

Education Reform in Chile

Common Enrollment in K-12 Education

Graduate Policy Workshop

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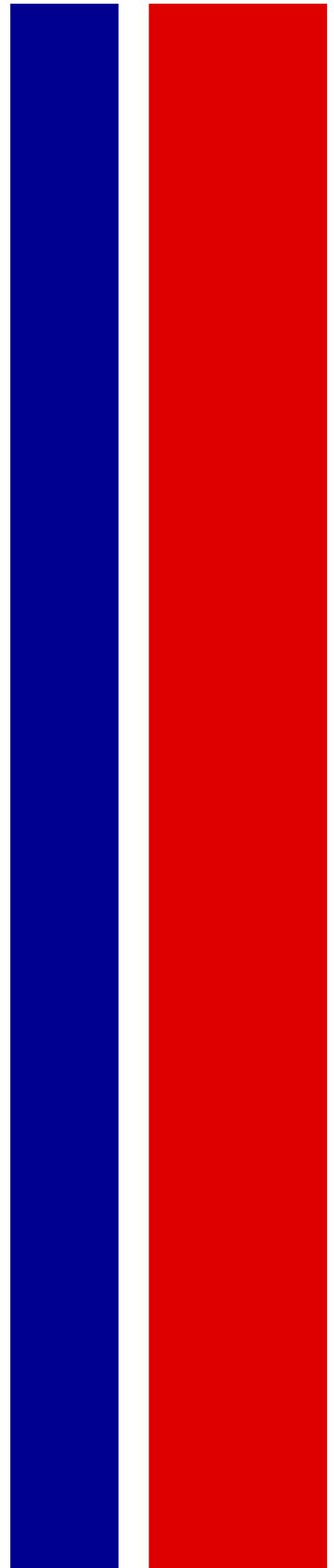


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EXECUTIVE SUMMARY

Chile is a country at the crossroads. Following dramatic economic growth in the last two decades, it is the only South American country to join the Organization for Economic Cooperation and Development (OECD), yet remains the most unequal OECD country. Increasing educational attainment holds promise for reducing this income inequity, but Chile must first correct failures in its largely market-based education sector in order to drive increased attainment for all Chileans.

We have approached the broad topic of education reform by focusing on the issues at the core of Chile's policy discourse at the critical K-12 level. Policies allowing private voucher schools to select students and charge copayments have created a system in which students generally attend schools with others students of the same socio-economic background. Hence, the superior academic outcomes at voucher schools may simply be the byproduct of their ability to select higher-income students. Passed in response to massive student protests, the Ley de Inclusión advances policies that aim to change the current status quo: it bans copayments, outlaws profit taking in education, and requires that students enroll in schools through a fair, transparent, and nondiscriminatory process. To allocate students to schools in such a manner, the Chilean Ministry of Education (Mineduc) is leading the implementation of a centralized enrollment system. The successful rollout of the system will determine to a great extent whether the Ley's goals—equal access for all students and more diverse student bodies—are achieved.

Based on lessons from recent centralized enrollment efforts in the U.S., parent engagement and communication will determine the success or failure of the system in reaching its policy goals and achieving political sustainability. With this goal in mind, this paper proposes a set of recommendations and strategies to engage parents and ensure the effective rollout, operation, and evaluation of this system. These recommendations utilize lessons from other common enrollment systems, as well as insights from behavioral economics.

Our recommendations focus on 4 key areas:

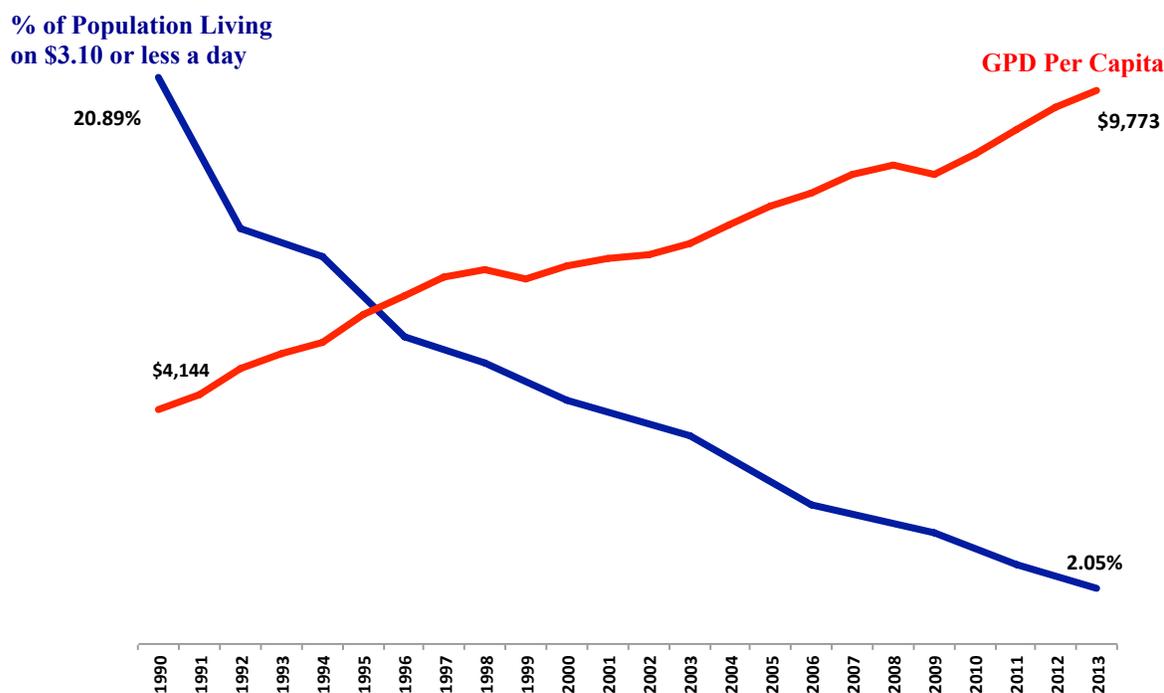
- **Communication and engagement:** provides a set of recommendations for how best to engage with the system's key stakeholders: parents and students.
- **Key student populations:** provides a set of recommendations for how to deal with special populations of students and parents who may be disadvantaged by the new system: students with special needs, students whose parents do not participate, and students who are not matched.
- **Monitoring and evaluation:** provides a set of recommendations for how to monitor and evaluate the system as well as communicate with the public about its results. It also addresses how to use this data to improve the overall quality of the school system.
- **Other considerations:** provides a set of recommendations for key implementation issues discovered during the research process: transportation and the interaction with the copayment reforms in the Ley.

INTRODUCTION & BACKGROUND

Over the last two decades, Chile has experienced rapid economic growth and poverty reduction. The gross domestic product per capita (in constant 2005 United States dollars) grew from \$4,144 in 1990 to \$9,773 in 2013, as shown in *Figure 1*.¹ As a result of this impressive economic growth, Chile became the first South American country to join the Organization for Economic Cooperation and Development (OECD) and to transition from middle-income to a high-income country, according to the World Bank's country income classifications.²

Coupled with a greater focus on social spending, economic growth has also led to a consistent drop in poverty rates since 1990. Between 1990 and 2013, the poverty rate declined from 20.89 percent to 2.05 percent, and the extreme poverty rate declined from 7.92 percent to less than 1 percent.³ *Figure 1* also shows this precipitous drop in the poverty rate, measured by the World Bank as the percent of the population living on \$3.10 per day in 2011 international prices.⁴

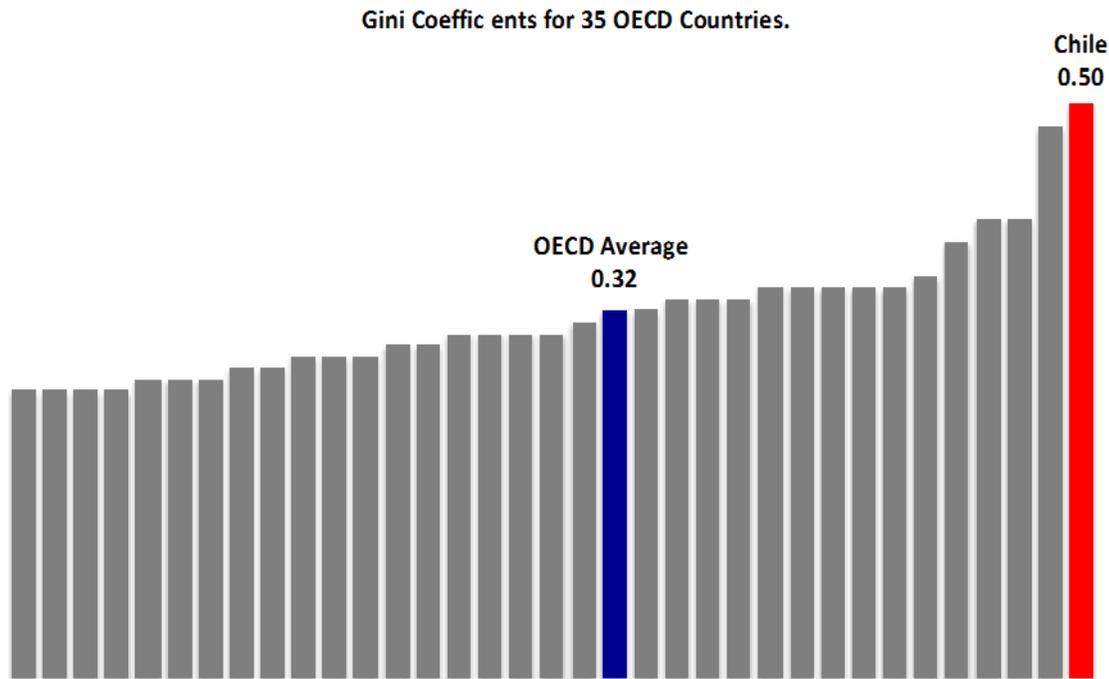
Figure 1: Chile experienced a rapid growth in GDP and a rapid decline in poverty.
GDP per capita in constant 2005 US\$ and Percent of Population Living on \$3.10 a day in 2011 international prices



Source: World Bank, World Development Indicators

Despite these significant strides in poverty reduction, the challenge of income inequality has remained largely unaddressed. While income inequality, as measured by the World Bank's Gini Index, has declined modestly, Chile has become more unequal than its neighbors to north and east.⁵ And, as shown in *Figure 2*, it is the most unequal OECD country.⁶

Figure 2: Chile is the most unequal OECD country.



Source: OECD Income Distribution Database

These three, big trends set the stage for public demonstrations and political debates in Chile beginning in 2011 about the role of education in reducing socioeconomic inequality. The debates, in turn, have given birth to reforms that seek to profoundly change the Chilean education system.

To better situate the increasing politicization of education, we next revisit three fundamental arguments about the importance of education. We, then, outline the Chilean education system prior to the legislative action of the Bachelet government and describe the first educational reform, the Ley De Inclusión.

Three Arguments For Education

Support for universal access to quality education draws primarily on three arguments. The first positions education as an important driver of economic development. In this view, education may increase overall economic growth through three mechanisms:

- 1) Education may increase the human capital of the labor force. Better-educated workers have higher levels of productivity, which in turn generates a higher level of output at equilibrium.⁷
- 2) Education may expand the knowledge of new technologies. This greater innovative capacity promotes growth.⁸
- 3) Education may facilitate the diffusion of knowledge. Equipped with cutting-edge knowledge, the labor force can understand and successfully use new technologies, which again promotes growth.⁹

In support of this theory, empirical research has shown statistically significant, positive associations between education—especially quality education that improves cognitive skills—and economic growth.¹⁰ While this link remains up for debate due to methodical and measurement issues, the best evidence to-date suggests the theory is sound.

Second, education may also reduce income inequality through greater social mobility. A range of scholarly works demonstrates the role of education in reducing economic inequality through social mobility.¹¹ In particular, Gregorio and Lee (1999) used data from a broad range of countries between 1960 and 1990 to show that more equal distribution of education, accompanied with higher educational attainment, plays a pivotal role in reducing income inequality.¹²

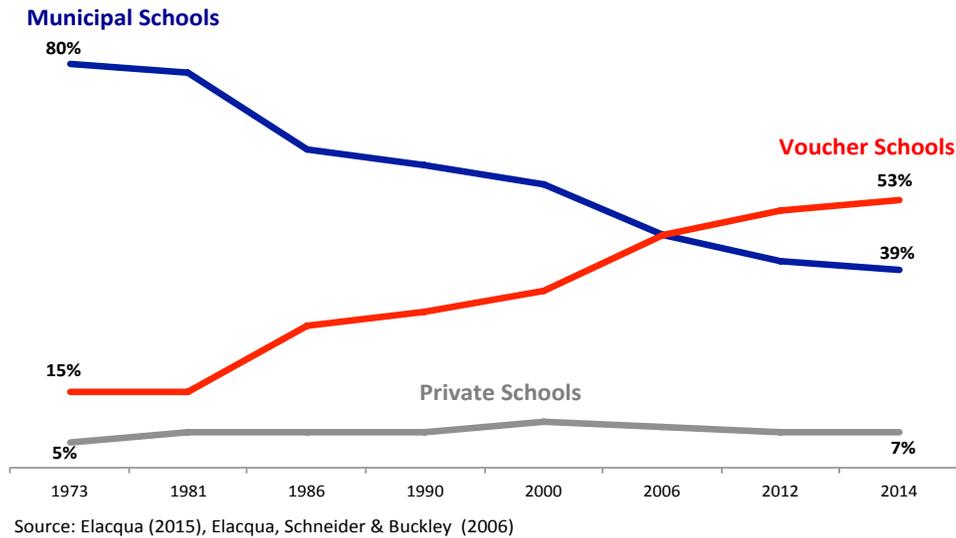
Third, equitable access to quality education is a justifiable right for all children of school-going age. As early as 1948, the Declaration of Human Rights declared education a human right. By 1989, the United Nation Convention on the Rights of Child enshrined state’s responsibility to protect children from discrimination and to provide education to every child.¹³ Chile has ratified this convention. In addition to international conventions, article 19 of the 1980 Chilean Constitution established education as a fundamental right, and, as such, compelled the State to provide free primary and secondary education to ensure access to all children.

K-12 Educational Context in Chile

The primary and secondary schooling system in Chile (hereafter referred to as K-12) is divided into municipal schools, private non-voucher schools, and private voucher schools. Private non-voucher schools are funded privately and cater primarily to the elite. Municipal schools are run by municipal authorities and offer free education. Private voucher schools receive government subsidies and include for-profit and nonprofit secular, as well as religious, schools. Many charge “top-ups” or parental “copayments,” which translate to tuition and fees for attendance.

The nationwide voucher system was introduced in Chile in the late 1970s and early 1980s as part of a free-market approach to education espoused by the economist Milton Friedman. The policy aimed to increase education access by unleashing private actors to start schools and to improve the overall quality of K-12 education by encouraging competition between schools for students. Through demand-side subsidies, parents could choose among municipal and different kinds of private voucher schools. The resulting competition for students would improve the overall quality of K-12 education.¹⁴

Figure 3: Today, most students attend voucher schools.
 Percentage of Total Primary and Secondary Enrollments by School Type

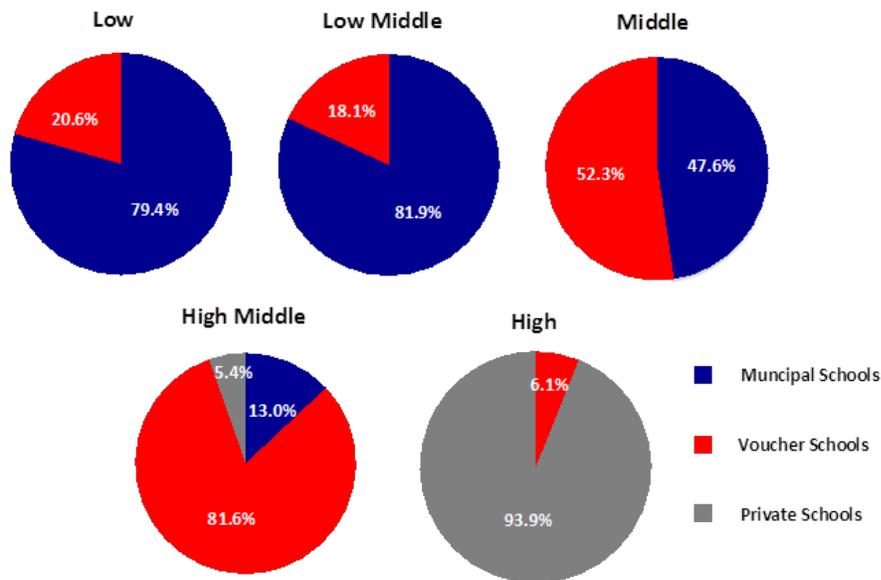


The reforms resulted in a significant increase in the voucher schools and consequently their enrollment. As shown in *Figure 3*, voucher schools have seen significant increases in student enrollment over the last forty years, while the share of student enrollment has declined in municipal schools.¹⁵ Parents have flocked to voucher schools for three reasons: geographic proximity, average socioeconomic status of other students, and perceived higher standard of education.¹⁶ Regarding the last parental preference, on average, private voucher schools show better educational outcomes and education quality indicators than municipal schools.¹⁷

With this growth in voucher schools, critics have questioned the theory and the practice of the education market.¹⁸ Foremost, even when markets allocate resources efficiently, they never promise to equitably distribute (or redistribute) that resource.¹⁹ In Chile, it has also generated an undesirable social outcome: the segregation of children from different socioeconomic backgrounds in different schools. *Figure 4* shows this stratification. Such socio-economic stratification can contribute to unequal educational opportunities and outcomes, as well as undermine social cohesion.²⁰

Figure 4: Students from low-income families are more likely to attend municipal schools, while their higher-income peers opt for voucher and private schools.

Primary school types of socio-economic groups, 2003



Source: Elacqua, Schneider & Buckley (2006)

In addition, economic critiques assert that markets are incapable of self-correction, and government intervention is required to address the market failure to efficiently allocate resources. Several features of the education market, which may impede its efficient functioning, include:

- **Information asymmetries:** Parents do not possess accurate information about the educational options available to their children. This effect is closely linked to education being an *experience good*. Quality of education is best gauged through participation in the process over a sustained period of time.²¹ Information asymmetries also result from lack of parental involvement and from limited governmental effort to make critical information readily available to parents seeking it. Moreover, this problem is most severe for low-income households where the parents have the least educational preparation—the very households for whom education has the greatest potential to provide upward mobility.
- **Adverse Selection:** As a natural outgrowth of the information asymmetry, adverse selection occurs, in which richer parents move their kids with better academic ability to more exclusive voucher schools. This movement of the easier-to-educate children reinforces the appearance that these schools are high performing: Even if the higher ranked schools do no better at educating children, they will exhibit better test scores because they receive children from wealthier or more educated backgrounds.

In addition, the migration of these families out of municipal schools may trigger the loss of positive externalities for the remaining students. First, these better-educated, wealthier parents are precisely the ones most capable of holding the municipal schools accountable. Second, the municipal students no longer have the benefit of higher-ability peers (e.g., peer effects).

- **More Selection Issues:** The voucher system in Chile has created a culture of choice not only among parents but also among the schools. Schools in higher demand get to select from a large pool of aspiring students. In order to reduce costs and ensure socioeconomic/religious exclusivity, well-performing schools select students based on one or more of the following criteria: (1) child’s ability judged by prior test scores, (2) parents’ socioeconomic background, (3) family’s religious background.

This selection by school reinforces the gap in educational outcomes at selective and non-selective schools. Some evidence from Chile suggests that the superior academic outcomes at voucher schools are simply a byproduct of their ability to select. Controlling for factors (children’s socioeconomic background, academic ability, and school selection) significantly diminishes the difference in performance, as measured by student test scores, between voucher and municipal schools.²² This implies that a more random and equitable sorting of students into schools can be accomplished without much cost in educational performance.

- **Parents as “irrational agents”:** Behavioral economic theory suggests that multiple constraints on parents may preclude them from acting as rational actors and from maximizing their (or their child’s) utility when selecting schools. For example, even if parents are aware of and prefer a school with good test results, they may fail to make that choice because other demands sapped their cognitive ability or will power to act on the preference. This is often referred to as the intention-action gap.²³

In addition, parents are agents acting on behalf of their child, the principal. Parental preferences may not fully align with the interests of their child (or those of policymakers). While we hope parents seek out the best educational option for their child’s short and long-term success, research in Chile has shown that parents value other factors, like geographic proximity, more than test scores that may offer more in terms of long benefits.²⁴

Ley de Inclusión

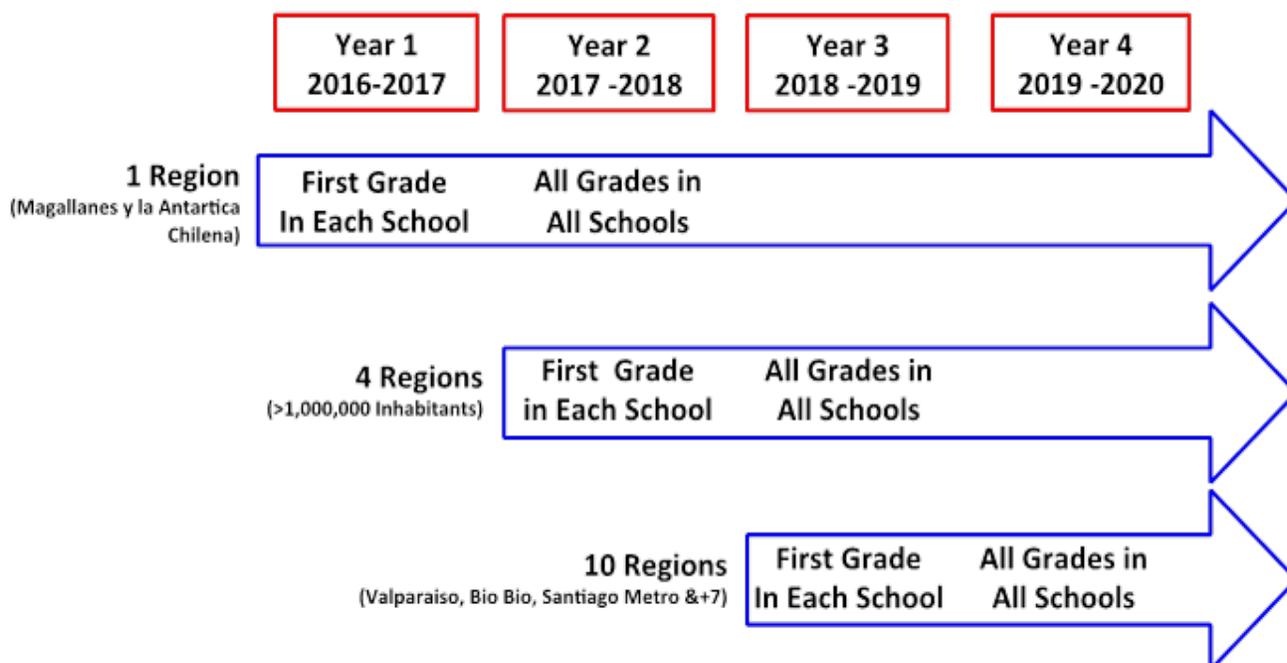
These shortcomings in the education market and its perceived sociopolitical implications— like greater segregation of children by socioeconomic status— have been central to recent Chilean political discourse. Countrywide student protests demanded universal access to free education, abolition of selection criteria, and the end of profit-making in education. The Ley de Inclusión was ultimately passed to respond to these protests and to fix the perceived failures in the education market.

Promulgated on May 29, 2015, the Ley de Inclusión mandated three changes to K-12 education:

- 1) **No profits in schools that receive public financing.** Voucher schools may not generate profits and must allocate in full any revenues for educational purposes.
- 2) **Free education in voucher schools.** Voucher schools that continue to accept public financing must phase out any tuition and fees required of parents. For the 2015-2016 school year, these copayments are capped at the prior year rates. In future years, the schools must decrease the copayments as they receive increased subsidies from the Ministry of Education (Mineduc). In addition, schools may not require parents to pay for any study materials as a condition for attendance at the school.

3) **No discriminatory practices in admission processes.** Voucher schools cannot consider an applicant’s prior school performance or socioeconomic background (including education level, marital status, or parent finances) or require parent interviews as part of the admissions process. Partial exemptions exist for academically demanding schools (e.g., “emblematic” schools) and schools that require early specialization (e.g., trade schools). In order to ensure objective, fair, and transparent admission processes, the law outlines requirements and shared responsibilities between Mineduc and schools that necessitates a common enrollment system. *Figure 5* (below) shows the staged implementation of the enrollment system, as required by law.

Figure 5: As proscribed by the law, the new enrollment processes must be scaled to all regions within four years.



These reforms aim to achieve a number of objectives:

1) **Restoring Constitutional rights to education.** In presenting the Ley to the Senate and Chamber of Deputies, the (former) Minister of Education Nicolás Eyzaguirre stressed that the law was intended to protect the right to education for all students, as required by the 1980 Constitution.²⁵ Enshrined in the Constitution is also parents’ right to choose the educational establishment for their children. Voucher schools’ admission requirements and parental copayments can be seen as both a failure of the State to provide free education to all children and an infringement of parents’ right to choice. By requiring payments, many poor parents have no choice but to send their children to municipal schools.

- 2) **Ensuring equal opportunity to all students.** The elimination of copayments and discriminatory practices is meant to open voucher schools to all students. It creates greater equality of opportunity. No longer will low-income families be locked out of voucher schools due to copayments that exceed their meager means nor will the children of divorcees be rejected from Catholic voucher schools.
- 3) **Encouraging greater social integration.** As parents take advantage of the greater access, diversity in the student body will increase, and the schools will transform into inclusive spaces where children encounter others from diverse socioeconomic, cultural, ethnic, and religious backgrounds. A provision of that law, which requires 15 percent of seats in any schools that conduct lotteries to go to low-income students, intends to ensure vulnerable students are represented in a greater variety of schools.

Achievement of these aims hinges on the successful implementation, lead by Mineduc, of a fair and transparent enrollment process. The common enrollment system is *the* critical, high-stakes task for the Mineduc. A poorly designed or poorly executed system would fail to ensure equal opportunity and social integration. By contrast, the banning of profits and the phase out of copayments are relatively straightforward endeavors from Mineduc's perspective. (However, these reforms, too, will impact the Chilean education system, especially if they cause many school closures. We, the authors, have decided not to speculate on impact of these components and not to attempt any recommendations in light of those speculations).

Therefore, the next section of this report presents an analysis of common enrollment systems, and the last section sets further recommendations to promote the fulfillment of this keystone element of the Ley.

COMMON ENROLLMENT SYSTEMS: IN THEORY AND PRACTICE

Overview of Common Enrollment Systems

Communities with many education providers use common (sometimes called open, unified, or universal) enrollment systems to efficiently allocate students to area schools while taking into account parental preferences. In this section, we provide an overview of the two key elements that enable such an allocation of students. We then summarize the purported benefits of common enrollment systems.

The first element of a common enrollment system is a process through which parents indicate their preferred schools. This part of the process can be centralized and independent of schools. For example, parents research, select, and rank schools through an online system. Or, it can be school-based, with parents applying for admission at schools. Schools, then, submit their list of applicants to a central body and get, in return, a final student roster. The number of schools that parents can or must select varies by enrollment system. In Chile, the Ley requires the system to allow for both remote and school-based applications but does not require parents to select a specific number of schools.

Second, the system uses a method to assign students in accordance with parental preferences and other considerations, such as priority status for families who have children with special needs or a home near the school. The two student assignment methods used around the world include²⁶:

- **The Boston Mechanism:** In this simple ranked-choice lottery, the student is assigned to their first choice school if there is space available. But if the first choice is oversubscribed, they are entered into a lottery. If they do not secure a space through the lottery, the system moves to the second ranked choice and a lottery is held again if the second choice is oversubscribed. This system allows for “gaming,” because families have an incentive to factor in the probability of admission as they rank their choices. For example, if a parent’s first-choice school is especially popular while her second-choice school is expected to be less oversubscribed, that parent is better off taking their true first-choice school out of their ranking instead, moving their actual second-choice to first place. This system results in an inefficient outcome and favors savvy parents.
- **The Deferred Acceptance Algorithm:** Under this method, students participate in lotteries for all oversubscribed schools to which their parents applied, and an algorithm, then, optimizes through trades the allocation of lottery winners and losers to schools. For example, if Student 1 wins the lottery for School A but prefers School B, the algorithm looks for another student (Student 2) who won the lottery for School B but who prefers School A. The algorithm then trades the seats of Student 1 and Student 2. This process ends when the optimal outcome—no individual is able to trade for a better spot—is achieved. This process is strategy-proof.

Consensus has emerged that the deferred acceptance algorithm, which the U.S. first used to assign medical students to residencies, is the best method of matching students to seats.²⁷ While the Ley does not specify a method by name, it prioritizes select student groups and calls for Mineduc to optimize the student allocation, which suggests a deferred acceptance algorithm.

Champions of common enrollment systems highlight several potential benefits. First, they assert the system can increase equal access. It opens up all participating schools to all families by reducing the outright or unintentional selection of students by schools. Second, the system will increase transparency and efficiency while reducing costs. In uncoordinated choice environments, parents must complete multiple applications to different schools. Third, such a system, with more centralized and standardized information on schools, may increase demand for quality academic programs. As a result, the overall quality of the system would improve as schools compete to improve their quality and attract students.

Strengths and Weaknesses from Theory

In this section, we use rational choice theory and behavioral economics to explore the potential of the common enrollment system to achieve the objectives of the Ley.

The promise of common enrollment systems, like that of school choice, relies on theories and assumptions about human behavior. In accordance with rational choice theory, it requires that parents have the capacity to know and act on their preferences for schools. Moreover, it assumes that lower-income parents prefer the voucher schools, to which they were formerly denied access, and that critical mass of parents prefer schools that deliver good student outcomes, such as high standardized test scores.

From these assumptions, a short series of logical steps connects the implementation of a common enrollment system to the achievement of Ley's goals. First, lower-income parents, acting on their preferences, will apply to voucher schools via the common enrollment system and receive a fair chance at admittance. The ultimate enrollment of some lower-income kids in these schools will, then, result in more diverse student bodies and ameliorate socioeconomic stratification in schools. In addition, as demand from lower-income and higher-income parents flows towards the highest quality schools, schools will improve their quality to compete for students.

However, this logic and supporting assumptions include several potential weaknesses. As a result, there are reasons to be concerned this will not happen. First, higher-income parents, with their greater resources, may engage more with the new system (e.g., rank more good schools) and achieve better placements for their kids, just as they do in the current system. This may leave the status quo intact. Second, different parent populations may prefer other school characteristics to academic quality and may even define "quality" differently. As previously cited, Elacqua, Buckley, and Schneider found that while most parents state that academic quality is their most important preference, most Chilean parents *did not* select the highest-performing school in their choice set and instead seemed to choose on student demographics.²⁸ Even when parents want "quality," they may define it "as they understand it, based on their experiences."²⁹ This definition may or may not be the one held by policymakers or the goals of the Ley.

Even when given the option of a "better" school based on test scores or other measures, many parents opt to keep their child in a failing school. For example, in 2003, some 4,700 students in Worcester, Massachusetts (USA) were eligible to transfer to a school of their choice because their own were underperforming. Yet by June of the next year, only *one* student actually transferred.³⁰ This is a cautionary tale for implementers – just because an option exists does not mean that parents will want to or know how to navigate it.

While none of these critiques definitively prove that rational actor theory is flawed, an alternative—in the form of behavioral economics—may provide additional insights into how people may choose and behave. While recognizing that humans can be highly rational, behavioral economics explores the boundaries of that rationality. It has documented that humans often use mental shortcuts, known as heuristics, to aid in decision-making, and that these shortcuts explain suboptimal outcomes in education markets.³¹

Drawing from behavioral economics theory and research, we identified several behavioral barriers that may prevent parents from optimally participating in a common enrollment system:

- ***Status quo bias*** – People tend to have a preference for the current state of things. In the context of school choice, it means that the current school that one knows, failing or not, may be preferable to the unknown school.³² In the case of Chile, parents have had to make school choices for decades and those embedded preferences may not change even with access to a centralized enrollment system, resulting in a replication of the status quo.
- ***Choice conflict*** – Excessive options for choice can be overwhelming and lead to poorer choices. In Charlotte, NC (USA), the district delivered 100-page booklets with profiles of each school. Faced with possibly overwhelming information about their children’s education, some parents may use behavioral shortcuts to make school decisions rather than information preferred by policymakers.
- ***Social Diffusion*** – People tend to adopt innovations only after their effectiveness has been proven amongst relatives or peers. Courtney Bell’s study of parents searching for a new school in the United States showed both middle-income and low-income parents relied heavily on their social networks and word of mouth to make their choices.³³
- ***Limited cognitive capacity/lack of information*** – If a process is too difficult or too complicated, people will either avoid the process entirely or make suboptimal choices.

Despite these barriers, there is promising research into ways around them. Two recent studies in Chile examined the effect of providing information on schools to low-income parents prior to a school choice decision.³⁴ Francisco Gallego and his co-authors found that providing report cards with information about school characteristics, including test scores, increased the number of parents who wanted to apply and actually followed through. Report cards with information about test scores, tuition costs, and distance from school were all positively correlated with parents choosing to enroll their student in a higher-quality school. A study by faculty at Harvard University also showed that receiving information about school test scores through a similar report card arrangement increased the fraction of low-income parents choosing higher-performing schools.³⁵

Lessons from Practice

Common enrollment systems have proliferated around the world in Spain, the Netherlands and the United States has several communities implementing such systems. News articles, research briefs, and other sources have, in particular, profiled several U.S. cities—New Orleans, Denver, Newark and Washington, D.C.—that implemented systems encompassing both municipal schools and privately operated charter schools. The similarity of their education markets to Chile’s provides critical insights for those implementing the system. In this section, we provide evidence for our major takeaway: Most of the cities achieved high rates of school-student matches, progress towards broader goals, and positive media attention; however, in all cities parental engagement emerged as an important problem. In some cities it threatens the broader policy goals of the system, however it also has the potential to completely derail the effort, as it did in Newark.

These communities, thanks to the assistance of academics, have solved the technical problems involved in the matching students to schools and successfully implemented the systems. The deferred acceptance algorithm, as referenced above, has come out the clear winner. As shown in Table 1 (below), the majority of applicants received one of their top three choices. The successful match rate increased to over 80% in all communities for placements during key transition years. Most applicants each year will come from these transition years whereas only school “switchers will apply in non-transition grades.

Table 1: Most applicants are placed in one of their three top choices

	New Orleans ³⁶	Denver ³⁷	Washington D.C. ³⁸	Newark ³⁹
# Of Applications	10,093	22,729	20,349	Not Available
% Of Students Placed in a Top 3 Choice	80%	87%	86%	76%
% of Students Placed in a Top 3 Choice in a Transition Year	90%	94%	Not Available	95% in K & 80% in 9 th

In addition, more in depth research on New Orleans and Denver suggests that those systems are delivering on their policy goals. First, they seem to be increasing equal access.⁴⁰ Researchers from the Center for Reinventing Public Education concluded that the systems generally leveled the playing field for parents, even though more affluent parents utilized the system at higher rates. Second, they seem to channel students to schools with higher test scores. Parents were slightly more likely to choose schools with higher test scores.⁴¹

Moreover, the media generally reported on these systems as successes, except in Newark. Denver, Washington, D.C., and New Orleans received favorable media coverage.⁴² Even in New Orleans where the system is a part of controversial reforms, the system itself has not been the target of much criticism. Newark has been an outlier. Media heavily criticized the One Newark enrollment system, even though it achieved only slightly a lower percentage of successful matches. And, in the end, the superintendent resigned.⁴³

What made Newark different? Many commenters pointed to the lack of meaningful parent engagement. Indeed, even in successful communities, parental engagement has been the major challenge. Evidence from parent surveys and focus groups provides a basis for understanding the problems parents have with the system:

- 1) **Process was complicated and depersonalized.** Parents thought the old process, in which they went directly to schools for admission, was easier. Now, they had to use a more formal, unfamiliar system.
Parents felt the process was bureaucratic and depersonalized and talked about how “the computer” was making the final decision, not them.⁴⁴
- 2) **Process required more time, earlier.** The new process required activity by the parents far in advance of old deadlines. Parents also reported having to engage in more research and preparation.
- 3) **Parents wanted more information.** Because most school guides provided bare minimum of information, parents did not feel like they had enough or the right information to make the right choice for their child. For example, they wanted more information about the school culture.
- 4) **The change gave some a false sense of hope:** The system gave some parents an unrealistic expectation that they could get their child into a dream school. Instead of applying to many different schools, parents, instead, invested in finding one top choice. When they did not get that choice, they were disappointed. Instead of demanding more options of comparable value, they questioned the overall value of the reform associated with the enrollment system. This backlash can threaten political sustainability.
- 5) **Families were frustrated with the lack of school options.** In some cases, the system exposed that families in low-income areas did not have many quality options available near by. Instead of demanding more options, they generally focus their anger on the common enrollment system itself.
- 6) **The algorithm confused parents.** Parents generally did not understand the matching algorithm. Though the best strategy is to rank preferences in their true order, they often selected fewer choices because they worried that listing more schools would result in their child’s placement in one of their lower options.

Varying levels of parental participation and satisfaction impact the results. For example, New Orleans had only a 69% match rate for families who listed one school compared with a 93% match rate for families who listed 4 or more. Washington, D.C. also showed that parents who selected more choices, especially in transition years, are placed at much higher rates. Parent engagement stands in the way of greater accomplishments.

RECOMMENDATIONS

In this section, we first delineate problems that the implementation in Chile may encounter and then propose potential solutions. We've divided these in four categories as follows:

Communication and Engagement

Communicating and engaging with parents

Communicating and engaging with schools

Other Considerations

Transportation

Interaction with copayments

Key Student Populations

Students with special needs

Students whose parents do not participate

Students who are not matched

Monitoring and Evaluation

Monitoring implementation

Evaluation of select components & overall success

Using data from the system to improve quality

Communication and Engagement

Communicating & Engaging With Parents

Problem: As the enrollment process is implemented, parents may be unformed about, confused by, and even resistant to the change, possibly resulting in:

- Parents who do not enroll their child through the common enrollment system
- Parents who use the system but who do not rank schools to optimize choice
- Increased social stratification due to wealthier parents navigating the system with greater ease and with better results than low-income parents
- A parental backlash that erodes public support and undermines the implementation.

Our interviews with relevant stakeholders in Chile highlighted these risks and reinforced the constraints of rational choice theory outlined earlier in this report. Several interviewees, including the lead implementers of the common enrollment system from Mineduc, shared that they were worried about adequately communicating with parents.⁴⁵ We also heard concerns that after decades of school choice, savvy parents, who successfully navigated the current market, may resent the common enrollment system because it limits their ability to select schools and, thereby, to select their child's peers. Unfortunately, the now ubiquitous "tombola" magazine cover, showing a blindfolded student left at the mercy of the random lottery, suggests significant anxiety, concern, and confusion about the process.⁴⁶

Other stakeholders expressed worry that low-income parents, in particular, will be less informed about the process and will not have the time or resources to engage in a lengthy school search. The Mayor of Lo Prado, a lower-income commune in Santiago, acknowledged that his constituents were unaware of the coming changes.⁴⁷ We heard mention of possible time and labor-intensive interventions to engage low-income communities, such as door-to-door canvassers with tablets to assist parents in using the system.⁴⁸

Recommendations:

- **Plan and budget appropriately for communication and outreach.**
- **Formulate a strong core message that frames the system in terms of fairness and equality.**
- **Inform higher-income communities via lighter-touch communications that personalize the system.**
- **Engage lower-income communities through more intensive interventions.**
- **Institute an appeal mechanism and hotline for parents**

A robust communications and outreach campaign is needed to ensure that each parent at each phase of the staggered implementation is fully informed and engaged. With millions of parents spread across fifteen regions, this is a daunting undertaking. Therefore, in addition to proposing three broad recommendations, we group parents into two, stylized groups (higher-income, more-engaged parents and lower-income, less-engaged parents) and propose outreach appropriate for each.

1) Plan and budget appropriately for communication and outreach. Rather than an afterthought, communication and outreach to parents require significant monetary and organizational commitment from Mineduc. Without access to the budgets of Mineduc or other communities currently utilizing common enrollment systems, we tentatively suggest that Mineduc’s communications budget should match its budget for the technical platform on which parents will choose schools, because they are equally critical to success of the effort. The budget should include funds for a communication expert, such as a contracted media agency, to design and execute the communication strategy, our following recommendations, and communications training for any staff engaging directly with parents.

With implementation in Magallanes y la Antártica Chilena underway, Mineduc should revisit the resources allocated to communications and outreach in that region and across the nation. Mineduc should balance spending enough in the first region to ensure a successful implementation (to which it can point as it rolls out the system in other regions) and the need to hold enough resources in reserve to scale its efforts to the entire nation over four years.

2) Formulate a strong core message that frames the system in terms of fairness and equality. We suggest Mineduc formulate a strong core message that focuses on the fairness and equality, not the technical details of the enrollment platform. Potential taglines for the system include: “a fair shot for every child” or “now every child’s application is equal.” Such messages tap into shared values and avoid making any promise that parents will definitely gain their child’s admission to a previously unreachable school. In addition, we advise against a focus on the technical details of the enrollment platform, in particular the matching algorithm, because this confuses, rather than reassures, parents.

3) Inform higher-income communities via lighter-touch communications that personalize the system. In light of Mineduc’s limited resources, we suggest the strategic use of mass media and other light-touch communication approaches to educate higher-income parents about the system. In making this recommendation, we leverage the fact that these parents have greater resources (ranging from political awareness to home Internet access) to understand and engage with the

common enrollment system. For example, this subset may have already learned about the reform through news stories, Mineduc press releases, or communication from their schools. Even if some have not engaged to-date, they possess the skills, time and social capital to extract key information from less-customized communications and to navigate the new system.

While these parents have a greater capacity to understand and navigate a new system, they (and our recommendation) cannot be disregarded because these parents are also more politically engaged and more likely to protest. Building their support is critical to improving public opinion about the common enrollment system and avoiding parental backlash. Conversely, getting the communications to this group wrong may have disastrous repercussions.

In particular, we suggest the following types of lighter touch communications:

- *Television programs.* We suggest two types of television programs that would give the enrollment process a human face. Our first suggestion is to incorporate a storyline about the new system into a popular soap opera. To make this a reality, Mineduc would ask the show's producers to write a story in which a parent recounts her prior struggles to find a good school, navigates the new common enrollment system, and then celebrates her child's admission to a top choice. Research shows that soap opera storylines can shift social norms and practices.⁴⁹ The second suggestion is to make a few families in Magallanes y la Antártica Chilena the subject of a documentary that could air nationally. These parents could even be flown to other regions, as implementation expands, to share their stories in person.
- *Paid media spots.* We suggest using billboards, television commercials, radio messages, and newspaper advertisements for three key purposes. First, these channels can increase awareness of Mineduc's core message about the system and draw parents' attention to key deadlines. Second, these can help diffuse a new social norm that all parents engage in the process. For maximum effectiveness, the spots should feature first-person testimonials from Chilean parents. People are more likely to engage in a new activity when they believe their peers are already participating. Third, it can direct parents to a website for more details.
- *User-friendly website.* The website would serve as the main hub for up-to-date, written communications. It should make heavy use of simple timelines and graphics, action-oriented lists, and step-by-step guides. It should also include a comprehensive "Frequently Asked Questions" section and more interactive "mock lottery program," through which parents could simulate the enrollment process, become familiar with the matching mechanism, and experiment with different features like school location. It should link to but be separate from the ranking and matching system and any catalogue of schools.

4) Engage lower-income communities through more intensive interventions. While lower-income parents will consume some of the mass-disseminated information outlined in the previous recommendation, they have fewer resources compared to their higher income peers. They will not respond to those efforts, as higher-income parents will. For example, they likely live in the roughly 47 percent of homes in Chile without Internet connection.⁵⁰ Therefore, they are less likely to access a website to learn about the system and to participate. New Orleans' implementation provides evidence of this difference. Participation among low-income parents lagged behind higher-income parents, even though all students had to enroll through the system.

In light of this reality, Mineduc should use a more tailored, personalized approach to ensure lower income parents participate in all stages of the choice process, from establishing school choice sets to conducting research on school and making choices. These could include:

- Tailored written communications distributed by municipal schools where most of lowest-income students attend
- School fairs where parents can meet representatives from local municipal and voucher schools
- Community-based enrollment centers, either physical offices or a mobile bus, that provide families with access to Mineduc's websites and to counselors
- Door-to-door outreach by staff or volunteers, equipped with tablets, to guide parents through the common enrollment process
- Text message reminders about deadlines and resources in their communities.

Because a single letter or interaction will likely not be enough to ensure participation, multiple points of contact and repeated follow-ups will be needed to nudge these parents to engage.

Because these repeated interventions are extremely labor and time intensive, Mineduc should target them to the low-income families least likely to participate in the common enrollment system. We suggest two approaches for identifying these families: (1) use administrative records to identify low-income communities where the average annual income falls below a certain threshold, and/or (2) rely on regional officials to identify communities.

Alternatively, Mineduc could collaborate with other government agencies that operate social programs for poor families, such as Chile Solidario. For example, Mineduc could train these program staff to inform and assist parents with the common enrollment system, in addition to their other duties. More radically, Mineduc could work with the agencies to make school registration, through the common enrollment system, a requirement for qualifying for their services.

5) Institute an appeal mechanism and hotline for parents. Despite these upfront communication efforts, parents will inevitably express confusion and even anger. To diffuse their concerns and to combat any sense that a distant, impersonal bureaucracy is arbitrarily assigning children to schools, Mineduc should institute a hotline that parents can call with questions or complaints about the common enrollments system. This hotline, as well as the website, should also direct parents who wish to contest their school assignment to a structured appeal process. Ideally, Mineduc will handle these parental concerns at the regional level, rather than through the central office.

Communicating & Engaging With School Leaders

Problem: Implementation of the common enrollment system necessitates substantial collaboration and communication between schools and Mineduc. In fact, the Ley de Inclusión specified particular roles and responsibilities for both parties, thereby requiring Mineduc to engage with the schools. Yet, our visit to a voucher school in Casablanca revealed a breakdown in the relationship. School administrators and teachers expressed both concern and confusion about the coming system. For example, they thought incorrectly that they could not hold information nights for parents until *after* parents submitted their school choices. In addition, unaware that the Ley requires parents to commit to selected schools' educational missions as part of the application, they worried that parents would not agree to their religious mission and would challenge this aspect of the school's curriculum once their child enrolled.⁵¹

Complicating this Ministry-school relationship is a significant conflict of interest. The Ley requires schools to accept all applications for admission and to administer a lottery if they are oversubscribed. Schools will serve as critical providers of information about the system as parents turn to their current schools for information and advice. As schools execute these activities, Mineduc needs them to act in the best interests of parents. Some schools, which need enrollments to stay solvent, may discourage families from applying to multiple schools. Other schools may continue their practice of selecting students. They may counsel the parents of challenging or disadvantaged students to apply to other schools while discouraging the parents of easier-to-educate child from taking that same action.

Recommendations:

- **Develop a communication and engagement plan.**
- **Institute practices and policies to ensure schools act in the interests of families.**
- **Emphasize non-school-based sources of information.**

1) Develop a communication and engagement plan. Separate from the communication plan for parents, Mineduc should have a strong plan for communicating to schools. This plan should focus on delineating clearly the rules for engagement with parents and for operation of the lotteries. It should also reassure them that the system will inform parents about their educational missions. As with higher income parents, Mineduc can rely on mass distribution of standard information, such as an easy-to-understand guide or a specific website for schools.

2) Institute practices and policies to ensure schools act in the interests of families. Recognizing the incentives acting on schools, we recommend Mineduc undertake three efforts to ensure schools' good behavior. We recommend the use of "secret shopper" audits, in which a Mineduc staffer would pose as a parent seeking to complete the common enrollment process at the school. By adopting different parental profiles (e.g. single-parent), Mineduc can detect whether the school treats all parents equitably. Rule violations should trigger swift and public penalties to deter others.

3) Emphasize non-school-based sources of information. To limit schools' ability to unduly influence parents, Mineduc should put more resources into non-school-based outreach to parents. Communication to parents should emphasize the website and community enrollment centers suggested in previous recommendations.

Key Student Populations

Students with Special Educational Needs

Problem: The government does not have a well-developed strategy for incorporating children with special educational needs (SEN) into the common enrollment system. This oversight will generate at least two foreseeable problems. First, students with SEN may be assigned to voucher schools that have never had students with SEN and that lack needed infrastructure, technical expertise, and staffing. In contrast to municipal schools, private schools, under existing laws, have never been obliged to receive students with disabilities or to have facilities or integration programs, which allow special needs kids to participate in general classrooms.⁵² Second, such an assignment could disrupt the learning of special needs kids and of the other students in the school.

Recommendations:

- **Ensure the common enrollment system addresses the unique requirements of children with special needs.**
- **Extend Special Education Integration projects to schools that enroll children with SEN.**
- **Ensure schools that receive children with SEN receive the financial resources guaranteed under Decree 170.**
- **Communicate information about policies impacting children with SEN to schools and parents.**

1) Ensure the common enrollment system addresses the unique requirements of children with special needs. Such an effort must take into account the varying levels and categories of special needs. For children with very high SEN, Mineduc should explore whether their participation in the common enrollment is appropriate. We tentatively recommend that these children should be exempted from the common enrollment system, and their parents should be allowed to gain them direct admission to the schools that have the facilities to meet their needs. This may require these special schools receive a legal exemption, like the one enjoyed by emblematic schools.

For children with less severe SEN, Mineduc should ensure its processes take into account their needs. In the very least, any information provided on schools should indicate whether the schools have the facilities and resources for children with SEN and whether they have integration programs. Ideally, children with SEN should receive priority within the algorithm. Mineduc's lawyers should determine whether it can legally establish priority groups in addition to the ones specified in the Ley.

2) Extend Special Education Integration projects to schools that enroll children with SEN. To ensure voucher schools meet the needs of children with SEN, the government should mandate that all voucher schools assigned a "critical mass" of special needs children must implement integration projects. Limiting this to schools with "critical mass" of children will help contain costs. Mineduc's budget analysts and special education experts should set an appropriate threshold number.

3) Ensure schools that receive children with SEN receive the financial resources guaranteed under Decree 170. Under Decree 170, schools that enroll children with SEN are eligible to receive supplemental financial support from the government.⁵³ In coordination with the special education

team, the common enrollment implementation team at Mineduc should inform these schools of their eligibility and streamline the process for transferring funds. Mineduc will likely need to monitor the cost implications of this potential expansion.

4) Communicate information about policies impacting children with SEN to schools and parents. Mineduc should both incorporate this topic into general communications and advance specific efforts. For example, our proposed website for parents and guidebook for schools should include a section dedicated to the topic of the common enrollment system and children with SEN. In addition, Mineduc should hold special trainings at the regional level for school staff dedicated to supporting children with SEN. Parents of special needs kids will likely turn to these staff to get advice about the common enrollment system. (One such staffer spoke about her responsibility during our visit to the Casablanca school.) Such trainings will equip these staff to serve as ambassadors to their schools and to parents on this topic.

Students Whose Parents Do Not Participate

Problem: Despite Mineduc’s best efforts to communicate and engage parents, some parents will still not participate in the common enrollment system. The Ley dictates that these parents must apply directly to schools with available seats after the common enrollment process has occurred. From other systems, we know that low-income parents are the least likely to participate in the system, and that their children will end up in the lowest performing schools, as these will be only schools left with vacancies. This, therefore, may maintain the current status quo.

Recommendation:

Target these parents and students with more intensive communication and engagement efforts in advance of enrollment process for the next school year. This requires Mineduc to identify all students who ended up on school rosters through direct parent application, not the common enrollment system. Once the enrollment process starts for the next school year, Mineduc staff should reach out to these parents, stressing the new chance to use the common enrollment system for their child’s benefit.

Students Who Are Not Matched

Problem: After the common enrollment process has occurred, the algorithm at its core may fail to allocate a small number of students to any selected schools. For example, in the first year of New York City’s coordinated common enrollment system, 18 percent of students were not assigned in the main round of allocation.⁵⁴ The Ley dictates that unassigned students must be registered in the nearest school to their home with available space. This rule automatically prioritizes geographic proximity over other school characteristics that parents may prefer more, such as school performance. It may, therefore, have the unintended consequence of enrolling students in schools that are closer but lower performing than other available schools.

Recommendations:

- **Require parents to choose more schools.**
- **Notify parents of unmatched students of all under-subscribed schools within a certain radius of their home.**

1) Require parents to choose more schools. Requiring parents to select and rank more schools in the initial enrollment process reduces the likelihood of unmatched students and ignored parental preferences. Allowing parents to rank twelve rather than five schools, as well as improving coordination, led to a precipitous drop in unmatched students in New York.⁵⁵

2) Notify parents of unmatched students of all under-subscribed schools within a certain radius of their home. In complying with law, Mineduc should take additional steps. First, it should notify parents of match failure and their child's default school. Second, in the notification, it should include a list of schools within a certain radius of their home that still have availability. The list should provide key information on these schools, such as its location, test scores, and educational missions. Third, parents should be allowed to over-ride the default school and move their child to an available one that aligns with their preferences.

Other Considerations

Transportation

Problem: The common enrollment system will lessen the salience of school location for parents and increase government's responsibility for students' commutes. In the current system, parents must apply in-person to schools; hence, they are fully aware of and responsible for the distance their child has to travel. In the new system, while parents will still choose schools, they can do so remotely, making the schools' location less salient. Plus, government will assign students to schools and thereby incur some responsibility for the distance students must travel. For unmatched children addressed in the last section, Mineduc bears full responsibility for their commute. If the system allocates a few children to distant schools, which their parents ranked low or not at all, a vocal group of parents may blame the government and its system for their children spending hours on buses. Their stories can go on to define public's perception of the system which can prove counterproductive.

Recommendations:

Incorporate features related to schools' location and transportation directly into the common enrollment system. To mitigate this problem, Mineduc must assist parents in understanding the transportation choices implicit in their school choices. We recommend incorporating three features into the system to reduce the chances that parents blame the government for any burdensome commutes. The first is a simple disclaimer that notifies parents about the transportation policy. Second, the application system should include an interactive map, which enables parents to see a school's location and to calculate the distance to their home (or other locations, such as parents' workplaces) as well as the expected daily cost of public transportation. Third, when submitting their school choices, parents should be required to agree to the schools' location, in the same way they must accept school's educational mission.

The Interaction With Copayments

Problem: Phase-out of copayments and phase-in of common enrollment system are not perfectly synchronized. The common enrollment system begins in March 2016 in the first region and incrementally scales to the entire country within four years. The phase-out of copayments also starts this year, but the law does not mandate the elimination of copayments by region or specify a date by which all copayments must end. By 2019-2020, the government projects that 93.2% of enrollments will be in free schools and all regions will participate in the common enrollment system.⁵⁶

In the interim, some proportion of schools will continue to require copayments even as parents participate in the common enrollment system. The system will display these prices for parents. As a consequence, low-income parents will still not be able to choose from all schools.

Recommendation:

Take this lack of synchronization into consideration when crafting communication and evaluation efforts. Because the law established these aspects of the implementation, the Ministry can only avoid perpetuating the unrealistic expectations, which the law's passage initially generated, that equal opportunity and social integration will be fully achieved in the first years. Rather, such outcomes will not be possible until copayment have been eliminated.

Monitoring and Evaluation *Monitoring Implementation*

Problem: Chile's common enrollment system represents a massive change on geographic scale unrivaled by other common enrollment system. Due to its ambition, some of our interviewees worried the implementation would be 'another Transantiago,' a reference to the bungled implementation of Santiago's public transportation system. To avoid such a fate, Mineduc will need periodic information on the extent to which they are achieving key goals and on the experiences of families and schools. Such information will be critical for making mid-course corrections and applying lessons learned in the first regions to implementation in subsequent regions.

In addition to these internal needs, Mineduc staff will need to report on their progress and achievements to their superiors, schools, parents, and the general public. Providing information on the implementation will help satisfy these stakeholders, build an understanding of the system, and win public support.

Recommendations:

Craft and execute a concise plan for monitoring the implementation of common enrollment system.

At the onset of the project, given their many other responsibilities, Mineduc staff should establish a small set of key questions. We recommend the following:

- What percent of families used the common enrollment system? To what extent does participation differ by neighborhood, family background, and student characteristics?
- How many families got their first, second or a choice in their top five? How many students were not matched to a school choice?
- How are schools experiencing the common enrollment process?
- How are parents experiencing the common enrollment process? What information do parents use to make their school choices?

These questions should be answered through targeted collection of quantitative (e.g., outputs from the common enrollment system and surveys) and qualitative data (e.g., focus groups, interviews and visits to schools and parents) at key intervals during implementation and at the end of each phase.

Evaluation of Select Components & Overall Success

Problem: In addition to the core common enrollment system, Mineduc, as recommended above, will likely implement corollary communication and outreach efforts to ensure parents participate. While Mineduc and its partners, including us, will design these strategies and interventions based on the best available research and professional judgment, they will be untested in Chile. Therefore, Mineduc cannot know whether they will be effective or cost-effective. Determining what works to engage parents is especially important, as this will likely be a recurring need.

Moreover, at the end of the scale-up, Mineduc's leadership, the political champions of the Ley, and the public may demand to know whether law achieved its core objectives: equal opportunity for all students and social integration. In the absence of good quality data, Mineduc's efforts and the Ley may be 'assassinated by anecdotes': opponents will highlight the case of one or two kids hurt by the new system while ignoring the thousands who benefit.

Recommendations:

Engage evaluation partners to help design and execute rigorous evaluation(s) of key parent interventions and to assess whether Mineduc's efforts achieve the law's objectives. An evaluation partner, for example, could design an impact evaluation to determine whether community-based enrollment centers increase low-income parents' participation above and beyond what lighter-touch, less-resource-intensive mass communications achieve. An upfront expenditure on such an evaluation may help avoid wasting public funds on ineffective programs down the road. Similarly, research partners can assess to what extent the implementation of the system contributes to any changes in access and social integration (e.g., pre/post analysis).

While this does generate some political risk (in the even the findings are not positive), these results are needed to know whether the current reforms are enough to create the system-level outcome desired or whether additional reforms are needed. We recommend that Mineduc bring these partners on now. There is still time to plan for impact evaluation(s) and to collect baseline information on school access and social integration in the last ten regions to implement the common enrollment system.

Using Data from the System to Improve Quality

Problem: The introduction of the Ley removed two market mechanisms—prices and profits—helping to determine the supply and demand of voucher schools. Prices, in particular, reflected parents’ willingness to pay for a school and indicated parental demand. In the absence of prices, school operators and parents will need other signals to aid their decision-making. Parents may, to some extent, rely on standardized test scores and flock to schools with higher scores. However, as previously discussed, right now better student outcomes at certain schools result more from their student body composition than from the school’s actual value-add for students. Once a more diverse range of students is randomly allotted to schools, students’ outcomes may be a better signal of school quality.

Recommendations:

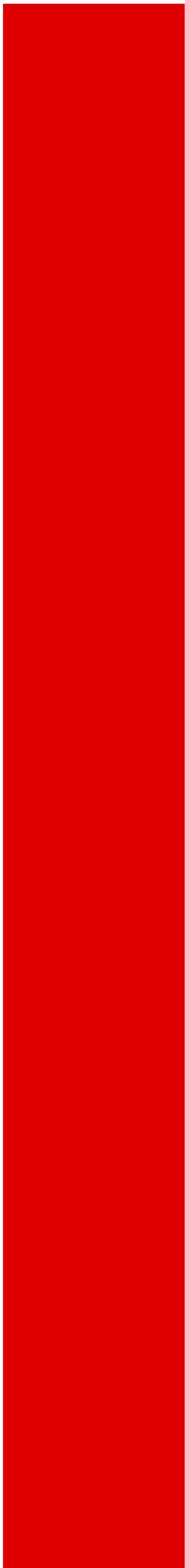
Make data on parental demand generated by the common enrollment system public, and consider adopting other policies that nudge schools, based on these data, to expand, improve, or close. The common enrollment system can capture the number of applications per school, a new measure of parental demand. These data should be released publicly, so it informs the decision-making of parents and school operators. For example, after seeing that applications far exceed vacancies, a voucher school could decide to expand its operations.

While voucher school operators, not Mineduc, decide to expand or close their schools, Mineduc could consider adopting policies to encourage voucher schools to take action on demand. For example, it could incentivize oversubscribed voucher schools to expand. Similarly, if the reforms to centralize administration of municipal schools proceed, Mineduc could use the data to determine which municipal schools are successful in attracting students and which municipal schools continue to lose students. It then could help undersubscribed municipal schools to improve or to close.

Importantly, Mineduc should not pursue these more active policies until they have some confidence parents are making decisions based on accurate signals. In other words, Mineduc should allow sufficient time for standardized test scores and other student outcomes to reflect less student selection in the system. Over time, school openings and closures, based on parental demand data, may improve the overall quality of the education system.

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