>Key results for Korea</i>
<p><i>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.</i></p> <ul style="list-style-type: none"> • 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, 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 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 	<p><i>Despite a substantial increase in resources to education in recent years spending per student remains below the OECD average at all levels of education.</i></p> <ul style="list-style-type: none"> • 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 Korea is, at USD 6 212 (equivalent), substantially below the OECD average of USD 7 527 (Table B1.1a). • Korea spends less than the OECD average on all levels of education, from pre-primary to tertiary type A and advanced research programmes. The gap to the OECD average is particularly wide in pre-primary education where the spending – at 2 426 USD equivalent - is half of the OECD average of 4 888 USD (equivalent). • Korea’s spending per student is, however, closer to the OECD average when differences in GDP per capita are taken into account (Table B1.4). • Different supply and demand factors have influenced variation in spending per student across countries. In Korea, between 2000 and 2005, spending on primary and secondary education increased by 49% while enrolments declined by 2%, resulting in a spending increase per student of 52%. That is significantly more than the OECD average increase of 19% in per-student spending over the period (Table B1.5). • The increase in spending per student in tertiary education rose by 22% between 2000 and 2005 owing to an increase in spending of 30%, which exceeded the increase in enrolment of 7%. The growth in spending per student in tertiary education outpaced the OECD average of 11%. <p><i>At the upper secondary level, teacher compensation costs per student are well above the OECD average and mainly driven by high teacher salaries...</i></p> <ul style="list-style-type: none"> • In an analysis new to this year’s edition of <i>Education at a Glance</i>, comparisons of salary costs per student (as a percentage of GDP per capita) at the upper secondary level are decomposed into some of the factors that influence these comparisons. Korea has a significantly higher than average teacher compensation cost per student at the upper secondary level, which is the result of two opposite effects: above-average teacher salaries, acting to increase compensation cost per student relative to the OECD average, and relatively large class sizes, which act to decrease

<p>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).</p> <ul style="list-style-type: none"> • 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). 	<p>compensation cost per student relative to the OECD average. (Table B7.2 and chart B7.1).</p> <ul style="list-style-type: none"> • This contrasts with the policy choices made in some other countries. For example, in Luxembourg, where costs per student relative to GDP per capita are similar to those of Korea, these costs are instead driven by a relatively low class size 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). • These comparisons show that the same levels of expenditure can be deployed quite differently and serve to illustrate why the relationship between expenditure and 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 Korea (USD 52 893 against USD 67 895), Korea's mean score in PISA performance in science is significantly above the average (Table B7.1).
<p><i>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.</i></p> <ul style="list-style-type: none"> • 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 	<p><i>Accounting for differences in GDP puts Korea's efforts in a better light...</i></p> <ul style="list-style-type: none"> • Korea spent 7.2% of GDP on educational institutions at all levels of education in 2005 which was well above the OECD average of 5.8%. Korea exceeds the OECD average both for tertiary education, 2.4% compared with 1.5% for OECD countries, and for primary, secondary and post-secondary non-tertiary education where Korea spent 4.3% of GDP against 3.8% of OECD countries (B2.1). • There has also been a substantial increase in spending relative to GDP for all levels between 2000 and 2005, of 0.8 percentage points compared with an average increase across OECD countries of 0.3 percentage points of GDP during the period.

<p>the combined OECD expenditure on educational institutions (2.0% of the combined GDP). In Canada 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.</p> <ul style="list-style-type: none"> • 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). 	
<p><i>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.</i></p> <ul style="list-style-type: none"> • 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 	<p><i>And private funding is the main source of financing for educational institutions in Korea....</i></p> <ul style="list-style-type: none"> • Taking all levels of education together, private spending in Korea rose slightly faster than public spending between 2000 and 2005 (as was the case in nearly three-quarters of the countries with comparable data), resulting in a slight increase in the share of private funding (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.] • Looking specifically at the primary and lower secondary levels in Korea over the same period, the private share of funding increased from 19.2% to 23.0% . Moreover, in both years this represented the lowest public funding proportions among the 26 OECD countries reporting data for both years (Table B3.2a). • At the pre-primary level, where relative proportions of public funding range from 100% in Sweden to 41.1% in Korea. Private financing in Korea thus carries the larger part of the funding in pre-primary education (Table B3.2a). • Public spending on tertiary education in Korea rose by 36% between 2000 and 2005. Nevertheless, in 2005 less than a quarter (24.3%) of tertiary education spending was financed by public money, which is the lowest figure among all OECD countries (Table B3.2b).

<p>are available. Exceptions are Canada, Greece, Hungary, the Slovak Republic and Sweden where private expenditure from entities other than households is more significant (Table B3.2b).</p>	
<p><i>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.</i></p> <ul style="list-style-type: none"> • 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). 	<p><i>Education has received a declining share of the public budget...</i></p> <ul style="list-style-type: none"> • The share of public expenditure that is devoted to education decreased in Korea over the 2000-2005 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, decreased from 16.3% to 15.3% in Korea, while the OECD average increased by 0.4 percentage points (12.8 to 13.2%) (Table B4.1).
<p><i>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.</i></p> <ul style="list-style-type: none"> • 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 as 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, 	<p><i>In Korea, tertiary-type A institutions charge among the highest level of tuition fees</i></p> <ul style="list-style-type: none"> • In Korea, the tuition fees charged to national students by tertiary-type A institutions are on average around USD 3 883, which is among the highest in OECD, exceeded only by Japan (USD 3920), and the United States (USD 5027) (Table B5.1). This is in stark contrast with Europe (EU-19) where only the United Kingdom and the Netherlands charged fees to national students in excess of USD 1 100. • Notwithstanding the high tuition fees, an increasing number of students are entering tertiary education. Entry rates to tertiary A type of programmes increased from 41% to 59% between 1995 and 2006.

<p>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).</p> <ul style="list-style-type: none"> • 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 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. 	
<p><i>Instruction time, teachers' salaries, and student-teacher ratios vary widely among countries, which affects the level of expenditure per student.</i></p> <ul style="list-style-type: none"> • 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). 	<p><i>Teacher salaries are substantially above-average.</i></p> <ul style="list-style-type: none"> • Korea provides comparatively high teacher salaries with steep increases for more experienced teachers. At USD 52 666 for a primary school teacher with minimum training and 15 years of experience, Korea comes 2nd among OECD countries, while salaries at the top of the scale reach 84 263 USD, second only to Luxembourg (Table D3.1). • The ratio of salary at the top of the scale to starting salary is the highest among all OECD countries. For primary education the ratio is 2.76 (OECD average 1.71), and for both lower and upper secondary education 2.77 (OECD averages 1.71 and 1.72 respectively).

<ul style="list-style-type: none"> • 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 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). 	
<p><i>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.</i></p> <ul style="list-style-type: none"> • 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 on- line). 	<p><i>While teacher salaries are high class sizes are the highest of all OECD countries</i></p> <ul style="list-style-type: none"> • Korea has the largest average class-size among all OECD countries with 31.6 students per class in primary education and 35.8 students in lower secondary education (against the OECD averages of 21.5 and 24.0 respectively) (Table D2.1). •
<p><i>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</i></p>	<p><i>Young students have low numbers of instruction hours but as age increases so does the hours of instruction ...</i></p> <ul style="list-style-type: none"> • At 612 hours, Korea has an below average annual intended instruction time for 7-to-8-year-olds (OECD average is 796), where as the annual intended

<p><i>majority of intended hours of instruction are compulsory.</i></p> <ul style="list-style-type: none"> • 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). 	<p>instruction time increases to 1020 at age 15 (OECD average is 971) (Table D1.1).</p>
<p><i>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).</i></p> <ul style="list-style-type: none"> • 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 	<p><i>While average class sizes are large the teaching load for teachers is below the OECD average</i></p> <ul style="list-style-type: none"> • The net teaching time for Korean primary school teachers is 802 hours per year (the OECD average is 812 hours), for lower secondary 548 hours per year, the lowest among all OECD countries (the OECD average is 717 hours), and for upper secondary 552 hours per year (the OECD average is 667 hours) (Table D4.1). •

each level of education.	
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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.*

<i>Global trends</i>	<i>Key results for Korea</i>
<p data-bbox="70 241 718 448"><i>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.</i></p> <ul data-bbox="70 465 718 1444" style="list-style-type: none"> • 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). 	<p data-bbox="750 241 1369 309"><i>Enrolment rates have risen faster in Korea than in most other countries.</i></p> <ul data-bbox="750 327 1404 649" style="list-style-type: none"> • Over the period 1995 to 2006, the enrolment rate of 15-to-19-year-olds in Korea has increased from 75% (roughly at the OECD average) to 86% (well above the average), one of the largest increases among OECD countries (Table C2.2). • The enrolment rate for 20-to-29-year-olds in Korea has increased at a similar rate over the period from 15% to 28%, taking Korea from a below average position to an above average position (Table C2.2). <p data-bbox="750 676 1391 743"><i>But Korea has one of the lowest rates for early years enrolment.</i></p> <ul data-bbox="750 761 1420 900" style="list-style-type: none"> • In Korea, enrolment rates for children 4 years or younger were 24% in 2006, the second lowest rate of the OECD and partner countries compared and well below the OECD average of 69% (Table C2.1) • •
<p data-bbox="70 1489 689 1657"><i>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.</i></p> <ul data-bbox="70 1675 718 2040" style="list-style-type: none"> • 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 	<p data-bbox="750 1489 1385 1556"><i>The growth in upper secondary attainment in Korea has been dramatic.....</i></p> <ul data-bbox="750 1574 1420 2027" style="list-style-type: none"> • In Korea, upper secondary attainment among the 55-64- year- old age group (i.e. those who left secondary education some 40-50 years ago) was some 37% which placed Korea 23rd of the OECD countries. In contrast, upper secondary attainment among 25-to-34-year-olds (those who left secondary education 10-20 years ago) was 97%, the highest of all countries compared (Table A1.2a). • As is the case in almost all OECD and partner countries, females in Korea are more likely to complete upper secondary education than males, though in Korea the difference is not large (Table A2.1).

<p>20% leave school without attaining an upper secondary degree (Tables A1.2 and A2.2).</p> <ul style="list-style-type: none"> • 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) 	<p><i>And as in other countries, there are notable penalties in Korea for not completing upper secondary education.</i></p> <ul style="list-style-type: none"> • In Korea, the employment rates among those who have not completed upper secondary education are 66%, some 4% points lower than for those who have completed upper secondary education (Table A8.3a). • Moreover, those with only lower secondary attainment earn only 67% of those who have attained upper secondary education (Table 9.1a).
<p><i>Some countries have been successful in improving educational opportunities among youths in difficult labour-market situations.</i></p> <ul style="list-style-type: none"> • 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). 	<ul style="list-style-type: none"> • [No data available for Korea]
<p><i>Continuing education and training often does not reach those who need it most.</i></p> <ul style="list-style-type: none"> • 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 job-related education and training over a typical working life. At the tertiary level, it ranges from less than 350 hours in Greece, Italy and the 	<ul style="list-style-type: none"> • [No data available for Korea]

<p>Netherlands to more than 1 000 in Denmark, Finland, France and Switzerland (Table C5.1a).</p> <ul style="list-style-type: none"> • The relative intensity (number of hours) of non-formal 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). 	
<p><i>Countries vary greatly in how well they succeed in enabling students from blue-collar backgrounds to participate in higher education.</i></p> <ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • [No data available for Korea]

<p>performances, as show by data collected in 2000 by OECD PISA.</p>	
<p><i>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.</i></p> <ul style="list-style-type: none"> • 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 pre-vocational 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). 	<p><i>Vocational programmes are less prevalent at the upper secondary level in Korea than in most other OECD countries.</i></p> <ul style="list-style-type: none"> • Almost three-quarters (72%) of upper secondary students in Korea are enrolled on general, as opposed to vocational or pre-vocational programmes. As such, general programmes dominate upper secondary enrolment more so than in most other OECD countries (Table C1.1). • In Korea, some 50% of the students who graduate from vocational or pre-vocational programmes at the upper secondary level, achieve qualifications in engineering, manufacturing or construction, much higher than the OECD average of 34%. Humanities and arts is the next most common subject among vocational upper secondary graduates (21%), which again is a high percentage compared with the OECD average of 7% (Table C1.2). <p><i>And the performance of vocational students falls behind that of students following general programmes.</i></p> <ul style="list-style-type: none"> • In Korea, 15-year-old students following general programmes scored significantly better on average (86 score points) on the PISA 2006 science scale than those following pre-vocational or vocational programmes. This was the case in 12 out of 14 OECD countries for which data were available. After adjusting for socio-economic differences between the two groups of students, the difference in performance reduces to 74 score points but remains statistically significant (Table C1.4). •

NOTES

- “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*.
- “Tertiary-level education” is defined as higher education (HE). Indicators cover both the current performance of the HE system and the proportion of the adult population (25-to-64-year-olds) who have attained HE qualifications. There are splits by gender and type of course – divided into vocational courses like HND (Type B) and full-length (duration of more than three years) theory-based degrees (Type A), including bachelor and masters degrees. Graduation rate is defined as the ratio of tertiary graduates to the population at typical age of graduation.
- “Lower secondary education” is defined as schooling between the ages of 11 and 13.
- “Upper secondary education” identifies a level of attainment, not necessarily reached while the individual was actually participating in secondary education. In the United Kingdom it means attainment of at least Level 2: that is, a minimum of five GCSEs/SCSEs at grades A* to C, or an equivalent vocational qualification such as NVQ2/SVQ2. However, the international “upper secondary” band also includes the United Kingdom Level 3: that is, A-levels or NVQ/SVQ3.
- “Statutory salaries”. The data on teacher pay are based on statutory pay (pay scales) in 2004 and do not attempt to capture actual average pay which will include discretionary allowances for extra duties as well as reflecting the age structure of the teacher labour force. Furthermore, the figures are for classroom teachers and so do not reflect the pay of teachers promoted to heads and deputy headships. They also do not include bonuses and supplementary payments, which are considerable in some countries. England and Scotland have separate systems of teacher pay and so, while the publication generally refers to the United Kingdom, the teacher pay figures are shown separately for England and Scotland. The pattern of the Scottish pay comparisons closely follows that for England although Scottish pay levels are slightly below those in England for starting salaries, but are above those for England after 15 years of experience or at the top of the scale.