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School choice, student sorting and equity

This chapter gives a general introduction to the various types of school choice programmes. It discusses the reasons these programmes may affect the composition of schools – notably the social diversity within schools, and why that may matter for both the performance and the equity of education systems.

A note regarding Israel

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

A note regarding Lithuania

Lithuania became a member of the OECD on 5 July 2018. However, consistent with other publications based on PISA 2015 data, Lithuania is shown as a partner country and is not included in the OECD average.

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Over the past decades, school-choice programmes have expanded in scope and size in most of the countries with available data. More than two-thirds of OECD countries have increased school-choice opportunities for students since the 1980s (Musset, 2012^[11]). These opportunities take diverse forms and vary widely in scope across countries. Several school systems promote open enrolment – the possibility for parents to choose any public school – instead of being assigned to only one, usually depending on the location of the family residence (catchment areas). School-assignment mechanisms, through which students are allocated to schools based on their expressed preferences and not only on geographic considerations, have been introduced in different places.¹

In addition, private schools (also referred to as independent schools) are a common alternative to state or public schools.² Private schools offer children a type of education that may better suit their parents' child-rearing preferences, such as, for instance, providing religious instruction.³ Usually, parents must pay fees or school charges for enrolling their children in private schools, but several school-choice programmes try to reduce the cost of private schooling for families. The most popular of these are educational voucher programmes, whereby parents are given a tuition certificate by the government that can be used to pay tuition at any "approved" school (which could be private or public, depending on the programme). The tuition may be distributed to families or directly to schools.

In many countries, private schools are primarily funded by the government – sometimes to the same extent as public schools (OECD, 2012^[2]). This is the case in several European countries, including Belgium, France and the Netherlands, where private schools are mostly distinguished by religion or ideological ideas, but are funded and regulated in the same way as public schools.⁴ In 1981, Chile implemented a universal school-voucher system for both elementary and secondary school students. In the 1990s, several countries, namely Colombia, New Zealand, Sweden and the United States, introduced market-based policies in education, promoting school choice either through school-voucher systems or by establishing charter schools (publicly funded schools that operate independently of the state-run system); similar reforms were adopted more recently in the United Kingdom.

In addition to the availability of private or independent schools, more school-choice opportunities may be fostered by simply relaxing the rules related to assigning students to public schools. In the end, families are left with a wide range of options. For instance, in some states in the United States, families may choose, as an alternative to their local public school, from amongst charter schools, magnet schools or religious private schools, and the choice may be expanded to out-of-district schools (OECD, 2018^[3]).

IMPACT OF SCHOOL CHOICE ON STUDENT ACHIEVEMENT

School choice is based on various ideas. Some systems provide extensive parental choice based on the conviction that parents have a general right to educate their children according to their personal preferences (in terms of religion or lifestyle) and the right to choose the school that best matches these child-rearing preferences. As such, encouraging diversity in the types of education provided appears to be self-evident (Levin, 1998^[4]). More important, the introduction of "market-based" policies is based on the idea, first advocated by Friedman (1955^[5]), that



competition between schools will foster innovation and improve school efficiency. The fact that parents may select their child's school puts pressure on schools to improve the education they provide in order to attract and retain students.

Empirical evidence on whether student achievement is higher when there is greater competition between schools is mixed, however (Boeskens, 2016^[6]; Urquiola, 2016^[7]). On the one hand, most school-choice programmes seem to benefit the students who attend private or alternative schools. However, these benefits are usually modest (Epple, Romano and Urquiola, 2017^[8]) and may even sometimes be detrimental to the targeted population (Abdulkadiroğlu, Pathak and Walters, 2018^[9]). The consequences for the schools “left behind” in the competition, and notably whether state schools respond to greater competition by enhancing their productivity, is less clear. While some studies conclude that public schools do respond to greater competition (Hoxby, 2002^[10]), including by improving teacher quality (Hanushek and Rivkin, 2003^[11]), several analyses show more disappointing results. It is still an open question whether inter-school competition leads to better matches between the education provided and students' preferences or needs, or to conformity and risk-averse behaviour amongst providers (Lubienski, 2009^[12]).

The impact of competition on student performance may be affected by several factors. One may assume, for instance, that these effects may vary depending on the level of autonomy provided to schools, but also on the mechanisms available to hold schools accountable for their students' performance (Woessmann, 2007^[13]). As school choice may shape the composition of each school's student body, it may be difficult to disentangle the effect of being enrolled with the best-performing – or worst-performing – peers from the effect of the school itself (its “value-added”) on student learning.

IMPACT OF SCHOOL CHOICE ON STUDENT SORTING

There is a lively debate about whether greater choice results in a higher incidence of student sorting – by both socio-economic status and ability – across schools. Arguments favouring school choice emphasise that these programmes are based on the right of all students, wherever they live, to enrol in any school. Residence-based school assignment may result in low social diversity within schools, especially in urban areas where housing segregation, based on socio-economic status, is usually pervasive. But school-choice policies may allow students from low-income families to enrol in the best schools, which are often located in other, more well-off neighbourhoods.

Indeed, strict residence-based school allocation is expected to reinforce urban segregation (Epple and Romano, 2000^[14]; Nechyba, 2003^[15]). In the absence of school choice, the housing prices in school catchment areas are expected to reflect the quality of the area's schools (Black, Sandra E. and Machin, 2011^[16]). Only the wealthiest parents can afford to live near the best schools. Reducing the cost of private schools or weakening the link between school choice and place of residence may thus improve equity in education.

But school-choice programmes have also been criticised for intensifying, rather than reducing, the incidence of student sorting across schools. To make the best use of their right to choose their child's school, all parents should have access to objective information on the quality of schools. In practice, better-educated and more motivated parents are often better informed when they select schools and are also those most likely to make use of school choice instead of enrolling



their children in the assigned school. In addition, financial costs (school fees, transportation costs or time constraints) may limit the options available to some students from low-income families. Even where vouchers or similar programmes reduce the cost of publicly funded private schools, top-up fees or “hidden” parental contributions (for extracurricular activities, school uniforms, etc.) might make them unaffordable in practice (Boeskens, 2016^[6]).

The social mix of schools may eventually suffer because of school-choice policies. In addition, parents’ freedom to choose actually translates into a greater likelihood that the schools most in demand will screen (“cream skim”) for the most promising students – resulting in greater sorting of students by ability (referred to below as “academic segregation”).

Empirical evidence from systems with country- or state-wide school-choice policies, such as Chile, New Zealand, Sweden and the United States, suggests that providing more opportunities may increase school stratification based on students’ ability, socio-economic status and ethnicity (Burgess and Briggs, 2010^[17]; Ladd and Fiske, 2001^[18]; Ladd, Fiske and Ruijs, 2011^[19]; Hsieh and Urquiola, 2006^[20]; Levin, 1998^[4]; Söderström and Uusitalo, 2010^[21]; Urquiola, 2005^[22]). The magnitude of the sorting effect of school choice depends on the design of the school-choice policy (Epple, Romano and Urquiola, 2017^[8]). Vouchers for enrolment in private or charter schools can be targeted at low-income families, rather than offered to all families, or schools can be prevented from “skimming” wealthier and more able students (Altonji, Huang and Taber, 2015^[23]; OECD, 2017^[24]).

The reason there is such interest in measuring the consequences of school-choice policies on sorting students by ability or socio-economic status across schools relates to the impact of school composition on student achievement. If a student’s schoolmates influence his or her own progress, then school stratification matters for performance in education. Empirical evidence has repeatedly emphasised the role of a school’s social composition on the academic performance of its students (Nash, 2003^[25]; Thrupp, 1995^[26]). The degree of influence a student’s peers has on his or her own performance is highly debated. However, over the past decade, some consensus has emerged on the detrimental impact of attending schools with many low achievers – and the benefits of having high-achieving schoolmates (Burke and Sass, 2013^[27]; Hanushek et al., 2003^[28]; Lavy, Silva and Weinhardt, 2012^[29]). In addition, several studies show that high- and low-ability students’ performance may not be affected in the same way by their peers (Sacerdote, 2011^[30]).

Taken together, this evidence suggests that sorting students into schools by ability or social status may adversely affect both the efficiency and equity of the school system. For instance, if low-ability students are more sensitive than high-achieving students to the composition of their classes, sorting students by ability across schools may have a negative impact on the aggregated performance of the school system; the reverse may also be true, depending on the nature and magnitude of peer effects. In addition, as disadvantaged students often struggle at school (because, for instance, they do not benefit from the same parental support as more advantaged students do), social and academic segregation in schools may create additional barriers to success for disadvantaged children and reduce equity in education (OECD, 2018^[31]).



School stratification may also have long-term negative consequences for social mobility. Disadvantaged students may develop biased education and career aspirations because of the absence of inspiring role models that are usually found in schools with a greater social mix. More generally, social stratification amongst schools may threaten social cohesion, as children are not accustomed to social or ethnic diversity.⁵

SCOPE OF THIS REPORT

This report focuses on how school-enrolment policies have evolved over the past 15 years in a large set of countries. It examines whether these policies are related to school segregation based on students' ability and socio-economic status, and whether these changes may be associated with education performance and equity, as measured by the Programme for International Student Assessment (PISA). So far, most empirical evidence focuses on a specific country or state, making generalisations difficult. School-choice programmes vary greatly in scope and features. It would thus be difficult to draw any general conclusions from the evaluation of any one programme. Large-scale comparative analyses help to describe in a more general way the relations between school-choice programmes, school segregation and student performance.

One should be cautious in interpreting these associations, as it may be difficult to isolate enrolment practices related to school-choice policies from other specificities of the school system (such as age at first tracking or grade-repetition policies). Segregation may be mostly driven by structural factors, such as segregation in housing (Gutiérrez, Jerrim and Torres, 2017^[32]). Pre-existing amplifying trends in school segregation may lead to reforms that modify the rules regulating the allocation of students to schools (for instance by relaxing the link between the place where students live and the school they have been assigned to). Using different cycles of PISA reduces the risk of finding spurious correlations. One may disentangle the effects on performance related to changes in national school-choice policies (such as the share of private schools in a system or catchment-area enrolment practices) from those related to specificities of the school system. Using panel estimations with country-fixed effects is a common way of taking into account school-system specificities that are fixed over time (Hanushek and Woessmann, 2006^[33]; Hanushek, Link and Woessmann, 2013^[34]).⁶

In this study, all analyses are restricted to schools with the modal ISCED level for 15-year-old students. PISA students are sampled to represent all 15-year-old students, whatever type of schools they are enrolled in, but they may not be representative of their schools. This may make comparisons of school-level indicators complicated in some cases. For example, in France, there is a high rate of grade retention, and repeaters are enrolled in middle school, while 15-year-old students who have not repeated a grade are enrolled in high school. Restricting the sampling to schools with the modal ISCED level for 15-year-old students ensures that the characteristics of students sampled for PISA represent the typical profile of students attending the school.⁷



Notes

1. Using, for instance, mechanisms aimed at optimising school-student matching, as described in Abdulkadiroğlu, Che and Yasuda (2015_[40]).
2. The term “public school” refers to a school operated by the government, while “private school” refers to an independent school (see Box 2.1 in Chapter 2 for the definition of private and public schools in PISA).
3. West and Woessmann (2010_[37]), for instance, illustrate how the share of the private sector in a school system is explained by the opposition of Catholic minorities to state-run schooling in non-Catholic countries.
4. For details for the Flemish Community of Belgium (Nusche et al., 2015_[38]), for the French Community of Belgium (Ministère de la Fédération Wallonie-Bruxelles, Direction des Relations internationales, 2016_[36]).
5. On a related subject, the Moving to Opportunity experimental programme that proposed, from 1994 to 1998, that low-income families move from poor to more affluent neighbourhoods, showed impact on long-term outcomes (Raj Chetty et al., 2016_[39]) and the subjective well-being (Ludwig et al., 2013_[35]) of having been raised in a better neighbourhood compared to similar (randomly selected) families.
6. Some concern may remain related to reverse causality, though.
7. The “modal ISCED level” is defined here as the level attended by at least one-third of the PISA sample. In Albania, B-S-J-G (China), Colombia, Costa Rica, the Czech Republic, Indonesia, Luxembourg, Macao (China), Mexico, Portugal, the Slovak Republic, Chinese Taipei, Trinidad and Tobago, Tunisia and Uruguay, both lower secondary (ISCED level 2) and upper secondary (ISCED level 3) schools meet this definition. In all other countries, analyses are restricted to either lower secondary or upper secondary schools (see Table B.3 in Annex B for details). In several countries, lower and upper secondary education are provided in the same school. As the restriction is made at the school level, some students from a grade other than the modal grade in the country may also be used in the analysis.

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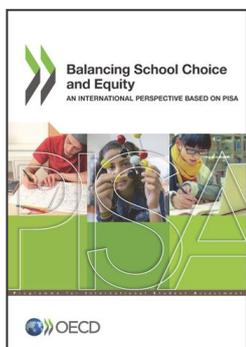
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