

Education in Mexico

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ENROLLMENT AND EXPENDITURE

There are 33,567,200 students enrolled in schools and universities in Mexico. Of those, 76.6 percent, or 25.7 million, are enrolled in compulsory education (pre-school, elementary and lower secondary schools); 11.5 percent, or 3.9 million, are enrolled upper secondary schools; and 7.85 percent, or 2.6 million, are enrolled in institutions of higher education.¹

Mexico's educational system is divided in five levels or stages: pre-school, elementary school, lower secondary school, upper secondary school and higher education. Theoretically, pre-school should last three years; primary school, six; lower secondary school, three; upper secondary school, three; and higher education, two to four or five years. For the last two decades compulsory schooling has consisted of nine years,

normally beginning when the child is six years old. But today, Mexico is one of the few countries in the world in which pre-school education is also mandatory (see table 1).

In late 2002, Congress approved an amendment to Article 3 of the Constitution, including its transitory provisions, making pre-school education mandatory, to be implemented gradually beginning in the 2004-2005 school year. By 2008-2009, the school reform must be fully implemented, so that children from the age of three will all have to go to pre-school. At the time of this writing (late 2007), there is debate about the feasibility of the reform. The government itself is encouraging the debate with the argument that there are not enough resources to fully implement the reform. Mexico's national educational authorities are facing a dilemma: the inability to comply with the mandated three years of pre-school education, contrasted with the need to have all children enrolled. If they do not fulfill the constitutional mandate, starting in the 2009-2010 school year, six-year-olds will not

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TABLE 1
ENROLLMENT IN MEXICO'S SCHOOLS AND UNIVERSITIES
2007-2008

<i>Pre-school</i>	<i>Elementary School</i>	<i>Lower Secondary School</i>	<i>Upper Secondary School</i>	<i>Higher Education</i>	<i>Job Training</i>
4,999,700	14,574,200	6,139,200	3,855,700	2,633,800	1,364,600

Source: Felipe Calderón Hinojosa, *Primer Informe de Gobierno*, Anexo Estadístico (Mexico City: 2007).

TABLE 2
GOVERNMENT SPENDING PER PUBLIC SCHOOL STUDENT
(ESTIMATED IN PESOS)
2007

<i>Pre-school</i>	<i>Elementary School</i>	<i>Lower Secondary School</i>	<i>Professional/Technical School</i>	<i>Upper Secondary School</i>	<i>Higher Education</i>
11,500	10,400	16,100	15,600	22,500	50,300

Source: Felipe Calderón Hinojosa, *Primer Informe de Gobierno*, Anexo Estadístico (Mexico City: 2007).

be able to enroll in primary schools. Before the reform, Mexico's children had the right and obligation to enroll in elementary school simply by virtue of being six. However, starting in 2008-2009, those children will have to have an official pre-school diploma (certification). For this reason, the educational authorities are arduously seeking a constitutional amendment to cancel or postpone the three-year pre-school obligation.

This will undoubtedly be a thorny topic on the agenda since, at least for 2007, the federal government estimates a real increase of almost zero in educational spending per student. In fact, and using official budget estimates as a basis, national spending on education as a percentage of GDP will drop from 7.0 percent to 6.9 percent from 2006 to 2007.² This is particularly critical because in the last few years, the demand for school education has grown and will continue to grow vigorously and consistently. The pressure of this increasing demand stems not only from the new compulsory nature of pre-school education, but also from two other sources: demographic pressures and educational policies geared toward drastically reducing the drop-out rates while increasing the upper secondary school and higher education enrollment

rates. Higher enrollment rates in all levels plus lower drop-out rates in lower and upper secondary schools will make for pressure on expenditures, since these are the most costly levels of education.

Today, Mexico spends about 19,200³ pesos a year per student nationwide.⁴ However, as shown by Table 2, the distribution of these expenditures increases consistently as students rise through the educational pyramid from elementary school on.

Mexico spends a slightly higher percentage of its GDP (6.4 percent) than the Organization for Economic Cooperation and Development (OECD) average (6.2 percent).⁵ In addition, educational spending has grown significantly in recent years. However, expenditures per student are much lower in Mexico than the OECD average and even lower if compared to countries with the highest levels of expenditure per student such as the U.S.

Compared to other countries, Mexico's educational spending is notably smaller when the parameters are expenditures per student. Table 3 shows the data for Mexico, the OECD average and some individual countries.

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There seems to be a consensus among educational policy scholars in the sense that what is really important is not the level of expenditure, but the way public funds are used. The real question is not how much is spent but how it is spent. Nevertheless, one of the main challenges for a poor country like Mexico will be to improve the way its scarce financial resources are spent at the same time that it seeks new sources of financing to maintain a constantly expanding system, particularly at the most expensive levels of education.

EDUCATIONAL QUALITY

Educational quality, defined as learning performance measured by standardized testing, is a relatively new issue in Mexico's public debate, in contrast with the United States, where standardized tests have been given for several decades. The first world-scale assessment Mexico participated in was the 1995 Trends in International Mathematics and Science

Study (TIMSS), under the auspices of the International Association for the Assessment of Educational Achievement (IEA).⁶ However, unfortunately, Mexico's federal educational authorities of the time decided not to publish the results. This was a harsh blow for IEA test organizers, who, after that experience decided to change the rules: no country can refuse to disseminate the results of the tests and their analysis anymore.

In 2000, Mexico participated in another international test, the Programme for International Student Assessment (PISA), under OECD auspices, and the results were published in 2001.⁷ For the first time, 15-year-old Mexican students' performance relative to their counterparts in other countries was published (see table 4). In 2002, a group of 11 countries joined the 32 (the 28 OECD members plus four others) that had participated in the 2000 assessment.⁸ In all, 41 countries participated in the 2000 and 2002 assessments. Mexico ranked thirty-fourth. In 2003, PISA was applied for the second time. On this occasion Mexico dropped its ranking vis-

TABLE 3
EXPENDITURES PER STUDENT (U.S. DOLLARS)
2007

	<i>Elementary Schools</i>	<i>Lower Secondary Schools</i>	<i>Upper Secondary Schools</i>	<i>Higher Education</i> ¹
Mexico	1,694	1,602	2,564	4,834
OECD (average)	5,832	6,909	7,884	7,951
United States	8,805	9,490	10,468	19,842
Luxembourg	13,458	18,036	17,731	Nd
Finland	5,581	8,918	6,555	7,697
Czech Republic	2,791	4,769	4,790	5,711
Slovak Republic	2,073	2,389	3,155	5,940
Turkey	1,120	1,808 ²	1,808 ²	4,231

¹ Not including research and development activities.

² Expenditure for all lower and upper secondary education.

Source: Organization for Economic Cooperation and Development, *Education at a Glance 2007: OECD Indicators*, Paris, 2007. Table B.1a.

à-vis the other 40 assessed countries to the thirty-seventh position (see table 4). In 2006, a third round of PISA testing took place, and the results will be published on December 4, 2007. Not much is expected for Mexico from this round.

National assessments carried out in 2005 and 2006 known as Excale (Educational Quality and Achievement Exams) and 2006 and 2007 known as ENLACE (National Academic Achievement Evaluations in Schools) reveal serious deficiencies in primary and secondary school students' learning nationwide.⁹

Summing up, in the first decade of the twenty-first century, Mexico has a particularly weak educational system that will have to face enormous challenges in terms of enrollment and quality, challenges that sometimes seem insurmountable when the issue of equity is brought into the picture.

EQUITY

Even with all of this, Mexico's biggest problem and educational challenge is equity. Assessment after assessment shows that this issue is extraordinarily important in explaining and predicting the variance of results among students of the

world's educational systems. What is more, students' poor performance is worsened in countries with severe structural poverty and/or inequality problems, like Mexico and the U.S. In Mexico, the differences in performance of public and private elementary and lower secondary school students can reach up to four grades of schooling. That is, the average private school student can have an advantage in compulsory learning of up to three or four grades of study. Of course, when these results are controlled by the students and schools' socioeconomic, socio-cultural and socio-educational factors, the differences are drastically reduced. That does not refute the fact that, if we disregard the aforementioned conditions, children with more resources, with access to private schools, have a considerable advantage over low-income children attending public schools. The educational system, then, not only reflects social segregation, but fosters it.

THE CHALLENGES

Mexico's educational challenges are monumental. Naturally, a large part of the problem of deficient quality in results must be sought in age-old structural problems like poverty and

TABLE 4
PISA 2000/2002 AND PISA 2003 RESULTS

Country	Average Points (reading, math and science)			
	2000/2002	Ranking	2003	Ranking
Japan	1,629	1	1,580	5
Hong Kong-China	1,626	2	1,599	3
South Korea	1,624	3	1,614	2
Finland	1,620	4	1,635	1
Canada	1,596	5	1,579	6
New Zealand	1,594	6	1,566	9
Australia	1,589	7	1,574	8
Czech Republic	1,501	17	1,528	15
United States	1,496	18	1,469	24
Mexico	1,231	34	1,190	37
Peru	952	41	na	na
Tunisia	na	na	1,119	40

na: not available.

Sources: PISA 2000/2002, OECD, *Literacy Skills for the World of Tomorrow. Further Results from PISA 2002*, figures 2.5, 3.2 and 3.5 (Paris: OECD, 2003).

PISA 2003: OECD, *Informe PISA 2003. Aprender para el mundo del mañana*, Figures 2.16b, 6.3 and 6.10 (Mexico City: Santillana, 2004).

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inequality. Another source of educational deficiency may rest on a culture which is not prone to education. Only today's generations are achieving slightly more than a primary education, a good deal higher than that of their parents. In Mexico, families do not support schooling, in contrast to attitudes in Asia or Europe, where love of education is in people's blood or in their mothers' milk, as I heard the principal of a prestigious Finnish school say.¹⁰ In 1960, 15-year-olds and older Mexicans averaged 2.8 years of schooling. In 2005, the years of schooling grew to 8.1. In 1960, 43.2 percent of people in this age group did not finish elementary school, while by 2005, the same indicator dropped to 14.2 percent.¹¹

A third source of educational deficiency is the dearth of opportunities for teaching and learning in the schools that most need them, that is, public or government schools, which generally serve the poorest population. Finally, one additional source of quality deficiency is rooted in the educational system *per se* together with the players' power relations and interactions.

Mexico's educational system is far too decentralized for a political federation. Mexico and the U.S. are both federations, but in Mexico, the most important decisions are made on the federal level. States' decision-making power is circumscribed to operational matters. In contrast with the No Child Left Behind Act (NCLBA), whereby the U.S. government tries to influence educational policy through a complex scheme of incentives and monetary sanctions, in Mexico, the federal government has a constitutional and legal mandate granting full powers to federal authorities and agencies, mainly the Ministry of Public Education (SEP).¹² With those powers, the SEP, together with the Chamber of Deputies, not only determines educational expenditures, but also decides their distribution by state and educational level. Federal authorities also completely decide the objectives and content of all compulsory education curriculums (pre-school, elementary and lower secondary schools) for both public and private schools, and those designed for normal schools (teacher-training colleges). Federal authorities also establish national standards for compulsory education and teachers-college

education. There is also a national assessment policy under the federal umbrella.

In August 2002, the federal government established a decentralized agency to take charge of all national assessments for compulsory and high schools: the National Institute for the Assessment of Education (INEE).¹³ The INEE follows a plan to carry out national standardized tests based on random samples of students. In 2006, the SEP began its own assessment of third-to-sixth and ninth-grade students' performance in Spanish and math using its ENLACE test. Plans for 2008 include increasing ENLACE's coverage and scope in primary and lower and upper secondary schools.

The federal government is also in charge of labor relations with teachers, and negotiations are held on a national level with the only union that holds title to the collective bargaining agreement for compulsory-education-level teachers, the National Educational Workers Union (SNTE).¹⁴ This gives the union great *de facto* power and negotiating capability *vis-à-vis* other interest groups in compulsory education.

As if that were not enough, federal authorities also have the power to design, impose and implement massive measures regarding different issues, like obligatory textbooks in compulsory education (particularly for elementary grades) or universal technological solutions. Using these powers, the SEP has ordered and financed sweeping, costly national technological programs. For example, in 2004, it decided to extend a costly multimedia technology package to all public elementary schools in the country known as *Enciclomedia*,¹⁵ which has introduced electronic white boards into 150,000 classrooms. In just two years (2005 and 2006), this program cost almost 17 billion pesos to operate. This figure is equivalent to the National Autonomous University of Mexico's annual budget, or three times the budget of the federal agency in charge of promoting science and technology in the whole country, the National Council for Science and Technology (Conacyt).¹⁶

The two pillars of Mexico's educational system, Article 3 of the national Constitution and the SEP, which is 86 years old this year, have exhibited strong resistance to change.

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Furthermore, over time Article 3 has concentrated federal and state power over education at all levels, but above all, at the compulsory school level. Amendments to Mexico's educational system like the famous 1992 reform, known as the National Agreement for the Modernization of Basic Education (ANMBE),¹⁷ have been insufficient to overcome the enormous problems in educational quality and equity. The biggest achievements in education in Mexico center on enrollment, but even in this area, Mexico not only lags behind developed countries, like those of the OECD, but also behind Latin American nations with similar or lower levels of development.

It takes decades to change educational systems anywhere in the world. But, if the analysis of the problems and deficiencies is wrong, educational policies will be ineffective. To really transform and improve education in Mexico, a radical change in educational policy is needed.¹⁸ Unfortunately, the political, social and economic conditions required for substantial change in this area in Mexico do not exist. In the coming years, we will see more of the same. **NMM**

NOTES

¹ Throughout the article, the author uses the OECD terms "lower secondary school" and "upper secondary school" as the equivalents of the U.S. "middle" and "high schools." [Editor's Note.]

² Felipe Calderón Hinojosa, *Primer Informe de Gobierno*, Anexo Estadístico (Mexico City: 2007).

³ As of October and the first days of November 2007, the peso exchange rate has fluctuated between 11 and 10.70 pesos per U.S. dollar.

⁴ Ibid.

⁵ Organization for Economic Co-Operation and Development, *Education at a Glance 2000: OECD Indicators*, Table B2.1 (Paris: OECD, 2007), p. 205. See http://www.oecd.org/document/30/0,3343,en_2649_201185_39251550_1_1_1_1,00.html.

⁶ See <http://times.bc.edu> and www.iea.org.nl.

⁷ See www.pisa.oecd.org.

⁸ OECD, *Literacy Skills for the World of Tomorrow: Further Results from PISA 2002* (Paris: OECD, 2003), p. 12, at http://www.uis.unesco.org/ev.php?ID=5467_201&ID2=DO_TOPIC.

⁹ See www.inee.edu.mx and www.enlace.sep.gob.mx.

¹⁰ Eduardo Andere M., *¿Cómo es la mejor educación en el mundo?: Políticas educativas y escuelas en 19 países* (Mexico City: Aula XXI/Santillana, 2007).

¹¹ Instituto Nacional de Estadística Geografía e Informática, *Indicadores seleccionados sobre nivel de escolaridad, promedio de escolaridad, aptitud para leer y escribir y alfabetismo, 1960 a 2005* (Mexico City: INEGI, 2007), at <http://www.inegi.gob.mx/est/contenidos/espa%ntol/rutinas/ept.asp?t=medu09&c=3277>.

¹² SEP, "Secretaría de Educación Pública," at www.sep.gob.mx.

¹³ See www.inee.edu.mx.

¹⁴ SNTE stands for the Sindicato Nacional de Trabajadores de la Educación.

¹⁵ See www.encyclomedia.sep.gob.mx.

¹⁶ Consejo Nacional de Ciencia y Tecnología at www.conacyt.mx.

¹⁷ ANMBE, "Acuerdo Nacional para la Modernización de la Educación Básica."

¹⁸ I deal with this issue in my book *México sigue en riesgo: el monumental reto de la educación* (Mexico City: Temas de Hoy, Editorial Planeta, 2006).



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