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Postal Address:
Institut d'Economia de Barcelona
Facultat d'Economia i Empresa
Universitat de Barcelona
C/ John M. Keynes, 1-11
(08034) Barcelona, Spain

Tel.: + 34934034646
ieb@ub.edu
http://www.ieb.ub.edu

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# IS THERE REAL FREEDOM OF SCHOOL CHOICE? AN ANALYSIS FROM CHILE * 

Mauro Mediavilla, Adrián Zancajo


#### Abstract

Between 1981 and 1990, Chile began to implement an education reform based on school choice and a financing system through vouchers. In theory, the system ensures complete freedom of choice of school by families. This paper attempts to identify the existence of factors that conditioned the enrolment process in the different types of schools existing nowadays in the Chilean educational system, the largest quasi-market of Latin America. Results show a social stratification and separation by schools and indicate how geographical distance and social composition are the most critical factors for families when choosing a school.


JEL Codes: I21, I28
Keywords: School choice, social class, quasi-markets, voucher, Chile

Mauro Mediavilla<br>University of Valencia \& IEB<br>Avda Tarongers s/n<br>46022 Valencia, Spain<br>E-mail: Mauro.Mediavilla@uv.es

Adrián Zancajo<br>Autonomous University of Barcelona \& GEPS<br>08193 Bellaterra (Cerdanyola del Vallès)<br>Barcelona, Spain<br>E-mail: adrian.zancajo@gmail.com

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## 1 Introduction

Between 1981 and 1990, during the military dictatorship, Chile implemented an ambitious education reform based on school choice and a financing system through vouchers (Delannoy, 2000). This reform of the educational system and subsequent reforms were aimed at improving the quality of education through the interaction between free choice for families and competition between schools for students. Parallel to this process, there has been a significant increase of the private sector share in education, especially private subsidised schools.

Although the voucher system is universal, and therefore every family can benefit from it, some studies show that the free school choice policy applied in Chile has resulted in a significant increase in social stratification between schools (Hsieh and Urquiola, 2006; Elacqua, 2012; Mizala and Torche, 2012). Specifically, there is a higher concentration of students from families with low socioeconomic status in public schools than in private schools. This increased separation can be explained by differences in the processes of choosing a school among families, as well as by the strategies developed by educational providers to select their students.

From the perspective of families, the educational policies implemented in Chile have been established assuming symmetric information and that families' school-choices are based on quality criteria. However, several international studies show that the costs of getting quality information are not equal for all families and many of them choose schools not strictly based on criteria linked to their educational quality (Karsten et al., 2001; Ball, 2003, Waslander et al., 2010). In addition, the academic literature shows how, in competitive environments, schools develop strategies to avoid being chosen by certain families while they enhance their opportunities to select the best students (Yair, 1996; Hoadley, 1999; Broccolichi and Van Zanten, 2000).

This paper analyses the factors affecting the choice of different providers by families and the role of provider behaviour in these decisions. The results reveal the importance of social class,
information and family expectations on school choice. This conclusion, like Saporito (2003), Schneider et al. (2006) and Alegre and Ferrer (2010), show a social stratification and separation by schools and indicate how distance and social composition are the most critical factors for families when choosing a school.

The study is divided into five distinct sections. First, we introduce the main features of the Chilean education system, with particular emphasis on the different types of providers and the system characteristics that influence families' choice of schools. Second, we review the literature on the determinants of school choice by families and their consequences in terms of social stratification. Third, we discuss the methodological aspects of our analysis funded on the description of the database and the variables used. Fourth, we present the results obtained based on the types of schools currently available in the Chilean education system. Last, we present our main conclusions.

## 2 The Chilean Education System

During the 1980s, and in the context of the neoliberal reforms that were carried out in multiple sectors, Chile implemented an educational reform based on school choice and competition between schools. Because of these reforms, the Chilean education system has become the largest quasi-market of Latin America.

These reforms are characterized by the creation of a single system of public financing - voucher system- in which the government pays a fixed amount for each student enrolled in public or subsidized private schools. Moreover, another element that characterizes this model is the decentralization to the local level of the management of public schools (Bellei, 2007). About $90 \%$ of Chilean students in primary and secondary schooling have their educations funded through this voucher system (Paredes and Ugarte, 2011). At the same time, families have total freedom of school choice without any type of school zoning system.

Figure 1 shows the evolution of enrolment at all educational levels, except for higher education, by type of school. In the Chilean education system there are four types of schools: municipal public schools administered by local governments; subsidized private schools funded from the voucher system; private schools fully financed by families and, a fourth type established by corporations, which consists of technical secondary schools run privately but publicly funded. Because this study focuses on the primary level, we look at only the first three types.

As can be seen in figure 1, during the 1980s, and as a result of the educational reforms implemented during decade, the percentage of students enrolled in private schools (subsidized and non subsidized) increased dramatically, from $22 \%$ in 1981 to $40 \%$ in 1990. Moreover, it was beginning in 1999 when enrolment in subsidized private schools increased significantly again. As a result of this process, and based on the data from 2013, there is now a higher percentage of students enrolled in private schools than in public schools.

## [Insert figure 1 around here]

Although some reforms have been implemented over the past two decades to increase the resources of the lowest performing schools and aid the most vulnerable students ${ }^{2}$, the essential characteristics of the education system established in the early 1980s have remained intact (OECD, 2004; Hsieh and Urquiola, 2006).

One of the reforms implemented had a direct impact on the school choice process. The Shared Financing law (Ley de Financiamiento Compartido), approved in 1993, authorized subsidized private schools to collect a compulsory fee from families in exchange for a discount based on the amount charged in funding received through the public voucher system. Elacqua et al.

[^1](2013) argue that this policy increased separation because it encouraged segmentation within the subsidized private sector.

Regarding the information made available to families, it should be noted that the results of the national evaluation of schools are published annually and made available to families so that they know the average performance level of all schools. This information is widespread through many different ways. Every year all families received a report about the performance of the school where the children are attending and the performance of the rest of the schools of the municipality. At the same time, this information is available on Internet. About the possible asymmetries of information between rich and poor families, Zancajo et al. (2014) have shown how the majority of families know the performance of the school where they are attending and the differences between social groups consists in the importance of this information during the process of school choice.

## 3 Educational Quasi-Markets and School Choice

Academic freedom and with it, the choice of school, have emerged as unifying principles of the Chilean educational system from the 1980s. Proponents of school choice policies argue that a greater choice capacity among families increases competition among schools and generates efficiency improvements in the overall system. They also argue that students from low-income families will benefit from the opportunity to attend higher quality schools (Chubb and Moe, 1990; Hoxby, 2000; among others).

However, opponents of school choice have warned that such policies may intensify the processes of stratification and separation between schools. These negative effects may be explained by supply and demand behaviour in the context of educational quasi-markets (Saporito, 2003; Alegre and Ferrer, 2010; Waslander et al., 2010). From this perspective, several studies have revealed differences in the way families collect and use information, a key element in the process of school choice, and related to their socioeconomic status (Schneider et
al., 2000; Karsten et al., 2001; Ball, 2003). They also highlight the use of criteria in school choice among families that are not strictly related to the quality of schools (Elacqua et al., 2006; Härmä, 2009). In many cases, factors such as the social composition of the school and its distance from home may help explain families' final choices and be of greater importance than indicators that may be more directly related to the educational quality of schools. Results from Hastings et al. (2005) show how the families' preferences vary according to their socioeconomic status. Families who value academic criteria are more likely to be enrolled in high performing schools while the families enrolled in low performing schools value lesser extent academic aspects.

The empirical evidence for the Chilean case confirms these patterns. Schneider et al. (2006) show how distance and social composition are the most critical factors for families when select a school. This same study shows that choosing based on strict criteria of quality of schools is much more common among families with greater educational capital. Moreover, it also shows that one of the effects of educational reform in Chile has been the exodus of middle-class students from public schools, therefore increasing the concentration of students from low socioeconomic backgrounds in these schools (Hsieh and Urquiola, 2006). In this sense, Chumacero et al. (2011) show how low-income and less educated families have high probabilities to choose the nearest school to their home. In contrast, Gallego and Hernando (2009) don't find income and education level of family as a determinants of choice. For these authors higher educational expectation of parents about their children reduces the effect of distance and price in the process of choice.

A selection process carried out by schools is another element that directly influences family choice. A study by Contreras, Sepúlveda and Bustos (2010) based on 2005 data, reveals that $30 \%$ of students had to pass some kind of selection process, one mainly based on academic ability. These selection processes were much more frequent in subsidized private schools (55\%) than public schools (6\%). The authors identify two effects caused by the selection process: one,
a direct effect, as it permits schools to select students that are less costly to educate and, two, an indirect effect, as it impacts on the social composition of the school.

These selection processes enable a school to "improve its market position without improving the quality of its educational services" (Bellei, 2007:28). Therefore, and according to this author, the competition between schools is focused on attracting the best students and not on improving educational quality. In this regard, the study by Contreras et al. (2010) shows how these selection processes directly affect the average performance of the schools that use them.

Finally, another factor that can influence school choice is the level and type of school (public, private and subsidized private) available nearby. Elacqua et al. (2012) show that the majority of students attending a low-performing school have no school of higher quality nearby. They add that in cases where alternatives do exist, they are not accessible to all families, due to the existence of selection processes and/or monthly fees. In this sense, Hastings and Weinstein (2007) show how even with high levels of information of school performance is most probably for parents to choose a high-performance school if these schools are closed to their homes.

## 4 Descriptive Analysis

The data used in this paper comes from the Education Quality Measurement System ( $\mathrm{SIMCE}^{3}$ ). This educational assessment is administered annually to students in different grades of the Chilean education system. Specifically, the 4th grade students are tested annually while the 8th and 10th grade are evaluated every two years. These tests analyse various competencies, including reading or math, and a family context questionnaire is also administered.

In this paper we used the data from 2011. We have selected students from 4th grade, which corresponds to those students whose families most have recently undergone the process of

[^2]choosing a school. The initial sample included 230,911 observations, 10,806 of which were deleted because school or family information was missing.

All the variables that could be considered, based on the theoretical background and empirical evidence, as potential determinants of school choice were selected (see table 1). First, and as a principal and dependent variable of analysis, is the type of school. In the case of the Chilean education system, there are three types: public, subsidized private, and private.

## [Insert table 1 around here]

Second, are variables related to school characteristics: location (urban or rural), number of schools by municipality and access requirements. This last variable is constructed based on the answers families give to different questions regarding the selection process in the context questionnaire. Two of the possible answers were considered as revealing potential requirements of selection: providing a certificate of family income and passing an entrance exam.

Third, the level of family information about the school. This variable was constructed taking into account if the family knows the pedagogical project, the pedagogical objectives and the codes of conduct of the school. Fourth, the information about the educational expectations of students' families and the reasons expressed for school choice.

Four, we constructed a variable related to the family background: an index of socioeconomic status (SES). This variable was constructed based on four variables included in the database: level of family income, father's education, mother's education, and number of books at home. The weight of each variable in constructing the index was calculated using categorical principal component analysis method (Jolliffe, 2002; Shaw, 2003). The level of missing values for these variables was: family income ( $9.4 \%$ ), father's education ( $13.7 \%$ ), mother's education ( $9.9 \%$ ), and number of books at home (9.4\%). The observations with two or more missing variables
were deleted and in the other cases, the values were imputed using linear regressions for metric variables and logistic regressions in the case of categorical variables (OECD, 2008). Finally, other variables were constructed: student gender and continuity at the same school between preschool and primary. Additionally, we add the grade retention as a control variable.

The descriptive results indicate the importance of private schools in the Chilean education system. Sixty percent of all students are enrolled in private schools and $52 \%$ specifically in subsidized private schools. Another important characteristic of the Chilean education system is the low level of students who attend to schools in rural areas; only $11 \%$ of students are enrolled in a school situated in these areas. School supply statistics show the enormous disparities across the country resulting from the uneven concentration of the population. While on average, in each commune (municipality) families have approximately 50 schools available to choose from, this is not the real situation, as there is wide geographic variability ranging from having just one school available to having more than one hundred. This situation can be observed seeing the histogram in figure 2. In addition, the sample does not take into account small municipalities without schools in their territory. In the case of access requirements, results show how $36 \%$ of schools request a prior exam or a certificate of family income as a condition for enrolment.
[Insert figure 2 around here]

Regarding families, the information they have about the school and their expectations regarding the educational attainment of their members is relatively high, although with high variability at the same time. In addition, there are multiple reasons given as first reason for school choice. This issue is analysed separately in the second part of this paper. There are no differences in enrolment by gender. Around $50 \%$ of the students have moved from the school where they were enrolled during preschool. Finally, $12 \%$ of students in the sample have repeated one or more courses.

Table 2 shows the distribution of the students in the three types of schools by school location (rural and school supply), access requirements, family characteristics (information about the school, educational expectations and SES), and the individual characteristics of the student (gender and continuity at the same school).
[Insert table 2 around here]

First, the results show that public education provides a monopoly service in rural areas, where the dynamics of the education market seem not to have penetrated. Of the students who attend rural schools the $74.77 \%$ go to public schools. This percentage indicates an overrepresentation of this type of school. By contrast, in this area private schools have a limited presence.

At the same time, the density of schools by municipality shows another reality regarding the spatial distribution of schools in Chile. While the public schools are distributed priority in areas with low educational supply, subsidized private schools are relatively more implanted in zones with high supply. Finally, the fully private schools are more concentrated in medium supply areas.

Second, the analysis of access requirements shows very different results depending on type of school. While the total number of students admitted to the school without any requirement has a distribution mainly focuses in public schools, when there is any access requirements (medium or high) clearly most are located in private schools. In particular, it draws attention the existence of greater requirements for subsidized private schools.

Third, we find that families have a high level of knowledge regarding certain of the aspects central to schools' educational policy. In this context, families that send their kids to fully private schools show greater knowledge, followed by parents who send their kids to subsidized private and public schools. Clearly, the families with minor information about the school have a
major presence in the public school. At the same time, family educational expectations regarding children are higher at private schools in comparison with subsidized private and public schools.

Four, the results observed for the crossing between SES and school typology show that a higher percentage of students from families with the lowest levels of SES (SES1 and SES2) attend public schools, while a higher percentage of students from families with medium levels of SES (SES3 and SES4) attend subsidized private schools. Students from the families with the highest level of SES (SES5) are almost exclusively enrolled in private schools.

Finally, the data on students' characteristics (gender and continuity) not show big differences between types of schools.

Table 3 shows the distribution of the reasons given for school choice by type of school. The different responses are sorted by their weight in the total percentage. First, the proximity of the school to the student's home has been the main reason for choice of school for almost $40 \%$ of the total. At the same time, the distribution by school type indicates that the vast majority of students whose families give this as their main reason for choice are enrolled in public schools.

The second most frequent reason given is school educational excellence ( $16 \%$ of the total). This aspect is very important to the families who choose to educate their children in private schools. It should be noted that while information regarding school quality as indicated by student test scores on standardized tests is fully public and accessible to the entire population, there might be problems of asymmetric information between families.

The third most common reason given for choosing a school (accounting for $13 \%$ of respondents) is religious orientation. Here we must note that this was the main reason given by families choosing to enrol their children in private schools. Lastly, while it was mentioned by
less than $7 \%$ of the total, we want emphasize the importance of order and discipline at the school for families who choose to enrol their children in subsidized private schools.
[Insert table 3 around here]

## 5 Results

From the sample selection described above, and given the unordered characteristics of the response variable, we estimate the following multinomial logistic model in order to know the main determinants of school choice:

$$
\log \frac{\operatorname{Pr}(Y=j)}{\operatorname{Pr}\left(Y=j^{\prime}\right)}=\alpha+\beta_{1} X_{1}+\beta_{2} X_{2}+\cdots+\beta_{k} X_{k},
$$

where there are j categories of the response variable. The model consists of $\mathrm{j}-1$ logit equations, which are fit simultaneously. Multinomial logistic regression allows each category to be compared to a reference category, providing a number of logistic regression models (Long and Freese, 2006; Zelterman, 2006). Table 4 shows the results obtained.

First, rural context is an element that negatively affects the likelihood of attending a private school. This is the logical consequence of, as mentioned above, the existence of only public schools in certain geographic areas.

Secondly, the variable indicating the density of the supply presents an interesting result because it incorporates school location. The probability of attending a public school decreases as the total supply increases. Therefore, and in line with the findings regarding rural context, public schools are more prevalent in sparsely populated areas. A higher density increases the likelihood of attending to the subsidized private schools. In the case of private non-subsidized schools, their preference to settle in communities with an average density of schools is clear.

Third, access requirements (prior examination and /or certificate of family income) are revealed useful resources for selecting students in the case of subsidized private schools, especially when both requirements are necessary to be considered for enrolment. At the same time, the weight of these access requirements is lower at fully private schools (in the case of the two requirements being simultaneously requested). This fact could indicated the subsidized private schools, free to set their fees for attendance, use this mechanism as a means for student selection and have no need to use other means.

Fourth, the degree of family information regarding the school the student attends corresponds to an increase in the probability of attending a private school. This trend is accentuated in the case of fully private schools. This result can be explained by the existence of greater diversity in the case of private schools and, therefore, the need for families to make greater efforts to obtain information about these schools. However, it also reveals that the families of middle and upper class students, very present in the private sector, are more likely to seek information on the quality of schools, either through SIMCE data, information offered by the schools themselves, or through private networks.

Fifth, the expectations of the family regarding the highest educational level that the student can achieve have a direct relationship with the probability of choosing a private school and, especially the fully private school.

Sixth, regarding the probability of families indicating a specific "main reason for choice of school" we find the following results: for families that enrol their children in public schools, being the only school in the municipality is the most prominent reason for this choice. In addition, other reasons that increase the likelihood of a student enrolling in public school are, in
order of importance, cost, that it is the only one that accepts the student, and proximity to home. All the above aspects have no relation with elements of educational quality. Regarding subsidized private schools, several factors share importance in families' decisions. Here we find religious orientation, order and discipline in the school and the quality of the facilities are the more relevant aspects. In the case of non-subsidized private schools, emphasize is placed on bilingualism and to a lesser extent, values. We can infer that bilingualism reflects other important factors for the families of potential students, such as academic excellence, facilities and discipline.

Seventh, the synthetic indicator for socioeconomic status (SES) shows an inverse relationship with the probability of attending a public school. Therefore, it is clear that this variable is a central element when families choose the school where their children will go. In the case of private schools the odds ratio indicates that the higher the student's SES, the more likely he/she is to attend this type of school. Specifically in the category SES5, the probability of attending a fully private school is huge.

Eighth, the likelihood related to continuity (defined as staying at the same school from preschool to primary) is higher in the case of fully private school in comparison of the public school. In contrast, it is a negative for enrolment in subsidized private schools. Gender is not a decisive aspect.

Finally, as for the robustness of the regression, the sample size and the percentage of correct predictions of the estimated model (more than $70 \%$ ) is considered in the literature to be a relatively high degree of reliability.

## 6

Conclusions

This paper has analysed the factors that affect families' choice of school and the role of provider behaviour in that choice. To do this we used the System for Measuring the Quality of Education (SIMCE) database for 4th grade students for year 2011.

The initial descriptive analysis yielded information on the wide participation of private schools, which account for $60 \%$ of the students enrolled in the Chilean educational system in a context of significant socioeconomic differences among the potential users of the three types of existing schools. In terms of demand, significant differences were observed when analysing enrolment by social class for each school type and we found clear differential characteristics regarding families' primary motivation for school choice.

The regression results reveal the importance of social class, information and family expectations on school choice. In addition, consistent with what we observed in the bivariate analysis, it was possible to establish the existence of differences in terms of the geographic location of the schools and the access requirements requested. Moreover, and about the main reason for school choice expressed by the families, there is a clear relationship between the types of school and the general economic situation of the family. Lastly, we find that gender is not a factor in the choice of school, and retention has a different impact between the two private school typologies. This conclusion, like Saporito (2003), Schneider et al. (2006) and Alegre and Ferrer (2010), show a social stratification and separation by schools and indicate how distance and social composition are the most critical factors for families when choosing a school.

Overall, the descriptive analysis and the subsequent regressions show how school choice is strongly influenced by families' socioeconomic characteristics. This relationship can be explained by the existing asymmetry in the information available to families. In this sense, further research would be necessary to expand the evidence regarding the costs of obtaining
information by family socioeconomic level and how these potential costs influence the different criteria used in the school choice process.

One of the least explored areas in both the Chilean context and internationally is the effect of the strategies developed by educational providers to affect the school choice process. The selection of students or the concentration of school supply in specific areas can have a decisive influence on the election process. Analysis of these conditions is of interest not only from the point of view of access. The results of school choice have important effects on equity and the efficiency of the system through separation and peer effects that may occur. The governments should consider these consequences in the moment to design the system of financing education.

Finally, it is important to note that data available presents some limitations. On one hand, some of the variables used as predictors are collected after the process of school choice. This is the case of the level of information that family has about the school, educational expectations regarding the maximum educational level that can be achieved by the students and the reasons for school choice. Because of the above must be some caution when interpreting the results.

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Figure 1. Evolution of enrolment throughout the Chilean education system by type of school (primary and secondary education). Period 1981 - 2013.


[^3]Figure 2. Histogram of municipalities by school supply


Source: Authors from SIMCE 2011.

Table 1. Description of variables

| Type of variable | Description | N | Mean | Stand. deviation | Min | Max |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type of school | Public | 220105 | 0.40 | 0.489 | 0 | 1 |
|  | Subsidized private | 220105 | 0.52 | 0.499 | 0 | 1 |
|  | Private | 220105 | 0.08 | 0.269 | 0 | 1 |
| Rural | Dummy. Value 1 if school is located in a rural area. | 220105 | 0.11 | 0.312 | 0 | 1 |
| School supply | Number of schools in municipality. | 220105 | 50.91 | 32.51 | 1 | 128 |
| Access requirements | Indicates the existence of previous requirements of access to the school. Elements considered as requirements are: prior exam or certificate of family income. | 213141 | 0.36 | 0.534 | 0 | 2 |
| School information | Indicates the level of information the family has about the school pedagogical project, the educational objectives and school rules. | 205661 | 2.39 | 0.871 | 0 | 3 |
| Educational expectations ${ }^{\text {a }}$ | Indicates family expectations regarding the maximum educational level that can be achieved by the student. | 202543 | 2.95 | 0.607 | 1 | 4 |
| Reasons for school choice | Indicates the main reason for school choice. | 197508 | 4.49 | 3.894 | 1 | 13 |
| SES | Socioeconomic status. Index based on family income, educational level of parents and books at home. This index has been recoded into five quintiles. | 209703 | 2.99 | 1.413 | 1 | 5 |
| Gender | Dummy. Value 1 for women. | 220105 | 0.49 | 0.499 | 0 | 1 |
| Continuity | Dummy Value 1 if student is enrolled at the same school where he was enrolled during the pre-school. | 208032 | 0.49 | 0.497 | 0 | 1 |
| Retention | Dummy. Value 1 if the students has repeated course. | 209307 | 0.12 | 0.333 | 0 | 1 |

[^4]Table 2. Descriptive analysis by school typology (in \%)

|  |  | Public | Subsidized private | Private |
| :---: | :---: | :---: | :---: | :---: |
| Rural |  | 74.77 | 23.93 | 1.30 |
| School supply ${ }^{\text {a }}$ | Low | 51.58 | 42.66 | 5.75 |
|  | Medium | 35.12 | 54.17 | 10.71 |
|  | High | 32.52 | 60.49 | 6.98 |
| Access requirements ${ }^{\text {c }}$ | Null | 53.60 | 41.87 | 4.53 |
|  | Medium | 13.10 | 73.15 | 13.75 |
|  | High | 5.36 | 85.82 | 8.82 |
| School information ${ }^{b}$ | Null | 56.73 | 41.02 | 2.25 |
|  | Low | 47.33 | 49.17 | 3.50 |
|  | Medium | 43.03 | 52.29 | 4.68 |
|  | High | 34.69 | 55.32 | 9.99 |
| Educ. expectations | Low | 71.40 | 28.43 | 0.17 |
|  | Medium | 62.91 | 36.98 | 0.10 |
|  | Medium-high | 38.75 | 57.09 | 4.16 |
|  | High | 15.89 | 52.57 | 31.54 |
| SES | 1 | 67.66 | 32.33 | 0.01 |
|  | 2 | 54.09 | 45.85 | 0.16 |
|  | 3 | 40.88 | 58.89 | 0.23 |
|  | 4 | 28.12 | 70.38 | 1.49 |
|  | 5 | 9.74 | 55.61 | 34.66 |
| Gender | Women | 34.36 | 52.91 | 7.73 |
|  | Man | 39.88 | 52.19 | 7.92 |
| Continuity | Yes | 37.90 | 56.75 | 5.35 |
|  | No | 40.91 | 49.31 | 9.79 |
| Total |  | 39.62 | 52.55 | 7.83 |

Source: Authors from SIMCE 2011. ${ }^{\text {a }}$ Low: 1-30 schools by commune; Medium: 31-61 schools; High: 62-128 schools. Each category with $33 \%$ of the share in the survey. ${ }^{\text {b }}$ The variable has been constructed based on knowledge of the school pedagogical project, educational objectives and school rules. ${ }^{\mathrm{c}}$ The requirements considered have been previous exam and certificate of family income. Null: no requirements, Medium: one requirement; High: two requirements. The sum of each row is $100 \%$.

Table 3. Descriptive analysis by school typology (in \%)

| Reasons for school <br> choice | Public | Subsidized <br> private | Private | \% of total |
| :--- | :---: | :---: | :---: | :---: |
| Proximity | 54.40 | 43.26 | 2.34 | 40.40 |
| Excellence | 26.43 | 62.01 | 11.56 | 15.70 |
| Religious orientation | 5.82 | 75.77 | 18.40 | 12.59 |
| Order and discipline | 29.83 | 67.43 | 2.75 | 6.34 |
| Siblings at school | 37.41 | 52.98 | 9.60 | 6.05 |
| School climate | 36.25 | 55.07 | 8.68 | 3.72 |
| Facilities | 31.94 | 61.46 | 6.60 | 3.43 |
| Other options | 37.41 | 52.13 | 10.46 | 11.77 |
| Total | 39.62 | 52.55 | 7.83 |  |

Source: Authors from SIMCE 2011. The sum of each row is $100 \%$.

Table 4. Multinomial logistic regression results

|  |  | Base Outcome: Public |  |
| :---: | :---: | :---: | :---: |
|  |  | Subsidized private | Private |
| Rural |  | 0.4103 (0.0088) | 0.5112 (0.0439) |
| School supply | Low | Reference category |  |
|  | Medium | 1.3924 (0.0211) | 1.6403 (0.0535) |
|  | High | 1.4952 (0.0288) | 0.9611 (0.0323) |
| Access requirements | Null | Reference category |  |
|  | Medium | 4.5726 (0.0709) | 5.9303 (0.1666) |
|  | High | 12.8811 (0.8961) | 8.2501 (0.7550) |
| School information | Null | Reference category |  |
|  | Low | 1.2261 (0.0423) | 1.3865 (0.1550) |
|  | Medium | 1.3210 (0.0449) | 1.8896 (0.2072) |
|  | High | 1.4598 (0.0472) | 3.1256 (0.3306) |
| Expectations | Low | Reference category |  |
|  | Medium | 1.0484 (0.0613) | 0.5178 (0.3057) |
|  | Medium-High | 1.2478 (0.0720) | 1.6162 (0.8929) |
|  | High | 1.4300 (0.0881) | 4.7017 (2.5992) |
| Choice reasons | Others | Reference category |  |
|  | Proximity | 0.8121 (0.0240) | 0.4359 (0.0256) |
|  | Excellence | 1.1738 (0.0379) | 0.9278 (0.0532) |
|  | Values / Religion | 7.9844 (0.3325) | 8.7940 (0.5567) |
|  | Order and discipline | 1.8293 (0.0671) | 0.6615 (0.0567) |
|  | Siblings at school | 1.0559 (0.0389) | 0.9716 (0.0665) |
|  | School climate | 1.2156 (0.0504) | 1.1254 (0.0882) |
|  | Facilities | 1.4639 (0.0618) | 1.2125 (0.1028) |
|  | Friends at school | 1.2681 (0.0710) | 0.7317 (0.1034) |
|  | Economic | 0.7111 (0.0317) | 0.1981 (0.0312) |
|  | Only one school in municipality Only one school which accepts the student | $0.1458(0.0140)$ $0.7751(0.0608)$ | 0.0774 (0.0229) $0.8445(0.1429)$ |


|  | Bilingual | 1.3110 (0.0822) | 6.3510 (0.5712) |
| :---: | :---: | :---: | :---: |
| SES | 1 | Reference category |  |
|  | 2 | 1.2493 (0.0241) | 3.0175 (1.6625) |
|  | 3 | 1.6772 (0.0329) | 10.6657 (5.4791) |
|  | 4 | 2.4900 (0.0521) | 78.3014 (39.4332) |
|  | 5 | 4.7124 (0.1249) | 3061.945 (1537.693) |
| Female |  | 0.9848 (0.0121) | 0.9229 (0.0233) |
| Continuity |  | 0.8302 (0.0104) | 1.7684 (0.0466) |
| Control variable (Grade retention) |  | SI | SI |
| N |  | 171.355 |  |
| Log-Likelihood |  | -103706.82 |  |
| Prob $>$ chi2 |  | 0.0000 |  |

Coefficient values: odds ratios. In brackets: standard error. Bold: significant values ( $95 \%$ ). Correctly predicted probabilities: 70.39 \%.

2011/1, Oppedisano, V; Turati, G.: "What are the causes of educational inequalities and of their evolution over time in Europe? Evidence from PISA"
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[^1]:    ${ }^{2}$ An example of this is the Preferential School Subsidy Act (Ley de Subvención Escolar Preferencial) adopted in 2008. It provides for a grant in addition to the regular subsidy received, for the schools that concentrate a larger proportion of vulnerable pupils. These additional funds are linked to the development of a plan to improve the school and an increase in national assessment results in educational performance.

[^2]:    ${ }^{3}$ SIMCE: System to Measure the Quality of Education (Sistema de Medición de la Calidad de la Educación).

[^3]:    Source: Compiled from the Chilean Ministry of Education.

[^4]:    ${ }^{\text {a }}$ The variable expectations has 4 categories: 1 (less than secondary education), 2 (secondary education) 3 (higher education), 4 (postgraduate).

