

Chapter 6

The Challenges for the Education System

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Despite a challenging environment, Mexico has scored important achievements in expanding and strengthening its education system over the Past decade. Nevertheless, the system is still faced with major challenges regarding students' enrolment, performance and transition to the labour market. This calls for further significant reforms, in particular: improving support to schools and teachers so they can accomplish their tasks; developing vocational education and training; and making tertiary education more relevant and accessible to more students. Past measures have not always achieved the expected results because of structural weaknesses. These include a lack of consensus and capacity, and an unclear distribution of responsibilities in a decentralised system. Capacities need to be improved and expanded, not only at the federal level but also in the states and schools themselves. The decisions announced by President Peña Nieto during his inaugural Message to the Nation, the education commitments of the Pact for Mexico, as well as the initiative of constitutional reform and the administrative changes announced regarding the management of the education system and the organization and supervision of teachers are encouraging signs that change may be coming to this important sector. Key focus on effective implementation should follow through.

A highly skilled workforce is one of the main drivers of productivity and long-term growth. Education also helps reduce social inequalities and poverty, and promotes inclusiveness. Over the past decade, Mexico has achieved significant progress in improving the coverage and quality of its education system despite a challenging and difficult economic environment. Today, nearly all children between the ages of 4 and 14 are in school, and the country is working to raise secondary and tertiary education completion. However, much remains to be done to further improve the performance of the education system and reap the full benefits of Mexico's young and dynamic population.

The system is still faced with major challenges regarding student enrolment (especially after the age of 14) and transition to the labour market. It has to provide further stages of education to all 15- to 19-year-olds that are relevant to their needs, interests and future professional lives, and useful for the labour market. In addition, quality improvements have not kept pace with the expansion of coverage. Under the Programme for International Student Assessment (PISA) the performance in mathematics of Mexican students showed some improvement between 2006 and 2009 but remained low in comparison to other OECD countries. Particular efforts are needed: to strengthen support to schools and teachers so they can accomplish their tasks to develop vocational education and training; and to make tertiary education more relevant and accessible to more students.

Changing demographics have led to fewer children and more 15- to 19-year-olds than ever in the education system. This creates an historical opportunity to improve the quality of the education provided to 4- to 14-year-olds, since this sector is now less in demand; however, it also makes the expansion of enrolment after 14 even more challenging.

Mexico is working to address these challenges through several ongoing and newly proposed reforms that touch upon different aspects of the system. These have to do *inter alia* with teaching and school leadership, ICT, curricula, social participation, evaluation and assessment strategies, and coverage at upper secondary and tertiary education levels. In its inaugural Message to the Nation the President has committed to education reform. Building on this commitment the Pact for Mexico, signed in December 2012 between the Mexican government and the three main political parties and which includes detailed

reform objectives in education, shows that Mexico continues to see education as a priority for its economic development. For the reforms to be successful, it is necessary to achieve greater coherence among individual initiatives and ensure effective implementation and follow-up. Furthermore, how resources are invested will be key to the reforms' effectiveness.

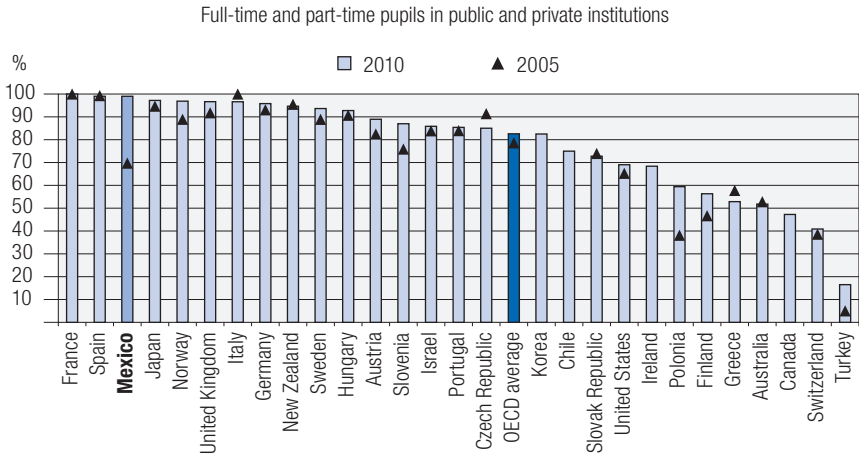
Enhancing education coverage for all Mexicans

Mexico's education system is one of the largest and most complex in the OECD area. In pre-primary, primary and lower secondary education alone, Mexico has nearly 27 million students, about 1.1 million teachers, and 220 000 schools. This means that there are more students in Mexico in compulsory education than the total population of many OECD countries. Moreover, education is often delivered under challenging conditions for students, families, schools and communities.

Wide education coverage at the compulsory level has been a great national achievement. Today, Mexico has succeeded in providing education to almost all of its 4- to 14-year-olds. Since preschool education was made compulsory in 2009, Mexico has achieved one of the highest rates of school enrolment among 4-year-olds in the OECD area, ranking 4th among 38 countries (Figure 6.1). This represents an increase of 29 percentage points since 2005, when Mexico ranked 21st out of 30 countries. Empirical evidence shows that Early Childhood Education and Care (ECEC) can help improve student performance later in life, and also reduce gaps in learning achievement generated by different social backgrounds (OECD, 2011a). PISA 2009 results, after accounting for socio-economic background, showed that Mexican students who had attended more than one year of pre-primary school scored about 36 points higher (almost equivalent to a school year) than those who did not (OECD, 2011b). Coverage has also expanded at other levels. Secondary school education participation has increased by 14% since 2000 (compared to an OECD average of 8%), although the dropout rate remains high.

Only 54% of Mexico's 15- to 19-year-olds are enrolled in the education system. Mexico is therefore working to expand the access of students to upper secondary education. Although the proportion of young people that has attained this level has nearly doubled to 44%, this is still about half the OECD average of 82% (Figure 6.2). Interviewed in 2007, students who had dropped out said that the main reason was lack of interest in school, as it was of little use or inadequate for their interests and needs. The second reason was the lack of financial resources. Students who drop out are more likely to experience difficulties in entering the labour market (Székely Pardo, 2009).

Figure 6.1. **Enrolment rates at age 4 in early childhood and primary education (2005, 2010)**



Note: Countries are ranked in descending order of the enrolment rates of 4-year-olds in 2010.

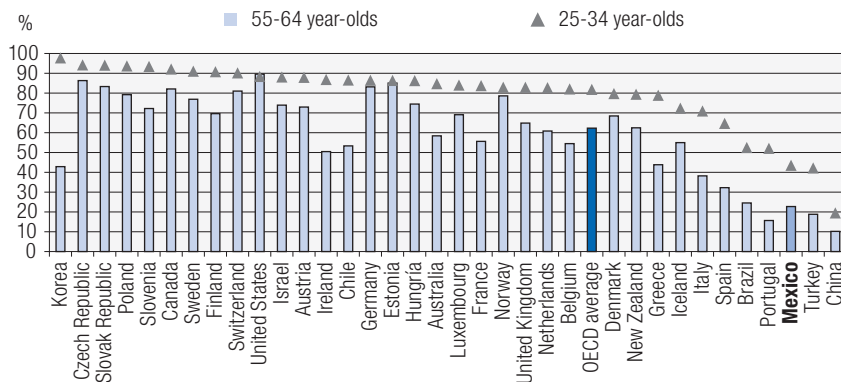
Source: OECD (2012a), *Education at a Glance 2012: OECD Indicators*, OECD.

Mexico will thus need to address the challenges of making upper secondary education more appealing to students, besides providing greater equality of opportunity. Toward that end, Mexico implemented from 2009 to 2010 a national upper secondary system (*sistema nacional de bachillerato*), which aims to provide a coherent framework of upper secondary education through better academic guidance; more education options on offer; improved mechanisms to deliver education (e.g. teacher training, school leadership professionalisation, infrastructure, scholarships); and a monitoring system for institutions. Also, in 2012 Mexico made upper secondary education compulsory, setting 2022 as the deadline for attaining universal coverage.

The transition from school to work has been another priority area for Mexico. Vocational education and training is one way in which countries prepare students for the labour market, through school and work-based programmes (OECD, 2010). In Mexico, the initial vocation and training (VET) system provides learning opportunities in remote regions, support measures for students at risk, and (there is also evidence of) collaboration between employers and training institutions at local levels. To help improve the system, Mexico reformed the technological baccalaureate and created trainee grants. However, the VET sector in Mexico is among the smallest in the OECD area.

Tertiary education coverage in Mexico has also progressed significantly, but it is still much less developed than in most OECD countries. Compared with

Figure 6.2. **Population that has attained at least upper secondary education (2010)**



Source: OECD (2012a), *Education at a Glance 2012: OECD Indicators*, OECD.

the 12% of 55- to 64-year-olds that have a tertiary education, the percentage of 25- to 34-year-olds who have achieved this level of education is almost double at 22%. Graduation rates at this level (38%) nevertheless remain some of the lowest among OECD countries in this age range, particularly among young people from poor families. Participation rates of disadvantaged students could be raised through better career guidance and counselling services as well as financial aid schemes. Improving the quality of tertiary education through internal and external quality assurance requires a well-developed framework. Most of the costs of tertiary education are covered by the government, which limits a greater expansion of enrolment. An approach geared towards sharing the costs of higher education between students and taxpayers, in line with their respective benefits, could represent a better use of limited public resources. OECD data show that tertiary education creates large social benefits in the form of economic growth, social cohesion and citizenship values that justify public investment. However, in light of the very significant private benefits of tertiary qualifications, individual graduates, when they are in a position to do so, can bear some of the cost, too. The case for cost-sharing is strongest when tight public budgets lead to cuts in the number of tertiary students, a decline in the quality of instruction, and/or a decrease in the resources available to support disadvantaged students. Cost-sharing would allow Mexico to continue to expand with no apparent sacrifice of instructional quality, and make institutions more responsive to student needs. However, with such an approach, effective student support systems would be a crucial ingredient for success. They should be based on a universal, income-contingent loan system complemented with a means-tested grants scheme. The loans help students pay for their education during the years they are studying

and, if the loans are income-contingent, reflect students' ability to repay the loan after graduating. Because they are progressive, the loans offer lower public subsidies to graduates with higher private returns on their investment in education. Means-tested grants promote access to higher education among more vulnerable groups, including youth who simply do not have good information about the benefits of a tertiary education.

In Mexico, one-quarter of 15- to 29-year-olds are not in employment, education or training (NEET)¹. Enhanced labour market perspectives can play an important role in the decision to stay in education or enter the labour market. In most OECD countries, education attainment can act as "insurance" against unemployment, as unemployment rates tend to diminish on average when education levels increase. However, this is not necessarily the case in Mexico. In 2010 Mexico was the only country with a higher unemployment rate among individuals with a tertiary education (5%, compared to the OECD average of 4.7%) than among those who had attained an upper secondary education (4.6%, OECD average of 7.6%) and those who had not attained an upper secondary education (4%, OECD average of 12.5%) (OECD, 2012a). This pattern of unemployment rates in Mexico has remained stable over the past decade, suggesting a potential structural mismatch between labour market demands and graduate supply, and a higher demand for low-wage jobs. It also reflects the problems of a labour market characterised by informality. The absence of unemployment insurance also implies that when they lose their jobs, low-skilled workers are likely to move to a new job with worse working conditions – often in the informal sector (see Chapter 5 on labour market reforms).

Ensuring quality of education in schools to all

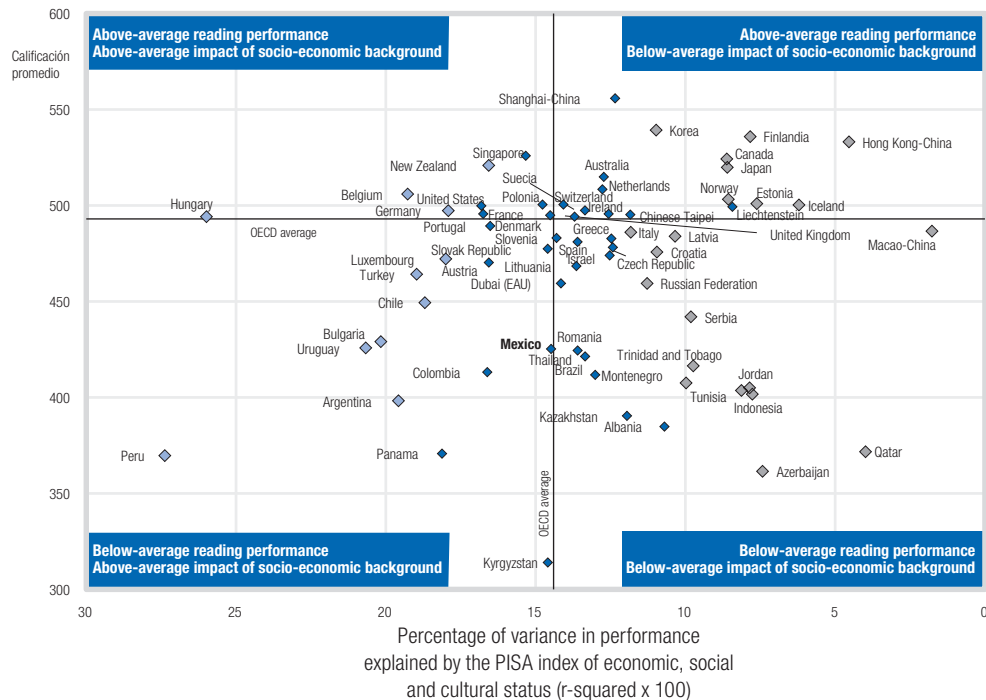
A key objective for Mexico should be to ensure that compulsory education effectively provides strong foundations for all students. In PISA 2009, about 40% of Mexican 15-year-old students performed below Level 2 in reading,² which is the largest share among OECD countries. Student performance is also strongly related to socio-economic background, meaning that personal or social

¹ Mexico has made progress in reducing the gender gap of the NEET population. In 2000 the proportion of women who were neither in education nor employed at ages 15-29 was 7 to 1; in 2010 this proportion has dropped to 3 to 1. According to evidence provided by Mexican studies (*Encuesta Nacional de la Juventud*, 2010 in OECD, 2012a), the main reasons for the gender gap in Mexico seem cultural (marriage and pregnancies).

² PISA 2009 describes students' performance in terms of seven levels of reading proficiency. Level 2 is considered the baseline level, at which students begin to demonstrate the reading literacy competences that will enable them to participate effectively and productively in life. On average across OECD countries, 18.8% of students performed below Level 2 (lowest performers), 52.9% of students performed at Levels 2 or 3 (moderate performers), 20.7% of students performed at Level 4 (strong performers), and 7.6% of students performed at Levels 5 or 6 (top performers) (OECD, 2011c).

Figure 6.3. Relationship between student performance in reading and the index of economic, social and cultural status (ESCS)

- ◆ Strength of the relationship between performance and socio-economic background above the OECD average impact
- ◇ Strength of the relationship between performance and socio economic background not statistically significantly different from the OECD average impact
- ◇ Strength of the relationship between performance and socio economic background below the OECD average impact

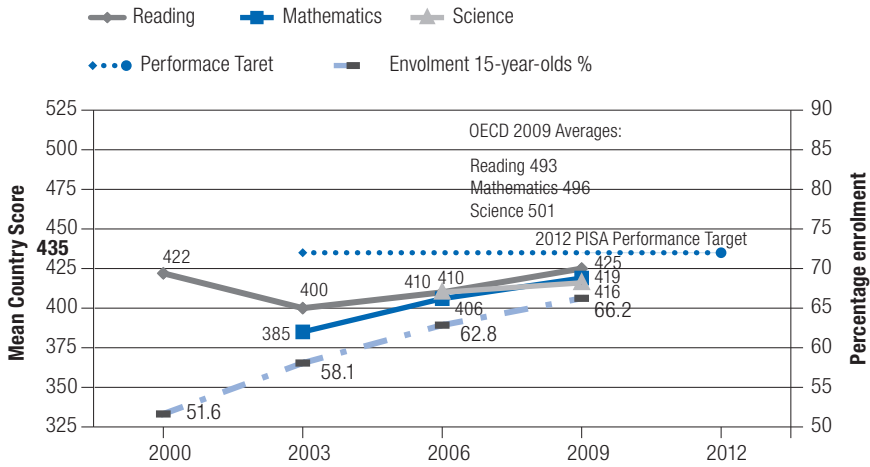


Source: OECD (2011b), *PISA 2009 Results: Overcoming Social Background – Equity in Learning Opportunities and Outcomes*, OECD.

circumstances are obstacles to achieving full educational potential. International evidence shows that high-performing education systems combine quality with equity. Mexico can and should aim to improve its performance on both fronts over the long term and place student learning at the centre of education policy, so that all students can reach their full potential (Figure 6.3).

To foster educational progress, the government established performance targets for 2012 of a combined average of 435 score points (Figure 6.4), although this goal is perhaps not sufficiently ambitious and well below the OECD average of 500 points. Some improvements have been achieved in mathematics, where Mexico had the largest absolute improvement (a 33-point score increase) between 2003 and 2009, and the greatest decrease in students performing below Level 2 basic skills. In reading there is no statistically significant improvement compared with 2000, while in science there was a small improvement (OECD, 2011d).

Figure 6.4. PISA results for Mexico (2009, 2009)



Source: OECD (2011d), *Strong Performers and Successful Reformers in Education: Lessons from PISA 2009 for Mexico*, OECD.

The impact of a student’s socio-economic background on their performance has decreased significantly, showing that there have been improvements in the equity of the distribution of learning opportunities. A comparison of student performance among different schools shows examples where students from similar backgrounds are performing better, and that it is possible to obtain reasonably high levels of achievement in Mexican schools with students from relatively disadvantaged backgrounds (OECD, 2011d). There is therefore an opportunity for Mexican schools to learn from the success of other schools in their own country. This is a positive development, as they all face the same restrictions and challenges.

It is also essential, as efforts to raise achievement in Mexico take place in a context of major socio-economic challenges. Mexico, along with Turkey, has the highest percentage (58%) of 15-year-old students among OECD countries classified with a PISA index of economic, social and cultural status³ below -1, followed by Chile with 37% (OECD, 2011d; 2011e). The country also has great cultural diversity, with about 62 ethno-linguistic groups that speak one of the

³ The PISA index of economic, social and cultural status was created on the basis of the following variables: the International Socio-Economic Index of Occupational Status (ISEI); the highest level of education of the student’s parents, converted into years of schooling; the PISA index of family wealth; the PISA index of home educational resources; and the PISA index of possessions related to “classical” culture in the family home. This index has a mean of zero and a standard deviation of 1 for OECD countries. Negative values in this index refer to a more disadvantaged status than the OECD average, and positive values refer to a less disadvantaged status than the OECD average.

68 different indigenous languages and 364 linguistic variations (INALI, 2008; Santiago *et al.*, 2012). According to Mexico's 2010 national census statistics, about 6.7 million people who are at least five years old speak an indigenous language (6.8% of the total population in Mexico at this age range). From this group, according to INEGI almost a million do not speak Spanish. Despite improvements, a large performance gap has remained for students whose language spoken at home is different from the language of assessment in PISA (71 score points in 2000 and 95 in 2009). In fact, in 2009 Mexico had the third-largest score point difference among the 32 countries with comparable performance data. It must be emphasised, however, that Mexico has made significant efforts to develop bilingual education programmes in the most disadvantaged areas.

Grade repetition at the primary school level is high, with 17% of students reporting that they have repeated a grade in primary education (10 percentage points above the OECD average). Furthermore, 44% of students at primary, lower and upper secondary reported being at least one grade below their expected grade, compared to the OECD average of 18% (OECD, 2012a). In high-performing countries, repetition tends not to occur or to be very limited, while the best teachers are deployed to the most difficult schools to assist the most disadvantaged students. Successful school performance becomes the focus of policy, with vulnerable students receiving targeted support. Mexico should review the policy of grade repetition.

Improving conditions for teaching and learning

The conditions in which education is provided are particularly challenging in Mexico and need to be improved. In basic education, children attend school either in the morning or in the afternoon (except in those schools that have introduced full-time education or in certain private schools). A single school building may have one director for the morning and another for the afternoon, and different groups of students and teachers in the two shifts. Some teachers are obliged to teach at one school in the morning and another in the afternoon, while others have second jobs in other sectors. This can limit both their time and their capacity to become involved in the planning of their lessons, as well as in opportunities for teamwork and mutual learning with other teachers. There is also some evidence that the quality of the schools varies significantly between the morning and the afternoon shifts (OECD, 2010).

The issue of school autonomy also needs to be addressed. School results are better in educational systems with a high level of school autonomy, as long as autonomy is combined with strong support and accountability. Mexican schools have one of the lowest levels of school autonomy among countries participating

in PISA and the Teaching and Learning International Survey (TALIS).⁴ Schools have little decision-making capacity over matters key to their functioning, such as hiring or dismissing teachers and school principals, determining teachers' salaries, and granting salary increases. In the long run, school autonomy is a desirable goal for Mexico. A necessary step in that direction is ensuring that enough capacity and support at the school and mid-levels is in place to carry out these decisions. There should also be a robust and reliable framework for improvement, accountability and transparency that takes account of the context in which the school operates.

Mexico has invested resources in the use of technology in education, through initiatives such as *Enciclopedia* and recent IT investments, and there is also a strong emphasis on making technology available to students in the new administration proposals. While the use of technology in education can be positive, it is essential for Mexico to understand technology as a support opportunity for the improvement of learning, rather than an end in itself. Providing access to hardware does not suffice. For example, initiatives that offer one computer per child may be expensive and less effective if they are not implemented appropriately, and if they are not accompanied by relevant training to teachers. Conversely, greater benefits can accrue in a class with more restricted access to technology but where teachers receive guidance on how to use the available resources for learning. Therefore, along with improving access to ICT tools, Mexico needs to work towards having relevant digital content available and upgrading teachers' skills and pedagogy to make the most effective use of it. Across OECD countries, the most successful models take full advantage of the available tools and connect them with the learning process, the pedagogy, and the organisation of schools and teachers' practices (Box 6.1).

Box 6.1. Innovating through ICT: Interactive whiteboards integration in England

With about 80% of interactive whiteboards (IWB) in its classrooms in 2011, England is probably the OECD country with the most experience in rolling out large programmes of IWB integration. Most programmes started in the 2000s and received thorough evaluation. Some of the main findings are that successful implementation depends on a strong pedagogic (rather than technical) training on the use of IWB and on the creation (or availability) of enough relevant digital content. Informal networks of peer-to-peer knowledge

⁴ The first cycle of the *Teaching and Learning International Survey* was carried out in 2007-08 in 23 OECD and partner countries. Each country had a sampling of 200 schools at the lower secondary level. In each school, 20 teachers were randomly selected. The total sample therefore comprised about 90 000 teachers a representative sample of some 2 million teachers in the participating countries (OECD, 2009a).

sharing within schools and as part of communities of practice across schools have proven particularly effective. They tend to be based on teachers acting as ICT champions in their school and beyond. It is noteworthy that such large-scale programmes should concern schools as a whole (rather than classes) to trigger the right learning environment for teachers. Even with the availability of professional development opportunities, it took about 2 years for teachers to become proficient enough to use the whiteboard interactively in their teaching. One common lesson of all programmes of IT integration in education is that technology in itself has no impact on student outcomes: the impact comes from its combination with appropriate pedagogies. Given the cost of technology, countries should carefully review their options and their mid-term and long-term objectives. For example, other technology options such as a combination of projector and visualiser can be a cost-efficient substitute for white boards.

Italy is currently running a large-scale programme: a digital plan for education. The OECD is currently reviewing this plan, the initial lessons of which will be shared with Mexico when available.

Source: OECD.

Mexico has taken measures to improve the conditions of the education provided at schools:

- To provide for longer school days, Mexico is promoting implementation of full-time schools at the national level.
- To increase the participation of communities in their schools with the aim of achieving better-quality education, social participation in school councils is being promoted across the country.
- Through the Better Schools Programme, Mexico refurbished 16 000 schools from pre-primary to lower secondary education most in need of repair across the country. This programme is implemented with the participation of school communities (OECD, 2012b).
- To provide coherence in the content taught and raise competence levels in compulsory education, a comprehensive curricular reform (National Reform of Basic Education) has also been put forward”?(except at the upper secondary level) .

These are positive steps for school improvement; the challenge now is to implement the reforms to bring about the intended results. Without this, the reforms will remain false hopes.

Teacher quality is key

Ensuring that teachers are able to prepare properly and well is crucial to improving the quality of education and seeing that reforms have the intended impact on student achievement. In the TALIS survey, the school principal of around 70% of Mexican lower secondary teachers reported that the teacher's late arrival, absenteeism or lack of pedagogical preparation hindered the quality of education provided at the school. On average in other countries participating in the TALIS survey, school principals reported these factors as an obstacle stemming from around one-quarter of the teachers at most.

Mexico needs to attract talented people into teaching. This requires strengthening the selection of teachers (which is still not sufficiently competitive); the process of assigning them to schools (which is not transparent); the formative and summative or impact appraisals teachers are subjected to (which are largely non-existent); the quality of teacher training programmes; and the incentives to improve performance and the quality of teaching. It also requires professionalising school leadership. The commitments announced in early December by the President of Mexico, and included in the Pact for Mexico regarding the career civil service and a single teachers database (commitments 12 and 18 respectively) as well as the announcements that followed regarding the proposed constitutional reform and administrative acts to eliminate the Union interference in the appointment and allocation of teachers are very welcome steps that, if well implemented, will change the logic of the education system in Mexico in favour of students.

To address these challenges, Mexico has been implementing several reforms to help improve the quality of the teaching profession. For example:

- To improve the quality of teachers entering the profession, Mexico recently introduced New Protocols for Entering Public Initial Training Programmes. To support this process, teacher portfolios are being developed that include evidence of the teachers' work during their studies at teacher training schools.
- The National Teacher Post contest is a national effort to bring transparency to the process of selecting new teachers for a post. A further important step to take is opening all teaching posts to competition, including those of school principals. Today, even with the entrance examination, about half of the teachers are hired without this requirement.
- A new Incentives Programme for Teacher Quality was put in place, and the teacher career guidelines (a horizontal promotion system) have recently been modified.

Again, implementation of these measures should be monitored, to ensure that they produce the desired results.

Evaluating to help improve

Mexico has been working to implement a culture of improvement and accountability through policies at the student, teacher, school and system levels. While essential to ensure better implementation of reforms, this system is still in development; at present there is no integrated evaluation and assessment framework with aligned components.

Important policy initiatives that the country has undertaken are the following:

- The country has recently implemented a Universal Teacher Evaluation System to help detect the areas teachers need to improve. *Inter alia*, the programmes are designed to provide a reference for improving policies and programmes, based on evaluation results (Santiago *et al.*, 2012).
- Mexico has also made progress in establishing assessment mechanisms that allow measurement of students' progress in primary and secondary education; examples are ENLACE and EXCALE.
- Mexico recently accorded autonomy to its National Institute of Education Evaluation (INEE); it is now an independent body responsible for setting technical and educational standards and technical standard-setting body to progress in a strategic and unified vision of education evaluation. As the creation of INEE is one of the most important institutional developments, this agency should be in charge of all educational assessments and establish cohesion mechanisms.
- A National Registry of Students, Teachers and Schools has been created to help provide better planning and improvement (commitment 8).

Ensuring the conditions for success in implementing reforms

In November 2012, the newly elected Mexican government (2012-18) signed the Pact for Mexico for legislative reforms with the three main political parties. Of the 95 commitments it contains, those focusing on improving the quality and equity of Education have three main objectives: first, improving the quality of basic education, as reflected in better education outcomes; second, increasing enrolment and improving the quality of upper secondary and tertiary education; and third, restoring the leadership of the Mexican State in the national education system, while maintaining the system's character. These education-related agreements are summarised in Box 6.2:

Box 6.2. Quality and equity in education – Agreements contained in the Pact for Mexico

Education coverage:

1. Increasing the quality and coverage of upper secondary education (to at least 80%) and tertiary education (to at least 40%) (commitment 14).
2. Establishing a national scholarship programme for students in upper secondary and tertiary education from the most disadvantaged backgrounds, as well as piloting a “scholarship-wage” scheme with selected states (commitment 15).

Teaching and learning conditions:

3. Enhancing autonomous management in schools, mainly to help them improve their physical surroundings, solve basic management issues, and increase community participation (commitment 9).
4. Establishing full-time schools (6- to 8-hour days), with a mandate to make better use of available time for academic development, and to improve students’ diet (commitment 10).
5. Providing portable computers to all public school students in grades 5 and 6 (commitment 11).

Teacher quality:

6. Creating a professional teaching service (and eventually, for directors and supervisors), with a national competition for teaching posts and rules for granting tenure; ensuring that salary increases correspond to the teacher’s appraisal and performance (commitment 12).
7. Strengthening initial teacher training, by supporting *normales* (Initial teacher training institutions), and mobilising the knowledge and human capital available in the country (commitment 13).

System improvement:

8. Creating an education information and management system, through a nationwide census of schools, teachers and students (commitment 7).
9. Consolidating the national education evaluation system (INEE) and making it fully autonomous (commitment 8).

Source: Government of Mexico (2012), *Pacto por México*, www.presidencia.gob.mx.

To continue and succeed in these efforts, Mexico needs to consider that the implementation and follow-up of policies are as important as their initial design. In order to ensure the expected results, it is important to further align incentives, introduce consistency and interconnections in decision making, strengthen implementation capacity, and reduce levels of opacity. At the same time it is important to invest in increasing government capacity, to ensure effective management of national education at all levels. For example:

- As mentioned previously, increasing *education coverage* at the upper secondary and tertiary levels relates to the capacity of the system to provide relevant education opportunities for students and labour market needs, as well as equitable conditions to help students remain in education. Expanding the system will only be successful to the extent that it can be supported by quality teaching staff and curricula. Also, piloting a “scholarship-wage” scheme is a good opportunity to engage states in the process, to develop ownership, and to start building capacity through more information exchanges among states as well. This will help to better assess how to adapt the system to different contexts before launching it at the national level.
- In the same way, Mexico’s efforts to improve the *teaching and learning conditions* at schools through greater autonomy, more instruction time and greater access to ICT can be beneficial if capacity and support are provided at the school level to make the best use of these resources. Otherwise, such reforms can be more costly to the system without necessarily generating the expected learning benefits for students.
- *Teacher quality* (including school principals, supervisors and other key actors in the system) therefore is a key component of these agreements. Professionalisation of the teaching body can be the best investment to increase the likelihood that other reforms will succeed. Teachers are the most important actors for student learning; nurturing their quality should be among the first reform priorities.
- For the *system’s improvement*, the creation and implementation of a national education information system could benefit from the learning experiences of previous similar efforts (e.g. the National Registry of Students, Teachers and Schools and available state-level experiences). Mexico needs to consider that making this new database easily accessible to actors across the different education levels and encouraging its use in constructive ways to promote learning are as important as a robust design. Also, consolidating the autonomy of INEE should entail providing this institute with the necessary resources to perform its new responsibilities. In addition to avoid several bodies executing evaluation activities, INEE should concentrate all the evaluation tools that remain dispersed in many areas currently.

The existing governance structure of the Mexican education system entrusts the 32 federal entities with an important degree of responsibility for delivery of educational services, but with only limited accountability for education outcomes. Many of the states have low management capacities. A complex, decentralised education system requires focusing on a small number of clear, high-priority, measurable goals to improve student outcomes (OECD, 2011e).

Moreover, there is a lack of transparency in some governance processes, including the influence and participation in management of the largest teacher union: SNTE is active beyond the more conventional industrial labour relations role played by teacher unions in other countries. The union has representatives in various education decision-making bodies and takes decisions regarding teachers and their job prospects. This co-management of education in Mexico limits transparency and accountability, and introduces incentive schemes that do not match the quality of teaching and do not put the student at the centre of the system's efforts. The recent measures taken by the new Administration are very encouraging signs that this may be changing. Particularly important is the decision of not allowing the Union to get involved in assigning or appointing teachers. It is also important that the Government is developing its own information system on who are the teachers in Mexico, and where they are. As pointed out in previous OECD work, education reform is inherently a political exercise, especially if it involves fundamental institutional change.

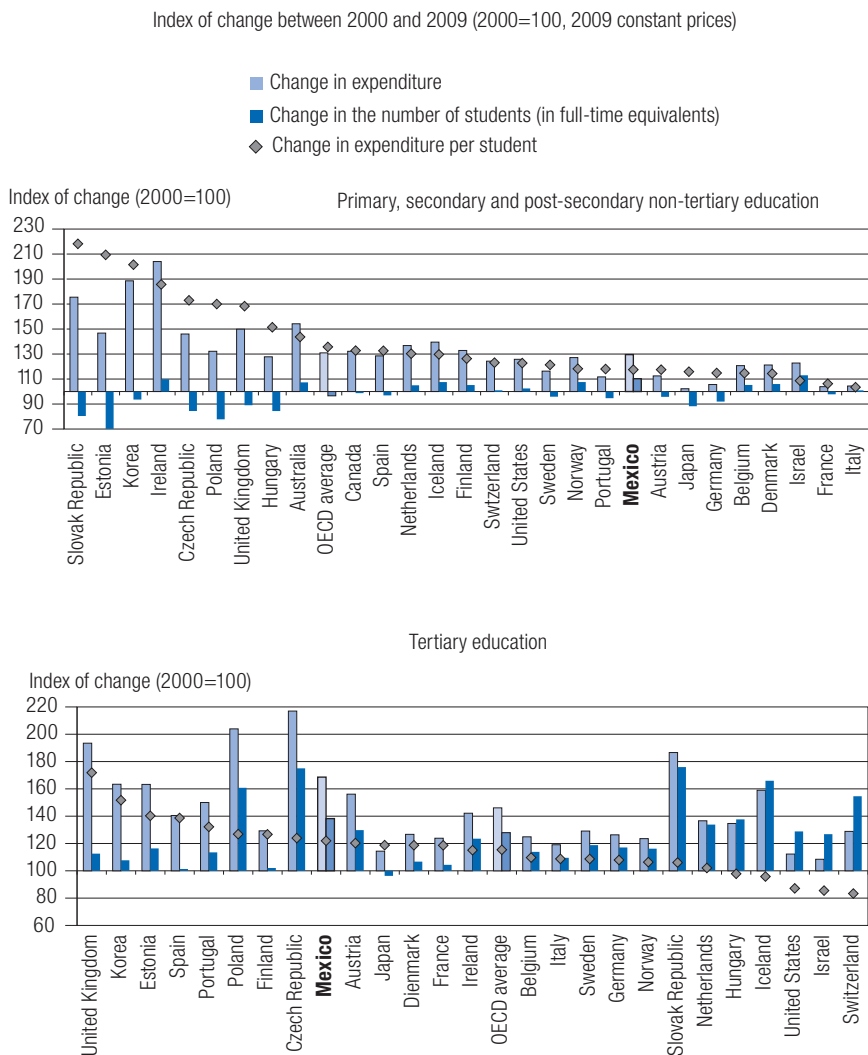
Mexico needs sustained political leadership to promote the necessary structural changes in the way teachers and school leaders are recruited, trained, developed and evaluated. In addition to signing the Pact for Mexico, Mexico's decision makers should promote consensus and transparency by establishing a broader "guiding coalition" of political, corporate, university and civil society leaders. That coalition can step forward and take responsibility for championing education reforms in the public arena; for advocating adequate and equitable funding; and for holding the authorities accountable for results (OECD, 2010).

Investing better in education

As in other OECD countries, expenditure in education has continued to increase as a proportion of GDP, from 5% in 2000 (compared to an OECD average of 5.3%) to 6.2% in 2009. Due to its low level of tax revenues, Mexico's total public expenditure is slightly more than half (26.2% of GDP) of the OECD average (45.2% of GDP). It is also the second-lowest share among OECD countries after Chile (20.6%) (see Chapter 2). However, 20.3% of public expenditure goes to education, which is the second-highest percentage after New Zealand (21.2%).

Between 2000 and 2009, Mexico increased its expenditure at the primary, secondary and post-secondary non-tertiary level by 30%, close to the OECD average

Figure 6.5. **Changes in the number of students and changes in educational institutions' expenditure per student by level of education (2000, 2009)**



Source: OECD (2012a), *Education at a Glance 2012: OECD Indicators*, OECD, Paris.

(31%). Because the number of students increased at the same time, the increase in expenditure per student at these levels was only 18% (the OECD average was 36%). At the tertiary level, Mexico increased expenditure during the same period by 69% (the OECD average increase was 46%). As the number of students at this level also increased by 40%, the increase in the expenditure per student was only 22%, but still above the OECD average increase of 15% (OECD, 2012c) (Figure 6.5).

Mexico allocates the second-largest share of current expenditure among OECD countries (92%) to compensate staff below tertiary education. As in other countries, these resources are mostly devoted to teachers' salaries; but in Mexico, compensation of teachers accounts for about 80% of these resources (62% on average in the OECD area), while compensation for the remaining staff accounts for only about 12% (15.5% on average in the OECD area). This difference between the share of teachers' and other staff's compensation in total expenditure is the widest among OECD countries (OECD, 2012a). PISA data show that the amount of resources invested in education does not necessarily translate into better student outcomes, but how resources are allocated is important. In addition, Mexico was one of the countries in PISA 2009 to show the closest relationship between the availability of resources at schools and the schools' socio-economic intake. This suggests the need for more consideration on how to distribute resources for schools more equitably, and to balance the influence of socio-economic backgrounds at schools.

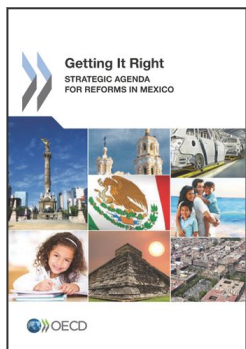
OECD Key Recommendations

- Place *Mexican schools and students' success at the centre* of education policy making, and establish incentive schemes that match this goal. The OECD recommends an action-oriented policy agenda for schools, directors and teachers, offering them better support so they can accomplish their tasks. In particular, this implies:
 - Enhancing the role of teachers by setting clear standards of practice; ensuring high-quality initial teacher preparation (ITP) programmes; attracting better candidates; professionalising the recruitment, selection and evaluation of teachers; and linking teachers and their professional development in learning more directly to schools' needs and results. Eliminating union influence on the management of resources allocated to teaching.
 - Strengthening leadership and management by setting clear school director standards; providing training; professionalising recruitment; supporting school autonomy; and ensuring social participation. Schools also need to be better supported with stable sources of funding that respond to their specific needs.

- Strengthening the evaluation and assessment system, by providing coherence across its components, building capacity to help it operate, and balancing the accountability and improvement functions for students, teachers, schools and the system as a whole. Transparency of information, reliance on high-quality data, and the accountability of education system agents are essential for a successful evaluation and assessment system. At the same time however, it is important to guarantee both that the existing data and evaluation results are actually used for improvement, and that relevant stakeholders are able to use the data and feedback made available to them in order to improve their practices. Evaluation is critical for accountability and improvement.
- Some possible pathways to improve the initial vocation and training system (VET) include:
 - establishing a formal consultation framework between employers, unions and the VET system
 - adopting quality standards and apprenticeships to support and expand workplace training as an integral part of vocational programmes
 - providing pedagogical training to VET teachers before or immediately after they start teaching
 - exploring the creation of a national certification scheme for skills
 - developing the capacity to analyse and use data on labour market needs to guide the design of policies and improve decision making
 - A reform of tertiary education funding should include:
 - assessment of the sustainability of the current cost distribution, and of whether it adequately reflects the relative importance of societal benefits of tertiary education
 - improvement of the transparency with which funds are allocated to institutions
 - a significant expansion of the existing support system for students in need
 - To ensure the conditions for success in implementing reforms, Mexico needs to work towards strengthening capacity across different levels: learning from previous reform efforts to building on them; clarifying the distribution of responsibilities across the decentralised system; and institutionalising transparent ways to facilitate discussions and build consensus and ownership with all the relevant stakeholders.

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