



Report Number : ICRR0020459

## 1. Project Data

**Country**  
Mexico

**Practice Area(Lead)**  
Education

**Programmatic DPL**  
**Planned Operations:** 3

**Approved Operations:** 3

**Operation ID**  
P112262

**Operation Name**  
MX Upper Secondary Education DPL

**L/C/TF Number(s)**  
IBRD-78870

**Closing Date (Original)**  
31-Dec-2010

**Total Financing (USD)**  
700,000,000.00

**Bank Approval Date**  
11-May-2010

**Closing Date (Actual)**  
30-Jun-2011

**IBRD/IDA (USD)**

**Co-financing (USD)**

Original Commitment

700,000,000.00

0.00

Revised Commitment

700,000,000.00

0.00

Actual

700,000,000.00

0.00

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**Operation ID**  
P126297

**Operation Name**  
MX 2nd Prog. Upper Secondary Educ DPL ( P126297 )



L/C/TF Number(s)	Closing Date (Original)	Total Financing (USD)
IBRD-78870,IBRD-81320	29-Nov-2013	300,751,879.70
Bank Approval Date	Closing Date (Actual)	
13-Mar-2012	29-Nov-2013	
	IBRD/IDA (USD)	Co-financing (USD)
Original Commitment	300,751,879.70	0.00
Revised Commitment	300,751,879.70	0.00
Actual	300,751,879.70	0.00

**Operation ID**  
P147244

**Operation Name**  
Third Upper Secondary Education DPL ( P147244 )

L/C/TF Number(s)	Closing Date (Original)	Total Financing (USD)
IBRD-81320,IBRD-83140	30-Sep-2015	300,751,879.70
Bank Approval Date	Closing Date (Actual)	
16-Dec-2013	30-Sep-2015	
	IBRD/IDA (USD)	Co-financing (USD)
Original Commitment	300,751,879.70	0.00
Revised Commitment	300,751,879.70	0.00
Actual	300,751,879.70	0.00

## 2. Program Objectives and Policy Areas

### a. Objectives

This ICRR reviews the performance of a series of three Development Policy Operations (DPO) supporting upper secondary education reform over the period 2012 to 2015 – Mexico Upper Secondary Education 1 to 3 (MUSE1 to MUSE3). The Development Objective (DO) for the first two DPOs, as set out in the Program



Document (PD) for MUSE1 (p. 25) was: *to support the Government in the implementation of the Mexico Upper Secondary Education Reform to improve the internal efficiency of upper secondary education and its responsiveness to the labor market.*

No statement of objectives was included in the Financing Agreement.

The development objective in the PD for MUSE3 was: *to support the Government in the implementation of the Mexico Integral Upper Secondary Education Reform to improve the internal efficiency and quality of Upper Secondary Education.*

The revision dropped explicit mention of “the labor market”, although responsiveness to the labor market remained a driving force underlying both PDOs and the upper secondary education reform more generally (see Section 3).

This review assesses the achievement of both the first and second objectives.

## b. Pillars/Policy Areas

The program originally supported three policy areas:

**Improving flexibility of Upper Secondary Education.** This involved the development of a common curriculum to facilitate the transfer by students between different sub-systems in upper secondary education (federal, state, private and autonomous).

**Enhancing quality and relevance of education.** This involved the establishment of a National Upper Secondary evaluation and accreditation system, the provision of relevant professional development of all Upper Secondary teachers, and providing autonomy to the National Institution for Evaluating Education.

**Reducing Opportunity Costs of Upper Secondary Education.** This involved improving access among poor and vulnerable youth to Upper Secondary Education by streamlining scholarship programs to reach students most at-risk in transiting from lower to upper secondary schools, consolidating support programs, and making Upper Secondary Education mandatory.

Policy area 2 was reformulated for MUSE3 to align with the revised PDO - **enhancing quality of the National Upper Secondary Education System.** It was considered that this revision permitted a broader focus on actions to improve the quality of upper secondary education than was the case in the previous formulation. In particular, it encompassed not only directly labor market relevant reforms, but also ones that would facilitate entry into higher education.

## c. Comments on Program Cost, Financing, and Dates

Project cost and financing. The commitments under the three DPLs were US\$ 700 million, US\$ 300.75 million, and 300.75 million, respectively, all as Bank Loans. The total amount of US\$ 1,302 billion was fully disbursed.

Borrower contribution. None

Dates. MUSE1 was approved on May 11, 2010, and the Closing Date was postponed once, from December 31, 2010 to June 30, 2011. MUSE2 was approved on March 13, 2012, and closed on schedule on November 29, 2013. MUSE3 was approved on December 16, 2013, and closed on schedule on September 30, 2015.



### 3. Relevance of Objectives & Design

#### a. Relevance of Objectives

The original MUSE objectives and key policy areas were relevant to education sector needs, government policy, and Bank strategy for Mexico at appraisal, and continue to be so today. At appraisal, while Mexico had made significant progress in primary education, upper secondary education lagged behind. There, terminal efficiency (graduation) rates at 62 percent were lower than anywhere else in the system; it did not produce the human capital and skills demanded by the labor market; and quality, in terms of student learning, lagged behind other OECD countries. A well-performing Upper Secondary Education System was considered a key element in future growth, and the Government in 2007 started a reform process of that system, which is still ongoing and retained in its education sector program for 2013-18. World Bank Group strategy, as reflected in the Country Partnership Strategy (CPS) for FY14 to FY19, points to human capital and skills development, including through continued reorientation of the upper secondary school (CPS, p.20), as a means of increasing opportunities and productivity in the labor market. The shift in focus of the PDO from explicitly highlighting labor market outcomes towards broader quality improvements, which was introduced in 2013 for the MUSE3, does not change the relevance of the original PDO or the links between upper secondary education and labor market insertion, but rather reflects challenges of measurement (see Section 3b below).

**Rating**  
High

#### b. Relevance of Design

The design remained relevant to the PDO as it evolved during implementation. The MUSE series was expected to contribute to internal efficiency of upper secondary education by facilitating student flows through the education system, and raising the quality of teaching. This in turn, was expected to increase the number of better qualified graduates entering the labor market or continuing towards tertiary education after completion of upper secondary education. It would do so by (i) establishing a common curriculum in upper secondary education that would facilitate transfers between sub-systems and programs (Policy Area 1); (ii) raising the quality of upper secondary education through the introduction of a common evaluation system, including an autonomous results-based evaluation mechanism, and professional development for all upper secondary school teachers (Policy Area 2); and (iii) promoting equality of opportunities by increasing access to upper secondary education for poor and vulnerable youth by expanding existing scholarship programs (Policy Area 3). Actions in these three areas were expected to increase the number of better qualified graduates entering the labor market or continuing towards tertiary education after completion of upper secondary education.

As noted in Section 3a, the focus of the PDO was shifted from explicitly highlighting labor market outcomes towards emphasizing quality improvements that went beyond immediate linkages to the labor market – notably



fostering citizenship and cultural awareness. However, the design remains relevant to both PDOs – both aimed at achieving the longer term objective of facilitating labor market insertion for graduates by raising the quality and relevance of the upper secondary education system. The revision of the PDO mainly recognized measurement difficulties of the labor market impact over the short program period.

The adoption of a programmatic approach towards meeting objectives recognized the evolving character of the institutional environment, and allowed policy actions to be modified as experience was gained. The choice of instrument – a series of DPOs – was also appropriate taking into account the fiscal-financial situation. Mexico had been hit hard by the international economic and financial crisis in 2008-2009, and the Government was seeking budget support from both national and international development finance institutions to ensure adequate funding for priority programs, including the reform of upper secondary education. Several actions were taken to maintain orderly conditions in foreign exchange and domestic financial markets, and the International Monetary Fund (IMF) had approved a first Flexible Credit Line (FCL) for Mexico in April, 2009. While Mexico faced rising fiscal pressures, public debt remained within manageable proportions despite a significant increase in the debt-to-GDP ratio until 2011. Reform of upper secondary education was a priority, the Bank was already providing significant technical assistance in implementing the reforms, and the macroeconomic policy framework was deemed appropriate for the proposed Development Policy Loans.

**Rating**  
High

#### 4. Achievement of Objectives (Efficacy)

##### **Objective 1**

###### **Objective**

To support the Government in the implementation of the Mexico Upper Secondary Education Reform to improve the internal efficiency of upper secondary education and its responsiveness to the labor market.

###### **Rationale**

**Internal efficiency.** In the context of education, internal efficiency is measured by reduced drop-out rates, i.e. increased ease of transferring between sub-systems in upper secondary education, and reduced opportunity costs of remaining in the system.

###### **Outputs:**

- A common, competency-based curriculum was put in place. The curriculum was based on several categories of competencies (generic, subject-area, and professional), as well as on the development of minimum learning standards. The aim of the common curriculum was to facilitate transfers between sub-systems. At the time of the ICR, the curriculum had been adopted by 71 percent of upper secondary schools, against a baseline of less than 10 percent in 2008, and a target of 40 percent. (The system of upper secondary schools in Mexico consists of federal, state, private, and autonomous schools. Federal schools are mandated to participate in the common curriculum, while other sub-systems do so following



decisions by local authorities.) To further facilitate transfers, a school evaluation system was introduced for higher secondary education. At the time of the ICR, some 37 percent of schools have completed the accreditation process for upper secondary schools that had adopted the common curriculum.

- A scholarship program targeting students from low-income families was redesigned to support students at greatest risk of abandoning their studies for financial reasons.
- A constitutional amendment made upper secondary education mandatory.

#### **Outcomes**

- At the time of the ICR, some 1.7 million upper secondary level students i.e. those enrolled in schools that had put in place a core curriculum and had accreditation<sup>0</sup>, could transfer between sub-systems of upper secondary education (federal, state, private, and autonomous schools) without having to restart the upper secondary cycle (as would have been required before the reform). This change was expected to reduce drop-out rates and allow students to receive their diplomas in fewer years. Annual drop-out rates in upper secondary education fell from 16.3 percent in 2008 to 12.6 percent in 2014, a little short of the 12 percent target that had been set for the program.

- Gross upper secondary enrollment increased from 58.6 percent in 2008 to 71.5 percent in 2015, exceeding the 68.7 percent target. Enrollment for students from households in the first four income deciles increased from 61.8 percent in 2008 to 67.8 percent in 2015, exceeding the target of 64 percent. These outcomes are driven by the policy to make upper secondary education compulsory, and by the introduction of the scholarship program for students from low-income families, both supported by the program.

**Labor market responsiveness.** To determine labor market effects of the reforms, the program initially used ratios of employed students from different cohorts of graduates. This indicator is, however, likely to be influenced by macroeconomic circumstances and was discarded prior to MUSE3. Still, the ICR (p. 22) argues that the introduction of cognitive and socio-emotional skills valued by employers into the competency-based curriculum can serve as a reasonable measure of increased labor market relevance of graduates. An indicator measuring the impact of such skills on employability was developed under an Inter-American Development Bank (IDB) project, and the indicator consistently showed positive and statistically significant differences in the likelihood of being employed if one were a graduate of an upper secondary school that had gone through the core curriculum and accreditation process. This argument is plausible, and confirms international experience when it comes to increasing relevance of education to labor market demands.

#### **Rating**

Substantial

## **Objective 2**

### **Objective**

To support the Government in the implementation of the Mexico Integral Upper Secondary Education Reform to improve the internal efficiency and quality of Upper Secondary Education.



## Rationale

**Internal efficiency.** Outputs and outcomes are the same as under Objective 1 above.

## Quality.

### Outputs

The quality of upper secondary education was to be improved by enhancing the evaluation and accreditation system, and by raising teacher quality. Here, outputs included the adoption of the common, competency-based curriculum in 71 percent of upper secondary level schools, and the accreditation of 37 percent of such schools under the MUSE program. (These outputs also contributed to improving the internal efficiency of the system, as noted under the first objective) In addition, a law on professionalizing teacher careers was passed, requiring regular evaluations, related to professional development and training; and in-service teacher training, professional development of teachers, and training and certification of teacher competencies were instituted under an in-service teacher capacity-building program for upper secondary education. Altogether, 117,000 upper secondary education teachers were trained

### Outcomes

As a result of the quality improvements, students' academic achievement was expected to improve. Instead, academic performance presented a mixed picture. In mathematics, the share of students scoring "good" or "excellent" rose from 15 percent in 2007/8 to 39 percent in 2013/14, exceeding the original 18 percent target, as well as the revised 35 and 37 percent targets for MUSE2 and MUSE3, respectively. At the same time, the share of students scoring "good" or "excellent" in Spanish declined from 52 percent in 2007/8 to 45 percent in 2013/14. Similar trends were seen among students attending schools in marginalized localities: in mathematics, from 6 percent of students scoring "good" or "excellent" in mathematics to 23 percent; and in Spanish, from 23 percent to 20 percent.

The ICR (p. 24) notes that the results for 2007/8 and 2013/14 may not be fully comparable, due to revisions in the assessment in 2011. The ICR also draws on the Program for International Student Assessment (PISA) to better determine achievement, and that study seems to confirm the above trend: improvement in mathematics, and stagnant results in reading for 15 year olds. While the results provide a mixed picture, it may well be that the time period is too short to reflect the impact of the reforms on students' academic achievement.

In summary, the outcomes in student performance still are relatively modest, in part reflecting the short time span since the introduction of upper secondary education reforms. The initiatives introduced can plausibly be expected to raise system efficiency and quality of the learning experience, as well as facilitate labor market entry, based on international evidence. However, this is still hypothetical in the case of Mexico.

## Rating

Modest





## 5. Outcome

The relevance of the original and revised PDO is rated **high**, as they both respond to country needs, and Government and Bank policy. Relevance of design is also rated high: efficiency and quality in upper secondary education were to be enhanced through measures that were to facilitate student flows through the system, while at the same time raising quality through better teaching; while entry into the labor market or into tertiary education was to be facilitated by graduating better prepared students. Achievement of the first objective is rated **substantial**. While there were no measurable indicators for labor market relevance, a stronger focus on labor market relevant skills and substantial improvements in student flows underpin this rating. Efficacy of the second objective -- introduced improvements in quality -- is rated **modest**, reflecting mixed results in student performance.

### a. Outcome Rating

Moderately Satisfactory

## 6. Rationale for Risk to Development Outcome Rating

The desire to pursue reforms that strengthen performance of upper secondary education seems to have broad support among all political parties, which would indicate that any changes in the Administration are unlikely to slow down the reform. Macroeconomic risks, notably a persistent primary deficit reflecting the decline in oil prices, and consequently reduced fiscal space, have been balanced by expanding the tax base.. Following the 2016 US presidential elections, a new risk has emerged, as some uncertainty may be attached to the NAFTA agreement, which may have an adverse impact on the Mexican economy and hence on public finances.

### a. Risk to Development Outcome Rating

Modest

## 7. Assessment of Bank Performance

### a. Quality-at-Entry

The operation was strategically relevant with its focus on raising the standards and relevance of upper higher education, and facilitating the transition of graduates into the labor market. To achieve this, it aimed to introduce improved flexibility, higher quality and relevance, and lower opportunity costs into the learning process. The design – a series of three development policy loans - provided the scope for adjusting policy actions based on experience. Some elements of design could have been stronger – some key development indicators had to be adjusted during implementation, in part to better correspond to official Government indicators, and to add relevance to the monitoring process. The explicit focus on the labor market linkage, spelled out in the original DPO, while relevant, was not easily measured, especially over the relatively short program period.





### **Quality-at-Entry Rating**

Moderately Satisfactory

#### **b. Quality of supervision**

The team was adequately staffed to carry out the supervision effort, which included a diverse set of interactions with the Government authorities: monitoring missions, technical assistance, organization of international conferences, seminars and workshops, and preparation of analytical notes on best international practice. This said to have given rise to an active dialogue on policy issues with the Government as well as the implementing agency – the Secretariat of Public Education, SEP. However, some issues were only belatedly addressed – for example, although the team took the opportunity to adjust some indicators at MUSE2, the explicit labor market linkage was handled only later, prior to MUSE3, despite the fact that difficulties (in articulating results indicators and actually measuring labor market results) already existed.

### **Quality of Supervision Rating**

Moderately Satisfactory

### **Overall Bank Performance Rating**

Moderately Satisfactory

## **8. Assessment of Borrower Performance**

#### **a. Government Performance**

Government showed both ownership and commitment to achieving the program development objectives. It created an enabling environment that included supportive macro, sector and institutional policies, and facilitated collaboration among a broad range of stakeholders. The Government also provided rigorous oversight of the implementing agency. Changes in the administration did not disrupt program implementation.

### **Government Performance Rating**

Satisfactory

#### **b. Implementing Agency Performance**

The implementing agency, SEP, was able to ensure that policies were implemented as planned, and day-to-day operations under the program were executed in a timely manner. SEP coordinated actions and information flows across several actors and levels of government (federal, state, private and autonomous public entities) without major issues arising in an environment that the Bank initially assessed as highly diverse and with some risk of opposition to reform.



## **Implementing Agency Performance Rating**

Satisfactory

## **Overall Borrower Performance Rating**

Satisfactory

## **9. M&E Design, Implementation, & Utilization**

### **a. M&E Design**

The policy matrix and results framework for MUSE1 presented prior actions and triggers for each of the three operations. The framework defined outputs, related indicators, and means of verification for each MUSE by policy area, as well as baselines and end-of-program outcomes, again for each policy area. The programmatic approach allowed for output indicators to be revised prior to each DPL.

### **b. M&E Implementation**

The Government monitored progress on the reform, in part drawing on MUSE indicators. In addition, the Bank team conducted regular implementation support missions and worked with the Government to ensure timely and reliable data collection and sufficient information to monitor the MUSE. Based on the means of verification (records maintained by the relevant authorities), output indicators were adjusted prior to MUSE2 and MUSE3. In some instances the indicators were revised, replaced or dropped(i) to better align with official government indicators; (ii) to reflect faster progress on implementation (ICR, Table 3); and (iii) due to changes in emphasis in the PDO. Aligning DPL Program indicators to official indicators helps decrease the M&E burden of the Program for the Government and allows the team to obtain more reliable and timely information. When the Bank team aligned its indicators to the official indicators in DPL 3, M&E was significantly strengthened because the Implementing Agency had more pressure to periodically collect and report data on official indicators.

Overall, the Implementing Agency and the Bank appear to have taken a pragmatic approach to the M&E system, recognizing deficiencies and making changes where feasible.

### **c. M&E Utilization**

M&E arrangements focused on verifying policy, outputs, and outcomes, and signaling necessary adjustments in the action plan. The Bank and the Ministry of Education consistently assessed and used program data to inform policy-making and seek results under the three policy areas. M&E material was also used for just-in-time support and information on the reform. Practical examples are given in the ICR (see pp. 14 and 15). For instance, data showing low enrollments in teacher training programs led to a seminar on best international teaching practices; issues identified at the seminar were then fed into the reform process.



**M&E Quality Rating**

Substantial

**10. Other Issues**

**a. Environmental and Social Effects**

According to the PD, the program was not likely to have significant effects on the environment (PD, p. 33). The ICR does not contain further discussion on the issue.

The PD lists a number of expected positive social effects of the program: lower opportunity costs of higher secondary education for poor students as a result of the consolidation of the scholarship program; greater labor market and tertiary education opportunities for all students as a result of system consolidation, and especially indigenous youth. The reforms under the program were expected to improve the effects of existing strategies aimed at improving opportunities for indigenous youth. The ICR points to some initial gains in outcomes (addressed in Section 4), drawing on the findings in the monitoring and evaluation system. There is no specific discussion of the effects on indigenous youth in the ICR.

**b. Fiduciary Compliance**

The PD notes that the public management systems at federal level are adequate to support development policy lending (PD, p. 35). Based on that, the PD noted that the Bank would not require an audit of the designated account, nor were any additional fiduciary arrangements deemed necessary for the DPL. The ICR does not discuss any fiduciary issues.

**c. Unintended impacts (Positive or Negative)**

None reported

**d. Other**

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**11. Ratings**

Ratings	ICR	IEG	Reason for Disagreements/Comment
Outcome	Satisfactory	Moderately Satisfactory	There was no quantifiable means of determining labor market impact; and mixed



			results on student performance
Risk to Development Outcome	Negligible	Modest	There is a potential fiscal risk, currently avoided through adjustments in the tax system
Bank Performance	Moderately Satisfactory	Moderately Satisfactory	---
Borrower Performance	Satisfactory	Satisfactory	---
Quality of ICR		Substantial	---

**Note**

When insufficient information is provided by the Bank for IEG to arrive at a clear rating, IEG will downgrade the relevant ratings as warranted beginning July 1, 2006. The "Reason for Disagreement/Comments" column could cross-reference other sections of the ICR Review, as appropriate.

**12. Lessons**

The following lessons are selected from the ICR:

The DPL Programmatic Series was the most suitable Bank lending instrument to provide general budgetary support while accompanying a reform program. The DPL Series allowed adjustment to the pace in which policies were implemented and was also helpful for policy continuity despite changes in the administration and ruling party in December 2012.

In countries with strong technical capacity such as Mexico, DPLs can usefully focus on those elements of the reforms that will benefit most from Bank engagement. In this operation, the Bank tried to respond to the client’s technical demands while being selective in choosing in which areas to support the Government based on team composition and availability of resources.

Complementary technical assistance can help to inform the Government reform and achieve the DPL Series objectives. In this operation, the technical collaboration between the Bank and the Government helped shape the policies introduced by the upper secondary education reforms based on evidence and international best practices. The provision of just-in-time technical assistance helped overcome the main obstacles faced during implementation of the reform

Aligning DPL Program indicators to official indicators helps decrease the M&E burden of the Program for the Government and allows the team to obtain more reliable and timely information. When the Bank team aligned its indicators to the official indicators in DPL 3, M&E was greatly improved because the implementing agency had more pressure to periodically collect and report data on official indicators.

Introducing school accreditation processes requires taking into account schools’ starting conditions and their ability to improve the education services they provide. Gaining full accreditation to enter the upper secondary education system proved to be challenging for most schools in Mexico. In many instances, schools found it difficult to comply with the full accreditation criteria and many lacked the necessary resources to complete the accreditation process. To tackle these issues, as in the Mexican case, policies might consider allowing schools to gain temporary accreditation if they comply with a set of minimum criteria of quality and commit to specific quality improvements over a certain period of time.



### **13. Assessment Recommended?**

No

### **14. Comments on Quality of ICR**

The ICR provides an adequate basis for assessing the program. The quality of the analysis, and the extent to which lessons are based on evidence and analysis are satisfactory. The results-orientation of the ICR was satisfactory, and the document was internally consistent, as well as consistent with OPCS guidelines. With a main text of 31 pages, it could have been shorter, although it covered three operations.

#### **a. Quality of ICR Rating** Substantial