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**Article**

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## **Vouchers, choice, and public policy: An overview\***

*Vouchers, elección y política pública*

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### **Abstract**

*The educational voucher system builds on the pillars of informed choice and competition to improve the quality of the education provided. This document summarizes some of the results of recent literature on the subject, and discusses their public policy implications.*

Key words: *Vouchers, School choice, Chile.*

JEL Classification: C25.

### **Resumen**

*El sistema de vouchers tiene como pilares fundamentales a la elección informada de los padres y la competencia que esta genera para promover mejoras en la calidad. Este documento resume la evidencia reciente en la materia y discute algunas de sus implicancias de política pública.*

Palabras clave: *Vouchers, Elección de escuelas, Chile.*

## **1. SCHOOL CHOICE AND PUBLIC POLICY**

One of the main characteristics of the Chilean educational system is that public funding is channeled through *vouchers*. Chile's voucher program is unique because of its widespread coverage (more than 90%) and because a relevant fraction of voucher schools can make additional charges.

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A trend towards decreasing the participation of public schools in favor of private voucher schools has sparked a debate intended to understand why this phenomenon has occurred. The coexistence of this system along with the social segmentation in schools, with persistently poorly performing schools, has facilitated a causal interpretation, blaming the voucher system for every wrong in the Chilean system. Needless to say, this association is not proof of causation. A causal interpretation must begin by analyzing the design, incentives, constraints, and expected responses.

In essence, vouchers are designed relying on decisions by parents, schools, and the government incentives, that should foster a virtuous circle. Specifically, schools are eligible for vouchers if they do not charge more than a specified amount (determined by law). The government transfers a subsidy to schools which depend on the daily assistance of enrolled students.

A first element that would configure a virtuous system is if school assistance fosters learning, in which case schools can increase enrollment and assistance. This element is reasonably well documented. Paredes and Ugarte (2011) show that, after controlling for socio-demographic characteristics, learning is positively and significantly associated with school assistance, and that, through several incentives, schools indeed promote assistance.

A second element for a virtuous system depends on the response of parents to school characteristics, particularly, on if the choice of school is related to learning (or performance) indicators. If parents cannot distinguish good schools from bad schools, or even if they do, they cannot choose the school where their children study, the ability of attracting more students through school quality is limited.

Depending on the diagnosis of these elements, different public policies could emerge. A prevalent line of reasoning asserts that student mobility is limited, proposing policies aimed at providing direct support to schools of poor performance, instead of letting them close and letting students migrate to better performing schools.

A third element, that has only been superficially addressed, has to do with the actions taken by the schools, which in equilibrium, are jointly determined with the way parents and the government proceed. If parents were not able or willing to choose, schools would have no incentive to improve the level of education they provide, as the main tool to attract more students.

Several studies in Chile and elsewhere have focused their attention on the type of information relevant to signal school quality, how people process this information, and what are the consequences for school mobility. The first strand of this literature suggested that parents were not informed and that quality was not a relevant factor in school choice. Carnoy and McEwan (2000), McEwan and Carnoy (2000), and Elacqua and Fabrega (2004) associated the relatively poor results in the Chilean education system to the parent's lack of capacity for choosing a school. Whilst they derive such interpretation by association, they do not analyze whether parents behave that way. In part, such a view is supported by the parents declared knowledge on the results of standardized test in surveys (*e.g.*, CEP, 2006).

However, recent findings arrive at very different conclusions. Gallego and Hernando (2008) estimate a random utility model and conclude that parents take into account schools' average scores, accessibility (using a rough measure of average distance for districts) and the fees charged by schools. Chumacero,

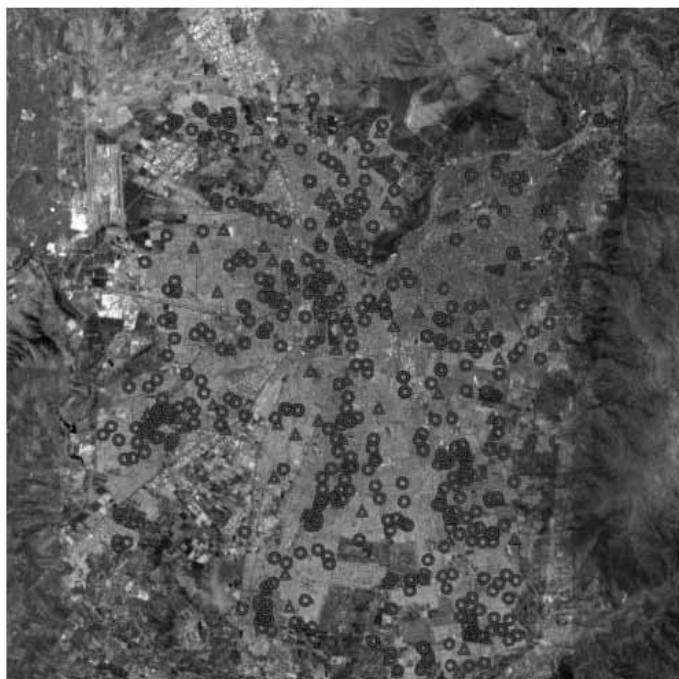
Gómez and Paredes (2011) consider a refined measure of distance home-school, to estimate trade-offs between distance, price, and quality. Based on revealed (and not declared) preferences, both papers find a relevant effect of school quality on parent's decisions.

Although these results prove that, on average, families consider information of quality of the school in their decisions, Carrasco and San Martín (this issue) state that quality should be related to value-added and not absolute results, and that declared preferences of families are not related with it. On the other hand, although quality appears as a statistically significant determinant of choice, its magnitude may not be as important as distance or price; this should not be taken as been economically unimportant. For example, it may suffice that a small fraction of parents care enough about quality to provide incentives to schools to improve quality in order to attract or retain these parents, who may determine the viability of a school in the long run.

The lack of alternatives or lack of information about them maybe factors behind the absence of mobility in specific cases (Román and Perticará, this issue; Elacqua *et al.*, this issue). Nevertheless, this could be explained because searching for alternatives may not be profitable when the variance of quality is relatively small.

It is not difficult to make the case of the importance of quality, once the decisions of households are considered. Figure 1a shows that voucher schools

FIGURE 1A  
LOCATION OF VOUCHER PRIVATE (CIRCLES) AND PUBLIC (TRIANGLES)  
SCHOOLS IN SANTIAGO



in Santiago cover the whole city. Figure 1b shows that the 10 best voucher schools are concentrated in downtown Santiago. Finally, Figure 1c provides the physical locations of the households of the students of the 10 best voucher schools. Clearly, students are willing to travel long distances to assist to elite schools, confirming the results of Chumacero, Gómez and Paredes (2011) which show that, on average, despite having a school available at less than 500 meters from their households, students travel an average of 3 kilometers to assist to the school of their choice.

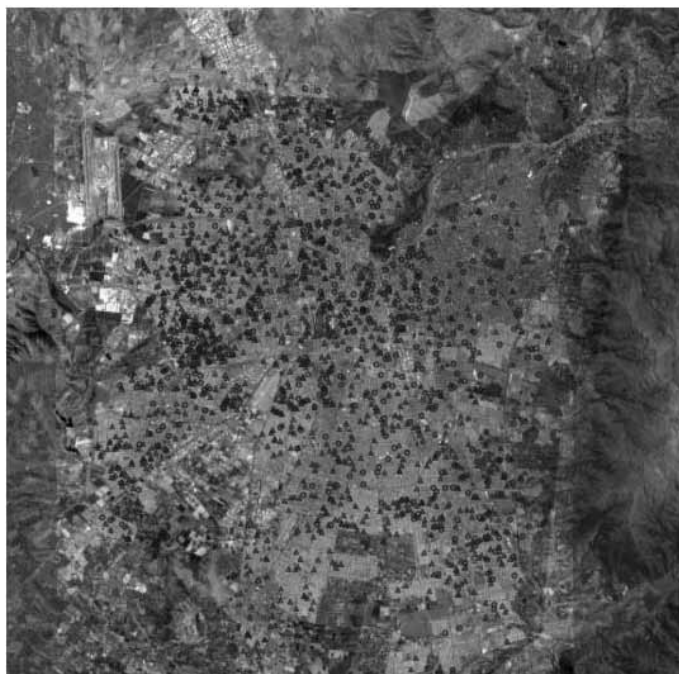
It may still be the case for the Chilean educational system to be segregated if it were the result of a concentration of parents who react to the quality of education in certain economic segments or neighborhoods. In such case, whole sectors of the voucher system would not be able to fully enjoy its virtuous effects.

This appears to be the vision of two of the papers in this volume, which concentrate their analysis on specific niches that may have limited alternatives available. Román and Perticará (this issue) focus their attention on poorly performing schools and stress the lack of mobility of vulnerable students. Elacqua *et al.* (this issue) consider the alternatives available for the same types of students. On the other hand, Gómez, Chumacero, and Paredes (this issue) evaluate the effects of making available more information regarding the quality of the schools, and how this could have an impact on school choice.

FIGURE 1B  
LOCATION OF ELITE VOUCHER SCHOOLS IN SANTIAGO



FIGURE 1C  
LOCATION OF HOUSEHOLDS OF CHILDREN THAT ATTEND ELITE  
VOUCHER SCHOOLS IN SANTIAGO



In terms of positive economics, the relevance of school choice has to do with its effect on learning and the quality of schools. Depending on the answer to this question, school choice may be of interest from a public policy perspective. Relatively recent literature has been produced in Chile and elsewhere. Borland and Howsen (1992) and Couch *et al.* (1993) pioneered work on the positive relation between competition among schools and learning. Results shown in Hoxby (1994, 2001) suggest that higher competition increases efficiency, performance levels, teacher salaries, and high school graduation rates in public schools. The same results are suggested in Braun-Munzinger (2005), who reviewed 21 voucher programs in 14 countries, Böhlmark and Lindhal (2008) and Gibbons, Machin and Silva (2008). Meanwhile, other papers suggest an opposite association (Bayer and McMillan, 2005; and Ladd and Fiske, 2001, for New Zealand).

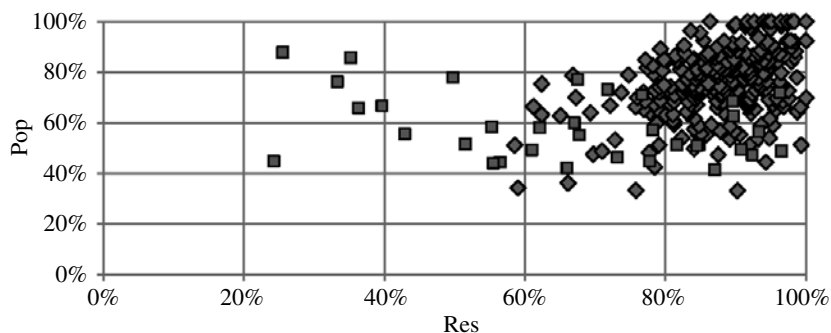
In Chile, a first wave of papers suggested a negative relation between competition and performance (McEwan and Carnoy, 2000; Hsieh and Urquiola, 2003). Then, Gallego (2002) and Auguste and Valenzuela (2003) found that higher competition had a positive effect on the SIMCE. More recently, Chumacero, Gallegos and Paredes (2012) propose a different method to have a better proxy for competition. They found a significant and relevant effect on school performance, for both private and public schools.

## 2. CHOICE AND COMPETITION ARE RELEVANT ALSO IN ISOLATION

The effect of school choice on competition and, from it to learning is increasingly acknowledged. Nevertheless, competition varies greatly in different places, and may have heterogeneous effects on different segments of the population. The literature on choice and competition has mainly focused its attention on isolated experiences and urban areas, where actual or potential mobility may discipline schools. With the exception of Gallego *et al.* (2010) and Paredes and Manríquez (2012), in Chile, analysis has mainly focused on the metropolitan area of Santiago. In areas different from the capital, more isolation and fewer schools available are important factors. Furthermore, a rigorous study on the effect of competition in rural areas would require estimating transportation costs. Absent precise georeferencing for households, revealed preferences approaches as conducted in the recent literature are not possible.

Paredes and Manríquez (2012) approach this problem by constructing an “isolation indicator” for each county (*comuna*). They define the attraction rate (pull) of county  $i$  as the fraction of students of other counties that study in schools of the county, and the expulsion rate (push) as the students that reside on county  $i$  but go to school in a different county. Then, they define an isolation indicator using the fraction of students that assist to a school in the county where they live with respect to the total number of students that assist to schools of the county (Res) and the fraction of students that assist to a school in the county with respect to the total number of students that live in a county regardless of where they study (Pop). Figure 2 show that both variables have plenty of dispersion. As expected, due to the concentration of nationally reputed voucher schools, counties in Santiago are attractive for studying (low Res and high Pop). On the other, Quilicura, with a value of Res of 96% and of Pop of 72% does not attract many students from other counties, while more than a quarter of the students that live in that county study elsewhere. On the other extreme, María Elena and Diego de Almagro appear as the most isolated counties in Chile with values of Pop and Res of 100%.

FIGURE 2  
PUSH AND PULL FACTORS FOR DIFFERENT AREAS



Source: Paredes and Manriquez (2012). Outside Santiago = Blue rhombus. Santiago = Red square.

Defining isolated counties as those with values of Res of at least 92% and Pop of 89%, they account for 8% of the counties in Chile, serving 2% of the student population, have 504 schools, with 79% being public voucher schools, 20% private voucher schools, and 1% private schools.

They use the isolation indicator and a measure of competition to evaluate their effect on performance of the schools. They find that isolation alone is detrimental for performance, but competition is beneficial to performance, particularly in isolated counties.

### 3. CONCLUDING REMARKS

Recent events sparked by protests by high school and university students in Chile have attracted worldwide attention. Positions that go from banning for-profit schools to completely eliminating the voucher system have been voiced.

After 30 years of its implementation, the relevance of the voucher system as a mechanism to induce improvements on education has been at the center of policy discussions in Chile and around the world. Recent evidence that relies on actual decisions (revealed preferences) tends to back the claim that one of the pillars for a virtuous voucher system, namely that parents consider measures of quality of the schools to make their choices, indeed operates. Nevertheless, the magnitude of this effect along with its relevance for the more vulnerable segments of the population opens the discussion of its relative merits.

On the other hand, not only more and better information is useful for making decisions fostering a better working system, but also, increased competition, particularly in more isolated areas play an important role.

Built from material of a workshop held in 2011, this special issue of *Estudios de Economía* provides material for a necessary discussion on the subject.

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