RE-413

APPROACH PAPER: REVIEW OF IDB SUPPORT TO SECONDARY EDUCATION-QUALITY AND LEARNING IN LATIN AMERICA AND THE CARIBBEAN, 1995-2011

Office of Evaluation and Oversight, OVE

Inter-American Development Bank
Washington D.C.
May 2012

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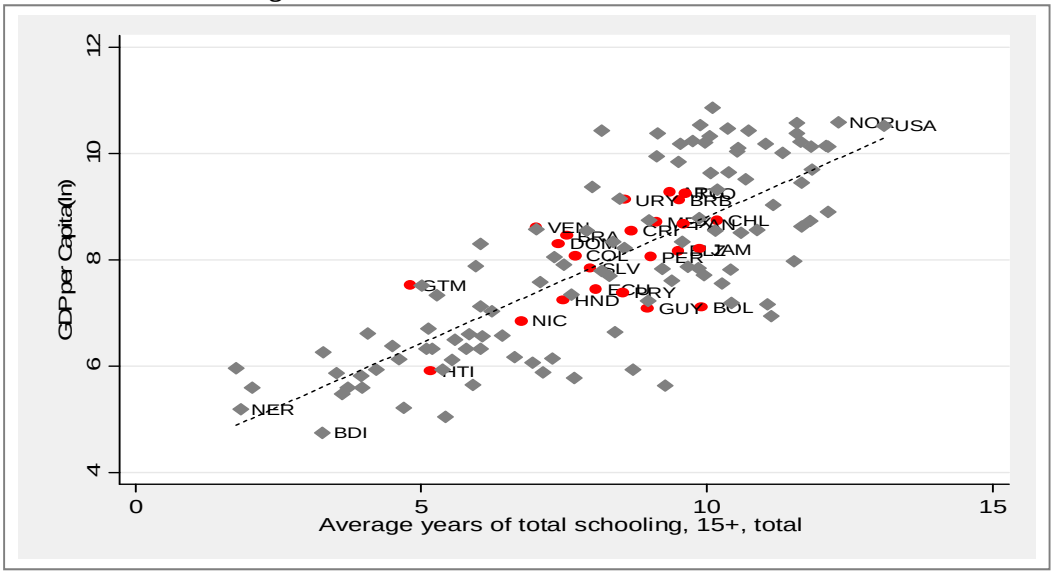
I. CONTEXT

A. Introduction and motivation

1.1 **Education and development.** One distinguishing feature of developed countries is that they have high levels of education (Figure 1).[1] Educational attainment is not only associated with high levels of productivity and income; it is also inextricably related to better health outcomes, higher well-being, and lower fertility rates. Education is thus inherent to the development process (Sen, 1999).[2]

Figure 1. Educational Attainment and GDP, 2010



Note: *Barbados' GDP corresponds to 2009, not 2010. The graph depicts the GDP per capita in constant 2000 USD in 2010 and average years of total schooling. LAC countries noted in red.*
Source: *WDI and Barro-Lee (2011).*

1.2 The strong correlation between education and income has also been shown to be causal, both at an individual and aggregate level. Hundreds of studies have investigated the individual relationship between years of schooling and earnings, finding consistent returns on the order of 10% per year of schooling.[3] Furthermore, these returns tend to rise with the scarcity of skills: education has higher returns in regions with lower average schooling. At a macroeconomic level, cross-country evidence is also consistent with the micro-level findings, with returns to each additional year of schooling estimated to be on

[1] This positive correlation holds true for LAC and the rest of the world.

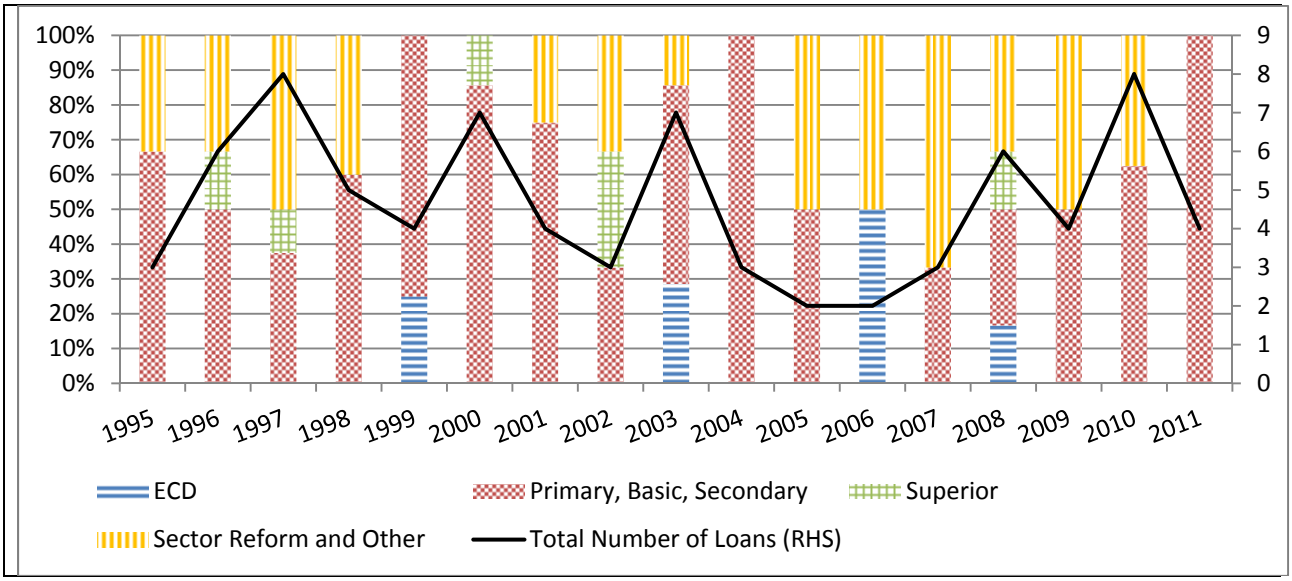
[2] "If education makes a person more efficient in commodity production, then this is clearly an enhancement in human capital. This can add to the value of production in the economy and also to the income of the person who has been educated. But even with the same level of income, a person may benefit from education—in reading, communicating, arguing, in being able to choose in a more informed way, in being taken more seriously by others and so on. The benefits of education, thus, exceed its role as capital in commodity production." Sen (1999), pp. 294-295.

[3] A good survey of the literature on education and earnings is Card (1999) and Heckman, Lochner, and Todd (2006). Regional patterns are discussed in Psachoropoulos (1994) and Psachoropoulos and Patrinos (2004).

the order of 5 to 12 percent. [4] Moreover, similar patterns have been found regarding learning: the return to a one-standard deviation increase in test scores in developing economies tends to be larger than in developed countries and is on the order of 20 to 30 percent (Hanushek, 2009).[5]

1.3 **Bank support for education**. The Bank has consistently supported education projects since its beginning. The first education strategy of the Bank dates back to 1979 (GP-86-2), and individual updates of the strategy for each level of education were required by the Eighth Capital Replenishment (1994). In that exercise (GN-2067) the Bank's objective for primary and secondary education was "to improve quality and equity." In order to achieve these goals the strategy proposed a menu of actions such as school decentralization, teacher training and the use of technology.[6] A preliminary analysis of the Bank's education lending portfolio between 1995-2011 shows that the focus of Bank work has been in primary/basic/secondary education and broad education reform, with much less focus on post-secondary (superior) (Figure 2).

Figure 2. Number of Education Loans by Subsector, 1995-2011



***Notes**: The chart shows the total number of loans in the EDU and LMK division (black line) by subsector (share by category on left axis): ECD (pre-primary); primary, basic, secondary (post-primary excluding tertiary); superior (post-secondary); sector reform (education reforms across school levels); other (specific interventions such as rural and ICT education). Technical education loans were reclassified into secondary and superior education according to the target age group. Sector reform loans are investment loans (mostly under the "ESP" category) and do not include SPH loans with an education component. **Source**: OPS and OVEDA.*

[4] Using a macro panel data on educational attainment, Barro and Lee (2010) find an estimated rate of return to an additional year of schooling of 5 to 12 percent.

[5] While learning test scores measure outcomes, learning is influenced by more than education quality alone. The definition of education quality will be part of the evaluation.

[6] See IDB (2000). This strategy was proposed by Management in 2000 but it was not approved by the Board of Executive Directors.

1.4 In the recent Ninth Capital Replenishment, the Governors renewed their commitment to education, one of the pillars of the first sector priority, 'social policy for equity and productivity,' by focusing on increasing the quality and relevance of education. In the context of the Replenishment, the Social Sector Department Strategy's main objective is to increase the impact of the Bank's work on human capital formation. The Education Division developed its own guidelines (approved 2010), which are meant to further develop the education aspects of the Social Sector Strategy and help attain the education targets set forth in the Results Framework of the Replenishment (Annex Table A1). The Guidelines declare that the primary challenge that the region faces in education is *poor student learning*. In this context, a combination of investments in educational inputs and the enhancement of teacher quality are proposed. Areas of on-going involvement include expansion of coverage in pre-primary and secondary levels, and areas for business development include focus on the school to work transition and quality of primary and secondary education.

1.5 In 2003, OVE assessed the Bank's support for basic education (primary and lower secondary) covering the period 1991-2000. The data in the evaluation largely confirmed that the policies recommended by the education strategy had been implemented, albeit to varying degrees, in the countries under study. In estimating the impact of various inputs on learning, the study validated the importance of having the basics –from adequate infrastructure to texts and learning materials– in place. It also found that other, perhaps higher-level, reforms also played a key role, such as managerial capacities at the school level and parental participation.

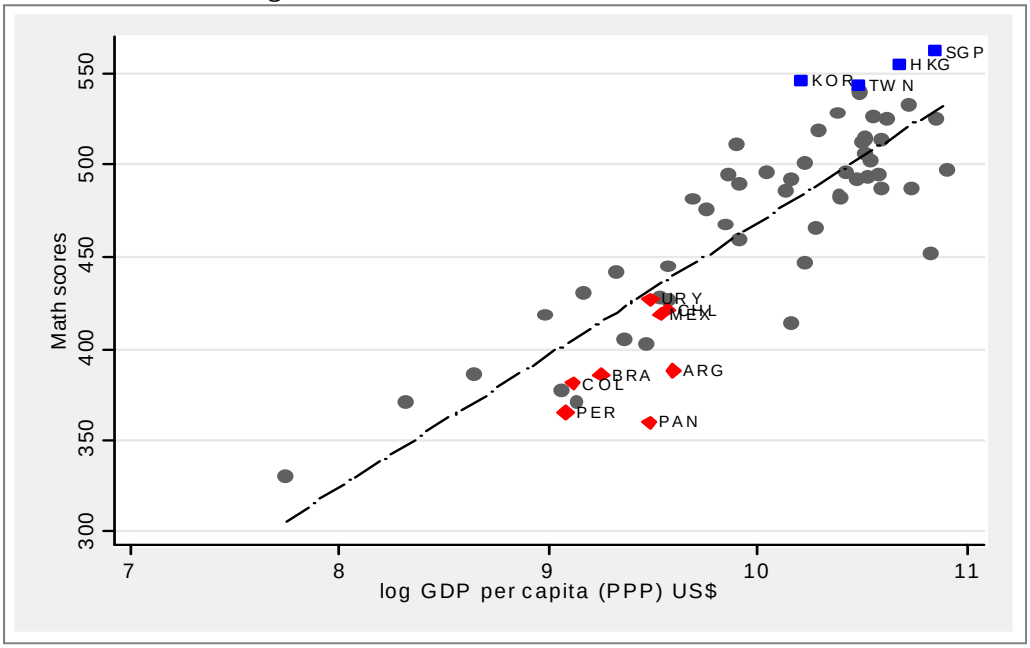
1.6 **Improving quality of education.** The stress on "quality" of primary and secondary education in the Bank's strategies reflects in part the fact that LAC has made significant progress in increasing access to education. Latin America and the Caribbean is now one of the regions with the highest enrollment rates in both pre-primary and primary education. Despite persistent inequities in the provision of educational services, most countries in LAC now have secondary school enrollment rates similar to those of other countries at the same income levels.[7] Secondary completion rates, though far from universal, have also increased significantly; in 2008 less than one-third of the 1950 birth cohort in LAC had completed secondary education, while that figure was more than 50% for the cohort born in 1985 (IDB, 2010a).

1.7 Demand for improvements in education quality has grown dramatically as LAC approaches universal primary education. Some authors have suggested that the quality of education is fundamentally more important than access to school or the number of years of schooling, as it is the quality of the education students receive and not the total time spent in schooling that allows some individuals to attain higher levels of education than others (Hanushek, 1995). The fact that individuals with higher levels of schooling tend to earn more, on average, than individuals with lower levels of schooling reflects not only the greater number of years of schooling but also the fact that, in order to attain them, those who were promoted to higher levels of instruction were likely to have received an education of a higher quality at lower levels (UNESCO, 2005).

[7] See IDB (2010a). While high enrollment rates are true on average, the poorest countries in LAC still have scope for improving their enrollment rates, especially at the secondary level (for example, Guatemala has a net secondary enrollment rate of 40% while the average in LAC is near 75% according to UIS (2009)).

1.8 International comparative data underscore the fact that increased access to education has not translated fully into higher levels of learning. In 2009, Chile, Mexico, Argentina, Brazil, Colombia, Panama, Peru, Trinidad and Tobago, and Uruguay participated in the Programme for International Student Assessment (PISA) exams, which test competencies in language, mathematics, and science for 15-year olds. Students from almost all of these countries score in the bottom quartile of the distribution on all three tests and generally below the level predicted by their per capita GDP (Figure 3). In fact, fewer than 5% of students in the Region have PISA scores at or above the average score of students in the East Asian tigers' (IDB, 2010a). This has serious productivity and growth costs. A (not uncontroversial) NBER Working Paper (Hanushek and Woessmann, 2009) estimates that *the entire* growth shortfall of Latin American countries compared to countries in East Asia can be explained by differences in cognitive skills (IDB, 2010a).

Figure 3. PISA Math test scores and GDP, 2009

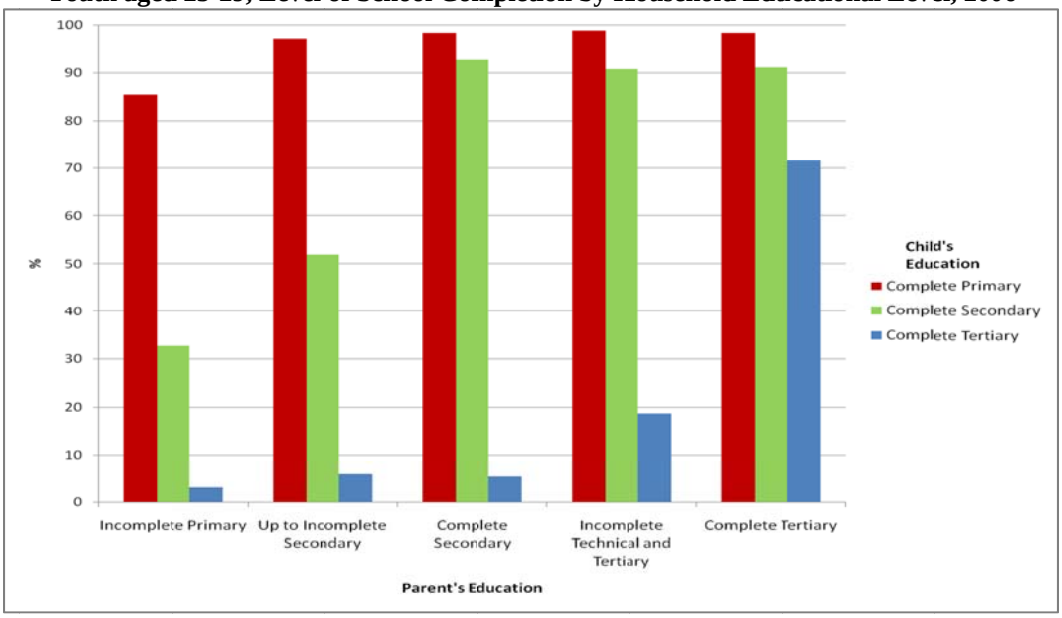


Note: *The figure depicts average scale scores for mathematics, age 15 and log GDP per capita (PPP) in nominal $US both in 2009. Red dots represent Latin American countries and blue dots represent East Asian tigers.* ***Source:*** *PISA and UIS.*

1.9 Furthermore, in some cases students also appear not to be acquiring other relevant skills needed for employment, even in low productivity jobs (IDB, 2010a; Gasparini et al., 2011; Bassi et al., 2012). Surveys in Argentina, Brazil and Chile show that many employers report difficulties finding workers with language and communication skills, critical thinking skills, good attitude, responsibility and commitment. Recent evidence from Chile suggests that secondary education in particular plays a special role in the development of these skills (Bassi et al., 2012).

1.10 **Why focus on secondary education?** The intergenerational transmission of education in LAC persists (Figure 4) and is especially marked at the post-primary level. A student is *much* more likely to complete secondary school if her/his parent has done so. Universal completion of secondary education (12 years of schooling) is required to break this cycle of educational inequality.

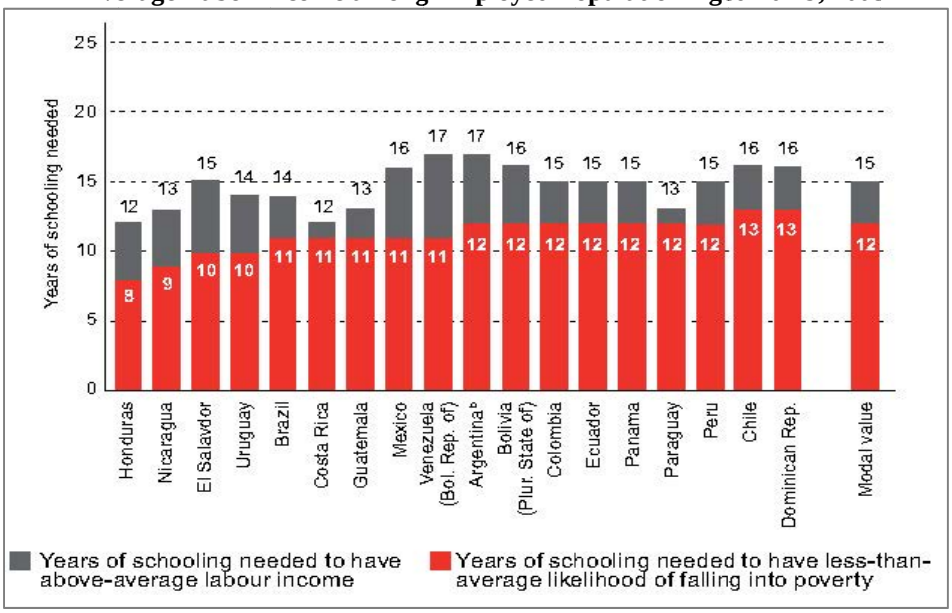
Figure 4. Intergenerational Transmission of Education Opportunities – Youth aged 25-29, Level of School Completion by Household Educational Level, 2006



Notes: *Average years of education completed by HH head. In this case, refers to their own level of educational attainment.* ***Source:*** *ECLAC (2010) based on household surveys.*

1.11 Moreover, completion of upper secondary education has become the minimum education threshold associated with a lower-than-average likelihood of not being poor in Latin America, and even higher levels of education are needed for above-average labor income (Figure 5). Still, youth entering the labor market face high and rising rates of unemployment as well as low and falling rates of return to secondary education, which may partly reflect the overall poor quality of education (Gasparini et al., 2011).

Figure 5. Years of Schooling Required to be Less Likely to Live in Poverty or Earn Above-Average Labor Income among Employed Population Aged 20-29, 2008



Notes: *Employed population only, includes those working more than 20 hours per week. Argentina includes only employed population in urban areas.* ***Source:*** *ECLAC (2010).*

1.12 Low learning outcomes and lack of relevant skills are largely a product of the deficient and inequitable access to a *high-quality* secondary education system. Along with the region's labor demand and supply dynamics (of which poor education outcomes are a factor determining supply), low quality secondary education has a direct impact on poor labor market outcomes among youth in LAC. For LAC to increase productivity and remain competitive –as well as to enhance equity and social mobility– it will need to close the skills gap, which requires not only expanding coverage but also improving the quality and relevance of secondary education. [8]

1.13 Secondary education systems also have the challenge of simultaneously providing students with relevant skills for success in the labor market and higher education, which involves some sort of balance between general academic and technical/vocational preparation. Many countries in the region have attempted to provide secondary-level students with relevant job skills through the creation of and reforms to technical and vocational education and training programs (TVET).[9] The share of secondary school enrollment in technical education has risen in many countries in the region, specifically in 12 out of 18 countries with data, and in certain cases, enrollments more than doubled between 1998 and 2002 (WB, 2006). Still, challenges specific to technical secondary education remain. In almost every country, technical education often has a lower status than academic education, mainly because of differences in socioeconomic background of the students in the two tracks (Castro et al., 2000). Moreover, the quality of technical secondary education in the region is considered to be too low to adequately prepare students with the skills demanded by 21st century labor market (WB, 2012). Yet, at least in the case of Chile, recent evidence suggests that technical secondary education is associated with a higher probability of employment and larger returns relative to academic secondary education.[10] Therefore, technical education may be an important avenue for enhancing labor market outcomes of some secondary school graduates.

1.14 Demand for higher quality secondary education is evident across LAC. Dissatisfaction with the present situation has been voiced in fervent protests by students and teachers demanding quality public secondary education in various countries, most recently in Chile and Mexico.[11] Public officials are aware of this dual challenge of improving equity and quality. The majority of countries have made 9 years of education (equivalent to completing lower secondary education) mandatory, while some others have extended the requirement to 12 years (equivalent to completing upper secondary education).[12]

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[8] See Duryea and Pages (2002) for a discussion of the effect of secondary education on productivity.

[9] The term TVET refers to "those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life" (UNESCO, 2001).

[10] In Chile, the probability of employment for those completing technical secondary education or tertiary education is similar. The return to technical secondary education is around 26% while the return to academic secondary education is around 10% (see Bassi et al. (2012) for details).

[11] See Sepulveda (2011) for details.

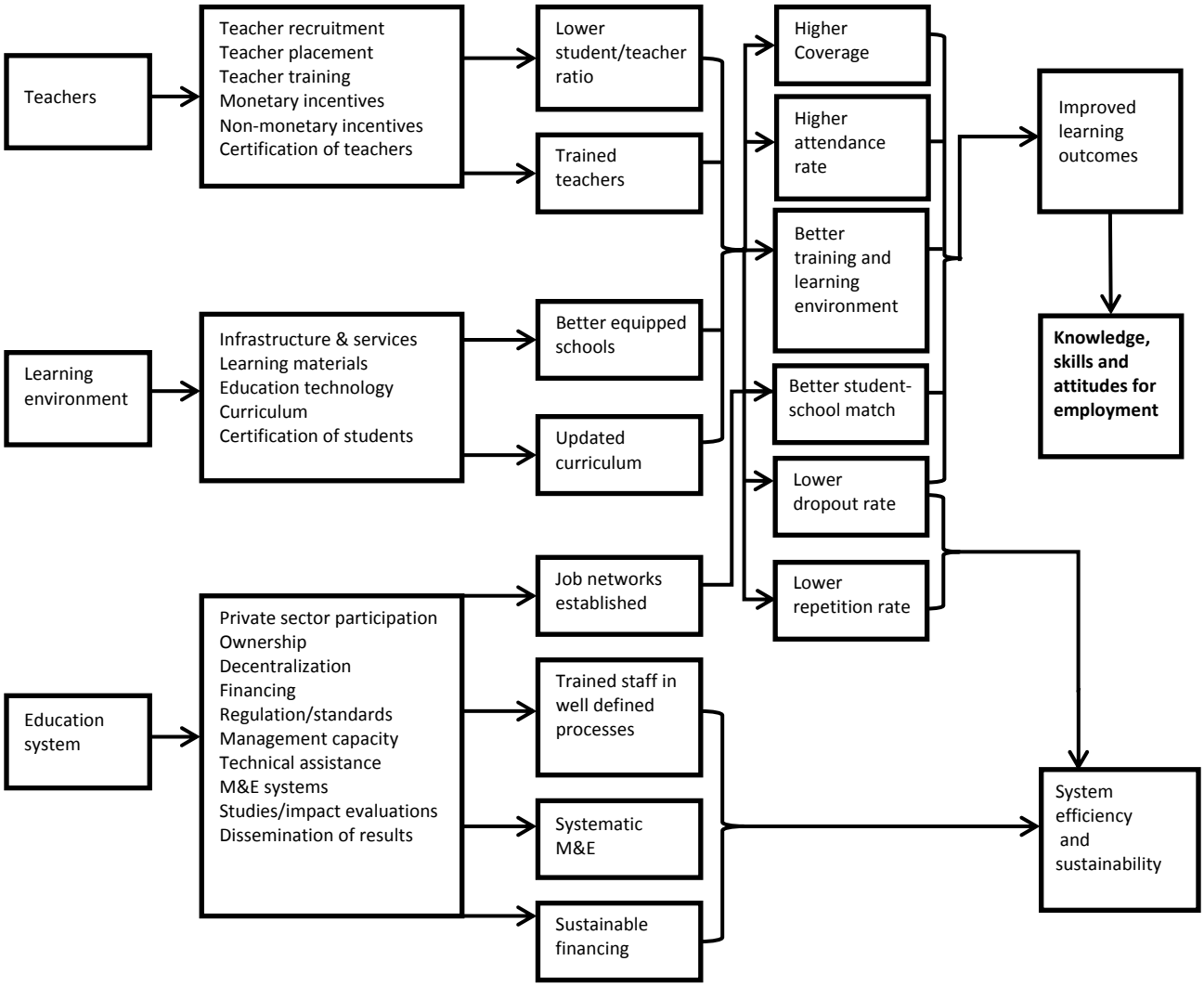
[12] Regional commitments have been made mainly through the Millennium Development Goals set by the United Nations and the Educational Goals for 2021 set by the Organization of Ibero-American States for Education. Information on mandatory education can be found in OEI (2010).

1.15 In addition to the rising demand for quality secondary education following from universal coverage in primary education, demographic changes (i.e. the "youth bulge") also underscore the importance of a focus on secondary school. As predicted, since the 1990s economic dependency ratios have seen an historic decline, with the acceleration in the growth rate of the 15 to 24-year-old group as compared to those under 15 and over 65. The share of the working age population (and the potential of increasing productivity) is close to peak levels and this situation will prevail for about 20 years, at which point the 65+ age group will begin to grow faster, bringing new challenges to the region. If the region is not able to generate enough educational and employment opportunities for the fast-growing 15 to 24 age group, the "demographic window of opportunity" will not be fully realized and the possibilities of producing enough resources to support those over 65 in the future will be considerably hindered (Cardenas et al., 2011).

1.16 **Quality in the education process.** "Education quality" is a somewhat ambiguous concept. In general, the literature defines "quality" in terms of cognitive and social-emotional variables. The former is usually composed of certain academic content and measured either by inputs (e.g. teacher recruitment/placement/training/incentives, curriculum reform, expenditure per student) or outputs (e.g. student performance on standardized test scores). The latter refers to a broad characterization of personality factors, such as attention, motivation, self-control, perseverance, among other intrapersonal as well as interpersonal skills, and is more difficult to ascertain empirically. While the evaluation will focus on learning measured by test scores and quality measured by short-term outcomes (e.g. coverage, attendance rates, repetition rates, dropout rates, completion rates, better training and learning environments, teacher-pupil ratios, among others), if possible it will try to consider the social-emotional outcomes or other non-cognitive skills as well when data are available.

1.17 The literature has not provided a unified model of how different inputs translate into higher test scores. Exactly how or why interventions affect student performance have not been explored other than through empirical channels. The main determinants of student performance presented in the literature can be grouped according to which input they affect: (1) the student, (2) the teacher, (3) the school, (4) the school system. Some of the different channels, related interventions and mechanisms are depicted in Figure 6. The student-related inputs necessary for learning include demand-side interventions (e.g. conditional cash transfers, vouchers, scholarships) that are not included in Figure 6, while the teacher/school/schooling system channels are related to supply-side interventions included in the figure.

Figure 6. Learning Inputs/Outputs/Outcomes (Supply-Side) and Selected Interventions



1.18 Given past Bank support for primary and secondary education and the renewed commitment to quality secondary education, this evaluation provides an opportunity to share lessons learned from past experience. The evaluation will examine how Bank support contributed to the three main educational outcomes (increased access, better internal efficiency, better learning), with a focus on the value added of the Bank in promoting an agenda for better quality of secondary education in LAC.

II. EVALUATION DESIGN

A. Evaluation objectives and questions

2.1 The main objective of the evaluation is to identify lessons from the Bank's support to secondary education policies and systems in LAC since 1995, with a particular focus on support to improve the quality of education and learning outcomes. The evaluation will review the Bank's dialogue with countries on educational policies; the design, execution and results of Bank-financed education operations; and the building of education-related

knowledge and capacities. Findings will seek to identify factors that affect the success of different interventions in different contexts, and to provide Management and client countries with specific recommendations regarding how the Bank could approach the sector looking forward.

2.2 The evaluation will focus on formal secondary education support (lower and upper – including basic, general and technical) managed by the Education Division and in a handful of cases by the Labor Markets Unit, which constitutes the bulk of lending commitments. Analyses will be supplemented with relevant demand-side interventions supported by the Social Protection and Health Division with an objective of improving secondary education outcomes (notably those conditional cash transfer programs with an explicit focus on secondary school-aged population). The evaluation will ensure that context-specific issues pertaining to geographic region, level of development, and nature of the sector are adequately considered.

2.3 We define secondary education as formal education programs targeted to youth aged 12-18 years (general academic and technical education delivered at schools or via telecommunication) under the supervision of the Ministry of Education. It does not include remedial programs or job training programs targeted to youth outside the formal secondary education system.

2.4 The evaluation will be organized around these five evaluative questions:

1. What are the key challenges in secondary education that the Region faces? To what extent do the Bank's Social Sector Strategy and Education Sector Guidelines reflect these challenges?
2. To what extent does Bank support focus on equitable access to secondary education? What approaches has it supported to help close the achievement gaps and what have been the results?
3. To what extent does Bank support focus on improving quality of secondary education? What approaches has it supported and what have been the results? Have student learning outcomes improved?
4. To what extent has Bank support helped improve systems efficiencies (e.g. internal and resource use)? What approaches has it supported and what have been the results?
5. To what extent has the Bank helped countries ensure labor market relevant technical and vocational education at the secondary level? What approaches has it supported and what have been the results?

B. Methodology and building blocks

2.5 Data sources include a literature review and background papers, the Bank's secondary education lending portfolio, country case studies, existing impact evaluations on secondary education-related topics, EDU and SCL economic and sector work reports, and key-informant interviews of stakeholders, IDB education sector specialists and other relevant IDB staff.

2.6 **Lending portfolio.** The first element will be a description of the IDB lending portfolio for secondary education since 1995 (Appendix C, Table 1). [13] Within the Education Division (EDU) we have identified 52 loans with secondary education components worth close to US$4.5 billion. [14] Two thirds of these loans have been completed. The countries where the Bank has had the largest presence in secondary education in terms of number of loan operations are as follows: Mexico (5 loans); Dominican Republic, Paraguay, Uruguay (4 in each country); Argentina, Colombia, Ecuador, El Salvador, Haiti, Jamaica and Peru (3 in each country). The only countries where the Bank has not financed formal secondary education loans during the referenced period are Belize, Chile, Nicaragua and Guatemala. In addition, within the education sector (ED) of the Labor Markets Unit (LMK) there are 2 loans worth US$150 million which include secondary school components (Proforhcom Program in Mexico). Lastly, within the Social Protection and Health Division (SPH) we have a total of 159 loans in the Social Investment (IS) sector worth approximately US$23 billion of which 37 are policy-based loans (i.e. PBL, PBP, EME) and the remainder are investment loans. Of the 37 policy-based loans, we have identified 33 with a secondary school-based education component. Among the investment loans we expect to find some conditional cash transfer programs relevant to our evaluation.

2.7 **Country case studies.** Given the large heterogeneity of conditions in the region and the influence that particular institutional and political contexts within each country may have on educational outcomes, there is a need for more detailed country analysis. The evaluation will take these differences into account by including a sample of 8 field-based case studies. In the countries selected, all loans as well as relevant TCs and ESW will be reviewed to provide illustrative material related to specific evaluation questions.

2.8 **Methodology for selection.** We purposefully select 8 countries for case study analysis. The final selection of countries takes into account the cross-country heterogeneity in the quality of education as well as the substantial Bank involvement in secondary education in each subregion. First, in order to account for cross-country differences in educational quality, we classify countries according to test scores on the Second Regional

[13] The universe of sovereign guaranteed loans was obtained using OPS Analyzer Operations Preparation data from January 1, 1995 until December 31, 2011. The initial query included the following SCL divisions: EDU, SPH, LMK, GDI. Based on relevance to our topic (formal secondary education) the following will be excluded from the lending portfolio for evaluation: GDI (mainly gender/diversity based projects); EDU-IS (early childhood projects); SPH-ED (early childhood projects); SPH-RM (public management project); SPH-SA (mainly health based projects); LMK-RM (social security system reform) and LMK-IS (youth or adult training outside of formal education system); SCL (only technical cooperations). In all, non-cancelled loans (i.e. still active or completed) in the following divisions will be included in the lending portfolio for evaluation: EDU-ED, LMK-ED, and SPH-IS.

[14] Loans of interest are those with formal secondary education components managed by the EDU and LMK units. Formal secondary education is defined as education programs targeted to youth aged 12-18 years (academic and technical education delivered at schools or via telecommunication) under the coordination of the ministry of education. It does not include remedial programs or job training programs targeted to youth outside the formal secondary education system.

Comparative and Explanatory Study. [15] This exam assesses learning achievement in the domains of language (reading and writing) and mathematics among a representative sample of third and sixth grade students in 16 Latin American countries (SERCE, 2006).[16] We focus on the test scores of sixth grade students and we classify countries into low (below median) and high (at or above median) scoring groups based on the sample distribution of average test scores in language and mathematics (See Table 1).[17] Among those with a SERCE test score, we restrict the sample to countries with at least 3 loans [18] (underlined). We select 3 countries with the highest number of loans each from the low and high scoring group. In the case of a tie, we purposefully select one country in order to include 2 countries per participating subregion (CID, CAN, CSC). [19] This yields the following countries for inclusion: (low) Dominican Republic, Paraguay, Ecuador (high) Mexico, Peru, Uruguay.

[15] The SERCE was coordinated and implemented by the Laboratory for Assessment of the Quality of Education (LLECE) in 2006, under UNESCO's Regional Bureau for Education in Latin America and the Caribbean (OREALC/UNESCO Santiago). Countries participating in math and language exams include: Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Peru, the Dominican Republic and Uruguay. Countries participating in 6th grade science exam include: Argentina, Colombia, Cuba, El Salvador, Panama, Paraguay, Peru, the Dominican Republic and Uruguay.

[16] SERCE test scores were chosen since they cover the greatest number of countries in LAC (15 total). PISA test scores in mathematics and reading among 15-year-olds cover only nine countries in 2009. As a regularity check, we classify participating countries into PISA test score quartiles in math and language and we find that they fall into test score quartiles similar to their SERCE classification.

[17] Table 1 presents a rough proxy for quality of the education system – the average mean test score in 6th grade Mathematics and Language SERCE (2006) exams. While not available for all countries, it provides a cross-country comparison of many countries (with the exception of CCB) to roughly classify different levels of quality and the respective issues surrounding each education system (e.g. 'low' quality systems still face significant issues related to access, while 'high' quality systems do not).

[18] We set the minimum of loans at three because this is the median.

[19] For example, among the low scoring countries, we choose Ecuador over El Salvador (both with three loans) since the CID region already includes the Dominican Republic and Mexico, each with at least four loans. Among the high scoring countries, we choose Peru over Colombia and Argentina (all with three loans) since the CSC Region already includes Uruguay and Paraguay, each with 4 loans, and Peru, in contrast with Colombia, has completed large sector-wide loan operations specifically in secondary education and education quality (i.e. PE0170 and PE0116 each invested nearly US$100 million).

Table 1. Country Classification by SERCE Test Scores and Number of Education Loans

Group 1 (low)	Group 2 (high)	No Test Score
Dominican Rep. (4)	Peru (3)	Belize (0)
Panama (2)	Colombia (3)	Barbados (1)
Guatemala (0)	Brazil (2)	Bahamas (1)
Ecuador (3)	Argentina (3)	Guyana (1)
Paraguay (4)	Chile (0)	Suriname (1)
Nicaragua (0)	Mexico (5)	Trinidad and Tobago (1)
El Salvador (3)	Costa Rica (1)	Venezuela (1)
	Uruguay (4)	Bolivia (1)
		Haiti (3)
		Jamaica (2)
		Honduras (4)

Notes: *The table contains the average of the mean test score in 6th grade Mathematics and Language SERCE (2006) exams in each country. Group 1 corresponds to the group of countries scoring below the median test score (Peru) and Group 2 corresponds to the group of countries scoring at or above the median test score. Within each group, countries are arranged in ascending order (from lowest to highest score). 'No test score' indicates that the country did not participate in SERCE. Total number of education loans with secondary education components (EDU and LMK division) in parentheses for each country during the referenced evaluation period (1995-2011). It does not include SPH division loans.*
Source: *SERCE (2006) and OPS (2012).*

2.9 In addition, we purposefully select one country from the Caribbean region (CCB) given the overall smaller Bank presence there in terms of number of loans. We choose Trinidad and Tobago as it recently completed a comprehensive loan operation (US$105 million) in secondary education.[20] Finally, we purposefully select a loan operation (US$100 million) in the Brazilian State of Paraná for its support of a comprehensive reform of the secondary education system at the local, regional, and state levels.

2.10 In all, the final selection of countries by subregion is as follows:

1. Central American Region (CID): Dominican Republic, Mexico
2. Andean Region (CAN): Ecuador, Peru
3. Caribbean Region (CCB): Trinidad and Tobago
4. Southern Cone Region (CSC): Paraguay, Uruguay, Paraná Brazil

2.11 Appendix B contains the potential loan universe for case study analysis.

2.12 **Technical cooperations.** In addition to the lending portfolio, the EDU and SPH divisions have delivered an increasing number of technical cooperations (TC). We will focus on a sample of the US$153 million worth of TC operations approved after 2001. Of the 546 TC operations that were approved after 2001, 117 were classified as knowledge products (ESW), 238 were operational inputs (OI), and the remainder was not classified

[20] Haiti is excluded from case study analysis due to the extreme circumstances it currently faces in regards to education reform. The final report, however, will cover Haiti's operations briefly.

(Appendix C, Table 2).[21] TCs for countries selected for case studies will be evaluated for their relevance and results achieved.

2.13 **Background papers.** To provide context and help answer the evaluation questions, a series of papers will be prepared on the following topics: (i) key political economy issues associated with the reform of secondary education in LAC and how the IDB has taken them into account; (ii) IDB's experience with improving teaching in LAC; (iii) role and relevance of technical secondary education in LAC and IDB's experience; and a possible fourth paper on challenges in tertiary education in LAC.

2.14 **Key informant interviews.** Key informant interviews with Government representatives from the recipient countries and representatives of other development organizations will be conducted during field visits and/or audio/video interviews, and with IDB Managers, Directors, Country Representatives, and Project Team Leaders and Specialists. The objective will be to elicit information on the IDB's actions related to secondary education; development effectiveness of the IDB's support; collaboration with the government, private sector and other partners; challenges encountered during implementation; methods of addressing those challenges; and measures to support the effectiveness of ongoing policies in different country contexts. Key informant interviews with IDB representatives serve to gain additional understanding and interpret findings from the analysis of the portfolio performance.

2.15 **Final report**: The final report will integrate the above products into a single document to be delivered to the Board by the end of 2012.

[21] The universe of TCs was obtained using OPS Analyzer Operations Preparation data from January 1, 2001 until December 31, 2011. The initial query included the following divisions: EDU, SPH, LMK, GDI, SCL. Based on lack of relevance to our topic (secondary school-based education) the following will be excluded from the lending portfolio: GDI (mainly gender/diversity based projects); LMK-CM (citizen security project); LMK-ME (microenterprise project); LMK-RM (pension systems). Within the LMK division, we found 35 TCs in the IS sectors worth approximately US$14.4 million. Of those, nine have been completed and 22 are classified as ESW while 8 as OI. In all, non-cancelled TCs (i.e. still active or completed) in the following divisions will be included in the lending portfolio for evaluation: EDU (IS, ED, RM sectors), SPH division where relevant (IS, ED, RM sectors).

III. TEAM AND TIMETABLE

3.1 The evaluation team is composed of Leslie Stone (Team leader), Monika Huppi, Michelle Fryer, Anna Crespo, Grace Noboa-Hidalgo, Virginia Poggio, Ursula Quijano, and Viviana Vélez-Grajales. Specialized consultants will be hired as needed. Intermediate outputs will be peer reviewed and shared with Management for comment.

3.2 The timeline for the evaluation is as follows:

Activity	Due Date
1. Approach paper	Feb-April 2012
a. Send to Board	April 2012
2. Implementation	March 30, 2012 – September 15, 2012
3. Results	September 15, 2012 – January 2013
a. Draft to Management	October 30, 2012
b. Final report to Board	December 15, 2012

APPENDIX A
The Bank's 2010 Education Sector Objectives and Strategies

Objective	Strategy
1. Improving educational services for Early Childhood Development (ECD)	▪ Promote the inclusion of ECD in public policy by supporting cross-sector and territorial strategies ▪ Promote access to quality ECD programs by improving the targeting of these programs to reach the most disadvantaged students ▪ Implement and evaluate innovative programs to stimulate demand for ECD[i] ▪ Promote the development of quality standards in service provision[ii] ▪ Increase the number of, and strengthen, initial and in-service ECD teacher training programs ▪ Strengthen the linkage between preschool and primary school[iii] ▪ Incorporate specific, easily measureable indicators for monitoring and evaluation of ECD outcomes[iv] ▪ Understand the role of public and private sectors in providing ECD services
2. Improving the quality of teachers and learning environments	▪ Strengthen mechanisms for entering the teaching profession so as to attract the best secondary-school graduates ▪ Design and implement programs aimed at improving teacher quality through initial and in-service training[v] ▪ Define and incorporate teacher performance indicators that can be linked to student performance and that can help evaluate the impact of programs ▪ Incorporate monitoring and evaluation of the link between teachers and other educational inputs ▪ Adjust education systems to align them with the teaching of cognitive and non-cognitive skills relevant to the demands of society and labor markets[vi] ▪ Promote effective interventions for teaching language, mathematics, and science in the first stage of primary school ▪ Enhance school infrastructure to support student learning along with access to basic services[vii] ▪ Promote teacher-placement policies to assign the best teachers to schools serving the most vulnerable populations
3. Facilitating the transition from school to work	▪ Promote the measurement of cognitive and non-cognitive skills for the purpose of adjusting these skills to labor market demands ▪ Promote the inclusion of non-cognitive skills in national curricula ▪ Facilitate linkage of secondary education to post-secondary education, especially technical education[viii] ▪ Promote public-private partnerships to facilitate the connection of young people with the labor market through internships and mentorship ▪ Promote the generation of information on the impacts of educational investment in young people's school-work trajectory[ix] ▪ Generate and disseminate evidence on successful programs and policies for the positive development of at-risk youth[x] ▪ Promote the school's role as the natural place for building social cohesion as a way of preventing student dropout and involvement in risky activities
4. Supporting the development of compensatory programs in	▪ Promote school-based interventions for which evidence exists of their impact on learning outcomes among the most vulnerable students ▪ Complement conditional cash transfer programs with programs aimed at improving the availability of educational services in schools serving the beneficiaries of such programs[xi]

Objective	Strategy
education	▪ Increase knowledge of effective compensatory programs by evaluating existing and innovative education policies
5. Promoting the measurement of learning outcomes	▪ Identify and define knowledge, competencies, cognitive and non cognitive skills that comprise a broad definition of "learning" ▪ Incorporate the measurement of competencies as well as cognitive and non-cognitive skills into national evaluation systems ▪ Promote longitudinal measurement strategies (including value-added strategies) to help examine and analyze impacts throughout the life cycle ▪ Design and implement systems for evaluating teacher performance ▪ Promote the use of information obtained by evaluations to improve decision-making on education policy[xii] ▪ Continue carrying out the Regional Project on Child Development Indicators (PRIDI)[xiii] ▪ Support the development of the Third Regional Comparative and Explanatory Study (TERCE)[xiv] ▪ Promote increased participation by the region's countries in the PISA exams[xv] and other international exams (i.e. TIMMS and PIRLS) to support regional and comparative education studies

Source: IDB (2010b).

APPENDIX B
Potential Loans for Case Study Analysis

Country	Subregion	Division	Operation number	Operation name	Operation sub type	Current Amount Approved	Approval Date	Status
BR	CSC	EDU	BR0167	Mejoramiento Enseñanza Media - Paraná	ESP	$ 100,000,000	9/18/1996	COMPLETED
DR	CID	EDU	DR-L1032	Apoyo al Plan Decenal de Educación	CLP	$ 50,000,000	2/3/2010	ACTIVE
DR	CID	EDU	DR0112	Educación Media	PFM	$ 52,000,000	12/6/2000	COMPLETED
DR	CID	EDU	DR0125	Programa de Equidad en la Educación Básica	PFM	$ 80,000,000	11/6/2002	ACTIVE
DR	CID	EDU	DR0101	Mejoramiento de la Educación Básica, II	ESP	$ 52,000,000	10/25/1995	COMPLETED
DR	CID	SPH	DR0140	Reforma Institucional del Sector Social	PBL	$ 200,000,000	8/1/2001	COMPLETED
DR	CID	SPH	DR0150	Programa de Reforma de la Gestión Social	PBL	$ 150,000,000	11/21/2006	COMPLETED
DR	CID	SPH	DR0159	Protección y sostenibilidad de Reformas Sociales	EME	$ 200,000,000	1/23/2004	COMPLETED
EC	CAN	EDU	EC-L1075	Programa Nacional Infraestructura Universalización de la Educación con Calidad	ESP	$ 75,000,000	6/30/2010	ACTIVE
EC	CAN	EDU	EC0125	Mejoramiento de la Calidad de la Educación	ESP	$ 40,591,872	11/11/1998	COMPLETED
EC	CAN	EDU	EC-L1018	Apoyo a la Universalización de la Educación Básica	ESP	$ 294,000,000	11/28/2007	COMPLETED
EC	CAN	SPH	EC0216	Programa Sectorial Social	PBL	$ 198,000,000	6/25/2003	COMPLETED
ME	CID	EDU	ME-L1033	Programa de Educación Comunitaria-Fase II: Constructores de Equidad	PFM	$ 100,000,000	1/13/2010	ACTIVE
ME	CID	EDU	ME0052	Programa de Educación a Distancia	ESP	$ 8,980,818	12/3/1997	COMPLETED
ME	CID	EDU	ME0238	Educación Comunitaria	PFM	$ 210,000,000	3/17/2003	COMPLETED

Country	Subregion	Division	Operation	Operation name	Operation	Current	Approval Date	Status
ME	CID	LMK	ME-L1039	Programa de Formación de Recursos Humanos Basada en Competencias (PROFORHCOM) II	PFM	$ 100,000,000	7/29/2009	ACTIVE
ME	CID	LMK	ME0250	Programa Multifase Formación de Recursos Humanos Basada en Competencias	PFM	$ 50,400,000	9/29/2004	COMPLETED
PE	CAN	EDU	PE0170	Mejoramiento Calidad de Educación Secundaria	ESP	$ 84,888,499	1/19/2000	COMPLETED
PE	CAN	EDU	PE0116	Programa de Mejoramiento Calidad Educación	ESP	$ 94,487,082	10/16/1996	COMPLETED
PE	CAN	EDU	PE0129	FPP:PE0116 Prog. Inversión Reforma Sector Educación	PPF	$ 357,660	9/5/1996	COMPLETED
PE	CAN	SPH	PE-L1072	Programa de Reformas de los Sectores Sociales I	PBP	$ 50,000,000	11/18/2009	COMPLETED
PE	CAN	SPH	PE-L1078	Programa de Reformas de los Sectores Sociales II	PBP	$ 100,000,000	11/3/2010	COMPLETED
PE	CAN	SPH	PE0247	Reforma de Programas de Superación de la Pobreza y Desarrollo del Capital Humano	PBL	$ 300,000,000	12/8/2004	COMPLETED
PR	CSC	EDU	PR-L1017	Programa Escuela Viva II	PDL	$ 45,000,000	7/11/2007	ACTIVE
PR	CSC	EDU	PR-L1028	PEF:PR-L1017 Escuela Viva Programa II	PEF	$ 2,380,339	7/6/2007	COMPLETED
PR	CSC	EDU	PR0117	Fortalecimiento de la Reforma Educativa	ESP	$ 39,764,509	7/5/2000	COMPLETED
PR	CSC	EDU	PR0133	FEP:PR0117 Fortalecimiento Reforma Educativa Básica	PEF	$ 494,124	3/20/2000	COMPLETED
PR	CSC	SPH	PR0147	Programa de Protección Social de Paraguay	EME	$ 20,000,000	12/17/2003	COMPLETED
TT	CCB	EDU	TT0023	Programa de Educación Secundaria	ESP	$ 105,000,000	5/26/1999	COMPLETED
UR	CSC	EDU	UR-L1050	Programa de Apoyo a la Educación Media y Técnica y a la Formación en Educación	ESP	$ 48,000,000	12/8/2010	ACTIVE
UR	CSC	EDU	UR-L1058	Programa de Apoyo a la Consolidación y Expansión del Plan CEIBAL	ESP	$ 6,000,000	12/7/2009	ACTIVE

Country	Subregion	Division	Operation	Operation name	Operation	Current	Approval Date	Status
UR	CSC	EDU	UR0107	Modernización Educación Secundaria	ESP	$ 40,000,000	3/13/1996	COMPLETED
UR	CSC	EDU	UR0132	Educación Media y Formación Docente	ESP	$ 74,956,606	11/14/2001	COMPLETED
UR	CSC	SPH	UR-L1003	Programa Sectorial Social	PBL	$ 250,000,000	8/3/2005	COMPLETED
UR	CSC	SPH	UR0151	Programa de Protección y Sustentabilidad Social	EME	$ 500,000,000	8/7/2002	COMPLETED
PE	CAN	SPH	PE-L1009	Apoyo a Reformas en el Sector Social	TCR	$ 5,230,973	12/8/2004	COMPLETED

Notes: *The table includes sovereign guaranteed loans with secondary education components which were approved between January 1995 and December 2011 and are still active or were completed by the EDU division (ED sector), LMK division (ED sector), and SPH division policy loans (PBL, PBP, EME loans under IS sector with education components) in the following countries: Ecuador, Peru, Mexico, Dominican Republic, Trinidad and Tobago, Uruguay, Brazil-Paraná, and Paraguay.* ***Source:*** *OPS and OVEDA.*

APPENDIX C
Table 1: Distribution of Lending Portfolio for Evaluation by Country and Division, 1995-2011

	EDU and LMK DIVISIONS			SPH DIVISION		
	Number Approved	Number Completed	Current Amount Approved (Millions Nominal US$)	Number Approved	Number Completed	Current Amount Approved (Millions Nominal US$)
	(1)	(2)	(3)	(4)	(5)	(6)
Country						
AR	3	1	$1,710	13	10	$5,153
BA	1	1	$60	0	0	$0
BH	1	0	$13	0	0	$0
BL	0	0	$0	1	1	$15
BO	1	1	$4	8	5	$200
BR	2	2	$210	8	5	$3,841
CH	0	0	$0	4	4	$41
CO	3	2	$87	12	11	$3,224
CR	1	1	$27	0	0	$0
DR	4	3	$234	7	4	$809
EC	3	2	$410	8	8	$442
ES	3	3	$178	9	7	$726
GU	0	0	$0	7	7	$487
GY	1	1	$30	3	3	$35
HA	3	0	$124	4	4	$208
HO	4	3	$58	15	13	$454
JA	3	2	$108	5	5	$170
ME	5	3	$469	9	8	$5,047
NI	0	0	$0	14	12	$273
PE	3	3	$180	11	10	$867
PN	2	1	$88	3	2	$55
PR	4	3	$88	5	4	$69
SU	1	0	$13	2	1	$25
TT	1	1	$105	1	0	$50
UR	4	2	$169	6	5	$844
VE	1	1	$1	4	3	$159
Country Total	54	36	$4,365	159	132	$23,195

Notes: *The table includes sovereign guaranteed loans with secondary education components which were approved between January 1995 and December 2011 and are still active or were completed by the EDU division (ED sector) and LMK (ED sector) division. It also includes all sovereign guaranteed loans which were approved between January 1995 and December 2011 and are still active or were completed by the SPH division (IS sector).* ***Source:*** *OPS Analyzer and OVEDA.*

Table 2: Distribution of Technical Cooperations for Evaluation by Country and Division, 2001-2011

Country	Number Approved	Number Completed	Current Amount Approved (Thousands Nominal US$)	Number of ESW	Number of OI
	(1)	(2)	(3)	(4)	(5)
AR	9	6	$3,831	6	2
BA	3	1	$1,011	2	1
BH	2	1	$559	1	1
BL	6	4	$3,318	2	1
BO	15	12	$3,710	1	11
BR	14	7	$5,295	6	5
CH	14	11	$3,700	7	2
CO	30	25	$10,116	8	9
CR	8	4	$3,963	4	2
DR	20	15	$5,953	1	17
EC	40	34	$10,286	11	12
ES	17	14	$4,523	4	8
GU	17	15	$5,004	2	11
GY	11	11	$1,938	1	5
HA	21	14	$6,288	2	15
HO	31	26	$7,549	2	23
JA	17	11	$7,237	4	10
ME	15	8	$6,667	4	8
NI	23	19	$5,239	3	15
PE	15	8	$5,302	5	7
PN	11	9	$1,736	1	6
PR	18	12	$6,612	5	7
SU	6	5	$1,274	1	2
TT	5	3	$2,059	1	3
UR	11	7	$5,101	2	7
VE	5	3	$2,323	3	2
Country Total	384	285	$120,594	89	192
Regional					
RG	50	31	$21,842	22	8
RS	112	112	$10,975	6	38
Regional Total	162	143	$32,817	28	46
Division					
EDU	164	103	$62,032	56	75
SPH	375	321	$88,406	57	161
SCL	7	4	$2,973	4	2
Division Total	546	428	$153,411	117	238

Notes: *The table include all TCs which were approved between January 2001 and December 2011 and are still active or were completed by the EDU division (IS, ED, RM sectors), the SPH division (IS, ED, RM sectors), and the general SCL division.* ***Source:*** *OPS Analyzer and OVEDA.*

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NOTES:

[i] For example by incorporating ECD services into conditional cash transfer programs.

[ii] For example by designing an age-appropriate curriculum and providing stimulating learning materials.

[iii] For example by promoting the sequential development of skills from preschool to primary school as well as joint work between preschool and primary school teachers.

[iv] Preferably based on the Regional Program on Early Childhood Development Indicators (PRIDI).

[v] For example by providing training programs led by more experienced teachers, intensive practical experience in school with different profiles, "residency" programs, and certification exams.

[vi] Education systems could include curricula, school organization, educational management, institutional capacities, information and communication technologies. Cognitive skills could include communication, reading, and critical thinking skills. Noncognitive skills could include attitude toward work, responsibility, and commitment; capacity for teamwork; social skills; self-esteem; and self-efficacy.

[vii] Infrastructure should be flexible so that spaces can be adapted to various forms of teaching, with support of facilities such as science laboratories, libraries, auditoriums, cafeterias, and gymnasiums. Basic services such as water, electricity, telecommunications, and sewerage are deficient in many schools, particularly those in rural areas.

[viii] For example by defining, standardizing, and certifying job competencies, using flexible modules in the education system, instituting training schedules, and connecting secondary schools with their environment, especially the productive environment.

[ix] This information will guide decision-making by young people and their families as to whether to remain in the education system or enter the labor market.

[x] These could include alternative, remedial, and compensatory interventions aimed at preventing dropout or paving the way for dropouts' return to the education system.

[xi] These actions include extending the school day; placing better-educated teachers in schools serving the poorest; adapting primary and secondary education to the ethnic and cultural characteristics of the population; fighting absenteeism among both teachers and students; carrying out remedial interventions to prevent student dropout and promote reinstatement into the school system; providing scholarship programs to ensure the promotion in secondary school of students from families with limited socioeconomic resources; and improving the physical conditions of schools and the availability of teaching material.

[xii] For example to improve training programs and school management; ensure that the material taught is relevant; and allocate educational inputs effectively.

[xiii] The PRIDI will provide data and indicators on the development of children aged 24 to 59 months as measured in four areas (cognitive capacity, social/emotional capacity, language, and emerging academic skills—early notions of reading, writing, and mathematics) in Latin America and the Caribbean through the collection of household data.

[xiv] The TERCE assesses learning achievement in language, mathematics, and science at the primary level in Latin American countries.

[xv] The PISA exam is administered by the OECD to 15-year-old students in the Region.