



Education at a Glance 2005

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OECD Briefing Note for Mexico

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THE CONTEXT FOR EDUCATION IN MEXICO

Mexico has a large population...

With a population of 101 million, **Mexico** is smaller than only the United States (288 million) and Japan (127 million) among the 30 OECD countries. (Table X2.2, p.417)

...and a relatively low level of national wealth...

Mexico has the second lowest GDP per capita (US\$ 9 370, adjusted for differences in Purchasing Power Parities) among OECD countries, only Turkey (US\$ 6 516) having a lower level. The only others below US\$ 15 000 are Hungary, Poland and the Slovak Republic (Table X2.1, p.416)

...with which to fund a growing population at school-age...

While many other countries have a declining population of school-age children, the **Mexico's** is increasing. Between 1995 and 2002, the number of students in primary, secondary and post-secondary non-tertiary education in **Mexico** increased by 11%. There were larger increases in only the United Kingdom (21%), Sweden (17%), Norway (16%) and Turkey (15%) and, in some of those, the increase was predominantly due to increased participation in the post-compulsory years. (Table B1.4, p.175)

...and increased participation in tertiary education.

Enrolments in tertiary education in **Mexico** increased by 42% between 1995 and 2002. There were larger increases in Greece (81%) and in the other countries that, with Mexico, joined the OECD during the last 10 years, namely Poland (97%), the Slovak Republic (77%), and the Czech Republic (70%), Hungary (61%) and Korea (58%). (Table B1.4, p.175)



INVESTMENT IN EDUCATION

Mexico has increased expenditure on education overall and per student...

Between 1995 and 2002, spending on primary, secondary and post-secondary non-tertiary education in **Mexico** increased by 35%, which was faster than the 11% increase in enrolments and so yielded an increase of 21% in per-student expenditure. (Table B1.4, p.175).

At the tertiary level, educational spending in **Mexico** increased by 72% between 1995 and 2002 (mostly due to an increase between 2001 and 2002 since the increase from 1995 to 2001 was only 22%). The result was that, despite the substantial growth in enrolments of 42%, spending per tertiary student increased by 21%. (Table B1.4, p.175).

The effect of these two changes has been to decrease somewhat the large gap between spending per tertiary student and spending per secondary student in **Mexico** somewhat, but it remains the largest among the OECD countries for which the data are available, per-student expenditure in tertiary education being three times the level in secondary education (Table B1.1, p.172).

For the first time, educational spending as a percentage of GDP in **Mexico** is now, at 6.3%, above the OECD average level, now 5.8%. **Mexico** is one of only 10 OECD countries in which spending on education rose faster than GDP (Table B2.1a, p.184).

At 24% in 2002, the share of public spending invested in education in **Mexico** was the highest among OECD countries and almost twice as high as at the OECD average level (12.9%). In 1995, the share was 22%. Among the 26 countries for the most recent data (2002) are available, New Zealand at 21% is the only other above 20%. (Table B4.1, p.205)

...though per-student expenditure remains low, particularly at primary level...

Despite the increase in funding, spending per primary student in **Mexico** at US\$ 1467 is still very low, approximately one quarter of the OECD average of US\$ 5313. The same holds for lower secondary education. (Table B1.1, p.172)

At the upper secondary level, spending per student in **Mexico** is, at US\$ 2378, significantly higher, and stands at one third of the OECD average level of US\$ 7121. (Table B1.1, p.172)

At the tertiary level, spending per student in **Mexico** is, at US\$ 6074, slightly more than half the OECD average level of US\$ 10 655. (Table B1.1, p.172)

The international comparisons show that expenditure per student is relatively low at all levels of education but the difference in relativities for primary and lower secondary students, on the one hand, and upper secondary and, particularly, tertiary education students on the other, suggest that the younger students in the period of universal education are treated less generously in **Mexico** than the older students enrolled at levels at which participation is not universal and from which they are likely to receive a personal benefit upon graduation. While data to indicate something of the magnitude of the personal benefit are not available for Mexico (Table 9.1a, p.130), the funding levels for younger students seem inequitably low.



and most educational spending is tied up in current spending.

With expenditure levels relatively low, **Mexico** commits most of its resources to spending. This leaves little room for improving the educational infrastructure. At primary and secondary levels, only 2.7% is allocated to capital spending, compared with the OECD average of 8.2%. The situation is similar at the tertiary level, where only 2.7% is devoted to capital expenditure, compared with an OECD average of 11.6%. (Table B6.3, p.226).

Moreover, most of current spending at primary and secondary levels in **Mexico** goes to the compensation of staff, leaving at the primary level only 5.6%, compared with the OECD average of 19.0%, for other current expenditure, such as instructional materials. The situation is less pronounced at the tertiary level. (Table B6.3, p.226)

These are not easy matters to resolve. **Mexico** is increasing its expenditure on education quite rapidly and faster than the growth in its national wealth, as measured by GDP. It has, however, not yet reached a level at which there is very much discretion about how it is allocated.

EDUCATIONAL ATTAINMENT

Levels of educational attainment are rising ...

Almost all OECD countries have seen a rise in the educational attainment levels of their citizens over the past decade, and in some countries the increase has been spectacular. Enrolment in tertiary education, which covers university-level education and high-level vocational programmes, increased between 1995 and 2003 by more than 50% in the Czech Republic, Greece, Hungary, Iceland, Korea, Poland and Turkey. The increase amounted to 46% in **Mexico** – albeit from a very low base – and to more than 20% in Australia, Denmark, Finland, Ireland, Portugal, Spain, Sweden and the United Kingdom. (Table C2.3, available on www.oecd.org/edu/eag2005)

Despite increases, university-level attainment in **Mexico**, at 16% among 25-34-year-olds and at 7% among 55-64-year-olds, is lower than the average. Moreover, some countries with a similarly low base in the past have seen much steeper increases in tertiary attainment than **Mexico**. For example, a generation ago, among 55-64-year-olds, Korea had an attainment rate of only 9% but it is now 30% among 25-34-year-olds. This has moved Korea up from rank 19 among the 30 OECD countries a generation ago to rank 3 today, whereas **Mexico** has moved from rank 26 to 22. (Table A1.3a, p.37) Other countries that have moved up significantly over the last generation include Spain (13 rank order positions) as well as Japan (7 rank order positions), Belgium (4 rank order positions) and Greece (3 rank order positions).

The situation is even more pronounced in the rate of completion of upper secondary education or its equivalent, where **Mexico** continues with the lowest rate in the OECD. As a result, only 25% of Mexican 35-34-year-olds now have an upper secondary qualification, compared with an OECD average of 75%. Korea has moved from rank 24 to 1. Other countries that have moved up significantly over the last generation include Japan and Finland which have moved 6 rank order positions. (Table A1.2a, p.36)

...without reducing the labour-market value of higher qualifications.

Rising education levels among citizens seem generally not to have led to an “inflation” of the labour-market value of qualifications. On the contrary, among the countries in which the proportion of 25-64 year-olds with tertiary qualifications has increased by more than 5 percentage points since 1995 –



Australia, Austria, Belgium, Canada, Denmark, France, Iceland, Ireland, Japan, Korea, Spain and the United Kingdom – most have seen falling unemployment and rising earnings benefits among tertiary graduates over the last years. (Table A3.4a, Education at a Glance 2004)

Moreover, those who do not complete upper secondary education face considerable and increasing penalties in the labour market. In most OECD countries, employment rates rise with the level of attainment. On average among OECD countries, among the 25-to-64 year-olds, the employment rate for those with upper secondary attainment is nearly 20 percentage points higher than for those with below upper secondary attainment level (74% against 56%). The difference is almost 30 percentage points between below upper secondary and tertiary education attainment. In **Mexico**, attaining upper secondary education does not lead to a higher employment rate than for people with below upper secondary attainment, but tertiary education attainment leads to a 20 percentage point increase in the employment rate, from 63 to 82%). (Table A8.3a, pp.111-112)

Generally, those with low levels of educational attainment are both less likely to be labour force participants and more likely to be unemployed. Unemployment rates for 25-to-64-year-olds fall with higher educational attainment in most countries (to a varying extent), except in Korea and **Mexico**. However, in both of these countries, the unemployment rate is low, at 3% or less, whatever the level of educational attainment. (Table A8.4a, pp.113-114)

Participation of adults in continuing education and training is increasing...

In many countries, continuing education and training for adults now also plays a significant role in raising the stock of knowledge and skills. In five out of the 21 OECD countries with comparable data for the 25-to-64-year-olds, more than 40% of the labour force participated in some type of non-formal, job-related continuing education and training each year, but less than 10% of the labour force participate in such continuing education in another five of these countries. Data are not available for **Mexico**. (Table C6.2, p.323)

...but laying a strong foundation in pre-school is also important.

OECD's thematic review of early childhood education and care has underlined the importance of a strong start for children. In **Mexico**, 42 of every 100 3-4-year-olds now participate in pre-primary education. (Table C1.2, p.240). Although this is significantly below the OECD average of 70%, it is more than in a fair number of other OECD countries, including Australia, Finland, Greece, Ireland, Korea, the Netherlands, Poland and Switzerland. It is also noteworthy that spending per child at the pre-primary level in **Mexico** at US\$ 1643 is higher than at the primary (US\$ 1467) or lower-secondary level (US\$ 1477). (Table B1.1, p.172)

EDUCATIONAL PERFORMANCE

Student performance varies widely across countries...

The most recent international comparisons of the performance levels of 15-year-old students are those obtained in 2003 in the OECD Programme for International Student Assessment (PISA), the results of which were published in December 2004. Key findings are reproduced in *Education at a Glance 2005*.

In mathematics, Finland, Korea and the Netherlands among OECD countries achieved statistically similar average scores (between 538 and 544 points) that are significantly higher than the average scores in every



other OECD countries. Eleven other countries have mean scores that are above the OECD mean, four perform at the level of the OECD mean, while the remaining eleven, perform significantly below the OECD average. **Mexico** obtained the lowest mean score (385) on the mathematics scale. (Table A4.3, p.70)

Students with mathematical proficiency below level 2 on the PISA scale are likely to encounter serious problems in using mathematics in their future lives. The proportion with insufficient proficiency varies widely, from below 10% in Finland and Korea to above one quarter in Greece or Italy and more than 60% in **Mexico**. This is an indicator of how many students are likely to encounter serious problems in using mathematics in their future lives. (Table A4.1, p.68)

The problem solving scale in PISA 2003 assesses how mathematical skills can be applied in contexts not restricted to a particular area of the school curriculum. On this scale, Finland, Korea and Japan are the highest performing OECD countries, with mean scores almost 50 points ahead of the overall mean for OECD countries. The mean performance is lowest among OECD countries in **Mexico**. (Table A5.2, p.81). In **Mexico** and Turkey, more than half the 15-year-olds in school cannot solve simple problems (Level 1 problems) while, for the OECD as a whole, the figure is 22%. (Table A5.1, p.80)

...with a tendency for there to be lower average performance in highly stratified systems.

There is a tendency for more stratified education systems to perform less well on average on the PISA tests, though the tendency is small and not statistically significant. **Mexico** appears to have a high degree of stratification and institutional differentiation on three of the four measures of stratification used in this study: **Mexico** has three educational tracks into which students can be sorted (the same as the OECD average), begins selection between tracks at age 12 (the OECD average being 14) and has a relatively high proportion of 15-year-old students who have repeated a year of schooling (22.6% compared with an OECD average of 7.2% on average). (Table D6.1, p.405)

THE LEARNING ENVIRONMENT AND ORGANISATION OF SCHOOLS

Mexico has high student-teaching ratios...

The ratio of students to teaching staff ranges in **Mexico** from 1.5 times the OECD average in pre-primary education (with 22 students per teacher) to 2 times the OECD average in lower-secondary education, where teachers are responsible in **Mexico** for 32 students compared with an OECD average of 14 students per teacher. (Table D2.2, p.353). This high ratio is likely to influence the amount of attention devoted to each student as well as the quality of the outcomes.

...long instructional time for lower secondary students...

Instructional time for students in **Mexico** amounts to 800 hours per year for students aged 9-11 years, compared with an OECD average of 804 hours, and 1167 hours for students aged 12-14 years, compared with an OECD average of 884 hours. (Table D1.1, p.342)

...and a high teaching load for teachers.

At the primary level, the teaching load of 800 statutory hours per year for teachers in **Mexico** is essentially at the OECD average of 795 hours. By contrast, a lower secondary teacher in **Mexico** is required to teach



1047 hours per year, above the OECD average of 701 hours and, in fact, the highest among OECD countries except the United States. (Table D4.1. p.381)

Teacher salaries in Mexico are rather low salary per teaching hour...

The OECD average statutory salary per net teaching hour after 15 years of experience is US\$ 41 in primary, US\$ 51 in lower secondary, and US\$ 59 in upper secondary general education. In primary education, Hungary, **Mexico**, Poland and the Slovak Republic have relatively low salary costs per teaching hour (US\$ 21 or less). By contrast, costs are relatively high, at US\$ 58 or more in Denmark, Germany, Japan, Korea and Luxembourg. (Table D3.1, p.370)

... but represent a major investment in human resources in relation to national income.

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 salary after 15 years of experience for primary teachers in **Mexico** is 1.75 times GDP per capita, compared with an OECD average of 1.31, and for lower secondary teachers 2.23 times GDP per capita, compared with an OECD average of 1.35. (Chart D3.1, pp.356-357, Table D3.1, p.369)

Furthermore, since 1996, teachers in **Mexico** have had the second largest increase in salaries, with gains for a teacher with 15 years of experience; 38% over the period in primary education (OECD average 15%) and 43% in lower secondary education (OECD average 15%). Only Hungary, among the countries for which data are available, had greater increases, at 92% for both primary and lower secondary teachers. (Table D3.3, p.373)

THE OVERALL PICTURE OF MEXICAN EDUCATION

The overall picture of Mexican education that emerges from *Education at a Glance 2005* is of a system faces many problems, deficient in both the level of education in the population and the quality of student learning in its schools, but one in which considerable resources are being invested. Education expenditure is growing faster than national wealth (GDP per capita), teacher salaries are growing faster than in virtually all OECD countries and participation rates beyond lower secondary education are rising.

The national population is large, the proportion of young people is high and national wealth is low in comparison with most other OECD countries so the task of making substantial differences in education is very great. The trends are in the right direction. The key tasks will be to use the increased resources efficiently to obtain the maximum gains possible as quickly as possible, while also seeking to keep expectations within reasonable limits.

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