TECHNICAL NOTE Nº IDB-TN-02792

Extended School Day

Evidence, implementation challenges and recommendations

Dante Contreras
Ignacio Lepe

Inter-American Development Bank
Education Division

September 2023

Extended School Day

evidence, implementation challenges and recommendations

Dante Contreras
Ignacio Lepe

Inter-American Development Bank
Education Division

September 2023

Cataloging-in-Publication data provided by the
Inter-American Development Bank
Felipe Herrera Library
Contreras, Dante.
Extended school day : evidence, implementation challenges and recommendations / Dante Contreras, Ignacio Lepe.
p. cm. – (IDB Technical Note ; 2792)
Includes bibliographical references.
1. School day-South America. 2. School day-Portugal. 3. Academic achievement-South America. 4. Academic achievement-Portugal. 5. Education and state-South America. 6. Education and state-Portugal. 7. Education-Research-South America. 8. Education-Research-Portugal. I. Lepe, Ignacio. II. Inter-American Development Bank. Education Division. III. Título. IV. Série.
IDB-TN-2792

JEL Codes: I28, I25, I24

Keywords: education, Extended School Day, implementation, academic performance, ESD

http://www.iadb.org

Extended School Day

Evidence, implementation challenges and recommendations

Dante Contreras - Ignacio Lepe

Extended School Day
Evidence, implementation challenges and recommendations

Dante Contreras[1] **- Ignacio Lepe**
Department of Economics, Universidad de Chile.

This study performs a meta-analysis of extensive research on extended school day (ESD). The evidence summarizes the impact of ESD on academic performance, socioemotional factors, risk behaviors and other outcomes on family and community. The evidence suggests ESD policies have marginal effects on educational achievement and positively impact dropout rates and the areas mentioned above. This paper also discusses the challenges of implementing ESD programs. This is due to its high cost, long implementation schedule and other effects concerning governance, political economy and potential resistance from family members. This study aims to make recommendations for implementing ESD programs successfully.

Keywords: education, Extended School Day, implementation, academic performance, ESD.

1 The authors acknowledge the financial support provided by the Center for Social Conflict and Cohesion Studies (COES; ANID/FONDAP/15130009) and thank Elena Arias, Gregory Elacqua, Esteban Torre, Tamara Vinacur and Ivana Zacarías for their valuable contributions.

Content

Executive Summary

This study focuses on various findings concerning implementing extended school day (ESD). ESD programs were developed as part of various educational reforms in Latin America to improve academic results and educational quality, especially in schools with educational backwardness and vulnerable students.

Implementing ESD requires high funding and maintenance costs, as well as detailed planning. Additionally, the academic effectiveness of the program is challenged, which leads to limitations in the project's feasibility in terms of political economy and governance.

Various strategies are proposed to help mitigate the challenges of implementing ESD, including starting with pilot programs in schools that already have the necessary equipment. Other suggestions include streamlining some schools' existing infrastructure, implementing the project gradually and requesting that the institutions interested in the program submit a strategic plan with the curricular activities included in the new system.

Evidence from ESD programs in the region suggests marginal effects on academic performance, measured as scores on standardized math and language proficiency tests. However, the experience of Pernambuco, Brazil, stands out as a program that has made significant progress in this area.

Despite the academic results, the region shows ample evidence of benefits in socioemotional, family- and community-related areas. There is a decrease in school dropout rates, teenage pregnancy, and increased female labor force and community participation in schools, among other benefits. These results suggest ESD could have positive results toward striking a general balance.

In conclusion, the main challenges in implementing ESD are the need for infrastructure, the costs of providing full-day educational services, organizational planning and adaptation, national coordination by a government body, redesigning pedagogical strategies and engaging community members in the program.

1 Introduction

Extending the school day has become a highly relevant public policy instrument in Latin America and the Caribbean. The main reason for promoting this policy is to improve learning outcomes in the region. Comparative evidence shows that the region has two characteristics of concern regarding educational performance. On the one hand, there is a significant gap in results within countries. Private schools show better results than public schools. Additionally, average performance rates in the region are well below those of developed countries (OECD, for example) and below the results of Asian countries with a similar level of development (OECD 2008).

ESD implementation seeks to improve average learning performance and the quality of low-performing schools. However, the nature of this policy (additional time for children to spend at school) could have effects beyond the academic arena. This study reviews four experiences: Chile, Colombia, Brazil and Portugal.

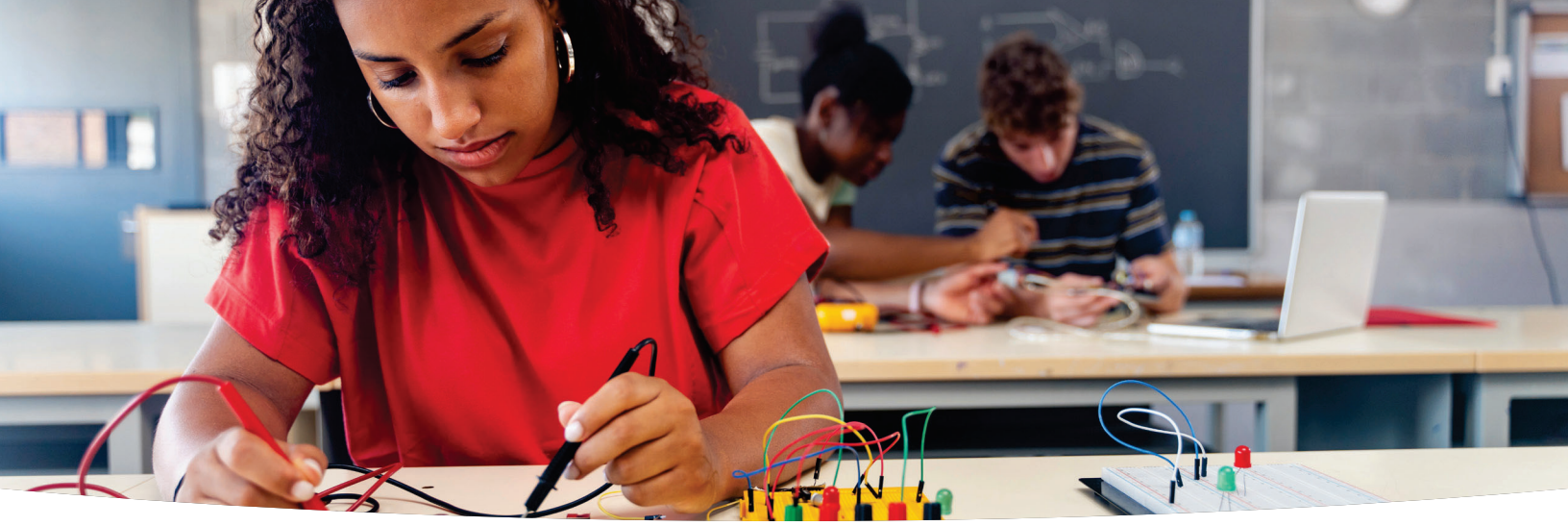
There is ample evidence of the impact of ESD. However, these results stem from implementing different empirical strategies, research focuses, etc. In other words, results are highly heterogeneous. Therefore, it is essential to organize the discussion on the potential effects of ESD on academic performance, dropout rates, socioemotional and family-related impact. Finally, it is also necessary to examine the implementation of this strategy in the short, medium and long term.

Analyzing extensive research allows us to address the results of ESD policies from at least four viewpoints. First, keeping students in school longer has several academic advantages: better outcomes and lower dropout rates. This depends on the quality of the additional teaching hours. Second, impacts have also been observed in preventing and reducing risky behaviors, mainly through postponing motherhood, avoiding adolescent pregnancy and decreasing potential criminal behavior. Third, some research has focused on studying the effects of ESD on students' long-term well-being, particularly their performance in the job market (employment and income). Finally, some studies explore the impact on students' environments. These show higher rates of participation of mothers in the labor market, improved teacher performance, increased non-teaching work hours and greater involvement of the educational community in schools.

One of the main reasons this public policy is called into question is its cost-effectiveness analysis. The bulk of evidence in the region shows that the allocated resources do not necessarily translate into better academic performance (Bellei 2009, Contreras and Riveros 2023, Hincapié 2018). However, cases like Pernambuco, Brazil, show the opposite (Rosa et al. 2022; de Araújo et al. 2021). Furthermore, ample evidence shows improvements in school dropout rates and positive externalities for the students' family members. The heterogeneous success of the programs and the gradualness of their implementation calls for analyzing the typical patterns of the most successful experiences.

The above suggests that ESD programs have significant potential for success in several dimensions. However, these potential achievements depend on the sound design and correct implementation of the ESD policy.

This document is organized as follows. Section 2 reviews ESD implementation experiences in detail. Section 3 summarizes the literature that has examined its potential effects on different dimensions. Section 4 discusses the elements that have become successes and good practices or difficulties and challenges when implementing this public policy. Therefore, we aim to shed light on the critical points that should be considered when implementing relevant educational reforms to provide and enhance the expected benefits. The final section summarizes the findings.



2 Experiences reviewed

As mentioned, studies on school day extension strategies adopted in Chile, Colombia, Brazil (specifically, the State of Pernambuco) and Portugal were reviewed. Most of them are evaluations aimed to determine the impact of ESD on various variables associated with the performance and situation of students and their environment.

The strategies these countries use to implement ESD vary according to each context in terms of geography, availability of resources, and governing regulations, among others.

2.1. Implementation in Chile

The oldest strategy reviewed here is the Chilean program. In the late 80s, a discourse on education system reform prevailed in Chile. However, it was in 1996 when the first Full School Day (FSD) law was enacted. The 1996 “starter” law was implemented to cover approximately 3,200 schools, primarily located in rural areas, which did not require infrastructure investment to transition to a new school day structure. This system includes all primary and secondary school students attending publicly funded schools, whether municipal or subsidized privately managed schools. However, it does not include first and second-grade students and those attending adult education programs.

In this case, more school time was scheduled for students, an admission procedure was established, support was provided to schools to develop a pedagogical project and the state subsidy was increased by 35%. Initially, schools had to submit an FSD project approved by the Ministry of Education to join the FSD system. The project had to justify using schoolwork time pedagogically and specify the number of students. Second, it was essential to have the necessary infrastructure and equipment to provide the care students needed.

In addition, it was crucial to have suitable teaching staff and other basic human resources and to ensure teachers had the time to devote to technical and pedagogical work (2 clock hours of work are assigned to teachers with a workload higher than 20 hours) (García-Huidobro and Concha 2009).

A year later, the 1997 FSD Law was made official. Class hours were increased by 30% in primary and secondary education so that all publicly subsidized schools would substantially increase the time teachers and students spend in learning situations. This would strengthen fundamental learning and foster pedagogical innovation (Ministerio de Educación 1999). Thus, the school day was extended by 3.6 hours in primary education and 4.5 hours in secondary education, considering the time devoted to compulsory curricular learning and elective hours. Therefore, 1,100 chronological teaching hours a year from 3rd to 8th grade and 1,216 hours in secondary education were achieved, exceeding the average number of hours in OECD countries.

The slow implementation progress in the capital in the early 2000s prompted a second law finalized in 2004. This extended the deadline to 2007 for public schools and 2010 for other educational centers. This equitable approach is noteworthy. The law granted funds to private subsidized schools to increase their infrastructure, provided that the funds be used exclusively for educational purposes for 30 years. It also established the obligation for schools to be open to the community, even on weekends, although this remained in effect until 2006.

This law also introduced advances in educational management. It acknowledges that implementing FSD programs expands opportunities in terms of time and space for education. Still, it emphasizes that these opportunities must be seized to make a difference. This depends on efficient management to a great extent. For this reason, a competitive examination system was established for school management positions and a School Council was made mandatory in all schools (García-Huidobro and Concha 2009).

Finally, the policy's implementation design was gradual, allowing primary and secondary schools to join the FSD system progressively. Consequently, in 2007, 80% of schools were already working under this modality. This figure would rise to 95% in 2015 (Contreras and Riveros 2023). In addition, this progressive implementation made it possible to conduct several studies, as this process was used as an identification and analysis tool.

2.2. Implementation in Colombia

The 1991 Colombian Constitution established the decentralization of public education at the preschool, primary and secondary education. In this context, a first attempt was made to extend the school day when the 1994 General Education Law created the seven-hour school day for all public schools. However, the policy was abandoned entirely in 2002. This happened partly due to a substantial increase in demand

2 A typical curricular program would consider approximately 944 teaching hours (Brunner and Elacqua 2006, Valenzuela 2005, Martinic et al. 2016)

for public education that was difficult to meet due to low physical capacity (low supply of schools) and resource shortages (low capacity to hire administrators and teachers) (Hincapié 2018).

In the meantime, pilot programs were implemented in some of the country's largest cities, such as Bogotá and Cali, to extend the school day. In Bogotá (1997 1051 District Decree), they aimed to pay ten additional hours of the working week as teaching hours, paid at 1.45 times the value of regular hours. This led 88 institutions to join the system as they had a relatively high number of teachers (Bonilla-Mejía 2011).

This led to the 2014 announcement of the nationwide implementation of an FSD program, which became the core of the educational reform. On this occasion, seven hours of daily attendance was proposed for preschool, eight hours for primary school and nine hours for secondary school. These hours would be used to do previous work on school curriculum activities. This extension aimed to improve students' basic competencies (Ramírez 2019).

This regulation establishes that the school day schedule must be met within the 40 weeks of the academic calendar, complying with 20 hours a week or 800 hours a year in preschool, 25 hours a week or 1,000 hours a year in primary and 30 hours a week or 1,200 hours a year in secondary levels (2002 1850 Decree) (Ministerio de Educación Nacional 2013).

One of the critical factors of this program is that municipalities are granted broad administrative powers over educational resources. The Secretary of Education of each municipality would assess the expected demand for school places for the coming year and the schools' capacity in that municipality to provide these places. This information determined whether some schools needed two half-day shifts instead of a full day to increase the supply of school places. The length of the school day in the municipality's schools is decided by considering several variables, including the number of school-age people in the municipality, the actual demand for school places, the number of places available in each grade in each school, and the educational resources available in the municipality (Hincapié 2018).

Another relevant feature is that parents must apply to the municipality's Secretary of Education to enroll or transfer their children to a public school. They may express their preference for some schools but not for a specific shift. The Secretary of Education assigns new or transfer students according to the demand and supply of school places for each grade.

Inspired by the Chilean ESD implementation strategy, an implementation process was established that describes the general procedures schools must follow and the commitments they must assume if they wish to implement ESD strategies. The Colombian Ministry of Education states it is necessary to diagnose the school's condition, including infrastructure, administrative and teaching staff, number of students and organization of the school day, SABER test results, an improvement plan and pedagogical strategies, identifying the profile of the teachers needed, an assessment and monitoring strategy for the project, as well as a funding proposal (Ministerio de Educación Nacional 2013).

Given the available infrastructure, the Colombian experience shows a significant challenge in implementing a global ESD strategy. A heterogeneity of school days within the community is considered to mitigate infrastructure deficiencies and enable gradual integration.

2.3. Implementation in Pernambuco, Brazil

The municipal, state and federal governments are jointly responsible for education in Brazil. In the early 2000s, a group of Brazilian businesspeople reacted to the state of secondary education in Pernambuco by creating the Institute of Co-Responsibility in Education (ICE). ICE designed a new academic program and received support from the state government by creating PROCENTRO, a state agency that worked with ICE to develop a new educational program (Centre For Public Impact 2018).

Also, between 2002 and 2004, ICE and PROCENTRO supported a team of experts that designed a model for full-time schools, "Escolas em Tempo Integral" (ETI). Between 2004 and 2006, these agencies gradually selected 13 schools to adopt the new ETI model by creating a limited network of public secondary schools known as "Experimental Education Centers" (CEE). The result is that CEE students perform significantly better than the state's regular public education system, which comprises 400,000 students in 704 secondary schools (Centre For Public Impact 2018).

This program focused on secondary schools and provided extra resources to lengthen the school day and not affect the school supply. Its implementation was gradual; initially, the goal was set at one full-time secondary school for each of its 184 municipalities. The local authorities selected schools with a minimum infrastructure (laboratories and sports fields) and located in a municipality that did not have a full-day school (Rosa et al. 2022).

In 2008, these institutions transferred the management of all CEE schools to the Ministry of Education. This made it possible to replicate the program in other states under the name of "Secondary Education Reference Schools" (Escolas de Referência em Ensino Médio) (EREM). The school day was increased from 25 to 45 hours a week for the comprehensive modality and 35 hours a week for the semi-comprehensive modality. This second modality was chosen to help young people who had to enter the job market and study simultaneously. Furthermore, they helped schools whose infrastructure could not accommodate all their students simultaneously (Ollivier et al. 2020).

In this case, extending the school day was part of a more significant education reform, including changes in the curriculum and infrastructure. This led to academic and educational management innovations that enhanced the impact of ESD. The experience of the State of Pernambuco in Brazil also stands out since it achieved exceptional educational results with the reform implemented in less than a decade and in one of the poorest states in the country.

2.4. Implementation in Portugal

Outside the Americas, the case of Portugal is noteworthy. The beginnings of the ESD program date back to the free and elective English lessons provided by all public primary schools to every family (Communication 14753/2005). This system was extended to other subjects the following year, focusing on sports and the arts (Communication 12591/2006) (Abrantes 2023). The "Curricular Enrichment Activities (Atividades de enriquecimento curricular (AEC)) program, established by the Ministry of Education (Resolution No. 12,591 of 16 June 2006) continues and expands the previous experience of the extracurricular programs in the 2005/2006 school years for 3rd and 4th grade. After the positive feedback received for this program, the Ministry of Education expanded the curricular enrichment projects. It implemented the "Full-time school" (Escola a tempo inteiro) to adapt school time to family needs and ensure a pedagogically enriching and complementary environment for students to develop basic skills (Communication No. 14,460/26 May 2008) (Fialho et al. 2013).

In this way, the AEC program aims to provide free extra-curricular activities every weekday to interested parents to cover a 9:00 a.m. to 5:30 p.m. day. This entailed a significant change for most public schools in the country, which guaranteed only five hours of mandatory curricular activities per day (some in the morning and others in the afternoon) (Abrantes 2023). This is complemented by family support (componente de apoio à família (CAF)) activities, which are scheduled in the mornings and afternoons, and academic breaks.

This is how the AEC and CAF partnership offers all students in the initial cycle various enriching learning experiences while promoting social justice by supporting families. This plays a significant role in reducing sociocultural inequalities, acquiring knowledge and skills, and developing learning potential (Fialho et al. 2013).

2.5. Summary of ESD experiences in Latin America and Portugal

The following is a list of the main ESD implementations in the region, their programs, policy objectives and implementation characteristics. Relevant literature by country is also provided.

Country	Program	Objective	Features
Argentina	• National Education Law (2006). • National Policy for the Expansion of the School Day at Primary School (2011). • One hour extension on primary education (2022, under way).	Strengthen fundamental learning. Equity. Pedagogical innovation. Broaden the students' cultural horizons.	Focus on primary education. Mandatory learning, ICT and others.
Brazil	• Mais Educaçao National Policy (2008). • Pernambuco Comprehensive Education Program (2008). • National Education Plan 2014–2024 (2014). • Program Escolas em Turno Unico in Rio de Janeiro (2017).	(2008, Pernambuco) Improve the quality of education and expand enrollment in Comprehensive Secondary Education; (2014) Provide full-time education in at least 50% of public schools to serve at least 25% of primary education students; (2017) improve the quality of education by creating a diverse curriculum to be used in schools during the additional time.	(2008, Pernambuco) Based on previous pilot experience (Procentro, 2003, by the Secretary of Education of Pernambuco and the Institute of Co-responsibility in Education), led to the gradual implementation of a comprehensive model with 45 hours per week and a semi-comprehensive model, with 35 hours per week, in addition to innovative pedagogical practices, 21st-century skills, new teacher policies, among others; (2017) the school day is extended from 4.5 hours to 7 hours a day.
Chile	• Full-day school (1997).	Strengthen fundamental learning and pedagogical innovation.	From 3rd grade onwards. There are 3.6 hours in elementary school (up to 8th grade) and an average of 4.5 hours in all schools. Mandatory apprenticeships plus elective hours.
Colombia	• General Education Law of (1994) • One-shift policy (2016)	Improvement of students' basic competencies.	Twenty hours in preschool, 25 in primary school and 30 in secondary school.

Country	Program	Objective	Features
El Salvador	• Inclusive Full-Time School Program (2009).	Training citizens who participate in building a more equitable, democratic and developed country. Skills development and not only academic learning.	Each school can choose the training areas to develop in the additional time based on its institutional plan.
Honduras	• ESD (2013). Repealed in 2019 due to negotiations with the union.	To promote the development of civic and moral values and citizenship, along with academic strengthening in math and Spanish.	Intended for half-day state schools.
Mexico	• Full-time school program (2007).	Strengthen fundamental learning. Equity. Pedagogical innovation. Broaden students' cultural horizons.	Public schools. Vulnerable populations, marginal urban contexts, indigenous people and migrants. Schools with poor educational results. Mandatory learning, ICT, art, recreation, additional languages, healthy living.
Panama	• ESD for all (2016).	Guarantee quality education, with a flexible and open curricular organization, more equity, efficient use of resources and more space and time to carry out academic, cultural, artistic, recreational, scientific and technological activities.	From general primary education up to secondary level, with gradual and improved infrastructure.
Paraguay	• Project to Support the Extension of the School Day (2017).	Improved students' learning in the 1st and 2nd cycles of Basic School Education (EEB) in the target schools and implemented a pilot program with alternatives for student transportation in the relevant rural areas.	Develop and implement pedagogical innovations. Strengthen the autonomy of educational institutions. Improve transport conditions for students at target official schools in rural areas. Monitor and assess results and management.
Perú	• FSD (2015).	Increase the quality of secondary education by improving learning opportunities for students in public secondary schools.	Some public schools increase 35 to 45 hours per week at the secondary level for curricular areas of communication, math, English and education for work.
Portugal	• Curricular enrichment activities (Atividades de enriquecimento curricular (2006). • Family support component (2005)	Include curriculum enrichment and family support activities in public primary education.	Adjustment from five-hour school days (morning or afternoon) to full-time (9:00 a.m. to 5:30 p.m.). Focus on families' needs, after-school extracurricular activities.

Country	Program	Objective	Features
Dominican Republic	• ESD (2014).	Improve learning, optimize time, improve school conditions, educational practice, and reference framework for teacher professional development.	Progressive incorporation of schools in coordination with the national classroom construction plan. Eight-hour schedule for all levels. Curricular plus elective courses.
Uruguay	• Full-time schools (1998).	Strengthen fundamental learning. Broaden students' cultural horizons. Equity. Pedagogical innovation. Increase family participation. Train teachers to face current challenges.	Primary (1st to 6th grade). Three additional hours. Marginalized contexts, small schools, areas with low schooling rates. Foreign language, physical education, cultural activities.
Venezuela	Programas • "Simoncito" and "Escuela Bolivariana" programs (1999). • Expansion and improvement of full-day early and primary education and comprehensive care (2005).	Equity. Broaden students' cultural horizons. Pedagogical innovation.	Initial and basic. Four additional hours in primary education. Marginalized contexts, with high poverty and low schooling. Mandatory apprenticeships

Source: Schwartz (2022). Internal Consulting Report, IDB Education Division

3 Literature review: Main research findings

As mentioned above, several types of studies address these initiatives. In particular, impact evaluations took advantage of the gradual implementation, which allowed researchers to observe different outcome variables over various timeframes. The findings of these studies are mixed in terms of how ESD policies contribute to a broad set of outcomes. However, these effects can be grouped as follows:

1. **Effects on student learning and academic outcomes:** in traditional areas (math and language), digital skills, attendance, study/leisure time balance, autonomy, etc

2. **Socioemotional effects on students:** reduced risk behavior, school dropout rates, teenage pregnancy, and crime.

3. **Long-term socioeconomic effects on students:** human capital accumulation and continuing studies with long-term results in the labor market, such as employability and income.

4. **Effects on other members of the household and community:** greater female labor participation, greater well-being at home (due to the higher income of mothers or women responsible for caregiving), and greater engagement of the educational community in schools.

3.1. Academic performance

As explained in the previous section, the first set of results examines students' educational achievements associated with greater exposure to ESD. The studies described below explore the effects of ESD on standardized test scores in math and language. The case studies show varied and relatively minor effects in this area.

For Chile, Bellei (2009) examines the effects of increased exposure to ESD on language test scores of 0.05-0.07 standard deviation (SD). These results do not seem sensitive to control for covariates, using different control groups or historical trends. In math, the results are not affected by controlling for covariates but are susceptible to using various control groups and historical trends. In this case, the associated effect of increased exposure to ESD ranged from 0.00 to 0.12 SD. The author found a more significant positive impact for rural students, students in public secondary schools and students at the top of the distribution of results.

In another study focused on Chile, García (2006) uses a propensity score matching and differences-in-differences model, suggesting that introducing ESD positively and significantly impacts SIMCE test scores. The scores are higher in language than math. The estimated magnitudes range from 0–5 points for math and 3–8 points for language. These figures have an approximate 0.05 SD from the standardized score.

However, Arzola (2011) also applies differences-in-differences to evaluate SIMCE test results in students with less than four years of exposure to ESD and four or more years in this modality. The study found that, in both cases, the impact of FSD was small and not significant on student performance. Furthermore, the different results of FSD by type of school show that students in municipal schools benefit from FSD: 1.5 points in the SIMCE math test. In contrast, students in private subsidized schools are not affected. This leads to the conclusion that the policy has had modest effects on academic outcomes, although it recognizes that there may be other benefits.

Colombia also has extensive evidence of academic results in the region. According to Barrera-Osorio et al. (2012), ESD significantly increased scores on national standardized tests compared to half-day schools (Jaramillo et al. 2010, Bonilla-Mejía 2011).

In turn, Hincapié (2018) uses a fixed effects model to assess the impact of ESD on educational outcomes in 5th and 9th grade. The author found that the test scores of cohorts exposed to ESD are about 0.10 SD higher than those who attended half-day school. The impact is greater for math than for language in 9th grade than in 5th grade. Moreover, the effects are more significant for poorer schools in rural areas. Therefore, it is concluded that extending the school day can help increase student outcomes, particularly for lower-income students in Colombia and other developing countries.

The study conducted by Ramírez (2019) is another example of a meta-analysis of quasi-experimental impact evaluation. The author found that studies from Latin America show that the impact is insignificant and marginal on standardized test scores. Some studies even report adverse effects. It is concluded that new empirical evidence is needed for Colombia on the impact of the school day. This requires updated data,

focused on secondary schools that account for the effect of the full-time school day. The studies included were conducted before Colombia extended the school day in 2016, so this paper warns that there was insufficient evidence to inform decision-making.

A meta-analysis of impact assessments from eight countries, including Chile and Colombia (Alvarez and Bayona-Rodríguez 2019), shows that ESD's estimated average effect on primary students' math academic achievement is 0.04 SD and 0.10 SD in secondary school students. In turn, the overall average impact for language is 0.04 SD and 0.08 SD for primary and secondary, respectively. Average effect sizes are more significant in secondary than in primary school. It should be noted, however, that effect sizes vary considerably for all school outcomes and levels.

To put the magnitude of this effect in perspective, the impact of ESD is smaller than that of other popular educational policies in Colombia; the Higher Education Access and Quality Program (Programa de Acceso y Calidad de la Educación Superior, PACES, 1992–1998) and the Schools under Concession (Colegios en Concesión) policy (CEC, 2000) in Bogotá (Hincapié 2018). The PACES voucher program, which has received much attention in the literature because it organizes a lottery to allocate vouchers, had an impact of about 0.20 SD on primary standardized test scores when comparing voucher holders to other students (Angrist et al. 2002). In addition, the implementation of schools under concession in Bogotá, which were traditional public schools whose administration was outsourced to universities and private non-profit schools, had an impact of 0.6 and 0.2 SD on math and verbal (2SLS) tests, respectively, compared to traditional public schools (Bonilla-Angel 2011).

In Pernambuco, Rosa et al. (2022) use instrumental variables to estimate that three years of exposure to the comprehensive school program (1st to 3rd year of high school) increased students' math and language test scores by 0.22 and 0.19 SD, respectively. This magnitude is at the high end of the distribution observed in the region.

Finally, in Portugal, there is no national examination in primary education. Therefore, analyzing student performance with a standardized test is not possible. Even so, retention rates are relevant since they show the extent of competencies acquisition in each school grade. In this line, Rosa et al. (2022) show that participating in a full-time school program is connected with a lower repetition rate (a positive relationship with school achievement). This effect would be more substantial in schools in vulnerable contexts. Additionally, it shows that the impact of the EAC program is longer and greater than that of the CAF program.

We decided to compare the magnitude of these effects to other regions in the world, so we examined the case of the United States and the Netherlands. Rosa et al. (2022) performed a meta-analysis for the United States and Canada. They concluded that attending full-day kindergarten for one year promotes a positive relationship with academic achievement (compared to half-day kindergartens), equivalent to approximately 0.25 SD.

In Boston, Massachusetts, Angrist et al. (2012) explore the randomized system of student choice in charter schools affiliated with the Knowledge is Power Program (KIPP, 1994), which includes an extended school day and emphasizes, among others, developing reading and math skills. The author shows that, on average, students increase their scores by 0.35 SD in math and 0.12 SD in reading on MCAS tests for each year at KIPP Lynn (2SLS). It also shows evidence that Hispanic students and students with low initial performance would benefit more from the program.

Meyer and Van Klaveren (2013) conducted an experiment in seven Dutch primary schools and studied the effect of an ESD program on math and language performance. For 11 weeks, they offered 95 students aged 8 to 12 additional language and math lessons, as well as school outings. They applied an instrumental variable methodology and found a positive impact on math (0.19 SD) and a marginal impact on language (0.01 SD). However, 2SLS estimates indicated that the program did not significantly affect overall academic achievement.

This agrees with Lavy (2015), who used PISA 2006 data for over 50 countries and showed evidence that teaching time is positively related to test scores in developed and developing countries. However, the estimated effect for developing countries was much smaller than the effect size in developed countries. Rivkin and Schiman (2015) found equivalent results on the same metric but with 2009 data for 72 countries.

In brief, the evidence in Chile and Colombia regarding academic results and ESD is relatively modest compared to developed countries. Still, its magnitude would depend significantly on the methodology used. The models that use better identification strategies tend to find a lower ESD impact, with a more significant impact in higher vulnerability scenarios. On the other hand, ESD programs in Pernambuco stand out on academic performance improvement.

Country	Study	Sample	Method	Math (SD)	Language (SD)
Brazil, PE	Rosa et al (2022)	2010-2017 2010-2017	FE† IV †	[0.225**,0.314***] (12°) [0.182**,0.225***] (12°)	[0.193**,0.299***] (12th) [0.128**,0.193***] (12th)
Brazil, PE	de Araújo et al (2021)	2009-2018	DID†	[0.192**,0.206***] (ENEM - college admission test)	[0.186**,0.199***] (ENEM - college admision test)
Brazil, SP	Fukushima et al (2022)	2009-2015	DID†	0.469*** (9°)	0.462*** (9°)
Brazil, RJ	Cruz et al (2017)	2005-2015 2005-2015	DID† DID†	[0.153**,0.237***] (5°) [0.768***,1.193***] (9°)	[0.134**,0.227***] (5°) [0.757***,1.023***] (9°)
Brazil	Almeida et al (2016)	2007-2011 2007-2011	PSM† PSM†	−0.239*§ (5°) −0.252*§ (9°)	−0.151§ (5°) −0.043§ (9°)
Chile	Bellei (2009)	2001-2003	DID†	[0.00***,0.12***] (10°)	[0.05***,0.07***] (10°)
Chile	García (2006)	1999 - 2002 1999 - 2002	FD† PSM−DID†	0.041**§ (4°) [0.047**,0,055**]§ (4°)	0.090***§ (4°) [0.082***,0.086***]§ (4°)
Chile	Arzola (2011)	2005 - 2009	DID†	[0.007,0.023] (8°)	[0.004,0.019] (8°)
Chile	Contreras e Riveros (2023)	2007 - 2013 2009 - 2015	FE† FE†	[−0.004,0.001]‡ (10°) [−0.016**,−0.011]‡ (10°)	[−0.016***,−0.012***]‡ (10°) [−0.012,−0,007]‡ (10°)
Chile	Fernández e Bovini (2017)	2005 - 2013 2005 - 2013	FE† FE−IV †	[0.006,0.014***]‡ (4°) 0.003‡ (4°)	[0.017***,0.019***]‡ (4°) 0.020***‡ (4°)
Chile	Berthelon et al (2016)	2012	V I†	-	0.14** (2°)
Colombia	Hincapié (2018)	2002-2009 2002-2009	FE† FE†	[0.082***,0.082**] (5°) [0.137***,0.138**] (9°)	[0.044,0.055**] (5°) [0.110**,0.162***] (9°)

Effect measured in standard deviations of state standardized tests at the specified grades. Prepared by the authors based on corresponding authors. †Causal methods. § Estimates transformed from points to standard deviations based on the standard deviation of each year's assessment. ‡ Effect per year of exposure. * Significant at 10%, ** 5% and *** 1%.

3.2. Socioemotional impact

The heterogeneous results of academic outcome assessments have led researchers to reflect on other potential outcomes. For example, Osorio-Mancilla (2019) from Colombia, state that this type of policy benefits students' quality of life, especially in reducing risk and vulnerability factors.

As in the cases above, several authors have taken advantage of impact assessment studies to conclude the suitability or otherwise of this type of policy. For example, when people were discussing the possibility of extending the school day in Colombia again, García et al. (2014) suggested that the school day be raised to eight hours a day, from five in primary and six in secondary school, since it would increase the number of class hours per day as well as the necessary break and lunch times. Ensuring that these additional hours meet the students' educational needs regarding cognitive and non-cognitive skills is essential. Also, they should be aligned with the curricular plan. The author also highlights that Chile's ESD experience shows that one of the most complex and noncompliant aspects, according to the impact assessments conducted, was related to time distribution in the new school day. For Colombia, it confirms that school infrastructure is one of the country's main constraints for implementing the eight-hour school day. Bonilla-Mejía's (2011) estimations show that the investment required for two million students enrolled in the afternoon shift in the official sector is about 7.5 trillion Colombian pesos (USD 1.65 billion in 2023).

Some hypothesize that ESD may have other effects on students because they stay in safer and violence-free environments for longer, especially in more vulnerable territories and communities.

For example, in the case of Chile, Kruger and Berthelon (2009) find that adolescents are less likely to become mothers in municipalities with a greater coverage of full-time high schools in urban areas. It is also observed that, among poor adolescents, a 20% increase in full-time high schools reduces the adolescents' probability of becoming mothers by 5%.

Regarding school dropout rates, a study for Colombia (García et al. 2013) applying a fixed effects model to assess the impact of ESD on this variable and complemented with a case study with qualitative information concludes that implementing ESD significantly reduces the probability of early school leaving and school repetition.

Radinger and Boeskens (2021) also present a case study of eight countries, including Chile and Colombia. They state reforms must consider the quality and articulation of the activities and the relevant adaptations to the school's resources to have a positive impact. They also conclude that school day extension provides an opportunity to rethink schools as places for learning, comprehensive development, commitment, and student support.

In Brazil, the results are heterogeneous depending on the region in question. In Pernambuco, Ollivier et al. (2020) compare a series of educational indices to the Brazilian average between 2007 and 2017. Based on this, they find that in this period, the state implemented solid program incentives and went from being among the lowest in the country to surpassing the national average in the Basic Education Development Index (IDEB), improving passing rates, graduation rates and presenting lower dropout rates.

In turn, Elacqua et al. (2022) considers the gaps in access to the Integral Schools (Escolas Integrais) according to socioeconomic level and under a randomized controlled trial (RCT) methodology. They show that the intervention of providing informational nudges about Escolas Integrais to vulnerable students in public schools in Pernambuco, did not significantly increase enrollment in this type of school. The authors conclude that other structural factors, such as the students' need to work, are more relevant when applying to ESD schools.

Finally, Elacqua et al. (2019) apply regression discontinuity methodologies and explore the admission score for technical schools in Pernambuco. They show that students from technical schools have lower dropout rates in high school and are awarded higher scores on standardized math and Portuguese tests (0.1 SD) than students under the cut-off point. They show that students from technical schools were more likely to attend ESD schools (comprehensive and semi-comprehensive) and had better school, teacher and peer characteristics.

Also, there is evidence on the impact of ESD programs on lower exposure to social risk activities for students, such as leaving school or school pregnancy.

3.3. Long-term socioeconomic impact

Other studies attempt to assess the long-term results of this policy. For example, in Chile, Elacqua et al. (2019) took advantage of the fact that there were half-day schools and ESD programs and used propensity score matching to measure the results in the job market. They also assessed many variables, including cognitive tests and academic results. They conclude that, although the effects vary greatly, ESD positively affects educational outcomes and cognitive test scores. It also reduces adolescent motherhood. However, no significant impact on employment or income was found. Only those individuals who switched from the afternoon to the full day show a substantial effect on their monthly income, so it is inferred that, in addition to the length of the school day, the time of day when students go to school is also relevant. The authors rely on psychological literature to explain the differences, suggesting that short-term memory performance seems to be higher in the morning and declines in the afternoon.

In line with the above, another study conducted in Chile (Domínguez and Ruffini 2020) uses data from the CASEN household survey through OLS to measure the effects of ESD on educational outcomes and the job market (employment and income). It also explores how school day length might affect job market outcomes (migration, fertility patterns, job choices, family resources or academic skills). Access to extended school days improves economic well-being in the long run. It increases educational outcomes and drives more women and students from disadvantaged backgrounds to enter the workforce. In this way, it leads to income increases of 4–5% a year. Students of lower socioeconomic status are more likely to start secondary education and enter the labor force, while those in a more advantageous situation complete secondary education, work in highly skilled occupations, and live in wealthier areas more frequently.

In the case of Pernambuco (Fundación Getulio Vargas 2019), a 2009–2014 survey of 2,814 high school graduates shows that 63% of those who graduated from a comprehensive school continued their studies in a higher-level institution; this figure drops to 43% for part-time students. It also shows that the income of full-time graduates is 18% higher. On the other hand, there is evidence of smaller inequality gaps. The wage gap between people of African descent and white people, equal to 10 percentage points for those who attended regular schools, is reduced to practically zero for those who attended comprehensive schools. Additionally, female respondents who participated in this type of school are 7% more likely to be employed.

3.4. Impact on other members of the household and community

In Brazil, de Campos and Assunçao (2022) found a positive impact on performance in comprehensive schools in São Paulo. However, they also found negative externalities in other regular schools in the neighborhood. Using a dynamic difference-in-differences strategy, they discovered that full-day schools negatively affect the composition of students and teachers in nearby regular schools, worsening their performance and dropout rates. They state that half-day public schools accept students who dropped out of schools and joined the full-day program. They also argue that the teacher composition is also affected, which worsens the quality of the average training of those who work in regular day schools.

Additionally, multiple effects are associated with students spending more hours at school. This entails freeing up the time (mainly mothers of young children) of other household members. There is evidence in Chile (Martinic 2015) regarding the inclusion of women—mothers and caregivers—in the labor market. Also, parents and the community are more involved in educational centers. Likewise, teachers' work and professional development outside school influence students' results.

This last point is essential since, as indicated by (Martinic 2015), the quality of teachers and their representation of their students will determine the extent to which external factors may impact the quality of learning processes, which may determine the potential effects of ESD. (Martinic et al. 2016)

Contreras and Sepúlveda (2017) used a fixed effects model in Chile. They found a positive and significant impact on female labor participation and employment for all age ranges and a negative and significant effect on the number of hours worked. They conclude that the implicit childcare subsidy provided by ESD positively and significantly impacts the female labor supply in Chile.

Finally, in Portugal, Fialho et al. (2013) surveyed academic actors and concluded that AEC improves the perception of organizational practices (openness to the community, better coordination and resource management) and parental satisfaction. It ensures that parents appreciate the stability of the service, local partnerships, staff qualifications, equity of access and adaptation to the family's time needs. However, authorities report low parental involvement, disputes over schedules, poor staff working conditions, and low levels of coordination and supervision.

3 As this is a descriptive study, no robust conclusions can be drawn.

Country	Study	Methodology	Results	Recommendations
Brazil, PE	Ollivier et al (2020)	Compilation of educational indicators	Higher Basic Education Development Index (IDEB), improved passing rates, graduation rates and lower dropout rates.	Consider schools as learning centers and spaces to provide social protection to young people at risk of dropping out.
Brazil, SP	de Campos e Assunçao (2022)	DID†	Schools with ESD retain students with higher performance and better backgrounds in São Paulo's public education system. However, they negatively affect the composition of students and teachers in nearby regular public schools, worsening performance and dropout rates.	The net gains in school performance are more significant than the cost of educational inequality. Governments interested in expanding full-day schools should consider access for students who do not fit into this program. Indirect effects are relatively small compared to program gains.
Chile	Kruger e Berthelon (2009)	FE†, Probit, Login	Access to full-day schools reduces the probability of adolescent pregnancy in low-income families and urban areas.	Consider schools as learning centers and spaces to provide social protection to young people at risk of dropping out.
Chile	Pires e Urzua (2010)	PSM†	Positive effects on academic outcomes and reduced adolescent pregnancies. No impact on the student's future employment or salary. There are positive effects on the job market only for afternoon shifts.	Not only is the length of the school day relevant, but also the time lessons are taught.
Chile	Martinic (2015)	Compilation of Educational Indices and implementation data in Chile	A quantitative increase in hours is not enough to improve results.	Changes in pedagogical practices and teacher resources must accompany innovations in school time.
Chile	Contreras e Sepúlveda (2017)	FE†	Positive and significant impact on female labor participation and employment. Reduction of total hours worked..	ESD programs are a way to subsidize child care implicitly.
Chile	Domínguez e Ruffini (2020)	MCO	Increased economic well-being in the long term. Increased employability, wages and the likelihood of access to higher education for disadvantaged women and students.	ESD programs promote human capital accumulation. Large-scale investments in public education can lead to long-term improvements in economic well-being.

Country	Study	Methodology	Results	Recommendations
Chile y Colombia	Radinger e Boeskens (2021)	Global studies	Successful reforms consider the quality and articulation of the activities developed and adapted to the school's resources..	Rethink schools as places for learning, holistic development, engagement and student support.
Colombia	Osorio Mancilla (2019)	Compilation of LATAM experiences	Reduction of risk and vulnerability factors. Vague progress in academic results.	Address burnout and school meals, linking the educational community, infrastructure, resources and time management to improve results.
Colombia	García et al (2014)	Compilation of educational indices for Colombia	Increased coverage in primary and secondary education. Underperformance in the region. Teachers with less training, lower remuneration and retention rates. Extensive nontraditional education. Backwardness in educational infrastructure and its quality.	Implement a policy to attract, develop and retain better teachers. Gradually universalize ESD. Ensure the availability of infrastructure. Improve rural education. Develop computer-based education. Strengthen the organizational system. Create the Superintendence of Education. Engage the private sector.
Colombia	García et al (2013)	FE†, case study	ignificant reduction in the probability of leaving school early and repetition.	ESD involves a slight salary increase for current teachers to cover more teaching hours but will not include hiring twice as many teachers. Hire low-cost teaching assistants to make up for the shortage. To maintain enrollment at the same level, it is necessary to invest in school infrastructure or increase classroom size.
Portugal	Abrantes (2023)	Correlation analysis	Lower repetition rate and positive relationship with school achievements. More significant effect in schools in vulnerable contexts. The impact of the EAC program would be more persistent and greater than that of CAF.	The significant heterogeneity and decentralization in program implementation suggest greater coordination between the central government and the municipalities. Private schools should develop a strategy to involve the municipalities and parents' associations in these territories and to foster the necessary conditions for greater engagement of schools and private entities in implementing these activities.

Developed by the authors based on corresponding authors. † Causal methods.

4 Challenges to ESD implementation

The literature review also points to several difficulties or challenges countries have faced in implementing the ESD strategy. They define several elements that must be considered to implement this type of policy successfully.

1. **Direct (educational) costs:** A significant level of resources is required to adapt schools to the ESD system. On the one hand, the infrastructure must house and accommodate all students in an extended day. Most of the time, this entails bringing together students initially attending school in two shifts (some in the morning and others in the afternoon) into one longer day, thus significantly increasing the overall number of students attending simultaneously.

   Infrastructure needs should anticipate the requirements of the private sector involved in education. In several countries in the region, a significant share of education is provided by private operators (voucher and private). An ESD policy should anticipate how to include voucher establishments in the program. ESD implementation in Chile is an example of this funding method. In contrast, Colombia's experience with general budget funding may indicate rigidities in managing resources in schools with higher demand for ESD. Decentralizing school administration to the communal level partly compensates for this disadvantage. Finally, the experience in Pernambuco, Brazil, shows the relevance of private actors collaborating in pilot programs.

Obtaining the funds requires having the necessary infrastructure and human resources—both the number of teachers and other education professionals—to serve this larger universe of students. This often means extending teachers' working hours and paying better salaries.

In addition, qualified teachers and professionals are needed to cover this extended school day as more students attend the school simultaneously. There are at least three aspects to consider on the teachers' side. First, teacher availability. For example, 41% of math teachers in rural Brazil are not certified in the subject. Something similar happens in Chile, where two-thirds of teachers in secondary science education working in vulnerable schools do not have a science certification (Bertoni et al. 2020). These types of challenges must be addressed simultaneously for successful ESD implementation. Second, besides needing more teachers, extending the school day requires increased salaries for the greater number of equivalent hours. Finally, steady contracts with periodic performance reviews should be encouraged. The evidence suggests that teachers with temporary contracts make a more significant effort and can positively impact student achievement, provided that contract renewal depends on their performance (Duflo et al. 2009, Muralidharan and Sundararaman 2013). However, when temporary contracts are not subject to accountability, there is evidence that temporary teachers negatively influence student learning (Ayala Guerrero et al. 2017), especially for low-income students (Marotta 2019).

2. **Indirect (non-educational) costs:** In connection with the above, other professionals are needed, such as those who provide psychosocial support to students, administrative and cleaning personnel. In most cases, more meals are needed for these extended days, and specialized personnel are required to manage food delivery. Another element to consider is the potential transportation needs associated with ESD. This is especially relevant in rural areas, where frequent access to public transportation may condition student participation.

3. **Implementation organization and planning:** Two factors arise when planning ESD implementation. First, the logistics and deadlines for building or adapting school infrastructure must be considered, which should occur before the start of the new ESD program. Second, there are deadlines for implementing the entire policy, which requires a nationwide strategy for its gradual application. As seen in the literature review section, a gradual implementation starting in better-prepared schools also makes it easier to assess the various dimensions of the ESD policy.

   Another aspect to consider is the school cycle to deploy the program. The evidence shows differentiated impacts of the ESD policy in the primary versus secondary cycle. The experiences in Brazil, Colombia and Chile show that ESD implementation in secondary school initially seems more accessible; on average, more hours are added than in primary or preschool. This is mainly explained through more flexibility in the school infrastructure given the lower number of students (fewer courses compared to primary school).

On the other hand, ESD implementation in Portugal seems to have been more positive in basic cycles. It promotes labor market integration facilities for parents with difficulties accessing childcare. This introduces added value in the form of social justice and family support (Fialho et al. 2013, Abrantes 2023). Furthermore, it produces a more significant macroeconomic effect regarding employment, income and public resources.

The planning stage should also consider the academic and non-academic areas where this greater number of hours will be used effectively. This may entail changing the curriculum, including new subjects or skills development courses, among other things. Also, it is necessary to schedule teachers' non-teaching hours; how will they be used? Do teachers and other professionals require specific training? These issues must be addressed at this stage.

It is also necessary to set an implementation schedule in which the program will be 100% deployed in the first stage. Therefore, alternative strategies must be used, such as local infrastructure, community spaces, libraries and others, while the school's definitive infrastructure is implemented. Hybrid modalities can also be implemented so virtual classes cover part of this additional time.

4. **Governance and institutional coordination:** A policy of this scope needs a national governing body to provide guidelines and standards for its implementation. In addition, this body, typically the Ministry of Education, must plan the implementation in the terms described in the previous point and ensure the continuity of funding in the medium and long term regardless of political/electoral cycles. Likewise, inter-institutional coordination is essential for the policy to be successful, especially between the central government and local governments or the local institutions that support the educational system in each country.

   Another governance factor of this public policy is that it requires cross-cutting, long-term political support that transcends the current administration and makes implementation sustainable, as it requires long periods and significant resources. This agreement must ensure that the policy is prioritized, funding is available, and the implementation schedule and associated quality standards are adhered to.

   Closely related to the above, public spending on ESD implementation must be transparent, thus avoiding risks of corruption and capture. Since these are large-scale nationwide infrastructure projects with high resource commitments, they could create perverse incentives in the bidding, purchasing and contracting processes for political actors and agendas in local governments.

5. **Consistent implementation: I**t is essential to understand that ESD implementation requires several interventions to be deployed simultaneously to achieve better results in learning and other variables. Extending the school day entails increasing school hours and modifying the educational strategy. This is why, in addition to infrastructure, it is necessary to have better teaching practices, better-trained teachers with more time for pedagogical planning (non-teaching hours), more and better educational material, and better school management and administration (Martinic et al. 2016).

6. On the demand side, it is essential to **work with families and the entire educational community to encourage the adoption of the extended school day**. Emphasis should be placed on the advantages and benefits of the policy, to modify family organization and priorities that may be oriented in other directions. For example, vulnerable families could use children's time in productive activities, which would be challenging with an extended school day (Elacqua et al. 2022). The benefits can extend to the rest of the community as its members can use the infrastructure for various activities (Martinic et al. 2016).

5 Conclusions

Extending the school day is a relevant public policy in Latin America and the Caribbean to improve learning outcomes in the region. There is a gap between private and public schools, and the average performance is below that of other countries. However, ESD implementation seeks to improve academic results and educational quality, especially in schools that are lagging and in the case of vulnerable students.

Increasing the time students spend at school has effects that go beyond the purely educational. There is ample evidence showing diverse results regarding academic performance, dropout rates, socioemotional and family effects, so it is crucial to analyze ESD implementation in the short, medium and long term. The results also depend on the educational cycle in which ESD is implemented, the resources invested, and adequate planning.

Several studies show the academic advantages of increasing students' time at school, such as better results and lower dropout rates. However, this depends on the quality of the additional teaching hours. In addition, positive effects are observed in preventing risky behaviors, the long-term well-being of students and the school environment. However, questions are raised about the cost-effectiveness of this policy since the evidence shows a poor return on the academic resources allocated, although there are also successful cases.

Finally, in June 2023, an inter-ministerial dialogue was held in Lisbon on extending the school day in Latin America and the Caribbean. At this meeting, experts and ministerial authorities shared perspectives and challenges regarding implementing new regional educational approaches. The participants highlighted the importance of a flexible and contextualized ESD implementation, acknowledging the relevance of adapting it to each country's resources and needs. The experiences of countries such as Belize, Ecuador, El Salvador, Paraguay, Argentina, Uruguay and Portugal were highlighted. These countries shared their reflections on comprehensive education for students, valuing the diversity of educational approaches and contexts, the professionalization of the education system, inclusion and equity, and the social benefits associated with ESD implementation. In short, they emphasized the importance of education going beyond the classroom, promoting transformational and enriching learning, and the need to reflect on the future of education in the region. Ultimately, everyone agreed that investing in this educational policy positively affects various social dimensions.

ESD programs have significant potential in multiple dimensions, but their success depends on proper design and well-planned implementation. It is essential to consider the quality of the additional hours, assess their long-term impact and ensure an efficient allocation of the available resources to maximize the benefits of this policy. This is the only way to improve learning outcomes and educational quality in Latin America and the Caribbean.

6 Annex

6.1 Literature summary of Extended School Day Experiences in LAC (Section 2.5)

Region/Country	Literature
Latin America	Osorio-Mancilla (2019), Veleda (2013), Radinger and Boeskens (2021), and Alvarez and Bayona-Rodríguez (2019)
Internacional	Radinger e Boeskens (2021), Alvarez e Bayona-Rodríguez (2019)
Argentina	Llach et al. (2010), Bottinelli (2016) and Veleda (2013)
Brazil	Alvarez and Bayona-Rodríguez (2019), Almeida et al. (2016), Cruz et al. (2017), Oliveira (2008), Pereira (2011), Dias Mendes (2011), Aquino and Kassouf (2011), Xerxenevsky et al. (2012), Batista and Terra (2018), Ollivier et al. (2020), Centre for Public Impact e Instituto Natura (2020), da Cunha and de Araújo (2021) and Campanha Nacional pelo Direito à Educaçao (2019)
Chile	Kruger and Berthelon (2009), Martinic (2015), Martinic et al. (2016), Barrera- Osorio et al. (2012), Bellei (2009), Contreras and Sepúlveda (2017), García (2006), Toledo (2008), Arzola (2011), Pires and Urzua (2010), Radinger and Boeskens (2021), Alvarez and Bayona-Rodríguez (2019), Valenzuela (2005) and Domínguez and Ruffini (2020)
Colombia	Radinger and Boeskens (2021), Hincapié (2018), Álvarez and Bayona-Rodríguez (2019), Osorio-Mancilla (2019), Ramírez (2019), Bonilla-Mejía (2011) and García et al. (2013)
EL Salvador	Ministerio de Educación (2017)
Guyana	Child (2012)
Honduras	CNE, UPNFM and INIEES (2017)
Jamaica	IIEP-UNESCO (2009)
Mexico	Alvarez e Bayona-Rodríguez (2019), Silveyra et al (2018) y Zermeño et al (2014) Alvarez and Bayona Rodríguez (2019), Silveyra et al. (2018) and Zermeño et al. (2014)
Paraguay	IDB (2016)
Peru	Sánchez and Favara (2019), López-Motta (2021) an Agüero et al.(2016)
Portugal	Fialho et al. (2013) and Abrantes (2023)
Dominican Republic	Isaac e Rivera (2016)
Uruguay	Radinger and Boeskens (2021), Alvarez and Bayona-Rodríguez (2019), Cerdan-Infantes and Vermeersch (2007), Cardoso (2004), Cardozo et al. (2017), Administración Nacional de Educación Pública (2003) and Llorens (2014)
Venezuela	UNESCO (2006)

Source: Schwartz (2022). Internal Consulting Report, IDB Education Division.

References

Administración Nacional de Educación Pública (2003). Resultados en escuelas de tiempo completo y escuelas de áreas integradas. Evaluación nacional de aprendizajes en Lenguaje y Matemática, 6to año enseñanza primaria, 2002 (Segundo informe).

Agüero JM, et al. (2016) Evaluación de impacto de la jornada escolar completa.

Almeida RK, Bresolin A, Pugialli Da Silva Borges B, et al. (2016) Assessing the impacts of Mais Educacao on educational outcomes: evidence between 2007 and 2011. Policy Research Working Paper Series 7644, The World Bank.

Alvarez A, Bayona-Rodríguez H (2019) Impact of extended school day programs in primary and secondary on mathematics and language standardized tests results: A meta-analysis for eight countries.

Angrist J, Bettinger E, Bloom E, et al. (2002) Vouchers for private schooling in Colombia: Evidence from a randomized natural experiment. American Economic Review 92(5):1535–1558.

Angrist JD, Dynarski SM, Kane TJ, et al. (2012) Who benefits from KIPP? Journal of Policy Analysis and Management 31(4):837–860.

Aquino JM, Kassouf AL (2011) A ampliaçao da jornada escolar melhora o desempenho acadêmico dos estudantes? uma avaliaçao do programa escola de tempo integral da rede pública do Estado de São Paulo. Rede de economia aplicada.

de Araújo DG, Bayma G, Melo C, et al. (2021) Do extended school day programs affect performance in college admission tests? Brazilian Review of Econometrics 40:232-266.

Arzola MP (2011) Impacto de la jornada escolar completa en la evolución del SIMCE.

Ayala Guerrero MC, et al. (2017) Efecto de los docentes provisionales sobre desempeño escolar: evidencia para la educación secundaria oficial en Colombia.

Barrera-Osorio F, Maldonado D, Rodríguez C (2012) Calidad de la educación básica y media en Colombia: diagnóstico y propuestas. Documentos de Trabajo 010078, Universidad del Rosario.

Batista L, Terra R (2018) Impacto do Programa Mais Educação em indicadores educacionais. Eco Joint Research Seminar Program–2017-ii.

Bellei C (2009) Does lengthening the school day increase students' academic achievement? Results from a natural experiment in Chile. Economics of Education Review 28(5):629–640.

Berthelon M, Kruger D, Vienne V (2016) Longer School Schedules and Early Reading Skills: Effects from a Full-Day School Reform in Chile. IZA Discussion Papers 10282, Institute of Labor Economics (IZA).

Bertoni E, Elacqua G, Marotta L, et al. (2020) El problema de la escasez de docentes en Latinoamérica y las políticas para enfrentarlo. Technical Note No IDB-tn-01883.

Bonilla-Angel JD (2011) Contracting out public schools and academic performance: evidence from Colombia. PhD thesis.

Bonilla-Mejía L (2011) Doble jornada escolar y calidad de la educación en Colombia.

Bottinelli L (2016) La ampliación de la jornada escolar en perspectiva. Estudio sobre la situación de la jornada extendida y completa en el nivel primario de Argentina.

Brunner JJ, Elacqua G (2006) Calidad de la educación: claves para el debate. Ril Editores.

Campanha Nacional pelo Direito à Educaçao (2019) PLANO NACIONAL DE EDUCAÇAO: 5 ANOS DE DESCUMPRIMENTO. ANÁLISE DA EXECUÇÃO DOS ARTIGOS, METAS E ESTRATÉGIAS DA LEI 13.005/2014.

De Campos G, Assunçao J (2022) Spillover effects of full-day schools: Evidence from São Paulo State.

Cardoso M (2004) Calidad y equidad en las escuelas de tiempo completo: un análisis de sus resultados en las evaluaciones estandarizadas de 1996 y 1999. Prisma (19):171–190.

Cardozo S, Borba E, Castelao G, et al. (2017) Evaluación de impacto de las escuelas de tiempo completo en Uruguay 2013-2016. ANEP–CEIP.

Centre For Public Impact (2018) Full-time comprehensive schools in the Brazilian state of Pernambuco.

Centre for Public Impact and Instituto Natura (2020) A política de Educaçao em Tempo Integral no Estado brasileiro de Pernambuco.

Cerdan-Infantes P, Vermeersch C (2007) More time is better: An evaluation of the full-time school program in Uruguay. World Bank Policy Research Working Paper (4167) Child CE (2012) Independent final evaluation.

CNE, UPNFM and INIEES (2017) Analysis of the implementation of the extended school day in Honduras.

Contreras D, Riveros I (2023) Heterogeneous effects of lengthening the school day on students' academic achievement: a longitudinal study of full day school reform in Chile. Tech. rep.

Contreras D, Sepúlveda P (2017. Effect of Lengthening the School Day on Mother's

Labor Supply. The World Bank Economic Review 31(3):747–766.

Cruz T, Loureiro AOF, de Sá EV (2017) Full-time teachers, students, and curriculum: The single-shift model in Rio de Janeiro. Educational Organization eJournal.

da Cunha DF, de Araújo CCSND (2021) Educaçao integral em Pernambuco: impactos sociais na vida de jovens e adolescentes. Revista Educaçao Pública, v 21, nº 3, 26 January 2021.

Dias Mendes K (2011) O impacto do programa mais educacao no desmpenho dos alunos da rede publica brasileira. São Paulo: University of São Paulo.

Dominguez P, Ruffini K (2020) Long-Term Gains from Longer School Days. IDB Publications (Working Papers) 10366, Inter-American Development Bank.

Duflo E, Dupas P, Kremer M (2009) Additional resources versus organizational changes in education: Experimental evidence from Kenya. Unpublished, Abdul Latif

Jameel Poverty Action Lab, Massachusetts Institute of Technology, Cambridge, MA.

Elacqua G, Navarro-Palau P, Prada MF, et al. (2019) Does technical education improve academic outcomes? Evidence from Brazil. Inter-American Development Bank IDB Working Paper Series No IDB-WP-01057.

Elacqua G, Jacas I, Krussig T, et al. (2022) Incentivando alunos vulneráveis a cursarem escolas integrais: evidencias sobre o uso de nudge em Pernambuco. Inter-American Development Bank Education Division Technical Notes No IDB-TN-02618 Technical Notes No IDB-TN-02618.

Fernández AB, Bovini G (2017) It's time to learn: understanding the differences in returns to instruction time. CEP Discussion Papers dp1521, Centre for Economic Performance, LSE.

Fialho I, Verdasca J, Moreira L, et al. (2013) Avaliaçao externa do programa de atividades de enriquecimento curricular no 1. º ciclo do ensino básico.

Fukushima ISF, Quintao GP, Pazello ET (2022) Impacts of a full-time school program on learning, school's composition and infrastructure: The case of public schools in the State of São Paulo, Brazil. Estudos Econômicos (São Paulo).

Fundación Getulio Vargas (2019) Educaçao em tempo integral garante diminuiçao das diferenças sociais.

García A (2006) Evaluación del impacto de la jornada escolar completa. Tech. rep., Universidad de Chile.

García S, Fernández C, Weiss CC (2013) Does lengthening the school day reduce the likelihood of early school dropout and grade repetition: Evidence from Colombia. Documentos de trabajo 017691, Escuela de Gobierno - Universidad de los Andes García S, Maldonado D, Rodríguez C (2014) Propuestas para el mejoramiento de la calidad de la educación básica y media en Colombia.

García-Huidobro JE, Concha C (2009) Jornada escolar completa: la experiencia chilena. Document under preparation Retrieved from http://www ceppe cl/images/stories/recursos/publicaciones/Carlos% 20Concha/Jornada-escolar-completala-experiencia-chilena pdf.

Hincapié D (2018) Do Longer School Days Improve Student Achievement?: Evidence from Colombia. IDB Publications (Working Papers) 7545, Inter-American Development Bank.

IDB (2016) PR-L1097: Project to Support the Expansion of the School Day and Improve Transportation Conditions for Students in Official Schools in the Rural Area.

IIEP-UNESCO (2009) VISION 2030 JAMAICA. NATIONAL DEVELOPMENT PLAN. EDUCATION DRAFT SECTOR PLAN FINAL DRAFT. Planipolis.

Isaac O, Rivera S (2016) Jornada escolar extendida. Aportes para la reflexión y la acción. República Dominicana.

Jaramillo SG, Monsalve CF, Torres FJS (2010) Deserción y repetición: en los primeros grados de la básica primaria: factores de riesgo y alternativas de política pública. Proyecto Educación Compromiso de Todos.

Kruger D, Berthelon M (2009) Delaying the Bell: The Effects of Longer School Days on Adolescent Motherhood in Chile. IZA Discussion Papers 4553, Institute of Labor Economics (IZA).

Lavy V (2015) Do differences in schools' instruction time explain international achievement gaps? Evidence from developed and developing countries. The Economic Journal 125(588):F397–F424.

Llach JJ, Adrogué C, Gigaglia M (2010) Do longer school days have enduring educational, occupational, or income effects? A natural experiment in Buenos Aires, Argentina. Economía 10:1–39.

Llorens FR (2014) Sobre la extensión de la jornada escolar en Uruguay: ocho supuestos de la política educativa en debate. Revista Latinoamericana de Estudios Educativos (México) 44(2):13–38.

López-Motta D (2021) Efectos de la jornada escolar completa sobre el aprendizaje de los estudiantes. Revista ConCiencia EPG 6(2):30–52.

Marotta L (2019) Teachers' contractual ties and student achievement: The effect of temporary and multiple-school teachers in Brazil. Comparative Education Review 63(3):356–376.

Martinic S (2015) El tiempo y el aprendizaje escolar la experiencia de la extensión de la jornada escolar en Chile. Revista Brasileira de Educaçao 20(Rev. Bras. Educ., 2015 20(61)):479–499.

Martinic S, Huepe D, Madrid A (2016) Jornada escolar completa en Chile. evaluación de efectos y conflictos en la cultura escolar. Revista Iberoamericana de Evaluación Educativa 1(1).

Meyer E, Van Klaveren C (2013) The effectiveness of extended day programs: Evidence from a randomized field experiment in the Netherlands. Economics of Education Review 36:1–11.

Ministerio de Educación (1999) Jornada Escolar Completa: Para evaluar y mejorar nuestro proyecto pedagógico. 3.1. Historia reciente de la Educación.

Ministerio de Educación (2017) Modelo de Escuela Inclusiva de Tiempo Pleno en El Salvador: Documento de sistematización. Gobierno de El Salvador.

Ministerio de Educación Nacional (2013) Programa de fortalecimiento de la cobertura con calidad para el sector educativo rural, fase ii. Viceministerio de Educación Preescolar, Básica y Media.

Muralidharan K, Sundararaman V (2013) Contract teachers: Experimental evidence from India. Tech. rep., National Bureau of Economic Research.

OECD (2008) 2006 PISA Report.

Oliveira J (2008) Custo-efetividade de políticas de reduçao do tamanho da classe e ampliaçao da jornada escolar: uma aplicaçao de estimadores de matching.

Ollivier A, D´Alessandre V, Cardini A (2020) La transformación de la secundaria en foco: el caso de Pernambuco en Brasil. Tech. rep., Programa de Educación de CIPPEC.

Osorio-Mancilla L (2019) Política de ampliación de la jornada escolar en Colombia y sus implicaciones: Policies and implications, related to school hours extension. Educación y Humanismo 21(36):194–209.

Pereira GC (2011) Uma avaliaçao de impacto do programa mais educaçao no ensino fundamental. 2011. 96 f. PhD thesis, Ph. D. thesis, Dissertaçao (Mestrado em Economia).

Pires T, Urzua S (2010) Longer school days, better outcomes. Northwestern University pp 1–55.

Radinger T, Boeskens L (2021) More time at school (252).

Ramírez CPO (2019) Revisión crítica de la literatura sobre efectos de la jornada escolar en los aprendizajes escolares: Evidencia para informar la nueva política de jornada única en Colombia. Tempus Psicológico 2(2):201–234.

Rivkin SG, Schiman JC (2015) Instruction time, classroom quality, and academic achievement. The Economic Journal 125(588):F425–F448.

Rosa L, Bettinger E, Carnoy M, et al. (2022) The effects of public high school subsidies on student test scores: The case of a full-day high school in Pernambuco, Brazil. Economics of Education Review 87:102201.

Sánchez A, Favara M (2019) Consequences of teenage childbearing in Peru: is the extended school-day an effective policy instrument to prevent teenage pregnancy?

Silveyra M, Yáñez M, Bedolla J (2018) ¿Qué impacto tiene el programa escuelas de tiempo completo (PETC) en los estudiantes de educación básica? Evaluación del programa en México 2007–2016?

Toledo M (2008) Efecto de la jornada escolar completa en la calidad educacional: Evidencia del Panel Data SIMCE 2004–2006. PhD thesis, MA dissertation at Pontificia Universidad Católica de Chile.

UNESCO (2006) Venezuela: programas de atención y educación de la primera infancia.

Valenzuela JP (2005) Partial evaluation of a big reform in the Chilean education system: From a half day to a full day schooling. Tech. rep., University of Michigan Doctoral Dissertation.

Veleda C (2013) Nuevos tiempos para la educación primaria: lecciones sobre la extensión de la jornada escolar.

Xerxenevsky LL, et al. (2012) Programa mais educaçao: avaliaçao do impacto da educaçao integral no desempenho de alunos no Rio Grande do Sul.

Zermeño MGG, Fahara MF, de la Garza LA (2014) The full-time school program in Mexico. Journal of Case Studies in Education.


IDB