

Education at a Glance 2007

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OECD Briefing Note for Mexico

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 schooling, and help to mobilise resources to meet rising demands.

In response to this need, the OECD Directorate for Education 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 Mexico** with **global trends among OECD countries**, under the headings: resource and efficiency challenges, quantity and quality challenges and equity challenges.

Education at a Glance 2007, as well as its executive summary, all data and web-only tables, can be downloaded free of charge at www.oecd.org/edu/eag2007.

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RESOURCE AND EFFICIENCY CHALLENGES

Education at a Glance 2007 shows that between 1995 and 2004 and for all levels of education combined expenditure on educational institutions increased by an average of 42% in OECD countries. The sustainability of the continued expansion will depend on re-thinking how education is financed and how to ensure that it is more efficient. In some countries, spending per tertiary student has already begun to decline – most notably in the Czech Republic, Hungary, the United Kingdom and Poland – as enrolments rose faster than spending on tertiary 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. Across OECD countries, 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.

Global trends

OECD countries spend 6.2% of their collective GDP on educational institutions, but the rise in spending on education between 1995 and 2004 fell behind growth in national income. There is further scope for enhancing the efficiency of educational spending.

- More people are completing upper secondary and tertiary education than ever before, and in many countries the expansion has been accompanied by massive financial investments. Between 1995 and 2004 and for all levels of education combined, expenditure on educational institutions stepped up in the 24 countries with comparable data for the period. The increase reached, on average, 42% in OECD countries and was usually larger for tertiary education than for primary to post-secondary non-tertiary levels of education combined.
- At the tertiary level of education, the rise in expenditure over the period 1995-2004 was more pronounced from 2000 onwards than before 2000 in nearly one-half of OECD countries. Between 2000 and 2004, expenditure increased by more than 30 percentage points in the Czech Republic, Greece, Mexico, Poland, the Slovak Republic and Switzerland and the partner economy Chile.
- It is important to relate overall spending on education to the investment made per student. OECD countries as a whole spend USD 7 572 per student annually between primary and tertiary education, that is USD 5 331 per primary student, USD 7 163 per secondary student and USD 14 027 per tertiary student, but these averages mask a broad range of expenditure across countries. As represented by the simple average across all OECD countries, countries spend twice as much per student at the tertiary level than at the primary level.

Key results for Mexico

Mexico has made major investments in education. It has shown consistent increases in educational investment, not just in absolute terms, but also in terms of a rising share of GDP being devoted to education.

- Educational spending as a percentage of GDP in Mexico increased from 5.6% in 1995 to 6.4% in 2004, and is above the OECD average of 5.8% (Table B2.1). At 23.1%, the share of public spending invested in education is the highest among OECD countries and almost twice as high as at the OECD average level (13.4%) (Table B4.1).
- Between 1995 and 2004, spending on primary and secondary education in Mexico increased by 47%, the steepest increase in the OECD after Australia, Greece, Ireland, New Zealand, Poland, Turkey, and the United Kingdom. Spending per student increased by 30%, at a somewhat lower rate, because enrolment also rose by 14%. Both the change in expenditure and the change in the number of students in Mexico are above the OECD average (Table B1.5).
- At the tertiary level, educational spending increased by 68% between 1995 and 2004 (OECD average 55%). However, since tertiary enrolment rose by 53% over the same period, spending per tertiary student only increased by 10%; this is still above the OECD average (Table B1.5).
- However, after Turkey Mexico has still the largest gap between spending per primary student and spending per tertiary student: Expenditure per tertiary student is more than three times the expenditure per primary student (Table B1.1.a).

Despite high levels of spending relative to GDP as well as available public resources, spending per student remains low in absolute terms.

<ul style="list-style-type: none"> • Lower unit expenditure does not necessarily lead to lower achievement and it would be misleading to equate lower unit expenditure generally with lower quality of educational services. For example, the cumulative expenditure of Korea and the Netherlands is below the OECD average and yet both are among the best-performing countries in the OECD PISA 2003 survey. • Countries with low levels of expenditure per student can nevertheless show distributions of investment relative to GDP per capita similar to those countries with high levels of spending per student. For example, Hungary, Korea, Poland and Portugal, and the partner economy Estonia – countries with expenditure per student and GDP per capita below the OECD average at primary, secondary and post-secondary non-tertiary level of education – spend a higher proportion of money per student relative to GDP per capita than the OECD average. • Expenditure on education tends to rise over time in real terms, as teachers’ pay (the main component of costs) rises in line with general earnings. On the one hand, rising unit costs that are not paralleled by increasing outcomes raise the spectre of falling productivity levels in education. Across OECD countries, there is potential for increasing learning outcomes by 22% while maintaining current levels of resources (output efficiency). The scope for reducing the resources devoted to education while maintaining the current levels of outcomes is slightly larger, at 30% (input efficiency). Differences in estimates of efficiency for different types of school (e.g. public and private) tend to be modest, when looking at the OECD as whole, though efficiency savings are greater for smaller schools than for larger schools (Indicator B7). 	<ul style="list-style-type: none"> • Spending per primary student in Mexico, at USD 1 694 (adjusted for differences in Purchasing Power Parities), is still very low and is approximately one third of the OECD average (USD 5 832). Spending per student in lower secondary education (USD 1 602) is approximately one third of the OECD average of USD 6 909 (Table B1.1a). • At the upper secondary level spending per student is, at USD 2 564 significantly higher, but represents only one third of the OECD average level (USD 7 884). • At the tertiary level, spending per student is, at USD 5 778, slightly more than half of spending per student at the OECD average level (USD 11 100). Although tertiary students are far better off than primary or lower secondary students, spending per tertiary student over the average duration of studies in Mexico (USD 19 762, Table B1.3b) is equal or less than what the United States and Switzerland spend per student in a single year, namely USD 22 476 and USD 21 966, respectively (Table B1.1b).
<p><i>Instruction time, teachers’ salaries, and student-teacher ratios vary widely among countries.</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. Among the findings on these nuts-and-bolts educational policy issues: • Students in OECD countries are expected to receive, 	<p><i>Most of educational spending is tied up in salaries, leaving little room to improve student/staff ratios or to invest in instructional time or spending on other educational resources.</i></p> <ul style="list-style-type: none"> • Most educational spending in Mexico is tied up in current spending. About 3.1% of spending at primary and secondary levels is for capital spending, leaving little room for improving the educational infrastructure (OECD average 9.0%). At the tertiary level, the capital share in spending in Mexico is, at 3.1%, one of the lowest among OECD countries (OECD average 10.7%) (Table B6.2). • Moreover, most current spending at primary and secondary levels goes to the compensation of staff, leaving at the primary and secondary level only 5.0% for other current expenditure, such as instructional materials (OECD average 19.9%).

on average, 6 898 hours of instruction between the ages of 7 and 14, of which: 1 586 hours are between ages 7 and 8; 2 518 hours between ages 9 and 11; and 2 794 hours between ages 12 and 14. The large majority of intended hours of instruction are compulsory.

- In OECD countries, students between the ages of 7 and 8 receive an average of 769 hours per year of compulsory instruction time and 793 hours per year of intended instruction time in the classroom. Students between the ages of 9 and 11 receive about 45 hours more per year, and those aged between 12 and 14 receive just over 90 hours more per year than those aged between 9 and 11.
- Salaries for teachers with at least 15 years' experience in lower secondary education are over twice the level of GDP per capita in Korea and Mexico; in Iceland, Norway and the partner economy Israel, salaries are 75% or less than GDP per capita. Those salaries range from less than USD 16 000 in Hungary to USD 51 000 or more in Germany, Korea and Switzerland, and more than USD 88 000 in Luxembourg.
- The average class size in primary education is 22 students per class, but varies between countries from 33 in Korea to less than half that number in Luxembourg and the partner economy the Russian Federation. From 2000 to 2005, the average class size did not vary significantly, but the differences in class size between OECD countries seem to have diminished. Class size tends to have decreased in countries that used to have relatively large class sizes (for example, in Japan, Korea and Turkey) whereas class size tends to have increased in countries with relatively small class sizes (for example, Iceland) (see 2000 data in Table D2.4 on the web only).
- The number of students per class rises by an average of nearly three students between primary and lower secondary education, but ratios of students to teaching staff tend to diminish with increasing levels of education due to more annual instruction time, though this pattern is not uniform among countries.
- In primary and secondary education, OECD countries spend 91% on current expenditure of which 63.5% is for the compensation of teachers, 15.5% for the compensation of other staff, and 19.9% for other current expenditure. At the tertiary level of education, 89.3% is devoted to current expenditure, of which 42.7% is for the compensation of teachers, 23.6% for the compensation of other staff, and 33.8% for other current expenditure (Table B6.2).

- Statutory salaries in Mexico are low by absolute standards (little more than half the OECD average) but among the highest in the OECD when compared with GDP per capita. The ratios of salary after 15 years of experience to GDP per capita, for Mexico in primary and in lower secondary education at respectively 1.58 and 2.01, are well above the OECD average of 1.28 and 1.30 (Table D3.1). Moreover, since 1996, teachers in Mexico have seen the second steepest increase in salaries, with gains for a teacher with 15 years of experience of 32% over the period at the primary level and 37% in lower secondary education (Table D3.2).
- At the primary level, the teaching load in Mexico, 800 statutory hours per year, is slightly below the OECD average of 803 hours (Table D4.1). By contrast, a lower secondary teacher in Mexico is required to teach 1 047 hours per year, the highest number of statutory teaching hours among OECD countries except the United States (OECD average 707 hours).
- The ratio of students to teaching staff in Mexico has increased in pre-primary education to 29 students per teacher, as a result of policies to increase participation and to make this level mandatory in 2002, 14 more than the OECD average. A similar difference exists in primary education. In secondary education in Mexico, there are over twice the number of students per teacher compared to the OECD average (Table D2.2). This high ratio is likely to influence the amount of attention devoted to each student as well as the quality of the outcomes. These ratios raise important challenges for teachers, but they also indicate progress in increasing educational participation and thus student numbers.
- Instructional time for students amounts in Mexico to 800 hours per year for students aged 9-11 years (OECD average 814 hours) and 1 167 hours for students aged 12 to 14 (OECD average 898 hours) (Table D1.1).

<ul style="list-style-type: none"> • <p><i>Private sources of funding for education are becoming increasingly important.</i></p> <ul style="list-style-type: none"> • On average, over 90% of primary and secondary education in OECD countries, and nowhere less than 80% (except in Korea and in the partner economy Chile), is paid for publicly. However, in tertiary education the proportion funded privately varies widely, from less than 5% in Denmark, Finland and Greece, to more than 50% in Australia, Japan and the United States and in partner economy Israel, and to above 75% in Korea and in the partner economy Chile. • In all countries for which comparable data are available, for all levels of education combined, public funding increased between 1995 and 2004. However, private spending grew even more in nearly three-quarters of these countries. Nevertheless, in 2004, on average 87% of expenditure, for all levels of education combined, was still from public sources. • The share of tertiary spending from private sources rose substantially in some countries between 1995 and 2004, but this was not the case at other levels of education. • On average among the 18 OECD countries for which trend data are available, the share of public funding in tertiary institutions declined slightly between 1995 and 2000, as well as every year between 2001 and 2004. However, in general the increase in private investment has not displaced public financing, but rather complemented it. • In tertiary education, households cover the majority of private expenditure in all countries with available data, except Greece, Hungary and Sweden. Private expenditure from other entities than households is still significant, representing 10% or more in Australia, Hungary, Italy, Korea, the Netherlands, Sweden, the United Kingdom and the United States, and the partner economy Israel. 	<p><i>Private sources of funding provide an above-average share of educational spending in Mexico.</i></p> <ul style="list-style-type: none"> • Mexico's funding was 80.5% public in 2004 compared to 82.6% public in 1995 – in both years, this was one of the lowest public funding proportions among the 17 OECD members reporting data for both years (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. In addition, public scholarships that have risen significantly during the last seven years are regarded as private spending. • Although the share of private spending at the primary and secondary levels remained relatively unchanged between 1995 and 2004 (Table B3.2a), it increased from 22.6% to 31.1% at the tertiary level of education (the largest increase after Australia, Italy, Portugal, the Slovak Republic and the United Kingdom) (Table B3.2b). • At the pre-primary level, where the relative proportions of public and private funding range from 100% public in Sweden to 37.9% public and 62.1% private in Korea, the public funding share in Mexico was 80.5% in 2004, similar to the OECD average of 80.0% (Table B3.2a).
<p><i>OECD countries where students are required to pay tuition fees can nevertheless have large access to tertiary education.</i></p> <ul style="list-style-type: none"> • OECD countries where students are required to pay tuition fees and can benefit from particularly large public subsidies do not show lower levels of access to full-length, theory-based bachelor and masters degree university-level programmes, compared to the OECD average. For example, Australia (82%) 	

and New Zealand (79%) have one of 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%) is just below the OECD average (54%), although entry to tertiary-type A education rose by 4 percentage points between 2000 and 2005.

QUANTITY AND QUALITY CHALLENGES

*Previous editions of **Education at a Glance** have shown how demands for more and better education have driven a massive quantitative expansion of education systems in OECD countries, particularly at the tertiary level of education. What has been the impact of this on labour market returns? Has the increasing supply of well-educated labour been matched by the creation of an equivalent number of high-paying jobs? Or one day will everyone have a university degree and work for the minimum wage?*

It is certainly conceivable that at least some new graduates will end up doing jobs that do not require graduate skills and that they will obtain these jobs at the expense of less highly qualified workers. Such a crowding-out effect may be associated with a relative rise in unemployment among people with low qualifications (as higher-qualified workers take their jobs), but also potentially with a reduction in the pay premium associated with tertiary qualifications (as a rise in graduate supply outstrips any rise in demand for graduate skills).

***Education at a Glance 2007** examines this question and the results suggest that the expansion has had a positive impact for individuals and economies and that there are, as yet, no signs of an “inflation” of the labour-market value of qualifications.*

<i>Global trends</i>	<i>Key results for Mexico</i>
<p><i>Education systems continue to expand at a rapid pace.</i></p> <ul style="list-style-type: none"> • In most OECD countries, among adults aged 55 to 64 (who entered the workforce in the 1960s and early 1970s) between 7 and 27% have completed higher education, except in Canada and the United States where more than 30% have done so. Among younger adults aged 25 to 34, at least 30% have obtained tertiary qualifications in 19 countries and over 40% have in 6 countries (Indicator A1). On average, the proportion of the population with tertiary qualifications has risen from 19 to 32% of the population between these two groups. • Although most countries have seen at least some growth in tertiary enrolments (Indicator C2) and in tertiary attainment, the rate of expansion has varied widely from one country to another and from one time period to another. Much of the growth has come from periods of rapid, policy-driven expansion in certain countries. Korea, Ireland and Spain, for example, more than doubled the proportion of tertiary graduates entering the workforce between the late 1970s and the late 1990s from initially low levels. In the United States and Germany, however, the proportion remained largely unchanged, with relatively high levels in the United States and comparatively low levels in Germany (Indicator A1). • Current rates of graduation from traditional universities range from around 20% or less in Austria, Germany and Turkey to more than 40% in Australia, Denmark, Finland, Iceland, Italy, the Netherlands, New Zealand, Norway and Poland. These graduation rates tend to be higher in countries where the programmes provided are of shorter 	<p><i>In Mexico, tertiary qualifications continue to expand.</i></p> <ul style="list-style-type: none"> • Despite being among the lowest levels in the OECD in university-level attainment, Mexico has seen impressive growth in tertiary qualifications over past generations, rising from 8% among 55-to-64-year-olds to 18% among 25-to-34-year-olds. As a result, its relative standing among OECD countries rose slightly, from rank 28 among 55-to-64-year-olds to rank 26 among 25-to-34-year-olds (Table A1.3a). • Rates of current participation suggest that graduation rates will continue to increase. The increase in tertiary enrolment between 1995 and 2004, which will influence graduation rates, was, at 53%, considerably above the OECD average level of 41% (Table B1.5), and only exceeded by five countries: the Czech Republic, Greece, Hungary, Poland and the Slovak Republic, that ranged from 90% to 124% during the same period. This trend is further underlined by Mexico’s increasing entry rates in university. The proportion of Mexico’s age cohort entering tertiary-type A programmes increased from 27% in 2000 to 30% in 2005 (Table C2.5). • In contrast to other OECD countries, Mexico has put much less emphasis on vocational tertiary education (tertiary-type B level programmes) during the last two decades. Mexico has one of the lowest entry rates for vocational tertiary education, with an entry rate of 2% for these programmes in 2005, and this has changed little over the past 5 years (Table C2.5). • Although only 0.2% of today’s young people in Mexico enter advanced research programmes (Table C2.4), among the 12 OECD countries with comparable data, it has, at 90%, the highest survival rate in advanced research programmes (Table A3.6).

<p>duration.</p> <ul style="list-style-type: none"> On average across OECD countries, the graduation rate for shorter, vocationally oriented programmes represents 9%, and 1.3% for programmes leading to advanced research qualifications. 	
<p><i>In most countries, the number of science graduates has increased faster than the overall number of graduates.</i></p> <ul style="list-style-type: none"> The number of persons with a tertiary science degree per 100 000 employed persons ranges from below 700 in Hungary to above 2 200 in Australia, Finland, France, Ireland, Korea, New Zealand and the United Kingdom (Table A3.4). The ratio of younger to older age groups with science as a field of study is 3.0, compared with a ratio for all fields of study of 2.3. In Austria and Canada, the ratio is larger than 4.0, in Hungary and Ireland larger than 6.0, and in Portugal and Spain larger than 8.0 (Table A1.5). 	<p><i>The number of science graduates in Mexico has increased.</i></p> <ul style="list-style-type: none"> In Mexico there are 984 people with a tertiary science degree per 100,000 employed 25-to-34-year-olds, compared with an OECD average of 1 675 (Table A3.4). However, an analysis of the ratio of younger to older age groups with tertiary science degree show that there has been an improvement over the last decade as three times as many young individuals have attained a degree in science compared with the older age group in Mexico (Table A1.5). The share of students in Mexico studying science is similar to the OECD average (11%). This is also true in the remaining fields, with the exception of education, where the share is slightly lower, and in arts and humanities and services where it is slightly higher (Table A1.4). A comparison of younger to older age groups with science as a field of study show an increase in science graduates over recent decades: the ratio of 25-to-34-year-olds with a university qualification plus 30-to-39-year-olds with an advanced research qualification to 55-to-64-year-olds with a university-level or advanced research qualification is similar to the OECD average of 3.0 (Table A1.5).
<p><i>The effects of tertiary expansion: a high calibre workforce or the overqualified crowding out the lesser qualified?</i></p> <ul style="list-style-type: none"> The labour-market and financial incentives for attaining tertiary qualifications continue to remain high for both men and women, despite the rapid growth in the number of those obtaining qualifications. This can be seen when contrasting the advantages of tertiary education for individuals in terms of higher average earnings, lower risks of unemployment and the public subsidies they receive during their studies, with the costs that individuals incur when studying, such as tuition fees, lost earnings during studies and higher tax rates later in life. In all countries with comparable data, the private rate of return for those who acquire tertiary degrees immediately following school is higher than real interest rates, and often significantly so, at a minimum of 9.8% in all eleven countries for which data are available – except for Denmark, New Zealand and Sweden (Table A9.6). 	<p><i>Tertiary graduates in Mexico have a much greater chance of finding jobs.</i></p> <ul style="list-style-type: none"> In most OECD countries, employment rates rise with the level of attainment. In Mexico, tertiary education attainment is associated with a 19 percentage point increase in the employment rate (from 63 to 82%) (Table A8.3a). However, the level of education attainment has less of impact on unemployment rates in Mexico than in most OECD countries. In Mexico, Greece, Korea and Turkey, a lack of upper secondary education is not associated with a higher unemployment risk.

- The average unemployment rate among those with only lower secondary education is 5 percentage points higher than those whose highest level is upper secondary and 7 points higher than those with tertiary education (Indicator A8). The data show that while unemployment is substantially higher than the average among those with low qualifications, this situation has not worsened in those countries that have expanded tertiary education. However, in those countries that did not expand tertiary education, there has been a rise in the relative risk. Indeed, in these countries a failure to complete upper secondary education is now associated with an 80% greater probability of being unemployed, compared to less than 50% in those countries that have increased tertiary education the most.
- Countries expanding tertiary education attainment more in the late 1990s tended to have a greater fall (or smaller rise) in unemployment between 1995 and 2004 than countries with less tertiary expansion. For example, France, Ireland and Korea had the fastest growth in tertiary attainment and close to zero or negative growth in unemployment; Germany, the Czech Republic and the Slovak Republic had low or no growth in tertiary attainment but substantial growth in unemployment among the unqualified (Indicator A1).
- The indicators provide no evidence that the lesser qualified are crowded out from the labour market and there is much to point to the opposite: that the least educated individuals benefit in terms of better employment opportunities when more people enter higher education. In addition, an analysis of trends in the absolute level of unemployment for upper-secondary educated adults suggests that changes in the level of unemployment during the period 1995 to 2004 are unrelated to changes in tertiary attainment levels. In fact, for both upper and lower secondary unemployment, there is no statistically significant correlation between an expansion in tertiary attainment and movement in unemployment rates after controlling for growth in GDP. There is, however, a significant correlation between increases in tertiary and upper secondary attainments and the fall in relative unemployment for lower-secondary educated adults. All this suggests that employment prospects among the least well-educated are principally tied to growth in the economy and in general to productivity, to which an adequate supply of high-skilled labour can potentially contribute.
- Furthermore, higher qualifications do not create unemployment among those with tertiary qualifications or a slump in their pay. Although this does not imply that tertiary graduates enter jobs in

<p>line with their qualifications, it still indicates that the benefits of higher education have not deteriorated as higher education has expanded. And while there have been some small rises in the relative risk of unemployment for graduates, this has been no worse where tertiary attainment has expanded fastest.</p> <ul style="list-style-type: none"> • In all OECD countries graduates face much lower levels of unemployment than do other groups. In terms of pay, the data suggest some curbing of an increasing advantage for tertiary graduates where their supply has risen fastest, but not a general fall. This evidence corroborates similar results from cross-sectional studies, suggesting that lower-educated groups share in the benefit of more tertiary education and that the extra skills produced have largely been absorbed by the labour market. In tracking these phenomena over time, it is interesting to note that positive effects seem to be more pronounced in recent years, contradicting the notion that tertiary education, so far, is expanding too rapidly. 	
<p><i>The internationalisation of tertiary education is proceeding rapidly.</i></p> <ul style="list-style-type: none"> • In 2005, over 2.7 million tertiary students were enrolled outside their country of citizenship. This represented a 5% increase in total foreign student intake reported to the OECD and the UNESCO Institute for Statistics from the previous year. • 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. International students are most numerous in tertiary enrolments in Australia, Austria, France, New Zealand, Switzerland and the United Kingdom. • France, Germany, the United Kingdom and the United States receive more than 50% of all foreign students worldwide. In absolute numbers, international students from France, Germany, Japan and Korea represent the largest numbers from OECD countries. Students from China and India comprise the largest numbers of international students from partner economies. • In Spain, Switzerland and the United States, and the partner economy Brazil, more than 15% of international students are enrolled in advanced research programmes. • 30% or more of international students are enrolled in sciences, agriculture or engineering in Finland, Germany, Hungary, Sweden, Switzerland, the United Kingdom and the United States. • International graduates contribute to 20% or more of 	<p><i>The United States is the preferred destination of Mexican foreign students.</i></p> <ul style="list-style-type: none"> • When studying abroad in tertiary education, 95% of foreign students from Mexico are enrolled in another OECD country. The destinations of choice for the Mexicans are the United States (56.7%), followed by Spain (13.3%), the United Kingdom (7.7%), France (6.0%) and Germany (4.9%) (Table C3.3). Language considerations, geographic proximity, similarity of education systems and migration networks are important determinants of the choice of destination. Note that many Mexican universities have exchange programmes with the United States.

the graduate output for tertiary-type A programmes in Australia and the United Kingdom. The same holds for foreigners graduating in Belgium. The contribution of international and foreign graduates to the tertiary graduate output is especially high for advanced research programmes in Belgium, Switzerland, the United Kingdom and the United States.

EQUITY CHALLENGES

While individuals with high level qualifications continue to see strong labour-market returns, those without strong baseline qualifications, defined by the OECD as those who have not attained a qualification at the upper secondary level, have seen rapidly deteriorating labour-market prospects in most countries. It is therefore increasingly important for education and training systems to ensure that young adults leave school with strong baseline qualifications or attain these subsequently.

Education at a Glance 2007 completes the data on the graduate output at the upper secondary level and the incidence and intensity of job-related non-formal education with new data on the relationship between social background and both learning outcomes at schools and participation in university-level education. The strength of the relationship between the socio-economic background of individuals and their educational outcomes provides one way of examining to what extent countries are using their potential in generating future human capital and allows for assessment of equity in the distribution of learning opportunities.

Global trends

In most OECD countries, upper secondary education is becoming universal, but in some countries a sizeable minority is left behind.

- The proportion of individuals in the population who have successfully completed upper secondary education (see notes on definition at the end) has been rising in almost all OECD countries, and rapidly in some. In more than half of all OECD countries, the proportion of 25-to-34-year-olds with upper secondary qualifications now exceeds 80%, and in Canada, the Czech Republic, Korea, the Slovak Republic and Sweden it exceeds 90% (Table A1.2a).
- 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)

Key results for Mexico

Over the last generations, Mexico has seen limited progress in ensuring that young people leave school with strong baseline qualifications...

- Only 24% of 25-to-34-year-old Mexicans have completed a baseline qualification at the upper secondary level, by far the lowest level among OECD countries, where this level of education is now becoming the norm. There has been less progress in Mexico in raising upper secondary attainment than in most other countries, such that Mexico has fallen behind in relative terms over past generations, from rank 28 among 45-to-54-year-olds (*i.e.* those who completed school some 30 years ago) to rank 29 among 35-to-44 year-olds and 25-to-34-year-olds (*i.e.* those who completed school a decade ago). In contrast, over the same period, Korea moved from rank 21 to 1 (Table A1.2a). Note that the individuals (25-to-34-year-olds in 2005) in this analysis passed the age of sixteen in between 1986 and 1996.

...however, more recently upper secondary completion rates have picked up.

- The proportion of students graduating at upper secondary level has risen from 33% in 2000 to 40% in 2005, thus reducing the upper secondary attainment gap between Mexico and other OECD countries (Table A2.2).

Education in Mexico can build on a growing foundation in early childhood.

- The OECD's thematic review of early childhood education and care has underlined the importance of a strong start for children. In Mexico, 47 children under age 4 for every 100 3-to-4-year-olds now participate in pre-primary education (Table C2.1). Although this is significantly below the OECD average of 69%, it is more than in a fair number of other OECD countries, including Australia, Finland, Greece, Ireland, Korea, the

	<p>Netherlands, Poland, Switzerland and Turkey. Noteworthy, spending per child at the pre-primary level is, in Mexico, higher than at the primary and lower secondary level (Table B1.1a). Further progress can be expected if three years of pre-primary education will become mandatory in 2008.</p>
<p><i>In some countries, student's expectations for their own educational future are also closely related to their social background.</i></p> <ul style="list-style-type: none"> • Some 57% of 15-year-olds in OECD countries expect to go to university, but this rate varies from as high as 95% of students in Korea to as low as 21% in Germany. Indicators show that expectations vary within countries according to individual performance levels, gender, socio-economic background and immigrant status. Data collected in 2003 through OECD PISA show that 15-year-olds' expectations for completing a university-level programme are closely linked with their performance in mathematics and reading. Regardless of their relative academic abilities, 15-year-olds from lower socio-economic backgrounds are less likely to expect to complete tertiary education than those from higher socio-economic backgrounds. In most countries, 15-year-old students from immigrant backgrounds are more likely to expect to complete a university-level programme than their native counterparts. The relative expectations of these students are even higher when compared with native students of similar aptitudes and socio-economic backgrounds. 	<p><i>More students in Mexico expect to go to university than do students in other countries.</i></p> <ul style="list-style-type: none"> • The percentage of 15-year-olds in Mexico who expect to go to a university-level programme is 49% (Table A4.1a). • More females than males expect to complete higher education, at 56%, and 42% respectively (Table A4.3a). • Even among Mexico's lowest performers, those who perform at or below level 1 on the PISA 2003 mathematics scale, 39% expect to attain a university-level education, compared with the OECD average of 33% (Table A4.2a). Among Mexico's top performers, those who reached the highest levels 5 or 6, the expectation rate is 93%, considerably above the OECD average of 78%. • The socio-economically most advantaged quarter of students are 2.2 times more likely to complete a university-level qualification (Table A4.4). • Mexican students tend to report educationally positive and favourable attitudes and approaches. In particular, students report high levels of interest in mathematics, they rely heavily on elaboration strategies for learning, and they report a high level of teacher support. However, their anxiety in mathematics is high compared to other OECD students and their sense of belonging and self-efficacy in mathematics are the one of the weakest after Japan and Korea (Table A5.1).

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 2007.
- “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 2007 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.