



A regular series of notes highlighting recent lessons emerging from the operational and analytical program of the World Bank's Latin America and Caribbean Region

CHILE DECADES OF EDUCATIONAL REFORM DELIVER

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A common vision and a remarkably consistent effort on the part of Chilean governments from the late 1960s to the present have placed Chile at an advanced stage of educational development. Today, primary education is almost universal, net secondary coverage is at 75 percent and more than one third of the 18-24 age-cohort is enrolled in tertiary education. In addition, Chile features many components of a modern educational system, including a full school day, use of private providers, a competency-based curriculum, assessment of learning outcomes and a strong material basis for learning.

Chile displays the benefits of addressing the complexity of improving learning outcomes within a coherent strategic framework. The Chilean experience also showcases how contributions from international financial institutions can boost national educational reform processes. The World Bank has contributed to all phases of Chile's educational transition, through sequenced projects at the primary, secondary and tertiary level. Building on lessons learned, the assistance has recently been expanded to include the adoption of a strategy for lifelong learning and investments in research and innovation.

Deregulation and competition

In the 1980s, Chile's military government made substantial changes to the school system. In keeping with its market-oriented policies, the government introduced a system of financing both publicly- and privately-managed schools

based on average monthly student attendance. Leveling the playing field between educational providers stimulated municipal and publicly-subsidized schools to compete for student enrollments. In tertiary education the government deregulated the market, introduced fees in public universities and encouraged private institutions to participate in the provision of advanced education.

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Targeting quality and equity in primary and secondary education

Chile's transition to democracy in 1990 gave new impetus to educational reform. In contrast to the structural reforms carried out under military rule, this wave of reform was targeted at the micro-level. The overriding policy goals became to improve learning processes and ensure equity in publicly financed education.

In the early 1990s, the democratic government established the base conditions for the school system to improve its performance. Notably, learning facilities were modernized and students were given universal access to textbooks in five subjects. One important innovation brought in by the new



government was the introduction of demand-driven instruments. These included competitive mechanisms targeted at school-based quality improvement projects.

Between 1996 and 2002, Chile’s school system underwent comprehensive curriculum reform. The new curriculum adopted for pre-primary, primary, secondary and adult education gave increased emphasis on independent thinking and ‘learning-to-learn’ methodologies. In technical secondary education, for example, the revision reduced the lines of specialization from several hundred to 47 and introduced a competency-based rather than an input-driven curriculum.

To deepen elements of reform already in place, a “full school day” program was introduced in 1997. This entailed moving away from two shifts of six pedagogical periods with students attending classes either in the morning or the afternoon, to a full school day consisting of eight 45-minute sessions. This reform gives students more time for learning and extra-curricular activities and gives teachers more time for planning, teamwork and training.

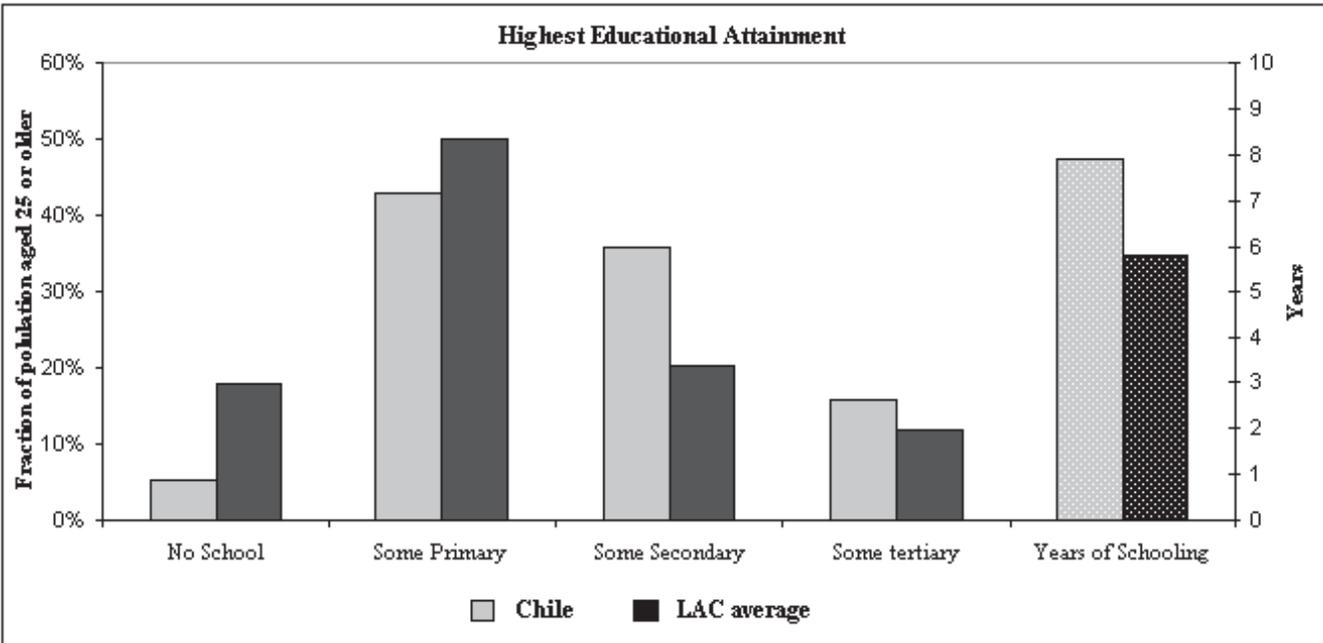
Teachers and management of each school that wants to adopt the full-day scheme are required to propose an institutional learning plan for how the additional time will be used. This bottom-up approach is illustrative of the process of educational reform in Chile, where schools are given considerable freedom to interpret general rules in a manner attuned to their specific context.

Due to the considerable investments required in school infrastructure, it is taking longer to adopt the full school day than originally envisaged. Currently, around 7,000 schools with an enrollment of about 2 million students (65.6 percent of the subsidized enrollment) have implemented the initiative.

In the 1990’s successive governments took steps to target resources toward low-income communities and remote areas of the country, addressing concerns about equity and quality. The MECE-Rural program delivered specially designed curriculum for multi-grade schools and developed a network of microcenters to break the isolation of rural teachers. Focused on more densely populated areas, the P-900 program provided additional inputs and teacher training for the worst performing schools in the country. As a result of these efforts, the Chilean school system has enhanced its capacity to keep poor children in school and help them learn.

Chile has made the introduction of information and communication technologies (ICT) in basic education a priority. Significant resources have been invested in computer equipment, learning software and teacher training in all schools. Currently, 92 percent of pupils in publicly funded schools have a computer room at their school, 85 percent also have Internet access and 76 percent of Chile’s teachers have completed basic training in ICT.

The educational reforms of the 1990s were launched with full financial and political support, reflected in increased resource allocations for education, particularly at the primary and secondary levels. Reforms were financed out of revenue growth due to the expansion of the economy and resources earmarked for education from the value added sales tax. Between 1990 and 2001 public expenditure for education increased from 2.4 to 4.4 percent of GDP. Adding private expenditure on education (another 3.3 percent of GDP) puts Chile among the countries in the world that invest the most in education, in relative terms. The salary of teachers also rose considerably during the 1990s. This rise was accompanied by the introduction of incentives for teachers to improve learning outcomes, upgrade their qualifications and work in locations considered difficult for geographic or social reasons.



Chile has shown a high degree of transparency about learning outcomes and openness to comparative evidence from abroad. The national learning assessment system (SIMCE), introduced in the 1980s, has been updated to reflect curriculum adjustments. Every second year, learning assessments are undertaken in grades 4, 8 and 10 and results are made publicly available. In the 1990s, learning results at the national level improved consistently, though only slightly, for both primary and secondary education. At the same time there was some progress toward narrowing the gap in learning results between urban and rural schools. Participation in the 1999 TIMSS and 2002 PISA tests revealed that the Chilean school system, albeit among the leaders in the LAC region, still performs below competitive worldwide learning standards in reading, science and mathematics. Disappointing international test results have led to renewed focus on teaching-learning practices and re-drafting of the primary curriculum. Also, changes have been made to lift secondary education to the level of leading countries by postponing specialization and modernizing the technical-vocational track.

Tertiary education and lifelong learning

Tertiary coverage in Chile has risen sharply in the past twenty years, from about 150,000 students enrolled in 1980 to 480,000 in 2001, equivalent to a gross enrollment rate of 38 percent of the 18-24 age cohort. Charging tuition from all students, Chile has been able to accommodate an increased demand for post-secondary learning opportunities without dedicating a high proportion of public resources to tertiary education.

The Ministry of Education operates a financial assistance system that seeks to ensure that qualified students are not denied the opportunity to enter higher education by lack of resources. Although insufficient, financial support rose by 85 percent between 1990 and 2002 for students attending the 25 member institutions of the Council of Rectors. A future challenge is to extend financial assistance to needy students in private universities, professional institutes and technical training centers.

Chile has been a regional forerunner in quality assurance of tertiary education institutions and programs. Since 1999,

World Bank Education Projects in Chile

MECE-Básica – Primary Education Improvement Project (1992-1998). The project aimed at (a) improving quality, equity and efficiency in primary education; (b) expanding coverage and enhancing quality of preschool education; and (c) developing institutional, managerial and financial capacity in the basic education system.

MECE-Media – Secondary Education (1995-2001). The project objectives were to (a) improve the internal and external efficiency, quality and equity of educational services provided by secondary schools and (b) strengthen managerial capacity in the secondary education sector.

MECE-SUP - Higher Education Improvement Project (1998-2004). The project supports (a) policy coherence and equity; (b) the establishment of a quality assurance mechanism; and (c) the operation of a competitive fund for quality improvement.

MSI - Millennium Science Initiative (1999-2002). The project (a) invested in Science Institutes and Nuclei, and (b) supported networks for promoting excellence in science.

Lifelong Learning and Training Project (2002-2008). The objectives are to (a) provide new opportunities for lifelong learning and training; (b) improve the quality and increase the coverage of technical-professional education; and (c) establish instruments to support the provision of lifelong learning and training services.

Science for the Knowledge Economy (2003-2009). The program seeks to (a) strengthen Chile's innovation system; (b) improve the science base and Chile's access to advanced human capital; and (c) enhance public-private linkages in research.

national accreditation commissions have set standards and granted formal recognition to programs at the graduate and undergraduate level based on self-assessments and external peer-review processes. Quality improvements in tertiary education are supported through a competitive fund financing curriculum reform, institutional strengthening and graduate programs in areas considered important for Chile's global competitiveness. To monitor the quality and relevance of offered careers, a tracking system has been set up to follow the employment and income of higher education graduates (www.futurolaboral.cl).

The government considers advanced human capital, a strong science base and university-industry cooperation to be key in preparing Chile for the knowledge economy. With the ultimate goal of improving Chile's national innovation system, scholarships are made available to doctoral students and measures have been taken to increase the mobility of researchers between the public and private sector. At the same time, support for institutions of excellence provides new employment opportunities for young scientists and enables Chile to retain researchers of international repute.

By adopting a lifelong learning approach, the government is taking steps to provide additional learning opportunities for adults who have not benefited from improvements to the formal educational system. The *Chile Califica* program seeks to strengthen vocational education, expand opportunities for training and enhance linkages between secondary technical

education and tertiary-level institutions. The end-goal is to design a policy framework with appropriate instruments to target the 6.5 million Chilean adults with incomplete secondary education and an estimated 5.5 million workers who need further training.

What can we learn from Chile?

A key lesson learned from Chile is the benefit gained by persistent and creative reform at all levels of the educational system. By keeping the quasi-voucher system and fees for university education, democratic governments of the 1990s ensured a high degree of continuity, building on the macro framework introduced by the military government. A combination of micro-incentives for teachers and families, substantial investments in the learning environment and curriculum reform have had substantial impact on the quality and equity of the educational system.



Chile has had considerable success in conducting external evaluation of small-scale pilots in order to fine-tune instruments prior to their implementation at the national level. Also, by pursuing a policy of openness, successive governments in Chile have been successful in building partnerships with external stakeholders. These have boosted nationally planned reform processes by bringing in technical assistance and financial support. Perhaps most notably, Chile illustrates the benefits – in the form of productivity gains and economic growth – associated with combining liberal trade policies with targeted investments in technology and human capital.

Although Chile has come a long way, numerous challenges remain. These include expanding the coverage of pre-primary education, bringing learning outcomes in primary and secondary education to international standards, reducing inequities in tertiary education and improving opportunities for adults who wish to upgrade their skills. Several decades of reform place Chile in a strong position to address these challenges.

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