



OKUL KUPONU REFORMU, GELİŞİMİ VE EĞİTİME ETKİLERİ: ŞİLİ ÖRNEĞİ¹

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ÖZET: Bu makalede okul kuponu reformu Şili örneği ile incelenmiştir. Şili askeri yönetimi 1980'den itibaren velilerin çocuklarını isterlerse özel okula yazdırmalarını sağlayan eğitim kuponu sistemini tüm ana özellikleri ile benimseyerek ülke çapında uygulamıştır. Uygulamanın kapsamı ve sürekliliği nedeniyle Şili örneği eğitimde kupon sistemini anlamak için eşsiz bir fırsat sunar. Bu literatür taramasında öncelikle ilköğretimde kupon reformu ana özellikleri ile tanıtılmış, Şili'de okul kuponu reformunun zaman içinde uygulanış ve gelişim süreçleri anlatılmıştır. Ayrıca, kupon reformunun eğitim sistemi üzerindeki sonuçlarının anlaşılması için bu reform ile aynı zamanda uygulamaya konulmuş olan yerinden yönetim reformu, farklı okul sektörleri ve bu sektörlerin uymakla yükümlü olduğu farklı kurallar gibi kurumsal değişkenler gerek konu ile ilgili araştırmalar taranarak ve gerekse ikincil veriler kullanılarak irdelenmiştir. Bu çalışmanın sonuçları okul kuponu reformunun yerinden yönetim reformu ile etkileştiğini, reform sonucu ortaya çıkan farklı okul sektörlerinin sosyo-ekonomik düzlemde ayrıştığını, ve neticede reformun kendisinden beklenen ülke çapında ilköğretimde iyileşmeyi bugüne dek sağlayamadığını göstermiştir.

Anahtar Kelimeler: Eğitim Politikaları, Okul Kuponları, Evrensel Okul Seçim Sistemi, Şili.

SCHOOL VOUCHER REFORM, ITS DEVELOPMENT AND EDUCATIONAL EFFECTS: THE CHILEAN CASE²

ABSTRACT: This article examines school voucher reform using the Chilean case. In 1980, the Chilean military government introduced school voucher reform, which allows parents to enroll their children to private schools, nation-wide in its most complete form. The Chilean case presents us with a unique opportunity to understand educational vouchers due to the comprehensive and continuous nature of the reform. In this survey of the literature, fundamentals of school vouchers are first introduced, and the reform's application and development in Chile are discussed. Moreover, in order to understand the vouchers' impact on the education system, decentralization reform and institutional variables such as different school sectors and the rules that govern them are examined. The results show that school voucher reform interacts with decentralization, different school sectors borne of voucher reform are socio-economically segregated, and that the reform could not deliver the expected nation-wide improvements in primary education to date.

Keywords: Education Policy, School Vouchers, Universal School Choice, Chile.

INTRODUCTION

School voucher reform is one of the most controversial educational policy reforms today. The idea that parents who prefer to leave their public schools should be provided by the government with a voucher to enroll their children at private schools who accept these vouchers has its intellectual roots in Milton Friedman's (1962) proposal for school vouchers, and Chubb and Moe's (1990) theory of the organizational consequences of democratic control versus market accountability in education. These definitive works in the field proposed that a market for primary and secondary education rather than public provision is desirable on several grounds. First, parents should have the right to leave a failing school and enroll their children to other schools. Second, if parents do so, this will put pressure on failing schools' finances and threaten with closure, which in turn will force them to improve their education. Consequently, school competition will improve all schools and lead to educational innovation. Third, public schools are accountable to several layers of bureaucracy, which makes them feel less accountable to their immediate constituency, the parents and students. Hence, introducing private schools financed by educational vouchers will create a new private sector in education, private voucher schools, which would be far more accountable to students' and parents' needs and wants. Although, the market for education reform proposal has seemingly desirable

¹ Bu makale yazarın doktora tezinden üretilmiştir.

² This article is based on the author's PhD thesis.



characteristics, it is difficult to obtain credible evidence on whether these outcomes can be obtained in practice without a fundamental restructuring of the education system. Fortunately, we do not need a restructuring of the Turkish primary education or any other education system to see the outcomes of school voucher proposals. Such restructuring took place elsewhere. Carefully investigating the voucher proposals and their applications in different countries can provide credible evidence to set reasonable expectations on what school vouchers can achieve in different contexts. Significant experimentation with school vouchers has already taken place in many countries including England, Australia, New Zealand, and Chile (Wolf and Macedo, 2004; Plank and Sykes, 2003; Ladd and Fiske, 2001).

Chile underwent sweeping reforms in education in 1980, and witnessed the most drastic and thorough implementation of a school voucher system. The Pinochet government decentralized the administration of schools and began to provide school vouchers to all public and most private schools. The school voucher system was shaped by a group of University of Chicago educated Chilean economists who applied Friedman's school voucher plan (1962) to transform the public K-12 education in Chile. As a result, the Chilean universal school voucher system has become the most extreme and mature market reform in public education. The lump-sum voucher set at a standard amount (flat rate) that follows a student to a school, and the fact that such school vouchers can be used anywhere in the country resulting in the ability of parents to choose schools without district boundaries make the voucher system in Chile closest yet to the ideal voucher system proposed by Friedman (1962). However, the original design of the school voucher system did interact with the social and political realities of Chile in the past few decades, and affected how the competitive effects of this market-like system worked in practice. The aim of this article is to introduce the reader to this prime example of a universal school choice system, the Chilean universal school voucher system, and highlight the significant features of the system that interacted with other reforms and contextual factors so as to create its own unique characteristics despite the system's initial rules that mimicked text-book descriptions of an educational voucher system.

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This article begins with explaining the birth of the school voucher proposal, and its application in the broader context of social reform of the era. It discusses regional decentralization, the design of the Chilean school vouchers and how regional decentralization might have affected the school voucher outcomes. Next, it investigates the rules and regulations governing public schools and private voucher schools. It also reviews the literature on achievement in the Chilean school voucher system, which is directly linked to the argument that school competition in a voucher system should improve educational outcomes. Last, the lessons from the Chilean case are discussed with emphases on how practice in policy reform in this case departed from the initial reform design and the overall system wide effects of the universal school voucher system.

THE EMERGENCE OF SCHOOL VOUCHERS IN CHILE

Before the coup d'état of 1973, the Chilean education system was the most developed in Latin America in terms of its coverage and literacy rates (Castañeda, 1992). The Ministry of Education was responsible for administering public schools. Half of the remaining private schools was administered by the Catholic Church. The private schools were also receiving subsidies from the government, which covered almost 30% of their costs (Espinola, 1993). In this centralized system of education, the teacher union was strong and the teaching profession had high social status. With the coup d'état (1973) the centralized nature of public education and the privileges enjoyed by the Chilean teachers came under attack. But it was not until 1980 that the attack had a coherent ideology.

The neo-liberal ideological wave that swept the US following the election of Ronald Reagan, and Great Britain, under the Thatcher administration, became an all-pervading framework of ideas in Chile with the military regime (1973-1990). The junta of generals and admirals that seized power in 1973 lacked a definite government project. Their national security doctrine could not provide them with a vision for a new regime. The Chicago School of Economics and its Chilean students who later became Ministers under the military regime supplied Pinochet with a revolutionary project whereby political discourse of the Chilean democratic culture was replaced by an ideology that proposed economic and market solutions for practically all problems in society.¹

The neo-liberal revolution in Chile had two phases clearly differentiated by the economic crisis of 1982 (Oppenheimer, 2007; Valdes, 1995). The naïve phase of Chilean neo-liberalism created reforms without opposition or



criticism and witnessed a quick application of market reform without much attention to social adjustment costs. A group of University of Chicago educated economists occupied all the main state economic posts.ⁱⁱ The same group built social networks between the public sector and Chile's main centers of financial and industrial power, and participated in an active press and television campaign to spread the messages of neo-liberal economics.ⁱⁱⁱ This initial core of economic ministers and advisors devised and applied a wide range of neo-liberal reforms in many sectors traditionally considered public such as education and health-care. The second phase of reforms followed the economic crisis of 1982. This era was marked by the departure of the "Chicago Boys" (Valdes, 1995; Foxley, 1983) from office who were replaced by a second generation of Chicago-educated economists. This period ran from 1983 to 1989 and witnessed state-led corrections to the economy, and further privatization (Oppenheimer, 2007).

The hallmark of the first period of neo-liberal reform movement is the so-called "seven modernizations." In September 1979 General Pinochet announced that having reached some of the goals of national reconstruction, the government would now become a government of national modernization. The "seven-modernizations" referred to drastic changes in seven areas: labor policy, social security, education, health-care, regional decentralization, agriculture, and justice (Foxley, 1983). The intended direction of economic reforms were then to decentralize public institutions, leave as many of these activities as possible to the private sector, and let market private decision making dominate the economic arena. Hence, these reforms sought to create a private market for education, health, and housing services where the government would only guarantee the provision of free minimum services to the very poor.

The allocation of public funds for these services would be very centralized, and the public institutions distributing them at the local level would be directly dependent on the president. So, economic decentralization and political centralization would go hand in hand. Then newly enforced 1980 constitution helps better explain this strange mix of political centralization and local decentralization (Biblioteca del Congreso Nacional, 1980). The new constitution defined the nature of the political institutions of the new regime, but it would not be applicable until nine years after it was approved. Meanwhile transitory emergency regulations would prevail, which meant extreme political centralization. Hence, although the institutions stipulated in the constitution were mostly created in accordance with neo-liberal thinking on local autonomy and market reform their governance became very centralized under the emergency regulations.

One of the seven modernizations, regional decentralization, has affected the shape of "modernizations" in many public services including education. So, a discussion of the nature of regional decentralization is in order here. First of all, as mentioned above political centralization was embedded in regional decentralization. The junta divided the country into 13 regions and the regions into provinces and more than 300 municipalities. At each level, the president appointed governors and mayors from the military. During the 1970s, the Ministry of Education, similar to other ministries, deferred some powers to *Secretario Regional Ministerial*, or Regional Ministry Secretariats (SEREMIs), which were charged with administrative and supervisory duties formerly performed by the central ministry. Despite the apparent move toward decentralization, the system often functioned as a military chain of command, organized to implement central government directives (Parry, 1997, Stewart and Ranis, 1994). Mayors of municipalities would not be elected democratically until 1992, and there were no elected bodies. As a result, regional decentralization did not mean sharing power with the local constituency but rather organizing the military rule locally.

Another feature of the regional decentralization is the difference in wealth between municipalities that affected the resources these municipalities could bring to the provision of the newly decentralized public services. The policy of regional decentralization targeted mainly Santiago. In Greater Santiago, the policy of Pinochet further exacerbated the resource problem by doubling the number of municipalities in the area and creating more segregated zones within the Metropolitan Region of Santiago. According to the urban plan, *Plan Regulador*, the boundary lines between townships were drawn to make the municipal system more efficient by creating greater homogeneity within towns (MINVU, 1998). In the mean time, the government undertook a massive relocation of "pobladores", or working class people, out of well-to-do townships.^{iv} As a result of relocations and the boundaries of newly created municipalities, per capita income differences among municipalities peaked.

State funding further reinforced differences among towns. Revenues such as business taxes that formerly went to the central government and later redistributed now remained in the municipality. The sudden inflow of money to already



wealthy municipalities with large tax bases resulted in an increase in the range and quality of services in wealthy towns whereas poor towns could not even provide the basic services to its citizens (Oppenheimer, 2007; Salman, 1994). In fact, one of the first consequences of regional decentralization was the firing of thousands of people working in public services, including teachers because many municipalities were too poor to provide the basic municipal services (Oppenheimer, 2007).

It is against this background of political centralization, local decentralization and urban segregation through sometimes forced relocation that all the other “modernizations”, including modernization in education, took place. In the domain of education policy “modernization” meant (1) decentralizing the management of public schools from the Central Ministry of Education to municipal levels of government, (2) opening the way for private operators to create schools to compete with public schools, (3) creating a nationwide voucher system that pays equal amounts per child to both public and public and private schools, and (4) creating a testing system to provide information on school performance that will enable parents to choose where they send their children (McMeeken, 2004; Delannoy, 2000; Gauri, 1998; Parry, 1997).

While local governments would have jurisdiction over staff management at public schools and the right to hire and dismiss teachers and administer educational facilities, the Ministry of Education would maintain regulatory, pedagogical, and surveillance functions (Cox and Gonzales, 1998). In 1980, with the issuance of the Decree 3,476, the government started directly subsidizing public and private schools based on monthly enrolment (Espinola, 1993: 144). Consequently, both Catholic and for-profit nonreligious private schools began to receive vouchers in addition to the public schools. With the same decree, school buildings and land were signed over to municipal control (Gauri, 1998; Parry, 1997). All schools were transferred to municipalities by 1987 (Jofré, 1988). Moreover, *Sistema de Medición de la Calidad de la Educación* (SIMCE), System for Measuring the Quality of Education, was instituted. SIMCE serves as a standardized test of school-level achievement in mathematics, language, and science at 4th and 8th grades of the primary school and the 2nd year of high school. In brief, the reforms in education targeted mainly school governance and finance, and supplied the choice system with a testing tool to compare schools. Below is an in-depth discussion of reform in school governance and the vouchers.

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DECENTRALIZATION AND THE UNIVERSAL SCHOOL VOUCHER SYSTEM

In 1980 the military government transferred responsibility for public school management from the Ministry of Education to local municipalities. The Law of Municipal Revenues of 1979 served as the legal foundation for the transfer of schools to municipalities. The law created a centrally mandated system of municipal education. Municipal mayors, or *alcaldes*, most of whom were military officers, were ordered to assume control of educational services (Gauri 1998). After return to democracy mayors began to be publicly elected in 1992.^v

Once transferred to municipalities, public schools were placed under the control of one of two kinds of institutions. Most of the schools chose to manage their schools with *Departamento de Administracion de la Education Municipal*, or Department of Municipal Education Administration (DAEM). DAEMs are educational departments within municipalities, which exist under the larger umbrella of the municipal bureaucracy and are governed by municipal rules. They do not have a constitutional standing; hence, they are politically weak and dependent on other municipal units. DAEMs hire teachers for public schools, comply with ministerial provincial directorates’ requests for information and propose the municipal teaching endowments (Gaury, 1998). DAEMs do not manage resources or make financial decisions. The division of administration and finance within each municipality receives and distributes the vouchers to schools.

The second type of institution is called “Corporation”. Corporations are non-profit organizations that are not subject to direct mayoral control. Their operations are generally subject to fewer regulations. In contrast to DAEMs, the corporation head is not required to be a teacher and corporation employees are not subjected to municipal rules regarding the hiring and remuneration of municipal employees. The share of enrollment in corporation schools at the K-12 level has always been very low.

The decentralized system of school governance has never been similar to a local governance scheme whereby school administration can receive first hand information from the school environment and react to the demands of the



receivers of the service and the immediate community. Instead, public schools remained in the hands of a municipal bureaucracy with multiple layers each having a different function. Moreover, the decentralized system of school governance affected the extra resources that can be spent on education in different municipalities. Rich municipalities can add onto the voucher only for public schools and they may build school facilities.

In addition to administrative decentralization, the government drastically altered school finance. The deregulation of the K-12 education system in Chile was modeled after Milton Friedman's (1962) proposal for school vouchers. Before 1980, public school finance was determined by the need to sustain the existing teachers and the facilities. The private schools were subsidized before 1980, but they were charging tuition and receiving funds from other sources such as the Catholic Church to cover their costs (Carnoy and McEwan, 2003). After the reforms, the Ministry of Education began disbursing monthly payments to municipalities based on a fixed voucher multiplied by the number of students enrolled in their schools; private schools received equivalent per student payments if they did not charge tuition. According to Gonzales, Mizala and Romeguera's (2004: 2-3) classification Chilean vouchers are considered flat and lump-sum, because equal amount of per student vouchers are paid to schools automatically based on their monthly enrollment levels. As a result, payments to public and private schools began to fluctuate in proportion to student enrollments.

L.O.C.E. (*Ley Organica Constitucional de Enseñanza*), i.e. the Organic Constitutional Education Law, established a base voucher, which varied according to the level of education and the location of the school. Chilean law specifies a factor by which the base voucher is adjusted for students at every grade level. Both public schools and private schools that are deemed eligible to receive a voucher receive the base voucher and the adjustments. The base voucher itself can be considered a flat voucher. Selected municipalities receive "ad hoc" zone assignments to compensate for high poverty or isolation. Since 1987, schools within rural municipalities have received upward adjustments. Because of the economic crisis of the early 1980s, the declining copper prices in the 1980s, the real value of the voucher declined precipitously until the end of 1980s. It bounced back in the 1990s and continued to rise (Carnoy and McEwan, 2003; Gauri, 1998). Private voucher schools may also be financed by contributions from parents (shared financing), a practice instituted in 1996.^{vi}

Currently, there are at least 22 monthly and yearly upward adjustments to the base voucher based on the geographical location of the school, the needs of teachers teaching in poor, rural areas, or in schools with children with special needs or from disadvantaged backgrounds (Departamento de Estudios y Desarrollo 2007). Despite these adjustments the fact that parents can now add money onto the voucher if they wish to send their child to a tuition charging private voucher school creates inequalities in choices based on parental resources. Moreover, wealthy municipalities can add money onto the voucher for their public schools, which creates both inter-sectoral and inter-municipal inequalities. When these differences are taken into account school resources vary based on the location and the sector of the school; however, because most adjustments and transfers are also based on the average number of students enrolled in the school the pressure to enroll and keep more students continues to be a defining feature of the education system.

The initial reforms looked like a text book application of vouchers espoused by Friedman (1962). Flat vouchers based on monthly enrollment were accepted in most schools and parents were, and still are, able to choose any school. After the democratic government came to power in 1990, the form and function of Chile's voucher system were largely maintained although new policies were developed in addition to the existing ones such as the shared financing system of 1996. So, instead of changing the voucher system, *Concertación*, a coalition of center-left political parties in Chile, has put special emphasis on instructional reforms and investments.

Beginning in 1996, President Frei proposed a six-year reform that included lengthening the school day by 8 hours a week, developing new curricula for these additional hours, conducting teacher training and providing additional money for special innovative programs to be awarded on a competitive basis. School day was lengthened to 8 hours in the Lagos government. Also, the democratic government gave priority to improving poor primary schools through direct resource investments. The 900 Schools Program, P-900, was targeted at high poverty and low-achieving schools (OECD, 2004). In 1992, The Program to Improve The Quality of Equity of Pre-Primary and Primary Education (MECE) was initiated with World Bank financing to improve all public schools with textbooks, libraries, and infrastructure improvements. Later, President Michelle Bachelet highlighted education in her campaign and promised programs to reduce educational inequalities. In June 2006, however, she faced massive street protests by



public school students who demanded reform of the L.O.C.E. (Ley Organica Constitucional de Ensenanza) of the past military regime, and similar current protests erupt currently in Chile.

DIFFERENCES BETWEEN SCHOOL SECTORS

Public schools and private voucher schools

Chile's reforms encouraged a rapid growth in private school enrollment in the 1980s that was driven by a rapid expansion of nonreligious and profit maximizing schools. Hence, Chilean K-12 education has developed three sectors: public, private voucher and private non-voucher elite schools. Fee-paying private schools, which have always existed, do not compete with public schools, as their fee is, on average, about five times the per-student subsidy. On the other hand, the voucher plan created a massive redistribution of enrollment across private voucher and public schools. At the beginning of the 1980s, around 15 % of students were enrolled in private voucher schools and almost 80 % in public schools. During the return to democracy in 1990, the same figures became 32% and 58%. By 1996, around 33 % of enrollments were in private voucher schools. As of 2006, 44% of total enrollment were in private voucher schools, whereas 49.7 % of the students were enrolled in public schools (Departamento de Estudios y Desarrollo, 2007; OECD 2004). In 2012, a majority of K-12 students, 52.9% of them, is in private voucher schools (Departamento de Estudios y Desarrollo, 2012).

In addition to Catholic schools, many for profit private schools joined the voucher program. For-profit voucher schools best fit the description of educational privatization proponents (e.g. Chubb, 2001). They are profit driven, targeting large numbers of students in order to maximize profits from Chile's per-pupil voucher formula. They are often controlled by a group of off-site owners, in some cases with private shareholders, and often have ties to other industries, which permits them access to a greater number of potential customers and investors (Elacqua, Contreras, and Salazar, 2008). Private voucher schools with these characteristics are more likely to recruit and retain a higher portion of less expensive to educate students to maximize their profits. McEwan and Carnoy (2000) report that for-profit schools account for 21 % of primary school enrollments, whereas 10% of primary enrollments is in Catholic voucher schools. Using tax status to classify private schools, Elacqua (2005) finds that 70% of private schools is for-profit.

Non-profit voucher schools, including Catholic,^{vii} Protestant,^{viii} and secular organizations,^{ix} are more likely to be characterized by a mission that targets disadvantaged students. These schools, which are subsidized by the Church or local businesses, often have access to donated facilities and teachers willing to work for below-market salaries, and thus are able to provide a range of services to disadvantaged students whose costs exceed the voucher (Elacqua, Contreras, and Salazar 2008).

The students who enroll in each type of school are different in many respects. Those attending private non-voucher schools come from families that have much higher incomes on average, and are headed by parents with substantially more schooling. The average father of a student in a private non-voucher school has at least some college education, which is not true of any other school type. Differences among students from public and private voucher schools are somewhat less pronounced. Nonetheless, the families of students from private voucher schools are still of higher socioeconomic status than public school families as shown in Tables 1 and 2.^x



Table 1: Classification of Schools into Socioeconomic Groups for 4th Grade Students Taking the SIMCE Language and Mathematics Tests.

| SCHOOL'S SOCIO-ECONOMIC GROUP | YEARS OF EDUCATION | | HOUSEHOLD INCOME | THE VULNERABILITY INDEX (IVE)* MOTHER |
|-------------------------------|--------------------|--------------|-----------------------|---------------------------------------|
| | MOTHER | FATHER | | |
| LOW | Less than 9 | Less than 9 | \$0 - \$134.000 | 60,01% and more |
| LOW-MIDDLE | 9 - 10 | 9 - 10 | \$134.001 - \$215.000 | 37,51% - 60% |
| MIDDLE | 11 - 12 | 11 - 12 | \$215.001 - \$375.000 | 20,01% - 37,5% |
| MIDDLE-HIGH | 13 - 14 | 13 - 15 | \$375.001 - \$800.000 | 0,01% - 20% |
| HIGH | More than 14 | More than 15 | \$800.001 and more | 0 |

* IVE stands for the percentage of vulnerable students in the school. It refers to the percentage of students benefiting from the National School Aid and Scholarships Program (JUNEAB) in each school.

Source: Departamento de Estudios y Desarrollo, 2007

Table 2: Distribution of Students and Schools across School Socioeconomic Status Groups and Sectors for 4th Grade Students Taking the SIMCE Language and Mathematics Tests.

| SCHOOL'S SOCIO-ECONOMIC GROUP | ENROLLMENT | | | SCHOOLS | | |
|-------------------------------|------------|-------------------|-----------------------|------------|-------------------|-----------------------|
| | % Public | % Private Voucher | % Private Non-Voucher | % Public | % Private Voucher | % Private Non-Voucher |
| LOW | 7% | 2% | | 29% | 9% | |
| LOW-MIDDLE | 24% | 7% | | 22% | 6% | |
| MIDDLE | 14% | 21% | | 6% | 12% | |
| MIDDLE-HIGH | 1% | 15% | 0% | 1% | 9% | 1% |
| HIGH | | 1% | 6% | | 1% | 5% |
| NATIONAL | 47% | 46% | 7% | 58% | 37% | 5% |

Source: Departamento de Estudios y Desarrollo, 2007

The differences are even more visible when we look at the share of vulnerable children in each school sector 32% of total enrollment in private-voucher schools without tuition is composed of vulnerable students whereas the same figure for private voucher schools with tuition is 10.8%. The add-ons to the voucher seem to create further segregation within the voucher school sector based on parent resources. Inter-sectoral and socio-economic differences are also reflected in academic achievement. Tables 3 and 4 show language and mathematics SIMCE scores of 4th and 8th graders across school sectors and school socio-economic status (Unidad de Currículum y Evaluación, 2008). Average SIMCE scores across sectors for both language and mathematics show a private school advantage. However, when we look at each school's socioeconomic status group, public, private voucher, and private non-voucher schools perform best among low, middle, and high status groups respectively.

Table 3: Distribution of SIMCE Language and Mathematics Test Scores across School Socioeconomic Status Groups and Sectors for 4th Grade Students

| SOCIO-ECONOMIC GROUP | LANGUAGE | | | MATHEMATICS | | |
|----------------------|------------|-------------------|-----------------------|-------------|-------------------|-----------------------|
| | % Public | % Private Voucher | % Private Non-Voucher | % Public | % Private Voucher | % Private Non-Voucher |
| LOW | (+)239 | 230 | - | (+)224 | 210 | - |
| LOW-MIDDLE | 236 | 240 | - | 225 | 229 | - |
| MIDDLE | 248 | (+)258 | - | 240 | (+)250 | - |
| MIDDLE-HIGH | 274 | 278 | - | 269 | 273 | - |
| HIGH | - | 292 | (+)300 | - | 291 | (+)299 |
| AVERAGE | 241 | 261 | 299 | 231 | 254 | 298 |

(+) means that the average SIMCE score is higher for that school sector among schools with the same social group.



Source: Departamento de Estudios y Desarrollo, 2007

Table 4: Distribution of SIMCE Language and Mathematics Test Scores across School Socioeconomic Status Groups and Sectors for 8th Grade Students

| SOCIO-ECONOMIC GROUP | LANGUAGE | | | MATHEMATICS | | |
|----------------------|------------|-------------------|-----------------------|-------------|-------------------|-----------------------|
| | % Public | % Private Voucher | % Private Non-Voucher | % Public | % Private Voucher | % Private Non-Voucher |
| LOW | (+)233 | 225 | - | (+)234 | 224 | - |
| LOW-MIDDLE | 235 | 238 | - | 236 | 240 | - |
| MIDDLE | 246 | (+)258 | - | 248 | (+)260 | - |
| MIDDLE-HIGH | (+)292 | 277 | - | (+)299 | 281 | - |
| HIGH | - | 299 | 301 | - | 308 | (+)314 |
| AVERAGE | 241 | 260 | 299 | 242 | 263 | 312 |

(+) means that the average SIMCE score is higher for that school sector among schools with the same social group.

Source: Departamento de Estudios y Desarrollo, 2007

In addition to class and sector differences, the Chilean education has a sharp rural urban divide. Only 12.4% of the total enrollment is in rural areas in Chile, but rural areas have 48.7 % of all schools in Tables 5 and 6 (Unidad de Currículum y Evaluación, 2008). The difference is due to the high supply of public schools: 79.3% of all schools in rural areas is public. Because the density of the population is low in rural areas the private school supply remained limited. However, the number of schools needed to address the needs of scattered families is high, and public schools address the needs of these families. This article focuses on the Metropolitan Region of Santiago because of its competitive urban context and population density. School choice policies including vouchers are often proposed as cures to the ills of inner-city public schools; hence, focusing on the urban context is particularly useful. However, it should be noted that the market-like school choice arrangements are least likely to take root in rural contexts where the number of children is not high enough to attract several private schools to the area. Hence in such areas, school supply remains too low to induce competition.

Table 5: Distribution of Schools across Rural and Urban Areas and School Sector

| Geographic Area | Public | | Private Voucher | | Private Non-Voucher | | Total | |
|-----------------|--------------|--------------|-----------------|--------------|---------------------|-------------|--------------|-------------|
| | Count | % | Count | % | Count | % | Count | % |
| Urban | 1.777 | 39,2% | 2.328 | 51,3% | 430 | 9,5% | 4.535 | 51,3% |
| Rural | 3.415 | 79,3% | 876 | 20,3% | 15 | 0,3% | 4.306 | 48,7% |
| Total | 5.192 | 58,7% | 3.204 | 36,2% | 445 | 5,0% | 8.841 | 100% |

Source: Unidad de Currículum y Evaluación, 2008

Table 6: Distribution of Enrollment across Rural and Urban Areas and School Sector

| Geographic Area | Public | | Private Voucher | | Private Non-Voucher | | Total | |
|-----------------|------------------|--------------|-----------------|--------------|---------------------|-------------|------------------|-------------|
| | Count | % | Count | % | Count | % | Count | % |
| Urban | 827.593 | 44,0% | 914.139 | 48,6% | 137.393 | 7,3% | 1.879.125 | 87,6% |
| Rural | 205.436 | 77,2% | 57.760 | 21,7% | 2.781 | 1,0% | 265.977 | 12,4% |
| Total | 1.033.029 | 48,2% | 971.899 | 45,3% | 140.174 | 6,5% | 2.145.102 | 100% |

Source: Unidad de Currículum y Evaluación, 2008

Rules and regulations governing public and private voucher schools

Public and private voucher schools in Chile differ in many respects: the standards they have to comply with, their ability to hire and fire teachers, school finance, and admissions practices. In order to understand whether those



differences parallel Chubb and Moe's expectations of private and democratic accountability and characterization of public and private schools this article discuss the establishment and operation standards, rules and regulations governing teacher's employment, school's financial resources, and admissions policies first for the public school sector and then for the private voucher school sector.

As explained above public schools are governed by municipalities through DAEMs and they receive their financing including vouchers from the division of administration and finance within each municipality. Hence, their many functions are monitored and supported by different layers of the municipal bureaucracy. In addition to accountability to DAEMs, the public schools have to comply with the Ministry of Education regulations.

The role of the Ministry is supposedly limited to "technical-pedagogical issues", with administration left to municipalities, or in the case of private schools, to the school owners but the Ministry's technical role gives it discretionary power in setting the curriculum. Because the minimum curricular requirements are high few schools can propose its own curriculum. The Ministry enforces its rules on curriculum, infrastructure, and classroom capacity by auditors from the ministerial provincial directorates (DIRPROVs) to check schools' physical state, possession of necessary documents, conformity with ministerial norms and enrollment records (Gauri, 1998: 26-27). These regulations apply both to public schools and private schools.

There are other regulations, however, that apply mostly to public schools.^{xi} Ministerial Decrees define the role of the director, inspector, the pedagogical unit, the administrative unit, teacher's council, the parent association, and student organization. Also the documents public schools are permitted to keep, grade scales, tests that should be administered in certain intervals, and personnel ranks are all enumerated by the Ministry and enforced by the SEREMIs.^{xii}

In addition to these regulations public schools are constrained in their governance because of the Teacher Code that governs the hiring and firing of their teachers. At the beginning of the education reform movement, the military government dissolved the teachers' union and fired teachers with anti-junta views (Parry, 1997). Teachers lost their status as civil servants, reverting to municipal contracts (Gauri, 1998; Parry, 1997). In the mean time teachers became municipal employees and instead of conforming to the national *Escala Unica de Remuneraciones* (The Scale of Renumerations), their wages and working conditions were governed by the more flexible *Código de Trabajo* (Labor Law). As a result, teachers lost guaranteed job security, paid vacations, standard wage scales, a 30-hour week, and the right to collective bargaining.

With the return to democracy teachers began seeking improved wages and working conditions. Negotiations between the government and teachers resulted in the passage of the 1991 *Estatuto Docente* (Teacher Code), which introduced regulations to the public school teacher market. Wage floors were set for teachers with various levels of experience and training; these minimum wages were legislated to vary in lockstep with the voucher's value. Limits on hiring and firing of public teachers were also introduced.

Public school teachers could be hired as either tenured or contracted teachers. Tenured teachers were to be hired through public contests in each municipality, and severe restrictions were placed on their firing and reassignment. If they are fired from one school they have to be rehired in the same township unless a serious crime is committed. The *Estatuto Docente* makes it unlawful for municipalities to dismiss teachers on the grounds of a decline in enrollment, or even to transfer a teacher to another school with greater enrollment without her consent (Biblioteca del Congreso Nacional 1996).^{xiii} Contracted teachers had fewer restrictions placed on their hiring and firing but could account for no more than 20% of a municipality's teacher work force. The contracts of private school teachers were still governed by the *Código Trabajo* (Labor Code), which permitted significantly more flexibility in hiring and firing for private voucher schools.

Although public and private voucher schools are both eligible to receive the same per student voucher, wealthy municipalities can add to the per student voucher, transfer funds to schools in financial distress, or build school facilities. However, they can not officially try to reduce their costs by "cream skimming" easy to educate students because public schools are legally forbidden from administering admissions tests or selecting students by other means. However, most private voucher schools apply informal interviews, and certain parents can be discouraged from applying to the school during the interview.



Unlike public schools, private voucher schools are not governed by DAEMs but by their governing boards, or owners. In the first few years of the voucher programs, setting up a private voucher school had very few requirements such as holding a primary school degree; however, over time complaints about lax standards somewhat increased the requirements private voucher schools should comply with. For instance, in 1983, the Ministry authorized SEREMIs to inspect schools for safety and hygiene (Decree 81/83), and gave the provincial directorates the authority to establish the required teaching materials for each school (Decree 615/83). A decree passed in 1996 also requires private voucher schools to have at least 15% vulnerable students. Despite the increase in regulations, the standards they are subjected to still do not go beyond what is necessary for maintaining the infrastructure, except for curriculum as explained above.

The initial requirements to set up a private voucher school are explained each year in the “*Educational Subvention Guide*” published by the Ministry of Education (Departamento de Estudios y Desarrollo, 2007). The school founder, *el sostenador*, who is responsible from the operations of the private voucher school is required to have secondary education, and no serious criminal record. 51 % of private voucher schools belongs to individual owners. If the *sostenador* is a legal person, similar rules apply to its members. In order to be eligible for vouchers there are 8 simple rules for the school (Departamento de Estudios y Desarrollo, 2007: 4-5):

1. The school should be officially recognized by the SEREMI.
2. The school should have at least 15% vulnerable students (Decree 196/1996).
3. The regulations on the maximum and the minimum number of students should be applied to class size unless otherwise noted by the Ministry for pedagogical or other reasons.
4. The school should have a full cycle of grades as required by the level of education.
5. The school should have an internal regulation specifying the rights and duties of the school, students, and parents and what should be done in case of noncompliance. The internal regulation should be communicated to the parents at the time of registration and amendments should be immediately sent to parents. Only those sanctions and measures that are in the internal regulation can be applied.^{xiv}
6. The school office have a publicly visible notice stating the admissions rules and disciplinary measures according to the law N°18.962 and to the Decree N°2 of 1998 of Subsidies.
7. No real or legal person can supply funds for the school that violate registration rules except as authorized by the law.^{xv} In the case of schools that implement processes of selection, the total and conditions of the registration fee should not exceed the limit set by the Ministry.^{xvi}
8. The school should abide by the personnel contracts, and laws governing their payments.

In brief, private voucher schools should adopt the minimum requirements in curriculum, comply with the maximum class-size number, possess a complete cycle of primary or secondary education, charge no more than the small fees deemed permissible, and pay the social security of the employees. In 1986, a series of infrastructure requirements were imposed on private voucher schools because of alleged abuses (Gauri,1998). The decrees that followed set exact measurements on school infrastructure and equipment, which suddenly increased the costs of the schools. Because the adaptation period was short many schools closed down as a result. However, the 1986 requirements are no longer enforced or rarely enforced. It is extremely rare that a school closes down because it does not comply with these requirements. Perhaps the only real scrutiny private voucher schools are subjected to is their financial audits. Auditors from the DIRPROVs randomly check attendance documents because schools have an incentive to over-report their enrollment to receive more vouchers. Failure to comply with proper account keeping rules results in large fines (Circular 606, MINEDUC).

Private voucher schools face no extra limitation in dealing with the teachers compared to other personnel because their contracts are governed by the *Código Trabajo* and not by *Estatuto Docente*. Most private voucher school teachers are not in a union. The relative lack of job security resulted in the hire of relatively inexperienced young teachers especially by the for-profit private voucher schools. Some of these teachers had to work in two schools because the schools operated in a two-shift basis. Unlike private voucher school teachers, public school teachers tend to be more experienced, and work for the same school for longer periods of time (Departamento de Estudios y Desarrollo, 2006) because only public schools have a tenure system. The fact that wealthy municipalities can add funds to the voucher help their public schools employ more experienced and better teachers.



Private voucher schools' main source of income is the per student voucher. As mentioned above, the policy of shared financing, which began in 1996, contributed to their income. 43% of all private voucher schools charge tuition, however small (MINEDUC 2008). The tuition contributions do not reach the level of wealthy municipalities' contributions to their public school. However, private voucher schools with religious affiliation can receive funds from their religious organizations, and some voucher schools that belong to a network with private elite schools receive add-ons to the voucher.^{xvii} In addition, private voucher schools can use student selection tools such as exams, but their criteria should not be based on social class. In short, except the minimum standards by the Ministry of Education the school owner has the authority in all decisions in a private voucher school. The school is not subjected to the authority of DAEMs. Setting up a school is fairly easy. The owner basically needs to have a high school degree and comply with building codes and space requirements, and have a list of teachers. Gauri (1998) and Magendzo et al. (1988), however, argue that compared to any other period of Chilean history the government monitors private schools more closely and frequently. Monitoring and standardization may have increased in Chilean education for all schools; but there is a clear difference between public and private school governance, their supplemental resources and their flexibility in the teacher labor market. Despite intra-sectoral differences especially for the private voucher school sector, the institutional arrangements that allow for private voucher schools seem to give them the incentive to cater to their parents' wishes more.

School sectors and standardized test scores

Given the enormous energy devoted to educational reform in Chile, the fact that Chile scores badly in international tests, and that its own testing system SIMCE shows only slight improvements cause major disillusionment with how the educational system performs as a whole (OECD, 2004). Hsieh and Urquiola (2006) using differences across roughly 300 municipalities show that the first effect of the school voucher program was increased sorting and not improvements in test scores, as the "best" public school students switched to the private sector. Using test scores, repetition rates, and grade for age as measures of achievement, they find no evidence that the large reallocation of students from public to private schools improved average educational performance in Chile.

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Most parents rely on reputation of the school in their school choice decision, and in Chile reputation is simply a function of the social class of a school's student population. SIMCE results were not widely distributed because of resistance from teachers, who feared it would be misinterpreted. Instead of social background of the students and the low level inputs to the school parents would blame the teachers (Gauri, 1998). Although the test scores' public dissemination increased over time, parents may have hard time interpreting them because the SIMCE scores do not control for selection bias and do not provide value-added information per student. As a result, parents may use social class as a shortcut to academic success, which in turn reduces the pressure on private voucher schools to improve their test scores. Instead, they can attract parents by enrolling and keeping students from relatively higher social classes, hence, reducing their overall costs.

In fact, Carnoy and McEwan (2003) concluded that private voucher schools do not score higher than public schools. Using Spanish and Mathematics achievement test data collected by the Ministry of Education between 1990 and 1997 and background data on students they (McEwan, 2001; McEwan and Carnoy, 2000) find that non-religious privately run voucher schools are marginally less effective than public schools in producing Spanish and Mathematics achievement in the fourth and eighth grades after controlling for socioeconomic status. Nonreligious private voucher schools are even less effective compared to public schools when they are located outside of the capital of Santiago. McEwan and Carnoy (2000) argue that the difference may be due to the different resources in nonreligious voucher schools such as the existence of a greater percentage of teachers with short-term contracts. On the other hand, Catholic voucher school students score higher than public school students controlling for SES differences and selection bias.

Although they produce somewhat lower test scores non-religious private voucher schools cost about 13% less than public schools. The differences in costs may be due to regulations imposed on municipal schools but not on private voucher schools. These include higher public-sector wages for teachers and other personnel and less public-sector flexibility in managing infrastructure investments. Catholic schools produce somewhat equal test scores but they are equally cost-effective controlling for test-scores, student social class, and school location. McEwan and Carnoy (2000) argue that Catholic schools spend more in absolute terms compared to public schools, thereby producing



greater achievement, even though their cost effectiveness is similar to that of public schools. They also argue that thanks to vouchers and public school response to increased competition, the average scores of pupils in public schools may have increased by 1990 to the point where public school effectiveness achieved parity with private schools.

Also, McEwan and Carnoy (1999) find that the effect of private voucher school competition on test scores is positive in the metropolitan region of Santiago, though modestly so, accounting for a roughly .2 standard deviation increase in test scores over 15 years. Outside the metropolitan region competition has small negative effects. The lack of or the minimal size of competitive effects may have two reasons. First, some public schools may lack the proper incentive to compete, in spite of declining enrollment and revenues. Gauri (1998) explains that some municipalities faced “soft” budget constraints during the 1980s. When voucher revenues declined, these national governments lobbied the national government for extra budget allotments, instead of improving quality. Second, some public schools may not possess the means to improve quality, even given proper incentives because they may simply lack the financial, administrative, or pedagogical resources that are necessary to raise achievement.

CONCLUSIONS

The universal school voucher system in Chile was modeled after Milton Friedman’s (1962) proposal for school vouchers. Hence, its design is very close to his idea of creating a market for schools. The vouchers are flat and can be spent in public or private schools, including religious private schools. Parents can enroll in any school, and all parents have to make a school choice decision. With the shared financing scheme introduced in 1996, parents can add money onto the voucher. Moreover, As Friedman would have predicted a host of new schools have entered the K-12 market. The growth in the private voucher sector was driven by for-profit voucher schools. The criteria for eligibility to receive a voucher for private schools are not strict.

These main features of the existing system seem to fit Friedman’s (1962) description of a school voucher system. However, there have been other developments that affected how schools are financed and governed such as the military regime’s urban policy. That policy created segregated zones within metropolitan areas and increased the resource gap among municipalities. Combined with the decentralizing features in the education reform, school finance became more local than ever for public schools in Chile. Public school resources came to vary according to municipal transfers in addition to school enrollment, and the fact that such transfers apply only to public schools skew the playing field considerably in favor of public schools. As a result, it is extremely rare that a public school closes down for financial distress. However, such disclosures have happened in the private voucher school sector especially in the mid 1980s (Gauri, 1998).

Also, the local control of public schools typical of school voucher proposals is not the municipalization observed in Chile. The military regime’s application of decentralization created another layer of local control by the junta of generals. As a result, it was not geared towards getting first hand information on what students and parents need and want and making changes accordingly. The mayors, and the high-ranking personnel of the military employed in the DAEMs had very little information on governing schools. With the return to democracy, mayors have become publicly elected. Public election of the mayor of a municipality should increase her sensitivity to local educational needs; however, election zones are smaller than where the vouchers can be spent, basically everywhere in the country. It is because most public school students go to schools in their township that the wealthy municipalities have an incentive to transfer extra resources to schools either in funds, or as school facilities.

Aside from the effect of decentralization on the finances of public schools in wealthy municipalities, the main structure of the initial design is still in place in Chile. Flat vouchers, with many but minor adjustments, accepted in public and private schools everywhere, and almost free entry into the private voucher school market make the Chilean system very close to what Friedman prescribed in the 1960s. However, Friedman himself left the consequences of having both public and private schools in a voucher system open. As the Chilean case shows once the school voucher reform is applied, the sectoral differences become more visible. In order to understand how the voucher school system performs as a whole, we need to understand the environment surrounding the different types of schools.



Chubb and Moe (1990) characterize public and private schools as institutions with different constituencies operating in different environments. Public schools are accountable to many constituencies and the bureaucracies that regulate them. As a result, they have less autonomy, and they are less likely to prioritize their most immediate constituency, the parents. On the other hand, private schools are autonomous and because their survival depends on the parents they serve they are more attuned to their needs. The review of the governance of Chilean public and private schools show that public and private voucher schools are somewhat similar to the ideal types described by Chubb and Moe (1990). Public schools are governed by DAEMs which are municipal organizations, yet they are also subject to Ministerial regulations due to several government decrees on education in public schools. As a result, they are embedded in municipal and national bureaucracies. On the other hand, private voucher schools are relatively autonomous. Their owner or the governing board is responsible from the administration of the school. The schools have to comply with the minimum standards set by the Ministry in health and safety, infrastructure, and account keeping.^{xviii} It seems the only exception is the curriculum standard, which is considered too high by most schools. Moreover, municipalities help their public schools, if they can, by increasing their vouchers or by building facilities. Although private voucher schools may charge tuition, this extra-income fluctuates according to enrollment whereas the far higher extra-funds given by wealthy municipalities to public schools shield public schools from enrollment pressures.

The similarities to Chubb and Moe's (1990) account of public and private schools having different accountability structures seem to have increased after the return to democracy. Although the military government wiped out teacher unions, and subjected teacher contracts to the Labor Code in the 1980s, with the return to democracy teachers in public schools once again strengthened their job security with the new Teacher Code. Even if a public school loses students and faces financial distress, the tenure policies for teachers protect them from getting fired. There is no similar protection for private voucher school teachers. Their employment is governed by the Labor Code, which makes hiring and firing teachers considerable easier. As a result, teacher's employment is linked to the survival of the private voucher school, which runs on per student vouchers.

In short, although the main features of the school voucher system and how public and private voucher schools operate parallel assumptions of the school voucher proposals in the literature, one should pay attention to contextual changes in the system, especially in school finance, which may mediate the effect of vouchers on school outcomes. First, with the urban decentralization in the Chilean context, the resource differences between municipalities seem to affect the degree to which public schools are exposed to enrollment threats. Second, the shared financing scheme creates an extra source of revenue for tuition charging private voucher schools, and 43% of all voucher schools (MINEDUC, 2008) charge additional tuition. Although small, these tuitions may change the status of these schools in the eyes of the parents. The tuition payment is directly made by the parents unlike the voucher, which automatically follows the child to the school. Hence, empirical studies should account for municipal wealth and tuition for private voucher schools. Third, employment of teachers is governed by two different laws. School voucher outcomes should be interpreted with an eye on these two different incentive sets for teachers, one with a tenure system and the other without it.

Another set of impacts involves academic quality in K-12 education. One educational outcome linked to school vouchers is improved test scores. However, improved test scores do not directly follow from the market model of education, which promises efficiency, i.e. reduced costs for the same level of educational output broadly defined. Despite the fact that improved test scores is not a central feature of the idea of having a market for schools, previous research has focused on whether the universal school voucher system delivered higher test scores. As discussed above, McEwan and Carnoy (1999) show that controlling for student level confounding effects the private school advantage in standardized test scores diminishes. Also, Hsieh and Urquiola (2006) showed that the most immediate impact of school vouchers has been parental sorting based on socio-economic status and not improving test scores. Moreover, stagnating or marginally improving scores in international tests have been a cause of concern for Chileans since the inception of the universal school voucher system. Hence, the evidence has so far shown that the universal school vouchers could not produce higher test scores, or an organizationally effective private school sector that improves test scores controlling for parental demographics.

The relative high satisfaction of private voucher school parents compared to public school parents may explain why after the transition to democracy Chilean governments have kept the basic structure of the universal school voucher system of the military regime despite stagnating test scores. The democratic governments of Chile made changes in



regulations governing hiring and firing of teachers in the public school sector in the 1990s, but the same governments did not alter the rules of the game for private voucher schools. Despite recurring legal proposals for strict control of private voucher schools, the changes in the laws governing educational institutions at the K-12 level kept the for-profit status and autonomy of private voucher schools.

From the perspective of academic achievement, the stability of the universal school choice policy has become more of a curse than a blessing. The finding (Erisen, 2008) that private voucher school parents' satisfaction is driven by non-academic considerations suggest that parental pressures can not be counted on to improve academic achievement. If parents and schools care more about social class than academic achievement, and if they are satisfied with their schools, educational reform proposals that aim to improve academic achievement by altering the structure of the existing school voucher system may not find a broad constituency supportive of change. If a large number of parents were unhappy with their schools it would be easier to address the problem of stagnating test scores in Chile by new educational reform movements. In the long run, however, democratic politics of education can also give parents and students in low income schools, which are mostly public schools, a political voice. They may demand more educational equality and create a countervailing force against private voucher school parents who prefer to keep the current system as it is.

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ⁱ In fact, market reform ideas began to take shape at beginning of the 1950s in the publications of Economic Commission for Latin America of the United Nations, and in collaborations between University of Chicago Department of Economics and Universidad Catolica in Chile.

ⁱⁱ As part of a contract between the University of Chicago, the Universidad Catolica de Chile, and the International Cooperation Administration (later Agency for International Development), which fostered the study of economics in Chile, a group of twenty six Chilean economists were trained in Chicago. Some of them were hired as full professors upon their return to Chile by Universidad Catolica where they completely transformed the economics department with the help of their professors at Chicago. Hence, Universidad Catolica’s “Chilean Project” supplied the human capital needed by the military government to create a new regime and became the ideological hub for the social reforms that followed.

ⁱⁱⁱ Similar 1980 television series “Free to Choose” by Milton Friedman was broadcast in the US by Public Broadcasting Corporation. The series was updated in 1990 with introductions by figures like Arnold Schwarzenegger and Ronald Reagan.



^{iv} Urban policy created a large number of people called “guests” forced to live with relatives or friends. Out of 12 million Chileans in the late 1980s about 2.5 million were guests (Clert and Wodon, 2001).

^v Local mayoral elections and universal school vouchers that can be spent in any municipality would create a dilemma for mayors if parents tended to choose schools across municipalities. Better service provision would increase the demand from parents living outside the municipality for the municipal schools. Because elections of mayors are local and out of municipality parents cannot vote in local elections, mayors would have decreased political pressure to improve the municipality’s schools. However, wealthy municipalities still transfer extra-funds to their schools. The existence of such transfers may indicate that parents tend to choose schools in their municipalities. Hence, urban segregation and geographically clustered school choice sets of parents may still make these transfers electorally useful for mayors.

^{vi} The “shared financing” law in Chile allows private voucher schools and public high schools to charge fees that can be up to 1.6 times the basic voucher payment. Discounts to vouchers are applied progressively. If monthly tuition is less than half the level of the *Unidad de Subvención Escolar* (USE), no discount is applied. Tuition fees between one half and one USE incur a 10% deduction. Fees between one and two USE incur a 20% deduction. Fee charging schools must also devote up to 10% of their additional income to finance scholarships. The USE is the monetary index, valued at \$14.206,936 Chilean pesos (US\$ 29.6) in 2007.

^{vii} Branches of the Catholic Church include religious orders, parishes, archdiocese, and religious foundations.

^{viii} Protestant church schools include Methodist, Baptist, Seventh-Day Adventist, Anglican, Lutheran, Presbyterian churches.

^{ix} Most of the secular nonprofit schools are branches of foundations that were created for other specific tasks, such as the Aid Corporation for Children with Cancer. Some foundations were created by community development groups such as the Rural Social Development Corporation.

^x The figures presented in Tables 1 and 2 are available only for the 2007 examinations. The Ministry of Education in Chile determines the socio-economic status of schools based on the information collected with the administration of SIMCE tests, based on -among other things- parent surveys. SIMCE test are administered in all schools at 4th and 8th grades of the primary school and the 2nd grade of high school. Hence the Tables 1 and 2 show enrollment and the number of schools across socioeconomic categories and school sectors based on 2007 SIMCE tests of language and mathematics for 4th graders.

^{xi} Rules on the selection of school names and colors for school uniforms apply to both sectors, public and private vouchers.

^{xii} See <http://www.seremi13minvu.cl/> for different Decrees and Laws applied by the Metropolitan Region of Santiago SEREMI.

^{xiii} See <http://subvenciones.mineduc.cl/seccion/documento/2D2002040416132811094.pdf> for the *Estatuto Docente*.

^{xiv} The 5th requirement entry continues with the internal disciplinary measures. See <http://w3app.mineduc.cl/mineduc/ded/documentos/Guia%20Subvenciones%202007.pdf>

^{xv} In 2007, the maximum contribution at the time of registration was 3,500 Chilean Pesos. The contribution can be paid monthly. Also, Parents Association can charge contributions up to 16,000 Chilean pesos, which can be paid in installments.

^{xvi} In 2007, such schools were allowed to charge selection fees up to 3,500 Chilean Pesos.

^{xvii} The information is based on an interview with Gregory Elacqua, former advisor to the Chilean Minister of Education, dated February 20, 2008.

^{xviii} However, one should also note that religiously affiliated private voucher schools may have their respective religious bureaucracy.