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Report No:

IMPLEMENTATION COMPLETION REPORT
(CPL-38830; SCL-38836)

ON A

LOAN

IN THE AMOUNT OF US\$35 MILLION

TO THE

REPUBLIC OF CHILE

FOR A

CL-SECONDARY EDUCATION

10/19/2001

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CURRENCY EQUIVALENTS

(Exchange Rate Effective)

Currency Unit = Chilean Peso

Ch.\$1 = US\$ 0.00154 (August 2001)

US\$ 1 = Ch.\$650 (August 2001)

FISCAL YEAR

January 1 December 31

ABBREVIATIONS AND ACRONYMS

CAS	Country Assistance Strategy
CEU	Curriculum and Evaluation Unit
CRA	Learning resource centers (<i>Centro de recursos de aprendizaje</i>)
DGE	General Education Division (<i>Dirección General de Educación</i>)
GC	Government of Chile
GPT	In-site peer in-service teacher training groups (<i>Grupos Profesionales de Trabajo</i>)
IEA	International Evaluation Association
ME	Ministry of Education
MECE-Media	Bank-financed secondary education project (<i>Mejoramiento de la Calidad y Equidad</i>)
NSECU	National Secondary Education Coordination Unit
OECD	Organization of Economic Cooperation and Development
PCU	Project Coordination Unit
PME	School-based quality improvement project (<i>Proyectos de Mejoramiento Educativo</i>)
SIMCE	Learning Achievement Measuring System (<i>Sistema de Información sobre la Calidad de la Educación</i>)
TIMSS	The Third International Mathematics and Science Study
OREALC	UNESCO's Regional Office for Latin America and the Caribbean Region

Vice President:	David de Ferranti
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CHILE
CL-SECONDARY EDUCATION

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<i>Project ID:</i> P006673	<i>Project Name:</i> CL-SECONDARY EDUCATION
<i>Team Leader:</i> Juan Prawda	<i>TL Unit:</i> LCSHE
<i>ICR Type:</i> Core ICR	<i>Report Date:</i> October 18, 2001

1. Project Data

Name: CL-SECONDARY EDUCATION *L/C/TF Number:* CPL-38830;
SCL-38836
Country/Department: CHILE *Region:* Latin America and
Caribbean Region
Sector/subsector: ES - Secondary Education

KEY DATES

<i>PCD:</i> 12/21/92	<i>Effective:</i> 01/09/95	<i>Original</i>	<i>Revised/Actual</i>
<i>Appraisal:</i> 11/30/94	<i>MTR:</i> 06/10/99		
<i>Approval:</i> 05/09/95	<i>Closing:</i> 06/30/2001		

Borrower/Implementing Agency: REPUBLIC OF CHILE/MIN EDUCATION
Other Partners:

STAFF	Current	At Appraisal
<i>Vice President:</i>	David de Ferranti	Shahid Javed Burki
<i>Country Manager:</i>	Myrna L. Alexander	Gobind Nankani
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<i>Team Leader at ICR:</i>	Juan Prawda	Juan Prawda
<i>ICR Primary Author:</i>	Juan Prawda	

2. Principal Performance Ratings

(HS =Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HL=Highly Likely, L=Likely, UN=Unlikely, HUN=Highly Unlikely, HU -Highly Unsatisfactory, H=High, SU=Substantial, M=Modest, N=Negligible)

Outcome: HS
Sustainability: HL
Institutional Development Impact: SU
Bank Performance: S
Borrower Performance: HS

Quality at Entry: QAG (if available) ICR
HS
Project at Risk at Any Time: No

3. Assessment of Development Objective and Design, and of Quality at Entry

3.1 Original Objective:

The objectives of the Project were to: (a) improve the internal and external efficiency, quality, and equity of the educational services provided by municipal and private subsidized secondary schools; and (b) strengthen the managerial capacity in the Borrower's secondary education sector.

3.2 Revised Objective:

Notwithstanding that the Legal Agreement was amended three times (January 24, 1996, August 4, 1998 and November 29, 2000), the original objectives remained unchanged during project implementation.

The above-mentioned amendments refer to conversion of the financial terms of the Loan, change of currency and reallocation of proceeds in Schedule 1 to the Loan Agreement, as detailed in the table provided in section 7.7 of this report

3.3 Original Components:

In order to facilitate the day-to-day implementation arrangements of the project and the Bank supervision, the Borrower proposed, and the Bank accepted, an aggregation of the original components detailed in Schedule 2 of the Loan Agreement as follows. The aggregation combined: (i) paras. A1 to A4, A6, A10 (b) and A10 (c) of Schedule 2 to the Loan Agreement as "redesign of the curriculum and learning assessment for grades 9 to 12"; (ii) paras A5, A7, A8, A10 (a), A11 and A19 as "provision of on-site peer in-service teacher training through the teacher professional groups (GPTs)"; (iii) paras. A13, A16 to A18 as "establishment of learning resource centers (CRAs) and computer laboratories (*red Enlaces*) and acquisition and distribution of textbooks"; (iv) para. A9 was redefined as "carrying out extra-curricular activities for at risk-students (*Programa Jóvenes*)"; (v) paras. A12, A14 and A15 as "carrying out school-based quality improvement projects (PMEs)"; (vi) paras. A20 and A21 as "construction and rehabilitation of schools and provision of school furniture and school-identity symbols"; (vii) paras. B1 to B4 as "provision of technical assistance to project schools, focusing exclusively at the school level"; and (viii) para. A22 referred to the Project Coordination Unit (PCU).

According to the above-mentioned combination of detailed project sub-components, the Government of Chile (GC) implemented the following project components to achieve the objectives referred in 3.1 above:

- (a) redesign of the curriculum and learning assessment for grades 9 to 12;
- (b) provision of on-site peer in-service teacher training through the teacher professional groups (GPTs);
- (c) establishment of learning resource centers (CRAs) and computer laboratories (*red Enlaces*) and acquisition and distribution of textbooks;
- (d) construction and rehabilitation of schools and provision of school furniture and school-identity symbols;
- (e) carrying out school-based quality improvement projects (PMEs); and
- (f) carrying out extra-curricular activities for at risk-students (*Programa Jóvenes*).

In addition, to strengthen the managerial capacity in the Borrower's secondary education sector, the GC implemented the following component:

- (g) provision of technical assistance to project schools, focusing exclusively at the school level.

Component	Appraisal estimate total cost			
	Total	IBRD	GC	Ratings

Curriculum and evaluation	7.12	0.0	7.12	HS
Teacher training	9.79	0.0	9.79	S
Learning resources	90.36	16.85	73.51	HS
Infrastructure	48.88	0.0	48.88	HS
School-based quality improvement projects	24.38	15.84	8.54	HS
Extra-curricular activities	15.81	0.0	15.81	S
Technical assistance	2.90	0.0	2.90	U
Project coordination unit (PCU)	7.76	2.31	5.45	HS
Total	207.00	35.00	172.00	HS

3.4 Revised Components:

At the request of various Bank supervision missions (as detailed in section 7.2 of the ICR), several tailored-made research studies were conducted in 1999 to evaluate project implementation mid-way its implementation cycle. As a result of the research findings, a more appropriate targeting of project activities was carried out in 400 high-risk secondary education schools including better performance indicators. Accordingly, some project activities were subsequently attuned and targeted to these 400 schools, including, inter-alia, intensive technical assistance and monitoring by the PCU every 15 days, institutional self-assessment and remedial and compensatory tailored-made interventions. The high-risk criteria was defined as a function of repetition and dropout rates, learning achievements and location of the secondary school according to the Ministry's of Planning (MIDEPLAN) poverty criteria. Other changes made in the original components included: (i) better gauging of the arrival of project activities to secondary schools thus speeding up project implementation; (ii) enrichment of the options menu offered to the project schools, more attuned to their characteristics; and (iii) alignment of project-financed learning inputs with the revised curriculum and to the needs of schools adopting the full-day schedule.

3.5 Quality at Entry:

Even though no formal *Quality at Entry* criteria was available at the time of project preparation and appraisal, this report follows *Bank Quality Assurance Group* standards. In this section, the Chile Secondary Education project is reviewed according to its consistency with Chile's Country Assistance Strategy (CAS). Other *Quality at Entry* criteria associated with the Borrower and Bank's performance during the identification, preparation and appraisal stages are provided in chapter 7 of the ICR including: (i) Borrower's sector knowledge and strategy underpinning project design; (ii) clarity and realism of proposed project development objectives; (iii) appropriateness of project approach; (iv) appropriateness of project conditionalities included in the Legal agreement; (v) technical, economic, environmental, social and stakeholder aspects and lessons learned; (vi) financial management; (vii) Borrower's institutional capacity to implement the proposed project; (viii) readiness for implementation, especially for the first year; (ix) risk assessment and sustainability considerations; and (ix) Borrower's commitment, ownership, participation and readiness for implementation.

As stated in para. 34 of the CAS (Report 14370-CH) dated April 17, 1995, education is a key aspect of achieving the Government's objective of upgrading Chile's human capital, with a view towards improving the country's competitiveness in the international arena. Chile's educational system is at a crucial development juncture. Having expanded the primary education system to attain nearly universal coverage, the challenge is to continue ensuring equity in access to high quality education, while concurrently

enhancing the internal efficiency of the system. The Bank has supported the Government's efforts in these areas through a US\$170 million *primary education loan (MECE-Básica)* approved in FY92 and completed in 1998. The *Secondary Education Bank-financed project (MECE-Media)* was designed to assist the Government in raising the quality of secondary education, enhancing its external (relevance) and internal efficiency, and improving equity. In addition to the above reasons, the Government of Chile also requested that the Secondary Education project be included in the Bank's lending program, since it wished to retain and enrich the relationship with the Bank in the education sector. For all these reasons, the project was consequently fully consistent with the CAS for Chile.

4. Achievement of Objective and Outputs

4.1 Outcome/achievement of objective:

General assessment by the ICR mission. Based on the documentation review, the field visits to secondary schools in two cities (Calama in the second region and Valdivia in the tenth region), and the discussions held with educational authorities, the ICR mission concluded that the implementation of this project was *highly successful*. The project achieved (as detailed in Section 4.2 and in Annex 8), and in some cases, surpassed its original objectives. All, but one, of the project components (provision of technical assistance) have been transferred to the mainstream structures of the Ministry of Education (ME) as of FY01 as explained in chapter 6 of the ICR. Financial and technical sustainability of these project activities was ensured. Finally, all of the above achievements was carried out in a very efficient fashion as fully detailed in section 5.4 of the ICR.

Notwithstanding the achievements explained in more detailed below by stated project original objective, it is difficult to assess the degree to which the project contributed to these accomplishments for the following two reasons. First, the project was implemented throughout the entire country and did not include an experimental design comprising a control group to measure its impact. Second, and more important, two years into the project implementation cycle, the GC launched an ambitious educational reform, including secondary education. The reform aimed at: (i) incorporating the entire municipal and private-subsidized school system in the full-day schedule; (ii) improving the pre and in-service teacher training for basic and secondary education; (iii) revising the curriculum and learning assessment system from preschool to grade 12; and (iv) piloting educational innovations in 51 selected secondary schools in the entire country known as *Liceos Montegrande*. The GC allocated as much as an average of US\$150 million/year of its own funds to implement the reform since 1998. The Bank-financed secondary education project, which contributed to the achievement of the reform objectives and disbursed a total of US\$153 million during the entire implementation cycle, became totally immersed in the synergy emerging from this significant and challenging government endeavor.

Improvement of the secondary education internal efficiency. At the end of project implementation, the secondary education system in Chile improved its internal efficiency, as attested by increased access and reduced repetition and dropout rates. Preliminary data reflects that the net enrollment rate for the 14-17 year-old population increased from 78% in 1995 to 84% in 2000 (last year for which available data exists). The average yearly increase in secondary enrollment went from 1.5% in the period 1980-1995 to 4.1% during the implementation cycle (1995-2000). The gains in the municipal and private-subsidized secondary system are explained below (section on equity). In spite of this significant change in access to secondary education, however, there are inequities with respect to secondary education coverage, which are still being addressed by the GC. The average net enrollment rate for this age group in the urban areas is 92%, while in the rural areas is 76.8%; enrollment in the upper-income group is 98.5% compared to 82.3% in the lower-income group; and 95.8% in Region I while 79% in the VII Region.

The average repetition rate in the entire secondary education cycle decreased from 12% to 6.4% in the 1995-2000 period. This accomplishment is a significant improvement from the situation prior to the implementation of the project where the average secondary education repetition rate slightly decreased from 13% in 1989 to 12% in 1995. The average repetition rate in first grade of secondary education (grade 9) decreased from 15% in 1995 to 8.9% in 2000. The average dropout rate in grade 10 decreased from 6.3% in 1995 to 3.9% in 2000, while the average dropout rate for the entire four-year secondary education cycle also decreased, from 32% in 1995 to 24.8% in 2000. In the municipal secondary schools it decreased from 41% to 33% in the same 1995-2000 period. The average number of years to complete the secondary education cycle decreased from 5.35 years in 1993 to 4.95 in 2000. As a consequence of this improved efficiency, the average graduation rate of those students entering 9th grade and completing 12th grade in 4 years increased from 47.9% for cohort 1986-1990 to 51.6% for the cohort 1996-2000.

However, less than half the students entering secondary education will complete the cycle in 4 years. This situation is more acute within families belonging to the lowest income quintile and with students attending municipal schools. In private-paid schools, 75% of students entering first grade will complete the secondary education cycle in 4 years. About 40% of first graders in municipal secondary schools will never complete the cycle, compared with 23.4% in private-subsidized schools and 10.6% in private-paid ones.

Improvement of the secondary education external efficiency (curriculum pertinence). At the end of project implementation, the secondary education system in Chile also improved its external efficiency as demonstrated by a more pertinent curriculum of grades 9 to 12 and an improved learning assessment scheme. The revised secondary education curriculum includes a more appropriate fit with the future needs of society and has radically modified the traditional frontal, and mostly ineffective, teaching methods (as fully explained in section 4.2 below).

With respect to improving the external efficiency of the municipal and private-subsidized technical secondary schools, and in accordance with para. A10 of Schedule 2 to the Loan Agreement, the project achieved the following four relevant accomplishments. First, the curriculum of grades 9 and 10 of technical secondary schools was revised and made part of the ten-grade basic general education for all. Second, in collaboration with the private productive sector, the curriculum of grades 11 and 12 of these schools was totally modified. Accordingly, the 500 technical specialities that existed under the old curriculum were reduced to 46 grouped in 14 occupational families. Consequently, all the learning and teaching goods provided by the project to the technical secondary schools, were aligned to the revised curriculum (grades 9 to 12). Finally, with the technical advice of GTZ (outside project funds), 100 technical secondary schools were included in a Dual Learning Scheme alternating school-based education with hands on the job in selected productive firms that participated in this teaching/learning format. These project accomplishments have strengthened the relationship between the technical secondary education and the productive sector, and the lessons learned in this fruitful experience are being included in the design of the forthcoming Lifelong Learning and Training project, soon to be appraised by the Bank.

Improvement of the secondary education quality. On the qualitative dimension, some of the most important project achievements are: (a) improving the enabling learning conditions of the municipal and private-subsidized secondary schools through significant investments in texts, learning resource centers and computer laboratories; (b) strengthening the participation and commitment of teachers and students in the process of educational change, primarily through the on-site peer in-service teacher training groups (explained in 4.2 below); and (c) aligning the provision of textbooks, learning resource centers, computer laboratories, infrastructure, pre- and in-service teacher training, learning assessment and classroom

pedagogy to the revised and approved curriculum.

There were two learning assessments carried out in the 10th grade of secondary education during the life of the project, while still under the old curriculum framework - one in 1993 and the other in 1998. The findings of these two measurements point to a significant improvement in mathematics and a slight one in language. The findings also indicate that the gap between the learning outcomes in municipal secondary schools and private-paid ones widened in this period. No learning assessments have been made for secondary education in the curriculum post-review period with the revamped new SIMCE. In November 2001, the first censal assessment for grade 10 will be carried out and its findings will become the baseline information. It is expected that in November 2004 the second assessment for graded 10 will be carried out. At that time (on or about 2005), the impact of the reform with respect to learning will be assessed.

Improvement of the equity in the secondary education system. Based on the available information, and as explained further below, one conclusion from the ICR mission is that improvements in the private-paid system (where the project did not intervene at all) were significantly greater than in the other two systems that the project benefited with its investments (the municipal and the private-subsidized). Undoubtedly, more experienced and motivated teachers, better learning conditions and resources, more effective and consistent family support and a more stimulating contextual environment for students attending private-paid secondary schools, explain in part the significant improvements of the private-paid system over the municipal and private-subsidized ones during the life of the project. The continued challenge faced by the Chilean educational authorities to continue reducing these inequities, primarily between the municipal and private-paid secondary education systems, is currently a high priority in the work program of the recently established National Secondary Education Coordination Unit (NSECU) within the Ministry of Education.

Notwithstanding the above ICR conclusion, it seems that the Project also had a significant impact in reducing some inequities. In 1990, there was a 21 point difference in secondary enrollment between the 14-17 year-old population belonging to the lowest income-quintile and those belonging to the highest income-quintile (73.3% vs. 94.2%). By 2000, this gap narrowed to 16 points (82.3% vs. 98.5%). Likewise, the secondary education enrollment gap between the rural and urban areas was reduced from 36 points in 1990 (50.2% vs. 86.5%) to 15.2 points in 2000 (76.8% vs. 92%). In 1993, average dropout rate in grade 10 in municipal schools was 3.2 times higher than that of private-paid secondary schools (7.7% compared to 2.4% respectively). In 2000, this ratio decreased to 2.6 times higher for municipal schools. Similarly, the ratio between private-subsidized and private-paid schools was 2.3 times in 1993 (5.5% against 2.4% respectively), and decreased to 1.8 times in 2000. The average number of years to complete the four-year secondary education cycle in municipal schools was 1.3 times higher than the one for private-paid secondary schools in 1993 (5.73 years against 4.41 years respectively), and decreased to 1.05 times in 2000. The same ratio between private-subsidized and private-paid schools was 1.1 times in 1993 (5 years against 4.41 respectively), and decreased to 1.02 times in 2000.

While recognizing improved equity in some indicators, it worsened in others during project implementation. For example, the average repetition rate in first grade of municipal secondary schools (grade 9) in 1993 was 3.3 times higher than the one for private-paid schools (17.6% against 5.3% respectively). In 2000, this ratio increased to 3.8 times higher. This worsening situation is also true for private-subsidized secondary schools compared to private-paid ones. In 1993, ninth grade repetition was 2.2 times higher in private-subsidized schools than private paid (11.8% and 5.3% respectively), and by 2000, the ratio increased to 2.4 times. The average dropout rate in the entire four-year cycle in municipal schools in 1993 was 3.2 times higher than the one in private-paid schools (41% compared to 11.6% respectively). By 2000, it increased to 4.5 times higher. The situation with respect to this last indicator in private subsidized

schools compared with private-paid improved from 2.3 times in 1993 (26.8% against 11.6% respectively) to 1.9 times in 2000. The more appropriate enabling learning conditions in the private-paid system explain in part this slight worsening situation.

Strengthening the managerial capacity in the Borrower's secondary education system. Five relevant accomplishments were achieved through the implementation of this component. First, the ME's institutional structure was modified to manage the educational reform. As explained in sections 4.2 and 4.5 of this report, a Curriculum and Evaluation Unit (CEU) and a National Secondary Education Coordination Unit (NSECU) were established in the ME in 1998 and mid-2000 respectively. The CEU was established to manage the curriculum and learning assessment revision. The NSECU was established to manage the mainstreaming of the Bank-financed secondary education project activities at project completion and continue with their operation, fine tuning and scaling up. Second, the ME built significant additional capacity to manage the implementation of the education reform, in particular the conversion to the full-day schedule of basic and secondary public and private-subsidized schools. Third, significant progress was made to continue decentralizing managerial responsibilities to the regional (SEREMIS) and provincial (DEPROV) offices of the ME. In the context of the recently approved Law of *Facultades Delegadas*, additional financial managerial responsibilities have been delegated to the school principals to manage public financial resources allocated to the schools by the ME. Fourth, the Bank-financed project contributed to ME's strengthening its normative role in aspects of school construction and acquisition of school equipment and furniture and provided greater transparency and efficiency to these processes. This project achievement is of particular importance given the ambitious infrastructure program financed by GC (outside the project) to convert schools to the full-day schedule. Finally, through this component, secondary education school principals were offered the opportunity to strengthen their leadership role.

4.2 Outputs by components:

Curriculum and evaluation. One of the outstanding achievements of the educational reform has been the curriculum revision from preschool to grade 12. The project supported the curriculum revision in grades 9 to 12. The curriculum reform of grades 9 to 11 has been completed. The curriculum reform for grade 12 is to be approved this year and implemented in 2002. Along with this curriculum reform, a new learning assessment measuring system was designed, and is now fully functional. This learning assessment system replaces the old SIMCE and features the following improvements: (i) carries out censal learning assessment in four curricular areas (math, language, social and exact sciences) instead of only two (math and language); (ii) is criteria-referenced instead of norm-referenced; (iii) allows for the establishment of educational standards; (iv) allows for open-ended responses; and (v) allows for time-comparability between measures taken in different school years. In addition, Chile participates regularly in international learning assessments like the TIMSS, the civic education of IEA, and those carried out by the OECD and OREALC. As explained further in section 4.5, the curriculum and evaluation revision efforts are being sustained and institutionalized through the establishment in 1998 of the Curriculum and Evaluation Unit (CEU) within the ME. The challenge facing the CEU now is to: (a) ensure that the curriculum reform is being implemented accordingly in each classroom of the Chilean education system; (b) continue strengthening the alignment of other learning inputs with the ongoing curriculum; and (c) fine tune in the medium-term (in about five years) the new curriculum and learning assessment scheme based on the findings emerging from the yearly applications of the revised SIMCE (learning assessment measuring system).

On-site peer in-service teacher training groups (GPT). According to recent independent evaluation studies (see Avalos, 1999 and Moya, 2001 in Annex 7), the GPTs have become legitimate, school-based, reflective spaces, used mainly for in-service teacher training purposes. These pedagogical spaces have

been established and are fully functional in about 1,200 municipal and private-subsidized secondary schools (about 90% of their universe). Over 25,000 secondary education teachers, working in almost 2,500 GPTs, meet regularly to implement the new curriculum and assessment scheme, and to use effectively all learning inputs provided by the project (textbooks, learning resource centers, computer laboratories, school-based quality improvement projects). The GPTs are also utilized for subject-based training, to produce institutional development plans and school self-evaluation schemes. For a school to change to the full-day schedule, a pedagogical institutional plan explaining on how the school is going to utilize the additional time, needs to be produced and approved by the ME. These pedagogical institutional plans are conceived by school stakeholders within the context of the GPTs. Thus the existence of a fully functional GPT becomes a necessary condition for the school conversion to the full-day schedule. GPTs have been also used by participating teachers to disseminate their pedagogical experiences and good teaching practices (*Páginas Didácticas*). Finally, a network including thematic 100 GPTs with about 15 secondary education teachers each, has been established to support the in-service teacher training activities in the corresponding curricular thematic areas. Notwithstanding all of the above accomplishments, the ICR mission is of the view that fuller potential and synergy could have been achieved from this project sub-component throughout the life of the project and thus it granted an S rating.

Learning resources. All the public and private subsidized secondary schools are incorporated into the learning computer network financed by the project (*Red Enlaces*). Each secondary education computer laboratory includes an average of seven PCs, two printers and current pedagogical software for the use of students and teachers. All the computer laboratories established by the project are connected among themselves in a network with possibilities of free Internet connection with the outside world. The Project provided 9,204 PCs and 2,390 printers to 1,283 secondary schools. Almost 16,700 secondary education teachers were trained in how to use the computer laboratory in a creative and flexible fashion to support the ongoing curriculum reform. Technical and pedagogical support for the computer network is provided by 16 regional universities. The Project also provided 2.8 million textbooks of excellent quality and low-price and aligned with the new curriculum. During the earlier stages of project implementation, textbooks were provided in three curricular areas (language, mathematics and science). By project completion, textbooks were also provided in three additional curricular areas for a total of six. This is a significant contribution of the Project, given that before 1995, no secondary education textbooks were, in general, available to students from public and private subsidized schools. Every project school was also provided with a multimedia Learning Resource Center (CRAs) including library books, newspapers, magazines, videos and educational software. This component developed two Catalogs comprising the most pertinent supply of learning resources available both in Chile and abroad. These Catalogs facilitated teachers participation in selecting a significant part of the inventory of textbooks and learning resources of their CRAs. The Project provided teacher training for the effective utilization of these learning inputs.

Infrastructure. This Project intervention successfully provided the infrastructure required to meet the quality improvement efforts. The infrastructure sub-component financed by the project was targeted to the municipal secondary schools, which are generally in a higher risk category than the private subsidized ones. A total of 538 municipal secondary schools were either rehabilitated and/or benefited with additional classrooms financed under the project. These additional classrooms included: (a) the computer laboratory; (b) the learning resource center; and (c) the teachers' meeting room. School equipment and school furniture was provided to 1,300 project secondary schools. School symbols were provided to 1,046 secondary schools. The 13 Regional Educational Offices implemented this project intervention. Alongside this project sub-component, GC addressed with its own financial resources the: (i) historic infrastructure deficit in secondary education; (ii) expected secondary education coverage expansion; and (iii) the conversion of schools to the full-day schedule.

School-based quality improvement projects (PMEs). Based on the successful scheme developed under the Bank-financed *Chile: Primary Education Loan* (exported to other countries worldwide), the project financed and implemented 1,108 PMEs of about US\$10,000 each. Approved PMEs had a duration of between two to three years. These projects, fully designed and implemented by school teachers and principals through the GPTs, generated a pedagogical space by which school stakeholders addressed quite effectively, quality issues related to their school (see Duarte, 2001, in Annex 7). Currently, it is also instrumental in increasing teacher's self-esteem and student's motivation, and thus, learning performance, as evidenced by different independent evaluation studies (listed in Annex 7).

Extra curricular activities for at-risk students. About 40 percent of the enrollment in public and private-subsidized secondary schools (300,000 students) participated in this project intervention. This project subcomponent provided at risk-students with the opportunity to foster a more constructive use of their free time, thus reducing the likelihood for them to get involved in criminal activities and/or increase their probability of dropping out from school (see PIIE, 1997, CIDES, 2000 and ECO, 1997 in Annex 7). This intervention included curricular programs in arts, environment, sports, preventive health (especially concerning AIDS, teenage pregnancy and drugs), video-clubs, student leadership development, and communication. The extra-curricular activities were proposed and managed by the participating students. The impact of this project sub-component was uneven among participating schools. In a significant number of participating schools these extra curricular activities provided positive synergy and contributed to the improvement of the school internal dynamics. In other participating schools the impact was negligible. For these uneven impact, the ICR mission granted an S rating to this project-subcomponent.

Technical assistance. The project provided each project school a fund of about US\$2,500 for acquiring qualified technical expertise to address *in situ* their perceived relevant school issues. A total of 1,239 project secondary schools made use of this technical assistance. Technical assistance financed by the project was mainly used to further facilitate the implementation of the revised curriculum in the schools. According to an external evaluation study (see Mena and Cereceda, 1999 in Annex 7), the absence of a strategy to educate the "demand" in purchasing "appropriate" technical assistance was, probably, the relevant weakness underpinning the mixed impact results of this project intervention which caused the ME's to discontinue this experience at project completion. Many participating secondary schools ended up buying what the market had to offer regardless of their quality-related needs. The project never built a strategy to build learning capacity on the demand-side. The evaluation findings also show that the project did not established an appropriate monitoring system to follow-up on the quality and pertinence of the technical assistance provided by the "expert" suppliers. Most of the technical assistance being provided was never fully integrated with other project-financed interventions, thus synergy was rarely achieved. For all of the above reasons, the ICR mission granted this project sub-component an unsatisfactory (U) implementation rating.

4.3 Net Present Value/Economic rate of return:

Not applicable

4.4 Financial rate of return:

Not applicable

4.5 Institutional development impact:

The project built significant capacity within the ME to support the implementation of the educational reform initiated at the end of 1996 in four fronts. First, the Curriculum and Evaluation Unit (CEU) was

established in 1998 as a consequence of the project. The CEU is fully staffed with qualified professionals, some of them trained while they were associated with the implementation of the Bank-financed primary education project. As explained before, the CEU has been instrumental in successfully carrying out the thorough curriculum and learning assessment revision from preschool to grade 12.

Second, mid-way in 2000, ME established the NSECU to continue implementing the different project activities and provide the conditions for their further scaling. The NSECU is also fully staffed with qualified professionals, most of them trained during implementation of this project. The main challenges facing the NSECU are to: (i) ensure universal access to secondary education to (all) primary education graduates; (ii) continue reducing the repetition and drop out rates, especially among students coming from low-income families; (iii) continue strengthening the quality and pertinence of secondary education in the light of the revised curriculum; and (iv) continue piloting and evaluating innovations in the 51 experimental secondary schools (*Liceos Montegrande*).

Third, ME built significant capacity to manage other dimensions of the education reform, in particular, the conversion of basic and secondary schools to the full-day schedule. As explained before, ME strengthen its normative role associated with school construction and acquisition of school equipment and furniture aspects of the reform.

Fourth, at the school level, as explained elsewhere in this report, the project provided the basic working conditions for participating public and private subsidized secondary schools to effectively improve their performance. Secondary schools have now a menu of proven options (interventions) and related-information available to them to address their issues of inefficiency (access, repetition and drop out rates) as well as of ineffectiveness (lack of quality of education). The Law of Facultades Delegadas allows school principals to manage some-specific school-related financial resources. The project provided technical support to improve the leadership role of school principals. The project also contributed to creating the conditions for greater community and stakeholder participation in addressing school-related issues. Independent evaluations carried out by reputable third party institutions (see list in Annex 7) have shown that in many secondary schools (certainly not all) there is already a visible significant change in classroom pedagogical transactions (one of the principal goals of the curriculum revision).

5. Major Factors Affecting Implementation and Outcome

5.1 Factors outside the control of government or implementing agency:

None negatively affecting project implementation to the awareness of the ICR mission. The political stability of the three elected governments of the *Concertación* since 1990 has, on the contrary, supported the continuity of educational policies and strategies set by these Governments in the last 11 years. In addition, the stability of key qualified and seasoned project-related senior and junior personnel who have remained in the ME, and the social consensus of the importance of addressing secondary education issues, have also contributed greatly to the success of this project.

5.2 Factors generally subject to government control:

Three important government-controlled factors hindered project implementation during the first two years of the implementation cycle. First, the project operated under the traditional set of norms and regulations in the education sector which were not necessarily attuned to the project's operational logic. These set of outdated norms, certainly in out-of-kilter with the goals and strategies of the changing process, significantly delayed project implementation in its early stages. Some key project interventions, like the school-based quality improvement projects (PMEs) and the peer in-service teacher training (GPTs), required

paid-pedagogical time for teachers to interact as a peer group. The current Teacher Statute only allows for two paid hours every two weeks for teachers to engage as peers. This turned out to be insufficient in many cases for teachers to have effective and productive interaction. Those secondary schools that entered into the full-day school schedule starting in 1998 (about 33% of the total), and who tripled the legal paid-time for peer interaction, achieved the appropriate enabling conditions to implement some of the project's interventions at their fullest potential.

Second, a reform process requires robust institutions and appropriate managerial capacity for its effective implementation. The Bank-financed primary (starting in 1992) and secondary education (starting in 1995) projects contributed to the political enactment of an education reform in Chile in 1996. One of the objectives of the education reform was to carry out a thorough curriculum and learning assessment revision. The absence of an institutional unit within the Ministry of Education responsible for implementing the curriculum revision slowed this process during 1996 and 1997. The issue was effectively addressed in 1998 with the establishment of a Curriculum and Evaluation Unit (CEU) in the Ministry of Education.

Another important objective of the education reform was to promote the conversion to the full-day schedule of the entire basic and secondary public and private-subsidized education system by 2003 (*Jornada Completa*). The conversion required the school to first establish a GPTs to develop a pedagogical institutional plan on how the additional time was to be utilized and identify the physical (space) and human (teachers) constraints to implement the full-day schedule pedagogical plan. Once the plan was approved, authorization for conversion to the full-day schedule was granted by the ME through its regional authorities (SEREMIS). In many cases, the conversion required the construction of additional classrooms to be financed by GC. The lack of appropriate managerial capacity in the ME to support the establishment, operation and monitoring of GPTs and of the SEREMIS to review and approve conversion pedagogical and construction plans, significantly delayed the implementation of the *Jornada Completa*. This delay made it necessary to amend the *Jornada Completa* Law and extend the completion of this process from 2003 to 2006. By the time of project completion, only 25% of the public and private subsidized secondary schools, encompassing 35% of total secondary education enrollment, has successfully converted to the full-day schedule.

Finally, public (municipalities) and private subsidized secondary school owners (*sostenedores*) were not fully responsive at the earlier stages of project implementation to carry out their envisaged responsibilities, such as, *inter-alia*, the timely disbursement of project proceeds to finance approved PMEs, as well as their financial complementary contribution required with the operation of several project interventions (computer laboratories, the extra-curricular activities and the peer in-service teacher training). Only starting mid-way through project implementation, and after a thorough effort to bring them into the project, did project ownership by school owners gradually improve. One additional strategy to continue increasing school owners participation in the educational change brought about the educational reform was the enactment of Articles 21 to 26 of the Law 19.410 concerning the transferring of delegated responsibilities to the school principals to allow them the management of certain public financial resources (*Ley de Facultades Delegadas*).

5.3 Factors generally subject to implementing agency control:

Five main factors under the PCU control affected project implementation, especially during the first-half of the implementation cycle. First, the consulting process with key actors was weak during the 1995-97 period. Sufficient resources and time were not allocated by the PCU during this period to have key project implementation actors buy into the project's logic. No appropriate stakeholder participatory strategy was

put in place either. For example, teachers and pre-service teacher training institutions (mostly universities) were not sufficiently consulted during the early stages of the secondary education curriculum revision. Likewise, and as mentioned before, public and private subsidized secondary school-owners were not appropriately brought into the implementation process during this period. This lack of appropriate consulting and participatory processes did not ensure sufficient ownership by key concerned project stakeholders. These issues were satisfactorily addressed in the second-half of the implementation cycle, mainly as a result of the continuous supervision mission findings and recommendations, as attested in the corresponding Aide-Memoires. As a consequence, ownership by key stakeholders was strengthened.

Second, there was not an appropriate gauging of the various project sub-components and activities during the implementation phase. Insufficient diagnosis made during project preparation with respect to the implementation capacity of the different project implementation entities conveyed the erroneous impression that all the activities could be implemented at once. No capacity built up strategy was incorporated in the project design. As a consequence, a significant number of project implementation entities became very quickly saturated and practically unable to implement their envisaged project activities in a timely fashion. This situation was addressed starting the third year of project implementation by building implementation capacity in the corresponding implementation entities and gauging more appropriately the arrival of the menu of project interventions accordingly.

Third, the specific political conditions of Chile made it necessary to revise the curriculum of basic and secondary education independently (in two time periods and by two different groups). The basic education curriculum revision was made in the 1990-96 period, while the secondary education revision started at the end of 1996 and concludes this year. As a consequence of these two independent processes, there are some curricular overlapping in the different subject areas (especially in math and language) between the 8th (last grade of primary education) and 9th (first grade of secondary education) in need of further addressing in the future.

Fourth, the curriculum revision was carried out by a designing team comprising thematic experts (drawn from reputable universities and research centers) and seasoned classroom teachers, school principals and supervisors (drawn from both urban and rural, public and private subsidized secondary schools). During the ICR mission, the CEU noted that a better working equilibrium between these two groups would have resulted in a much more pertinent curriculum. Tilting the revision process to the side of the thematic experts would have resulted in a very sophisticated curriculum most likely out of reach by the practitioners (teachers). However, leaning the revision to the side of the teachers, would have probably preserved the curriculum traits that the revision process aimed at modifying. The challenge lying ahead is to further fine-tune the curriculum revision based on the findings of the learning assessments to achieved the desired equilibrium.

Finally, insufficient legal and regulatory adjustments were undertaken, particularly regarding paid-peer effective time allowed by the Teacher's Statute.

5.4 Costs and financing:

The total project cost was estimated at appraisal to be US\$207 million equivalent, out of which US\$35 million equivalent would be IBRD-funded (16.9 percent) and the balance, US\$172 million equivalent, GC-funded (83.1 percent). At the time of the ICR mission, GC had disbursed US\$153.08 million equivalent, amounting to 74 percent of the total project cost. IBRD disbursements amounted to US\$23.02 million equivalent (66 percent of the total loan), while Borrower's disbursement amounted US\$130.06 million equivalent (75.6 percent of the total expected counterpart funding). During project implementation,

US\$11.8 million were cancelled at the Borrower's request (33.7 percent of the total loan) and US\$178,000 were reimbursed to the Bank at project completion.

Despite spending 26 percent less than expected at appraisal, no project goals were sacrificed or decreased. On the contrary, as fully explained elsewhere in this report, all of the project objectives were achieved; and in some cases, even exceeded. These cost savings emerged mainly from: (i) project learning provided by several mid-way project implementation evaluations carried out by external qualified institutions and/or individuals; (ii) efficiency in the management of project resources; and (iii) economies of scale, especially in the case of the acquisition of computers and peripheral equipment.

An explanation follows of the differences between the expected total expenditure by category at the time of appraisal and real expenditure at project completion as further shown in Annex 2, especially of the three items financed by the Loan: (i) computers, software and peripheral equipment; (ii) PME; and (iii) PCU. Total expenditure for the acquisition of computers, software and peripheral equipment amounted to US\$11 million, 35 percent less than the expected US\$16.85 million (to be financed 100 percent by the Loan). This project activity exceeded its original targets set in the project design negotiated with the Bank in 1995. An efficient computer procurement process achieved economies of scale, and thus, lowered unit prices from those estimated at appraisal.

Total expenditure in the implementation of PMEs amounted to US\$9.02 million, 63 percent less than the expected US\$24.38 million (to be financed by both, the Loan and GC). This significant difference stems from four reasons. First, the original target of 2,000 PMEs during the life of the project, estimated at appraisal, was based on an overestimation of project secondary schools (1,600). Given the real universe of 1,343 project schools (33 percent less than the original estimated), only 1,108 PMEs (55.4 percent of the original PMEs estimated at appraisal) were financed by the project. Second, the implementation timing was delayed by one year with respect to the original timing estimated at appraisal. This delay was generated by the fact that participating schools needed a fully functional GPT before engaging in designing and proposing a PME. Third, the average unit PME amount to be allocated to eligible schools estimated at appraisal was much larger than the real one allocated during project implementation. Finally, the costs estimated at appraisal did not take into account that the PMEs which were authorized during 1999 and 2,000 (one before the last and last years of project implementation), required financing for two years (beyond the project's closing date). The GC has addressed this last issue, by authorizing in the Ministry of Education's 2001 budget, US\$1.683 million to finance the completion of these PMEs.

Total expenditure in the PCU amounted to US\$10.47 million, 34.9 percent more than the expected US\$7.76 million (US\$2.31 million from the Loan and US\$5.45 million from GC). The establishment of the CEU in 1998 to proceed with the curriculum and learning assessment revision required the technical assistance of several thematic groups consisting of qualified experts and seasoned teachers which were financed by the project. Concurrently with the PCU expenditure, the total amount spent on curriculum and assessment of US\$2.36 million, was 67 percent less than the original estimated at appraisal of US\$7.12 million. Once the CEU was formally established in 1998, the expenditure associated with the curriculum and learning assessment revisions were made, with the Bank's no objection, against the PCU category of the Loan.

Total expenditure in infrastructure, including school furniture and equipment, was US\$29.36 million, 40 percent less than the expected at appraisal of US\$48.89 million (to be financed 100 percent by GC). This project sub-component achieved its original targets in 1998 at unit costs much lower than those estimated at appraisal. In addition, the GC supported this project activity with complementary funding from outside project sources. Total expenditure in the acquisition of learning inputs (texts and multimedia resource

centers) amounted to US\$67.06 million, 9 percent less than the estimated at appraisal of US\$73.51 million (to be financed 100 percent by GC). This project sub-component achieved its original targets at lower unit costs than those estimated at appraisal.

Total expenditure associated with the in-service teacher training amounted to US\$6.81 million, 30.4 percent less than the estimated at appraisal of US\$9.79 million (to be financed 100 percent by GC). Total expenditure in the extra-curricular activities of US\$13.37 million was 15.4 percent less than the estimated at appraisal of US\$15.81 million (to be financed 100 percent by GC). In both cases, initial delays in their implementation and lower unit prices as compared with the ones estimated at appraisal, explain the variations.

Finally, total expenditure in technical assistance to secondary schools - the only project activity not to be sustained by GC at project completion (as explained in several parts of this report) - amounted to US\$3.62 million, 24.9 percent more than the estimated US\$2.9 million at appraisal (to be financed 100 percent by GC). The difference is explained by the larger number of secondary schools (1,239) making use (not necessarily in an effective fashion) of the technical assistance fund than expected at appraisal.

Since the Bank Loan financed only three categories (computers, PME's and the PCU), the explanation given above with respect to computers and school-based quality improvement projects, explains the request by GC in 2000 to cancel US\$11.8 million of the Loan.

The Borrower submitted the project's yearly Audit Reports on time during the entire project implementation cycle including the one for CY00. All the Audit Reports were unqualified (clean). The minor observations made by the auditors were timely and effectively addressed by the Borrower as attested by the different supervision missions and registered in the corresponding Aide-memoires, PSRs and Back-to-Office Reports. At the time of the drafting of this ICR, the ME and the *Contraloría General de la República* (the project's external auditors) were following up on some observations made by the Bank while reviewing the Audit report corresponding to CY00. The Audit Report corresponding to the first semester of CY01 (before project closure) will be delivered to the Bank in the first semester of CY02.

6. Sustainability

6.1 Rationale for sustainability rating:

The ICR mission has given the GC a HS rating concerning project sustainability. Similar to the closing of the previous primary education Bank-financed project in Chile in 1998, the GC has technically and financially sustained, all, but one sub-component of this secondary education project. From the financial sustainability dimension, the CG has allocated US\$15.415 million in the ME's CY01 budget for sustaining the interventions designed, tested, evaluated and then scaled up during the life of the project. This is a clear sign of the political importance and relevancy GC has assigned to the continued improvement of its education system as a means for the country's social and economic development. The sustainability of this project is being carried out in the context of a long-term education reform, currently under implementation.

As explained in section 4.2 of the ICR, the preliminary findings of the evaluations carried-out with respect to the provision of a school-based technical assistance fund show, that in spite of having overspent 24.9 percent more than expected at the appraisal time, the impact of this sub-component in improving the school's performance is not so obvious (see Mena and Cereceda, 1999 in Annex 7). For this reason, GC decided not to continue implementing this sub-component at project completion.

6.2 Transition arrangement to regular operations:

Mid-way project implementation the Borrower came to an understanding with the Bank concerning a strategy to technically sustain project activities at project completion. Accordingly, the ME established the CEU in 1998 and the NSECU in mid-2000 to ensure the continuity of all, but one, of the project activities. CEU is responsible for curriculum, learning assessment, multimedia resource centers and provision of texts. Provisionally, the CEU is also in charge of the *Red Enlaces*. To carry out these envisaged activities, out of the US\$15.41 million allocated in ME's CY01 budget to sustain project activities, US\$11.82 million have been authorized for the CEU and another US\$3.6 million to the NSECU. The NSECU, which is accountable to the Division of General Education (DGE) of the ME, is responsible for the GPTs and other project-related activities to continue addressing the issues of efficiency, quality and equity of secondary education. Other areas of the DGE will be responsible for the PME's and the extra-curricular activities for at-risk students. Also, as mentioned in other parts of this report, the CEU, NSECU and DGE are staffed with qualified staff to carry out these activities in a timely, efficient and effective manner.

In addition, as explained elsewhere in the ICR, the ME built significant managerial capacity at the central, regional and institutional (school) levels to continue implementing the education reform with respect to: (i) conversion to the full-day schedule; (ii) improvement of the pre and in-service teacher training system; and (iii) fostering educational innovations at the secondary education in the 51 *Liceos Montegrande*.

7. Bank and Borrower Performance

Bank

7.1 Lending:

The Bank team assisting in the preparation process displayed a sound knowledge of the sector issues addressed by the project, including the need for: (i) increased access, especially among lower-income primary education graduates; (ii) improved internal efficiency to reduce repetition and dropout rates as well as average time to complete the four-year secondary education cycle; (iii) improved effectiveness (quality) with respect to learning outcomes; (iv) improved equity; and (v) improved school management and pedagogical leadership, especially from the school principals and heads of school-thematic sections. With the exception of the identification mission, the entire preparation process until effectiveness was under the responsibility of one Bank task manager. The former identification task manager was a permanent member of the Bank's preparation team under a new task team leader. The Bank team maintained a close relationship with the Borrower and carried out a frank policy dialogue discussion with the education authorities during the preparation process. Technical assistance drawn from a pool of worldwide reputable experts was provided by the Bank. The Bank performance during project preparation is ranked satisfactory by the ICR mission because: (i) further diagnosis was needed to assess the implementation capacity displayed by the different project entities to ensure a more appropriate phasing of the arrival of the project activities; and (ii) the original project design was too rigid expecting that one model would fit all. It is the view of the ICR mission that these two project preparation weaknesses delayed project implementation during the early phases of the project's life.

Quénes son?

7.2 Supervision:

A total of eight supervision missions were carried out until the closure of the project. Only two Bank task managers were in charge of the entire supervision period. One of them was also responsible for the preparation phase and the concluding supervision missions. This continuity in Bank task management ensured consistency and a high degree of follow up on supervision missions' recommendations. It also helped to continue building the already good working relationship with the Borrower. Bank supervision

missions were characterized by substantive recommendations for both, implementation processes as well as project design substance. One important recommendation was to carry out impact evaluation studies of each one of the project sub-components mid-way project implementation. These studies were contracted with qualified external institutions and/or individuals following Bank guidelines. As mentioned in 3.4, better targeting (through tailored-made interventions in 400 high risk secondary schools) and performance indicators emerged from these studies in 1999. The Bank supervision missions also played a proactive role anticipating in several instances, the occurrence of various project implementation issues. One example of a proactive mission was the one carried out in May 1997 where a strategy was defined to ensure project support to the implementation of the Education Reform (launched in 1996). Another example of this proactive approach by the Bank supervision missions is GC's decision to join in 1999, both the International Association for the Evaluation of Educational Achievement (IEA) and the Third International Learning in Science and Mathematics (TIMSS) measurements. A final example of this proactive role played by the Bank refers to Chile's strengthening its technical linkages with OECD countries, in particular with reference to technical secondary and professional education. These strengthening efforts were initiated with a lifelong learning international workshop in Santiago in 1999, including the participation of international renowned experts in this field, and will conclude with a possible Lifelong Learning and Training Project to be financed by the Bank, currently to be appraised in November 2001.

Concurrently with the project supervision missions, and under separate terms of reference, the Bank seconded a senior education specialist to Chile for 18 months, to further supporting the reform implementation. As a consequence of this Bank supervision effort, and in conjunction with other mid-way evaluation studies, the Borrower was able to address in an effective fashion the: (i) implementation delays at the early stages of the project cycle; (ii) initial rigidity of the project design by making it more flexible and attuned to the diverse characteristics of different project secondary schools; (iii) implementation of the education reform, in particular the curriculum and learning assessment revisions, the conversion of schools to the full-day scheme and the strengthening of pre and in-service teacher training; and (iv) technical and financial sustainability of project activities. Because the Bank supervision missions were effective in assisting the Borrower address implementation issues, the ICR mission ranks the Bank supervision performance as highly effective.

7.3 Overall Bank performance:

Given the above explanation, the ICR mission ranks the overall Bank performance as satisfactory.

Borrower

7.4 Preparation:

Five commendable preparation activities contributed to building a solid project design. First, the prior Bank-financed project in primary education included a component to undertake key studies in secondary education. A total of thirteen studies were contracted and carried out by reputable institutions, research centers and/or individual consultants between 1992 and 1994 (see list in Annex 7). These studies included the following themes: curriculum, pedagogical transactions, school socialization, pre- and in-service teacher training, learning assessment, supervision systems, economic analysis and secondary education demand. Second, a national survey was carried out among 35,000 secondary education stakeholders in 1993 to assess their perception of the relevant secondary education issues as well as to register their opinion about possible solutions. A document summarizing the findings and recommendations of this national survey was published and widely disseminated. Third, an international workshop on comparative secondary education including some of the most respected worldwide reputable experts was carried out in Santiago in November of 1992. Fourth, a study tour including representatives from the Ministry of Education, the teachers union,

in-service teacher training institutions and the private sector as well as the Bank, was undertaken to Korea, Malaysia and Singapore during mid-1992 to assess their secondary education systems. Finally, a pilot program to test four project interventions, totally financed by GC, was carried out in 124 high-risk secondary school in 1994. The lessons learned from this piloting were factored in the project's design.

The original project design creatively combines supply (State top-down) and demand-driven (market bottom-up) interventions. The top-down (push-type) interventions included curriculum and learning assessment, supply of textbooks, computer laboratories, learning resource centers and infrastructure. The bottom-up (pull-type) interventions included peer in-service teacher training, school-based quality improvement projects, youth extra-curricular activities, and selection of textbooks and some learning resources by teachers. Finally, through networking, project schools received external technical assistance by qualified experts and academic institutions.

For all of the above-mentioned reasons, the Borrower preparation performance is ranked by the ICR mission as highly satisfactory.

7.5 Government implementation performance:

As stated before in this report, the project was prepared and implemented in a context of political and educational policy continuity by three democratically elected Governments of the *Concertacion* (the Presidents' Aylwin, Frei and Lagos Administration) which included 5 Ministers of Education. The project benefited from a consistent Government political and financial commitment and support along the entire project cycle. Appropriate funding was authorized by the Ministry of Finance to support project preparation, implementation and sustainability of all, but one, project activities. An education reform from preschool to secondary school (grade 12) was launched in 1996 with the aim of: (i) implementing a thorough review of the curriculum and learning evaluation schemes for the above-mentioned educational levels; (ii) implementing the full-day schedule in all public and private subsidized primary and secondary schools; (iii) strengthening the pre- and in-service teacher training; and (iv) continue improving the efficiency, quality and equity of the primary and secondary education, in particular through educational innovations piloted in the Liceos Montegrande. For all of the above-mentioned reasons, the ICR mission ranked Government implementation performance as highly satisfactory.

7.6 Implementing Agency:

The Borrower's performance is ranked by the ICR mission as highly satisfactory. The entire project implementation cycle reflected a high degree of commitment, creativity and professional excellence by the PCU staff. Notwithstanding that the PCU was headed by four different coordinators during the life of the project, continuity of policies and strategies was never affected. Many of the PCU senior staff were involved in the implementation of the Bank-financed primary education project. The Borrower complied with all of its legal obligations entered into the Loan Agreement as well as with all the agreements made at the end of each supervision mission (see table below). Despite some initial tensions of the Borrower with the Bank concerning the Bank's procedures for the acquisition of computers which was satisfactorily resolved, the Borrower carried out the acquisition of goods and selection of consultants under the Loan following Bank procedures. This was attested by a thorough random ex-post procurement review done at the time of the ICR. A full ex-post procurement review report has been filed in IRIS3's project files. Audit reports (unqualified/clean) were submitted to the Bank on time. All of the auditors minor recommendations were followed up by the Borrower in a timely and effective fashion. At the time of the drafting of this report, GC, through the *Contraloría General de la República*, is following up on some observations made by the Bank on the Audit Report for CY00. Even though when the project was appraised, conformation with LACI was not required, the ICR mission found that the project had an

appropriate, reliable, timely and functional financial and accounting management system.

The PCU conducted skillful communication and professional relationships with other internal and external government, academic, research and non-governmental organizations involved in project implementation, moving the program forward and meeting the agreed targets. In summary, the highly effective performance of the implementing agency contributed to bringing about an organizational cultural change within the ME, facilitating the actual transfer of project activities to the mainstream institutions at the closing of the project.

7.7 Overall Borrower performance:

The ICR mission ranked the overall Borrower performance as highly satisfactory because: (i) the Borrower implemented the project in an effective fashion as all the project objectives were achieved, and in some cases, exceeded; (ii) the Borrower executed the project in an efficient fashion doing more with less resources; (iii) a learning system (through several mid-way evaluations studies conducted by external qualified institutions and/or individuals) was incorporated by the Borrower during project implementation allowing for design flexibility and appropriate fine tuning to adjust to the realities of the different project implementation entities; and (iv) all, but one of the project activities (technical assistance to schools), have been financially and technically sustained by the Borrower at project's closure.

Table of Status of Legal Covenants

Agreement/ Section	Covenant Type	Present Status	Original Fulfillment Dates	Revised Fulfillment Dates	Description of Covenant	Comments
2.01	2	Complied with modifications	January 29, 1996	February 6, 1996	Amount and currency of the Loan	Borrower requested conversion of Loan terms
2.03	5	Complied	June 30, 2001		Closing date	
2.04	2	Complied	January 29, 1996		Commitment charge	
2.05	2	Complied with modifications	January 29, 1996	February 6, 1996	Interest rates	Borrower requested conversion of Loan terms
2.06	2	Complied	January 29, 1996		Period of payments of interest and other charges	
3.01	10	Complied	December 31, 2000		Borrower's commitment to implement the project according to the project description provided in Schedule 2 to the Loan Agreement	
3.02	10	Complied	December 31, 2000		Borrower's commitment to implement the	

					project's procurement activities according to Bank guidelines	
3.03	13	To be complied with	December 31, 2001			Project Completion Report
3.04	5	Complied	January 29, 1996		Establishment of a Project Coordination Unit during the life of the project	
3.05	10	Complied	June 30, 1996		Borrower prepares a project implementation progress report no later than June 30 of each year of project implementation	
3.06	10	Complied with modifications	July 29, 1998	June 10, 1999	Carrying out a mid-term review and implement the recommendations emerging from its findings	Slow delay of project implementation activities and allowing for sufficient time for them to show observable impacts
4.01	2	Complied	June 29, 1997		Audit reports	
6.01	10	Complied	January 29, 1996		Conditions of effectiveness	
Schedule 1	3	Complied with modifications			Re-allocation of Loan proceeds	At the Borrower's request, the Bank approved on November 29, 2000 to reallocate US\$3.5 million from Category 2 (Grants) to Category 3 (Consultants)

Covenant type: 1: Accounts/audit; 2: Financial performance/generate revenue from beneficiaries; 3: Flow and utilization of Project funds; 4: Counterpart funding; 5: Management aspects of the Project or of its executing agency; 6: Environmental covenants; 7: Involuntary resettlement; 8: Indigenous people; 9: Monitoring, review and reporting; 10: Implementation; 11: Sectoral or cross-sectoral budgetary or other resource allocation; 12: Sectoral or cross-sectoral regulatory/institutional action; 13: Other

8. Lessons Learned

During preparation to appraisal stage:

(a) **Need to combine supply (State) and demand-driven (market) interventions.** The project's highly successful implementation was based on an effective combination of top-down, bottom-up and networking interventions. The top-down (push-type) interventions included curriculum and learning assessment, supply of textbooks, computer laboratories, learning resource centers and infrastructure. The bottom-up (pull-type) interventions included peer in-service teacher training, school-based quality improvement projects, youth extra-curricular activities, and selection of textbooks and learning resources by teachers. Finally, through networking, project schools received external technical assistance from qualified experts and academic institutions.

(b) **Need timely (appropriate) project implementation gauging.** Even though enough secondary studies were undertaken during project preparation (see list in Annex 7), sufficient information was not gathered about the capacity of different project entities implementing the project. This, combined with the Borrower's interest to implement too much too fast, resulted in many project implementation entities being unable to carry out their envisaged tasks. This saturation effect was effectively addressed mid-way project implementation, by gauging the arrival of project interventions to particular schools and by making the project interventions more flexible to accommodate each schools particular characteristics.

(c) **Need to include appropriate targeting criteria and performance indicators at the onset of project implementation.** As a consequence of continuous recommendations from several Bank supervision missions, the Borrower included late in the project (1999), appropriate targeting criteria and performance indicators in the project design in 400 high-risk secondary schools. As a result, and as explained in more detail elsewhere in the report, equity in the secondary education system was improved at project completion.

(d) **Need for a flexible design.** The early stages of project implementation were characterized by a rigid design aimed at fitting all situations. As a consequence, project implementation was delayed. The several evaluations conducted by external reputable and qualified institutions and/or individuals during project implementation pointed to the need for making the project design more flexible to address the non-homogeneous characteristics of the beneficiary secondary schools.

During project implementation:

(e) **Ensure enabling conditions.** The following five enabling conditions, present throughout the life of the project, from identification to closure, underpinned the high success of this project: (i) political stability; (ii) continuity in education policies; (iii) sound macro economic and fiscal policies (ensuring sufficient financial resources to the project, even at the time Chile was facing the consequences of the Asian financial/economic crisis); (iv) effective and consistent collaboration and communication between the Ministries of Financing and Education; and (v) preservation of skilled and seasoned personnel.

(f) **Need to pilot and evaluate before taking to scale.** Both, the primary and secondary Bank-financed education projects have shown the need to pilot and evaluate given interventions as a means for a successful scaling process. For example, the piloting of four innovations in a set of 900 high-risk primary education schools in 1990 enriched the design of the Bank-financed primary education project, launched in 1992. The Bank-financed primary education project took to scale the 900-school project innovations and added new ones. The launching in 1994 of a pilot program in 124 high-risk secondary schools enriched the design of the Bank-financed secondary education project. The secondary education project scaled these innovations to the remaining 1,340 public and private subsidized secondary schools in

1995 and added new ones. The outcomes of the primary and secondary education projects provided the basis for the Government to launch the current education reform. The inclusion of an experimental design comprising a control group, could have strengthened further the piloting.

(g) **Need for robust institutions.** A thorough change process in a complex sector like education, requires robust institutions, staffed with appropriate qualified and experienced staff. Robust does not mean overstaffing. The lack of such an entity delayed the curriculum revision during the 1996-1997 period.

(h) **Need for an appropriate legal and regulatory framework.** A change process requires a legal and regulatory framework conducive to enabling effective implementation. The secondary education was initially implemented under a legal and regulatory framework which was not sufficiently attuned to the project's logic and activities. This lack of an appropriate legal and regulatory framework, especially during the first two years of project implementation, delayed the implementation of some activities. The lack of synchronicity could be seen, for example, by the current Teacher Statute not allowing for sufficient teacher's paid-time for peer reflective interactions required in the implementation of various project activities (PMEs, GPTs, extra-curricular activities). Some teachers found it difficult and discouraging to participate in such project activities after their regular working hours. The launching of the full-school day schedule at the beginning of 1997, resolved this issue, but only for those schools which adopted it. Positive demonstrative effects of these project activities in various schools encouraged many other teachers from schools not yet adopting the full-day schedule to participate outside their regular paid time.

(i) **Need for building a learning systems.** Every project activity was evaluated mid-way project implementation, or afterwards, by reputable and qualified third-party institutions and/or individuals (see list in Annex 7). The findings of these evaluations were used to redirect those activities that were encountering implementation problems. The findings also provided valuable insights to enrich some of project activities' original designs thus making them more flexible and attuned to the heterogeneous school population. The evaluation studies pointed out project implementation areas in need of further consideration by the project.

(j) **Ensure ownership at the outset of project implementation.** The necessary time and resources was not allocated by the Borrower during the early stages of project implementation to appropriately ensure and strengthen stakeholder ownership of project implementation. This was evident with the delays in disbursing project resources by school owners to finance approved PMEs or pay for the extra monitoring teacher required in the execution of the school extra-curricular activities. Lack of sufficient ownership was also obvious by the resistance manifested by some pre-service teacher training institutions selected by the Borrower to assist in the teacher training in the revised curriculum, a curriculum with which many of these institutions were not necessarily were familiar. Mid-way through project implementation, and due to the findings of some evaluation studies, the Borrower corrected course addressing the improvement-of stakeholder project ownership in a more effective fashion.

(k) **Ensure appropriate dissemination and cross fertilization.** During the early stages of project implementation there was insufficient dissemination, integration and cross fertilization among the different project sub-components resulting in a lack of synergy at the school level. This situation was gradually corrected as a result of different impact evaluation studies and recommendations of various supervision missions.

(l) **Need for a timely conceived exit strategy.** Though the implementation of the project required parallel structures during the first half of the implementation cycle, appropriate exit and transferring

strategies were put in place by the Borrower starting in 1998. The establishment of the CEU in 1998 and of the NSECU mid-2000 are two concrete examples of this successful exit strategy. Mainstreaming of project activities ought to be part of project design and thinking along these lines needs to take place at the outset of project implementation, even though the actual transferring process may take place at later stages. Mainstreaming is a complex task, requiring the reconciliation of two different operational cultures which, in general, tend to clash – that of the receiving entities with that of the transferring entities. Resolving these tensions requires substantial time, resources, technical support and appropriate transferring strategies.

(m) **Bank project management.** Part of the project success lies in the fact that the Bank ensured continuity in the management and supervision throughout the life of this project, from preparation to closure. With the exception of the identification mission (led by a third task manager actively participating throughout the entire life of this project), only two task managers were assigned during the period covering from preparation (1992) to closure (mid 2001). As a consequence, Bank management ensured that the recommendations of one mission were followed up by the next one.

At project completion:

(n) **Need for continued and consistent addressing of pending issues in the education sector.** As mentioned in section 4.1 of this report, despite the efforts and investments financed by this project, some inequities worsened throughout the life of the project, mainly due to exogenous factors benefiting private-paid secondary schools (outside the project's interventions) over the municipal and private subsidized ones. This crude reality points to the fact that the achievement of project objectives after completion, even in a successful case like Chile, is not a finished agenda. Furthermore, the achievements require continued, sustained and substantial sector investments in order to maintain and strengthen them.

9. Partner Comments

(a) Borrower/implementing agency:

Issues: In the beginning of the 1990s, Chile's education system was characterized by a strong increase in enrollment, which was accompanied by a deterioration in its quality, equity and efficiency. With the re-establishment of democracy, education became a priority, and was recognized as one of the principal tasks for developing the nation. In this context, the Bank-financed secondary education project (known as *MECE-Media Program*) targeted curriculum change, enriching it and making it more relevant, as well as substantially improving access to information and knowledge, engendering change management in high schools boards, pedagogical and evaluation methods of teachers, and aligning the system more with the social, cultural and productive surroundings relevant to youths.

Most important project achievements include: (a) improving of physical conditions in the development of education, through investments of universal coverage in texts, libraries and educational information; (b) increasing the participation and commitment of the stakeholders, which implies the involvement of teachers and students in the educational change process; (c) updating the curriculum to the future needs of society, offering life-long learning; (d) improving teaching methods for secondary education, modifying the traditional way of holding classes; and (e) improving secondary education coverage in general, as well as student passing and graduation rates, while there still remains some lag for youths of poor families, translated into longer school trajectories and less potential of their graduating from secondary.

Follow-up actions at project completion: (a) align pending actions within the ongoing educational reform; (b) continue supporting the Curriculum and Evaluation Unit that would be responsible for following up on

the implementation and impact of the new curriculum framework and would strengthen the mechanisms for sustaining it, through a monitoring and learning evaluation system of the material taught; (c) introduce a cultural change into secondary schools to support educational institutions' ability to auto-evaluate its management and commit to attaining qualitative results; (d) shift the role of the supervisor from its traditional administrative role to one providing technical support in pedagogy for school initiatives; and (e) continue supporting the National Secondary Education Coordination Unit, in addressing pending secondary education issues, as well as envision and deepen the changes attained up to now.

Lessons Learned consist of: (a) creating diverse strategies needed to deal with the heterogeneity of the targeted population; (b) ensuring the institutionalization and sustainability of the program from the beginning; (c) continually reinforcing knowledge sharing processes; (d) gradually increasing the demands on the target population, so as to not overwhelm them; (f) acquiring better knowledge of the existing market in order to provide educational goods and services; (g) assuring the coordination and participation of all stakeholders from the beginning of the change process in order to avoid resistance; and (h) involving stakeholders in order to legitimize innovations.

(b) Cofinanciers:

Not applicable

(c) Other partners (NGOs/private sector):

Not applicable

10. Additional Information

None

Annex 1. Key Performance Indicators/Log Frame Matrix

Outcome / Impact Indicators:

Indicator/Matrix	Projected in last PSR ¹	Actual/Latest Estimate
<p>INDICATORS OF INTERNAL EFFICIENCY</p> <p>1) Repetition at 9th grade 2) Drop-out at 10th grade 3) Average secondary school drop-out 4) Average number of years to complete secondary cycle 5) Average secondary graduation rate in 4 years</p> <p>INDICATORS OF EDUCATION QUALITY</p> <p>1) ANCR (Average number of correct responses) in mathematics for 10th grade. 2) ANCR in language for 10th grade.</p>	<p>15.03% (1993) reduced to 8.9% (2000) 6.34% (1993) reduced to 3.9% (2000) 32.07% (1993) reduced to 24.8% (2000) 5.35 years (1993) reduced to 4.95 years (2000) 47.9% for cohort 1986-1990 to 51.6% for the cohort 1996-2000</p> <p>Due to an in-depth secondary education curriculum and learning assessment revision carried out in the 1997-2002 period, no baseline information is available at present. First, censal measurement in math and language for grade 10th is scheduled for November 2001 and a second one in 2004. Comparisons of learning gains (or losses) by income-decile, by gender, by geographical region and by type of secondary school will be available in 2005.</p>	

Output Indicators:

Indicator/Matrix	Projected in last PSR ¹	Actual/Latest Estimate
		<p>A revised curriculum emphasizing learning by doing, experimenting and querying for grades 9th to 11 is now in place. The revised curriculum for grade 12 will be in place in 2002.</p> <p>Along with the curriculum revision, a new learning assessment system is now fully functional. First censal assessment for grade 4 was carried out in November 2000. The one for grade 10 is scheduled for November 2001.</p> <p>All but one project intervention to improve efficiency, quality and equity of the secondary education system, as well as the interventions to strengthen the school management developed by the project have been mainstreamed in the regular activities of the Ministry of Education. The Government of Chile has allocated US\$15.4 million in the Ministry's 2001 budget to ensure the financial sustainability of these activities.</p>

¹ End of project

Annex 2. Project Costs and Financing

Project Cost by Component (in US\$ million equivalent)

Project Cost By Component	Appraisal Estimate US\$ million	Actual/Latest Estimate US\$ million	Percentage of Appraisal
Curriculum and evaluation	6.08	2.36	38.82
Teacher training	7.89	6.81	86.31
Learning resources	76.44	76.44	100
Infrastructure	39.54	29.36	74.25
School-based quality improvement projects	20.43	9.02	44.15
Extra curricular activities	13.12	13.12	100
Technical assistance	2.47	2.47	100
Project Coordination Unit	6.62	6.62	100
Total Baseline Cost	172.59	146.20	
Physical Contingencies	9.64	6.88	71.35
Price Contingencies	24.77	0.00	0
Total Project Costs	207.00	153.08	
Total Financing Required	207.00	153.08	

Total project cost at closure was 73.95% of the total project cost estimated at appraisal. Total project baseline cost

at closure was 84.70% of the total project baseline cost estimated at appraisal.

Project Costs by Procurement Arrangements (Appraisal Estimate) (US\$ million equivalent)

Expenditure Category	Procurement Method ¹			N.B.F.	Total Cost
	ICB	NCB	Other ²		
1. Works	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	30.65 (0.00)	30.65 (0.00)
2. Goods	20.25 (14.93)	1.83 (1.35)	0.78 (0.57)	85.97 (0.00)	108.83 (16.85)
3. Services	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	25.95 (0.00)	25.95 (0.00)
4. Miscellaneous	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	14.87 (0.00)	14.87 (0.00)
Salaries, operating costs, transportation and per-diem					
5. Miscellaneous School-based quality improvement projects (PMEs)	0.00 (0.00)	0.00 (0.00)	24.09 (15.83)	0.00 (0.00)	24.09 (15.83)
6. Miscellaneous Project Coordination Unit Personnel	0.00 (0.00)	0.00 (0.00)	2.60 (2.31)	0.00 (0.00)	2.60 (2.31)
Total	20.25 (14.93)	1.83 (1.35)	27.47 (18.71)	157.44 (0.00)	206.99 (34.99)

Project Costs by Procurement Arrangements (Actual/Latest Estimate) (US\$ million equivalent)

Expenditure Category	Procurement Method ¹			N.B.F.	Total Cost
	ICB	NCB	Other ²		
1. Works	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	17.73 (0.00)	17.73 (0.00)
2. Goods	16.89 (10.76)	0.29 (0.24)	0.35 (0.00)	65.50 (0.00)	83.03 (11.00)
3. Services	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	21.34 (0.00)	21.34 (0.00)
4. Miscellaneous Salaries, operating costs, transportation and per-diem	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	15.47 (0.00)	15.47 (0.00)
5. Miscellaneous School-based quality improvement projects (PMEs)	0.00 (0.00)	0.00 (0.00)	8.56 (6.67)	0.00 (0.00)	8.56 (6.67)
6. Miscellaneous Project Coordination Unit Personnel	0.00 (0.00)	0.00 (0.00)	6.95 (5.35)	0.00 (0.00)	6.95 (5.35)
Total	16.89 (10.76)	0.29 (0.24)	15.86 (12.02)	120.04 (0.00)	153.08 (23.02)

¹ Figures in parenthesis are the amounts to be financed by the Bank Loan. All costs include contingencies.

² Includes civil works and goods to be procured through national shopping, consulting services, services of contracted staff of the project management office, training, technical assistance services, and incremental operating costs related to (i) managing the project, and (ii) re-lending project funds to local government units.

Project Financing by Component (in US\$ million equivalent)

Component	Appraisal Estimate			Actual/Latest Estimate			Percentage of Appraisal		
	Bank	Govt.	CoF.	Bank	Govt.	CoF.	Bank	Govt.	CoF.
Curriculum and evaluation	0.00	7.12		0.00	2.36		0.0	33.1	
Teacher training	0.00	9.79		0.00	6.81		0.0	69.5	
Learning resources	16.85	73.51		11.00	67.06		65.3	91.2	
Infrastructure	0.00	48.89		0.00	29.36		0.0	60.1	
School-based quality improvement projects	15.84	8.54		6.67	2.35		42.1	27.6	
Extra curricular activities	0.00	15.81		0.00	13.37		0.0	84.6	
Technical assistance	0.00	2.90		0.00	3.62		0.0	124.7	
Project Coordination Unit	2.31	5.45		5.35	5.12		231.6	93.9	
TOTAL	35.00	172.00		23.02	130.06		65.8	75.6	

Total executed was 74% of total appraised (66% of total Bank Loan and 76% of total expected counterpart funds)

Annex 3. Economic Costs and Benefits

No economic costs and benefits analysis was carried out at the time of project appraisal. Therefore, one was not done at the time of the ICR either. Nevertheless, abundant economic research undertaken in Chile in the education sector allows for some thoughts along the future challenges facing Chilean society if they want to compare to other OECD countries.

Chile has made great strides in increasing the secondary education enrollment (grades 9 to 12) of the 14-17 age-group from 78 percent at the outset of the project to 84 percent at closure. It has also made significant progress in reducing inequities in the secondary education system, as explained elsewhere in this report. Notwithstanding these accomplishments, there is a substantial gap in terms of educational attainment of adults. Recent OECD indicators show that educational attainment of Chilean men and women aged 35-44, at the prime of their working life, is about half of that of other OECD countries. This disparity implies that even as Chile reaches nearly universal enrollment at the secondary level, it would take as many as 50 years before Chile can achieve parity with OECD countries in terms of having an adult population with at least a secondary level of education.

It is now widely accepted that formal education may not be sufficient to provide the skills and abilities required for the jobs currently in the modern economy. As the OECD Ottawa Report, 2000 recognizes, trends related to globalization, technological change and changes in employment patterns and work organization suggest that the training imparted by the education system is not sufficient to impart for the skills needed for a lifetime of productive work. This is why the GC, based on the success of the Bank-financed primary and secondary education projects (*MECE-Básica* and *MECE-Media*), and the implementation of *MECE-SUP* (higher education) is now proposing the implementation of a *Lifelong Learning and Training Program*, to be financed by the Bank (soon to be appraised), as a means to close the above-mentioned gap. The GC is convinced that without interventions seeking to educate adults currently in the workforce, it would take an inordinate amount of time for the labor force to achieve secondary education as a norm.

Finally, the literature of standard economic analysis has proven that increased number of years of "good-quality and pertinent" education is linked to: higher productivity, higher employability, more rapid economic growth and lower inequality.

Annex 4. Bank Inputs

(a) Missions:

Stage of Project Cycle	No. of Persons and Specialty (e.g. 2 Economists, 1 FMS, etc.)		Performance Rating		
	Month/Year	Count	Specialty	Implementation Progress	Development Objective
Identification/Preparation					
	10/12/1992	4	Two education specialists, one project assistant, one economist		
	03/29/1993	6	Three education specialists, one organization specialist, two economists		
	08/02/1993	4	Two education specialists, one economist, one project assistant		
	11/01/1993	5	Two education specialists, one economist, one teacher training specialist, one project assistant		
	05/13/1994	4	Two education specialists, one teacher training specialist, one project assistant		
	11/09/1994	2	One education specialist, one project assistant		
Appraisal/Negotiation					
	01/03/1995	5	Two education specialists, one economist, one teacher training specialist, one project assistant		
	03/20/1995	4	One education specialist, one lawyer, one procurement specialist, one disbursement specialist		
Supervision					
	08/23/1996	1	One education specialist	S	HS
	05/23/1997	3	Two education specialists, one learning assessment specialist	S	S
	12/23/1997	1	One education specialist	S	S
	06/19/1998	2	One education specialist, one education specialist	S	S
	12/01/1999	1	One education specialist	HS	HS
	06/18/1999	4	One education specialist, one educator, one architect, one summer intern		

ICR	01/24/2000	2	One education specialist, one educator	HS	HS
	01-08/2001	1	One education specialist	HS	HS
	07/02/2001	4	One education specialist, one project implementation specialist, one financial management specialist, one procurement specialist	HS	HS

(b) Staff:

Stage of Project Cycle	Actual/Latest Estimate	
	No. Staff weeks	US\$ ('000)
Identification/Preparation	100.1	284.4
Appraisal/Negotiation	11.8	43.7
Supervision	37.4	194.1
ICR	5.6	28.1
Total	154.9	803.2

Annex 5. Ratings for Achievement of Objectives/Outputs of Components

(H) High, SU=Substantial, M=Modest, N=Negligible, NA=Not Applicable)

	Rating				
Macro policies	<input type="radio"/> H	<input type="radio"/> SU	<input checked="" type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
Sector Policies	<input checked="" type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
Physical	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
Financial	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
Institutional Development	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
Environmental	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
Social					
Poverty Reduction	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
Gender	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA
Other (Please specify)	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
Private sector development	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
Public sector management	<input type="radio"/> H	<input checked="" type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input type="radio"/> NA
Other (Please specify)	<input type="radio"/> H	<input type="radio"/> SU	<input type="radio"/> M	<input type="radio"/> N	<input checked="" type="radio"/> NA

According to the ICR mission, the successful implementation of the education reform (as reported elsewhere in this report), constitutes a major sector policy achievement. The reform has also brought about a substantial accomplishment in physical achievements in terms of additional classrooms to support the conversion to the full-day schedule of about 25% of the total municipal and private-subsidized secondary schools in the country.

According to the *Poverty and Income Distribution Study* carried out by the Bank for Chile in 2000, there has been a substantial decrease in poverty. According to the information provided to the ICR mission, there are indications of equity ratios improvements as mentioned in section 4.1 of this report.

There are no gender issues in secondary education in Chile. Females do better on the average than males. Recent 2000 data shows for example that average repetition in 9th grade among females was 3.46 percent compared with 5.28 percent for males. Likewise, average dropout rates in 10th grade for female students was 1.46 percent compared with 2 percent for males.

As explained in section 4.2 of the report, the project strengthened the constructive relationship between the education and the private productive sectors in the process of revamping the secondary education curriculum, in particular the one for technical secondary schools. This constructive synergy between these two, traditionally divorced sectors, has been fully utilized in the preparation of the Lifelong Learning and Training project, soon to be appraised by the Bank.

As a consequence of the education reform and the technical support provided by the project, the managerial capacity of the ME has been significantly improved, in particular with reference to the implementation of the full-day school schedule.

Annex 6. Ratings of Bank and Borrower Performance

(HS= Highly Satisfactory, S=Satisfactory, U=Unsatisfactory, HU=Highly Unsatisfactory)

6.1 Bank performance

Rating

Lending	<input type="radio"/> HS	<input checked="" type="radio"/> S	<input type="radio"/> U	<input type="radio"/> HU
Supervision	<input checked="" type="radio"/> HS	<input type="radio"/> S	<input type="radio"/> U	<input type="radio"/> HU
Overall	<input type="radio"/> HS	<input checked="" type="radio"/> S	<input type="radio"/> U	<input type="radio"/> HU

6.2 Borrower performance

Rating

Preparation	<input checked="" type="radio"/> HS	<input type="radio"/> S	<input type="radio"/> U	<input type="radio"/> HU
Government implementation performance	<input checked="" type="radio"/> HS	<input type="radio"/> S	<input type="radio"/> U	<input type="radio"/> HU
Implementation agency performance	<input checked="" type="radio"/> HS	<input type="radio"/> S	<input type="radio"/> U	<input type="radio"/> HU
Overall	<input checked="" type="radio"/> HS	<input type="radio"/> S	<input type="radio"/> U	<input type="radio"/> HU

The reasons for the above ranking are fully explained in section 7 of this report. Notwithstanding that one project activity was rated U (technical assistance to schools) and other two rated S (teacher training and extra-curricular activities), the overall Borrower performance is rated HS, because: (a) all but one of its activities have been technically and financially sustained after project completion; (b) all of the project's development objectives were achieved as attested by the improvements in the internal and external efficiency, equity and school management strengthened (it remains to be seen if, in 2005, student learning achievement will have also improved); and (c) by the efficiency in utilizing the project's proceeds.

Annex 7. List of Supporting Documents

Bank preparation documents

Identification Mission Terms of Reference, Aide-Memoire, Back-toOffice Report. World Bank. October 1992.

Initial Executive Project Summary. World Bank. December 1992.

Preparation Missions Terms of Reference, Aide Memoire, and Back to Office Report. World Bank. October 1992 - November 1994.

Pre-appraisal Mission Terms of Reference, Aide-Memoire, and Back to Office Report. World Bank. September 1994.

Final Executive Project Summary. World Bank. October 1994.

Appraisal Mission Terms of Reference, Aide-Memoire, and Back to Office Reports. World Bank. January 1995.

Staff Appraisal Report. World Bank. April 11, 1995.

Agreed Minutes of Negotiations. World Bank. March 24, 1995.

Bank project implementation documents

Aide-Memoires of Various Supervision Mission. World Bank. 1996-2001.

Project Status Reports. World Bank. 1996-2001.

Documents prepared or commissioned by the Borrower during project preparation (1992-1993)

Descripción y Evaluación del Proceso de Desarrollo Curricular. Universidad Católica de la Santísima Concepción de Talcahuano. 1992-1993.

La Experiencia Internacional en el Diseño Curricular de la Estructura del Nivel Medio del Sistema Educativo. Centro de Investigación y Desarrollo de la Educación CIDE. 1992-1993.

Demandas Sociales a la Educación Media. Corporación de Promoción Universitaria (CPU) y CIDE. 1992-1993.

Análisis y Evaluación de Modelos de Producción y Actualización Curricular. Universidad de Santiago de Chile. (USACH).

Propuesta de Diseño Curricular por Liceos de Enseñanza Media en Sectores Rurales. Universidad de la Frontera, Universidad de Concepción, Universidad Austral de Chile. 1992-1993.

Prácticas de Trabajo y Socialización (Enfoque Cualitativo) Programa Interdisciplinario de Investigación en Educación (PIIE), Universidad Católica de Temuco, Universidad de la Serena.

1992-1993.

Prácticas de Trabajo y Socialización en Estudiantes de Educación Media. Universidad de Chile 1992-1993.

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Indicadores de Cobertura y Calidad de la Educación Media Chilena. Universidad Católica De Chile. 1992-1993.

Destino Educativo Laboral de los Egresados de la Enseñanza Media. Universidad Católica. 1992-1993.

Evaluación Económica de la Eficiencia Interna y Externa de la Educación Media y sus Modalidades. Universidad de Santiago de Chile. (USACH). 1992-1993.

Requerimientos para la Formación de Profesores. Universidad Católica, Universidad de Magallanes, Universidad Católica del Norte, Universidad de Temuco, Universidad de Atacama, CIDE, Colegio de Profesores.

Documents prepared or commissioned by the Borrower during project implementation (1995-2001)

Estudiantes de Enseñanza Media. Lectura de Libros, Áreas de Interés y Evaluación Biblioteca. Dirección de Estudios Sociales. Universidad Católica. 1995.

Conflicto y Mediación: El Tema de la Convivencia Escolar. CIDE. Verónica Gubbins. 1999.

Efectos de la Jornada Escolar Completa, en el Uso del Tiempo de los Establecimientos de Educación General Básica y Media. CIDE. 2000.

Determinación de Factores Explicativos de Resultados Escolares en Educación Media. Centro de Economía Aplicada. Depto. De Ingeniería Industrial. Universidad De Chile. Alejandra Mizala 2000.

Focalización de Becas del Programa Liceo Para Todos: Un Estudio Caso-Control. Departamento de Salud Pública y Departamento de Estadística Universidad Católica de Chile. Lorena Correa; Guillermo Marshall. 2001.

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Veinte Años de Política en Educación Media en Chile (1980-2000). De la Autoregulación del Mercado al Compromiso Público. Cristian Bellei, Julio 2000.

Desarrollo Docente en el Contexto de la Institución Escolar. Los Microcentros Rurales y los Grupos Profesionales de Trabajo en Chile. Beatrice Avalos. Trabajo presentado en la conferencia "Los

Maestros en América Latina. Nuevas Perspectivas para su Desarrollo y Desempeño", San Jose, Costa Rica, 1999.

Financiamiento, Incentivos y Reforma Educacional. Pablo Gonzalez. En La Reforma Educacional Chilena, Juan Eduardo Garcia-Huidobro (editor), Editorial Popular, Madrid, España, 1999.

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Jornada Escolar Completa. Cecilia Jara, Carlos Concha, Marcos Miranda y Jadille Baza. En La Reforma Educacional Chilena, Juan Eduardo Garcia-Huidobro (editor), Editorial Popular, Madrid, España, 1999.

La Política de Asistencia Técnica. Una Herramienta para el Cambio. Isidora Mena y Luz Cereceda. Escuela de Psicología y el Instituto de Sociología de la Pontificia Universidad Católica de Chile. Informe No 20/99, julio 1999.

La Reforma de la Educación Chilena: Contexto, Contenidos, Implementación. Cristian Cox, MINEDUC, 1997.

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Additional Annex 8. Borrower Contribution

1. **Secondary education issues addressed by the program.** At the end of the eighties, 77% of youths between 14 and 17 years old had enrolled in the secondary education, a significant increase from the 14 percent in 1960. With the expansion in enrollment, however, education quality progressively deteriorated, as seen in the early nineties by problems in the levels of learning, equity and efficiency of the system, especially in municipal and subsidized private schools. As mass education grew at the secondary level, its initial design and reason for being came into question. Secondary education towards the end of the eighties had kept the same institutional structure and curriculum of its original conception - to prepare an elite class for university studies or to become key employees in the public or private sectors.

With the reestablishment of democracy in 1990, fundamental issues that had been put on the back burner could be revised. Education became one of the main priorities. Public debate ensued on the question of what to teach and how to educate. This debate was reinforced by universal recognition starting in the early nineties of the importance and value of education, in any development or modernization process. Just as secondary education attained wide coverage, but was experiencing an identity crisis due to low quality, the Secondary Education Quality Improvement Program financed by the Bank was established (MECE-Media), which aimed to use "different strategies combining guidelines, information, direct investment, incentives and technical support over six years starting in 1995, in a target group of subsidized schools of both modalities". The various strategies are synthesized into mechanisms and action plans as outlined below:

Strategies, mechanisms, action plans in MECE-Media Program

Strategy	Mechanism	Target Areas
Framework	Regulatory action	Curriculum and learning assessment
Direct Action	Interventions	Pedagogical management improvement program Youth program
	Support systems (teaching/ learning resources)	Infrastructure Textbooks Library Didactic/teaching Materials Computers
Incentive	Projects	School-based quality improvement projects
Support	Networks	Technical assistant networks Technical assistance plans

The strategy's design aimed at impacting and changing school management teams, teachers' pedagogical and evaluative practices, and aligning the system more with the world of youths and the surrounding social, cultural and work environment.

2. The program's most important achievements. An analysis of the progress and results in the semester before the Program's end, and based on the "Mid-term Evaluation of the Secondary Education Quality Improvement Program" by the Center of Investigation and Development of Education (CIDE) and the Catholic University of Chile, finished in September 1999, are indicated as follows:

Improvement in the enabling conditions in secondary education. One of the most noticeable results of the work carried out consists in the effort of equipping education establishments with relevant learning material goods. This task meant first taking numerous institutions out of precarious situations, and establishing minimum conditions, then later incorporating cutting edge materials and technology. By the end of the year 2000, all the schools in the country were incorporated into the Enlaces network, which not only allowed interconnections between them, but also opened the doors to the learning opportunities available with access to the Internet. Sixteen universities provided technical support and collaboration on the network. During the period 1997-2000, 2.8 million textbooks were provided for youths in secondary education. With this, each teacher received textbook especially made to help them in working with the students. Each school was linked to a Center of Learning Resources (CRA), essentially a contemporary version of a school library, with book collections, didactic materials, software programs, videos, newspapers and magazines. The majority of schools developed, or are now developing school-based quality improvement projects (PME) with support from a competitive fund, leading to an increase in the level of student learning. Between 1995 and 2000, the Program financed more than 1,000 PMEs. More than 400 schools annually hired external technical assistance during the life of the MECE-Media Program, which enabled provided teachers with *in situ* assistance, in order to help face the change processes being implemented. The Program gave each school a total of 1.5 million pesos on the average (about US\$2,500 equivalent).

Thus, starting in 2001, Chile's secondary schools are better prepared to face task of education its people from more equal ground, with more appropriate technological resources and a new management culture. These improved conditions support the schools building their own improvement projects, and so requesting specific technical assistance more relevant to their needs. The following table sums up the magnitude of the physical goals attained through the MECE Secondary Program:

	1995	1996	1997	1998	1999	2000
Technical assistance (TA) plans and networks		Allocation of TA fund to 352 schools.	Allocation of TA fund to 442 schools.	Allocation of TA fund to 409 schools.	Allocation of TA fund to 66 schools.	
Centers of	Provided:	Provided:	Provided:	Provided:	Provided:	Provided:

learning resources (<i>CLR</i>)	1,300 sets of school furniture and beginning collections (290 materials per school on average).	1,215 sets of audiovisual equipment, 1,215 sets of didactic materials, and 1,215 sets of school furniture.	1,300 collections II to libraries.	Third set of didactic materials to 1,315 schools.	Materials corresponding to Collection III and subscriptions to magazines/publications to 1,300 subsidized schools	To all subsidized schools in the MECE-Media Program (1400) the Collection III library Establishment of <i>CLR</i> Network in 50 schools.
Education in information technology (the coverage of each year corresponds to new schools that were incorporated into the network)	62 sets of equipment (HW & SW), training and technical assistance for the schools.	99 sets of equipment (HW & SW), 100 sets of school furniture, training and technical assistance for the schools.	299 sets of equipment (HW & SW), 312 sets of school furniture, training and technical assistance for the schools.	479 sets of equipment, 312 sets of furniture, training and technical assistance.	296 sets of equipment.	24 sets of equipment.
Textbooks			Distributed: 229,000 math textbooks for secondary I. 229,000 language and communication textbooks for secondary I. reached 229,000 students in 1300 schools.	Distributed: 230,000 math textbooks for secondary I. 230,000 language and communication textbooks for secondary I. 230,000 language and communication textbooks for secondary II. 192,000 math textbooks for secondary II. 2,117 teachers trained in corresponding areas.	Distributed: 249,600 math textbooks for secondary I. 249,600 language and communication textbooks for secondary I. 206,000 language and communication textbooks for secondary II. 188,100 math textbooks for secondary II. 188,100 language and communication textbooks for secondary III. 188,100 math textbooks for secondary III. 100% of teachers trained in using books.	Distributed: English. Spanish and communication and math for I and secondary II textbooks for students and teachers Spanish and communication and Math for secondary III and IV. To 100% of students and teachers in secondary I to IV MECE-Media schools.
School-based quality improvement projects		98 school projects selected.	294 school projects selected.	293 school projects selected.	192 school projects selected.	231 school projects selected.

Infrastructure (in 1998, all the output goals programmed were reached, and this project sub-component was completed)	114 works to improve school infrastructure.	206 works to improve school infrastructure.	222 works to improve school infrastructure. 613 sets of library furniture. 498 sets of teacher room equipment.	552 schools received library furniture, and another 516 schools received teacher room equipment		
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Increased participation and commitment of the actors in secondary education. A major success factor consists of the increased in the participation and commitment of teachers and students. The will of the main education actors was mobilized by including them in the change process. More than 25 thousand teachers regularly participate in career development workshops in their own establishments, which means nearly 90% of secondary education teachers take part of this initiative. Some 2,700 Professional Work Groups (GPT) were established, with an average of 3 groups per school. Though they were not homogeneous, 75% of them operated with sufficient regularity, at least once every week or two weeks. There exists moreover almost 100 pedagogical networks with 15 teachers per network, with open forums to discuss issues between groups. At the beginning of the MECE-Media Program, school management was exclusively under the charge of the school principal. The Program supported the organization of a team of representatives from the school, who assumed a more active and participatory role in the management of the education unit. In 2000, 95% of the schools had Management Teams, in which around 40% of the teachers participated, as well as 30% of the students. The majority of teachers stated that by participating in the reform process, they renewed their commitment to teaching, increased their desire to give classes and raised their knowledge level. Only 10% of them indicated their commitment was not renewed, around 18% did not experience increased desire to teach, and 20% of them had not raised their knowledge level. These figures confirm most experienced a new desire with teaching profession (see CIDE/Universidad Católica, 1998 in Annex 7).

For its part, youths welcomed with enthusiasm the invitation to become part of the cultural activities and voluntary recreational activities. Before the Program, research indicated that youths did not identify with their schools. Their relationship with the educational institution was limited to class attendance. The mid-term review study of MECE-Media indicates that today each week around 160 thousand youths invest a part of their time in art, communication, scientific, environmental, and athletic workshops. Along with developing social skills, these activities allow the teachers and school directors to meet the interests and motivations of the students, with an average of 7 workshops of Free Election Activities (ACLE) per establishment. In addition to the last achievement, more than 98% of the subsidized establishments have created student organizations. According to an index synthesizing the effects of all these actions on the students in secondary education in the MECE-Media Program, showed they achieved a high impact in more than half of the youths (15% very high, 38% high). Only 17% showed a low impact with 30% indicating a normal impact.

Updating the curriculum to make it more pertinent to the needs of the Chilean society. One of the major fundamental achievements -- though not entirely attributable to the Program, --

corresponds to the modification of the secondary education curriculum, at least for its rapid institutionalizing. Given the need to be adaptable in the society of the future, the school system requires higher skills and intellectual competences. This called for the design and implementation of a new curricular framework with defined objectives and basic or minimal content requirements, as well as knowledge, competences, skills, and attitudes that must develop all the students in each of the courses at that level. The pedagogical practices of classroom teachers moreover also needed a major change. The current curriculum change is based on the need to offer students training for life, which implies: (i) transmitting content on the major current changes, in knowledge as well as national reality; (ii) this knowledge must be pertinent and relevant and incorporate the recent advances in pedagogy; (iii) offering the possibility for all to fully develop their potential and ability to learn throughout their entire lifetime; and (iv) training which gives them moral character in developing personal freedom, conscious of human dignity and the rights and responsibilities that are part of human nature. The underlying ideas to the vast and profound curricular changes underway can be summed up as: (a) more demanding and rich learning objectives; (b) conceptualization of knowledge; (c) learning to learn; (d) acquiring skills instead of accumulating facts; (e) preparing for life rather than for college; and (f) training for the work world, instead of for an job.

This new curricular framework strongly emphasizes the decentralization of its implementation in the school classrooms. The framework allows for experimenting with adaptations and improvements on and on-going permanent basis, in sync with the changes in knowledge and requirements of society. The year 2001 culminates the development process as the proposed curriculum for grade 12 is submitted for the consideration and approval by the Superior Council of Education, and will become effective in schools in 2002. The curricular reform at the secondary level also distinguishes between general training and specialized, for both the human sciences track as well as technical vocational.

Improvement of the teaching methods in secondary education. A large part of the efforts undertaken were directed towards improving opportunities for learning for youths, and transformed the way teachers taught in order to ensure this learning took place. In addition to increased material resources which supported the minimum learning necessary, the Program encouraged a cultural change, modifying the traditional way of holding classes. A highly significant achievement in this environment is the well-known change in giving instruction, where the traditional method limited to chalk and blackboard is being abandoned. This can be observed especially in the quarterly publication by the Program, entitled "Didactic Pages". In this quarterly, a section is dedicated to teachers sharing experiences in the classroom and pedagogical practices. To date, they have received more than 347 pages from teachers in different regions. Currently, the majority of teachers incorporate a variety of teaching resources in presenting their classes. Over 80% use textbooks frequently; 75% and 79% use the library and didactic materials, respectively. Computers are used 32.8% more than in previous cases. Changes in the teachers' way of teaching and motivating students in order to attain these changes were reinforced by the transformations in the management of schools under the School Management Teams. Research prior to the Program showed the difficulties the directors experienced in creating work teams and career development situations for the teachers and other school managers. Students confirm the facts above, and indicate they

noticed the emergence of new forms of giving instruction. Four out of five youths say that his classes use problem resolution methodology often and only a fourth of the students indicate that they never or rarely work in teams. An even more important indicator that 85% of the youths gave positive feedback on the way their teachers taught. Two thirds of youths use the library often for learning activities, and more than 50% of these use the library to do homework. Last, but not least, since 1998, moreover, a culture of self-evaluation has developed within the school, involving the participation of various education actors and aimed at raising student achievement results and the quality of learning.

Improvement of secondary education results. The results in terms of better coverage, passing and graduation rates of students in secondary education are substantial, and clearly occur in the last third of the decade, so it would be difficult to not associate them with the Program's impact. At the same time, limitations remain, as indicated below. Secondary education coverage has clearly increased from 78% in 1995 to 84% in 2000 (data from CASEN Survey 2000). The average number of years to complete the secondary cycle decreased from 5.35 years in 1993 to 4.95 in 2000. The drop-out rate decreased by around 10%, which means that a third less students dropped out at the end of the decade than at the beginning. The average repetition rate decreased from over 12% in 1990 to about 6.4% in 2000. If the 1985-90 cohort is compared to the one of 1995-2000, significant changes can be seen, such as an increase in the secondary cycle completion rate, which went from 68% to 73%, or in system retention rate which rose from 72% to 75.2%. At the same time, the Program, along with other policies, contributed to an important improvement in the coverage for the students of the poorest sectors, narrowing the gap significantly when compared to coverage in 1990. The following chart shows a comparison between the secondary education coverage gaps for youths belonging to the poorest quintiles (1st and 2nd) to the richest quintile:

Difference 1990	1st and 5th Quintile	20.9
Difference 2000	1st and 5th Quintile	16.2
Difference 1990	2nd and 5th Quintile	17.9
Difference 2000	2nd and 5th Quintile	10.5

Despite these advances, if indices related to family income of youths are analyzed, educational opportunities are clearly unequally distributed at this level. While secondary education is practically universal for highest income quintile, a little under 18% of the youths of the poorest families still remain outside the education system. In spite of this, the last ten years show a clear and significant tendency to increase the secondary education coverage in about 10 percentage points in the lowest income quintile and in about 12 percentage points for the second and third quintiles (according to the National Socioeconomic Characterization Study, CASEN 2000).

The figures above need to be aggregated. An unequal distribution persists according to geographical location, but the narrowing of differences is appreciable. The coverage in 2000 reached 92% in urban areas and below 76.8% in rural, a difference clearly lower than that of 1990, with urban coverage at 86.5% and rural at 50.2% (data from CASEN survey 2000).

Evolution of Coverage in Secondary Education, 1990-2000, by Income Quintile

Quintile	1990	1992	1994	1996	1998	2000
I	73,3	73,6	73,3	75,3	77,4	82,3
II	76,3	77,9	80,9	81,0	84,1	88,0
III	80,5	83,0	86,9	89,3	88,4	92,4
IV	87,2	88,8	90,6	95,3	94,5	96,1
V	94,2	96,7	96,7	97,2	97,7	98,5

3. **Follow up Actions for Sustainability.** Chile's Ministry of Education is responsible for continuing and maintaining the technical and financial changes introduced by the MECE-Media Program, as outlined below. The first element of sustainability of major importance is the Educational Reform process, under the umbrella of which the Program's actions fall within longer-term goals, committing not only successive governments, but also forming a State policy, given the wide consensus for the need of the Reform. The objectives specified in the MECE-Media Program still in effect have become part of the fundamental activities used for education change in the Education Reform, thus strengthening and giving new life to the teaching profession, basic and secondary curriculum reforms, and the extension of the school day.

In order to maintain the general strategy of the MECE-Media Program, in particular the creation of a dynamic and flexible system framework, unified, coherent and aligned with the overall system, the Curriculum and Evaluation Unit was established. The Curriculum component of the Program was transformed into a new Unit within the structure of the Ministry of Education since 1998, and assumed the responsibility of designing a new curriculum framework, which once created, would generate mechanisms to support the current curricular framework by implementing a learning assessment system (updated SIMCE). Until the establishment of this Curriculum and Evaluation Unit, SIMCE was linked exclusively to basic education. It was decided to create an evaluation system for secondary education, specifically for the 10th grade (2nd year of the secondary cycle). This first measure was applied to this entire level. This measure was limited given it was not aligned with the content of the new curriculum. During November 2001 a second baseline measure is to be taken for the secondary level aligned with the basic quality standards of the new curriculum.

At the same time the Academic Aptitude Test for entry to the university system is under revision, together with the universities belonging to the Council of Rectors. This instrument of entry selection, needs also to be aligned with the new curriculum and may become an exit exam from the secondary education system. From 2001, the Curriculum and Evaluation Unit, totally funded by the national budget, has incorporated under its responsibility the school textbook programs and the Learning Resource Centers, which were part of the activities that the MECE-Media Program helped to institutionalize.

Within the schools, a cultural change has permitted, gradually, the support of a school system

which evaluates its management and is committed to the attainment of quality results. From the Educational Institutions Projects (Proyectos Educativos Institucionales), many activities took place that help build an self-evaluative culture in the framework of a *school that learns*. For this, auto-evaluation cards were administered in order to review the installation, execution, and internal consolidation of the various components of the Program as they entered the schools. In 2000, a second auto-evaluation instrument was introduced, the Evaluation Matrices, in order to review management, pedagogical and youth development practices, according to the results on student learning. These instruments of self-evaluation are employed extensively in subsidized schools with the goal of re-orienting the management to look for quality of the school and reposition the director of the establishment as a pedagogical leader (complementing his role as administrator).

As a result of greater autonomy in schools and hands-on experience in managing resources, which came mainly from the opportunity of buying services from the Technical Assistance Network, or creating their own school-based quality improvement project (PME), the role of the supervisor has undergone a significant transformation, shifting from that of the Ministry's budget specialist/controller to one of pedagogical technical support for school initiatives. This official is trained through workshops and is accompanied by professionals from the central office on school visits.

The National Secondary Education Coordination Unit was created in the Ministry of Education in mid-2000 with three main action programs. First, is the program for direct follow-up of the MECE-Media financed activities that have been sustained by the ME. This program continues and deepens the changes already produced, making available a type of menu to all secondary schools according to their needs and educational projects. Within this program, a support group also exists for GPTs and School Management Teams. Linked with this first program is the "Montegrande" Program, which builds various institutional forms for implementing individual education projects, thus allowing a type of "laboratory" of secondary education innovative experiences, which may be developed with the overall Program. This intervention requires a strong financial support to 51 schools distributed across the country. The last program, called the "School for Everyone", aims at reducing school drop out rates for at-risk youths, and improving the education offered. It hopes to lower the rate by 6% for the most vulnerable population in the next four years (currently at 11%). This program focuses on 424 schools which work with the lower-income high-risk students. Within the last Program is found the Youth Component activities as a continuation of the MECE Secondary Program.

4. Lessons Learned. The following eight lessons emerge from the implementation of the MECE-Media Program:

(a) **Diversify strategies.** The design did not take into consideration the specific strategies related to the heterogeneity of the target population. This meant that throughout the Program's implementation, new activities, more relevant to the needs and realities of the different actors had to be created to become more effective. The lesson learned is that diverse designs need to be developed, and based on more refined diagnostic analysis prior to their creation.

(b) **Ensure institutional sustainability.** The design did not take into account the need for an analysis at the beginning as a basis for creating changes, of the norms already in effect at the time of implementation of the Program, so to ensure the basic necessary conditions for the sustainability of the changes attained at the Program's end. In future experiments, one should keep in mind that the preparation of receiving organizations and adjustment of management procedures takes time. Transferring official functions is complex, due, among other things, to the shock produced by the difference in the cultures operating in the areas of emission and reception of the functions transferred.

(c) **Program management and integration.** The original design did not take into consideration the linkages needed between components, several of which were necessary and even interdependent, such as the Textbook and Curriculum components. One lesson learned related to management at both the central and decentralized levels, was the need to continually reinforce the processes of cross-fertilization (linkages between components), based on the accumulated experiences, thereby empowering management personnel through internal and external training. Despite the difficulties, coordination and synergetic activities were an important lesson learned about a gradual combining of strategies and actions of "push, pull and working the networks".

(d) **Incremental progress.** The design overestimated the skills of the target population, demanding a variety and quantity of activities beyond its capacities in the first stage. A gradual building of activities was not considered, a situation which was gradually modified after a while. Another lesson learned regarding management centered on the on-going need to modulate the introduction of the various Program interventions, in function of the demonstrated degree of impact and effectiveness in implementation.

(e) **Isolated Administration.** The General Education Division (GED) of the ME had difficulties in becoming integrated to the MECE-Media logic. During the course of project implementation, management and operating procedures were developed that were not in line with those of GED. Towards mid-2000, these issues were satisfactorily addressed by the ME with the establishment of the Secondary Coordination Unit within GED.

(f) **Market Analysis.** The original design assumed that the market in place at the time had the capacity to provide the educational goods and services programmed. Since it was an emerging market, however, it needed reinforcement. This delayed the implementation of several components, such as Textbooks, Learning Resource Centers, and Technical Assistance.

(g) **Define key actors and alliances.** In the original design, the role of the supporters as key stakeholders in the Program's success was underestimated. No specific strategies were developed for them. Along the same lines, the support of the Municipal Departments of Education Administration and other community actors, like parents and donors, were also not taken into account. Neither was the necessary effort made to build relationships with teacher training institutions (university education faculties), nor with institutions offering in-service

teacher training, until the later stages of the change process. It is important to assure contact and participation with all the actors involved from the beginning of the process to avoid resistance later.

(h) **Involve key actors.** In the Program's components involving the participation of others (Youths, GPTs, CRAs) clearly facilitated the appropriateness and legitimacy of the innovations. This reinforces lesson learned of the importance of involving key actors from the very beginning of the change process.