



School segregation in Sweden: evidence from the local level

NESET ad hoc question No. 1/2019

By Dr Per Kornhall and German Bender



Erasmus+

Please cite this publication as:

Kornhall, P. and Bender, G. (2019). 'School segregation in Sweden: evidence from the local level', *NESET Ad hoc report*.

ABOUT NESET

NESET is an advisory network of experts working on the social dimension of education and training. The European Commission's Directorate-General for Education and Culture initiated the establishment of the network as the successor to NESET II (2015-2018), NESSE (2007-2010) and NESET (2011-2014). The Public Policy and Management Institute ([PPMI](#)) is responsible for the administration of the NESET network. For any inquiries please contact us at: info-neset@ppmi.lt.

CONTRACTOR:

PPMI

PPMI Group
Gedimino ave. 50, LT - 01110 Vilnius, Lithuania
Phone: +370 5 2620338 Fax: +370 5 2625410
www.ppmi.lt

Director: Rimantas Dumčius

AUTHORS:

- **Per Kornhall**, independent consult and author, Sweden
- **German Bender**, Head of labour market and education policy at Arena Idé, Sweden

PEER REVIEWER:

- **Dragana Avramov**, NESET Scientific coordinator

LANGUAGE EDITOR:

- **James Nixon**, freelance copy-editor, proof-reader

CONTENTS

CONTENTS	2
List of Tables	3
List of Figures	3
1. Introduction	4
2. School choice and segregation	5
2.1. Swedish studies on segregation.....	7
2.2. Selected international studies on school choice and segregation.....	9
3. Segregation in 30 Swedish municipalities	10
3.1. Method	11
3.2. Results	11
3.2.1. Group 1. Municipalities with strong school-choice segregation.....	13
3.2.2. Group 2. Other segregated municipalities.....	14
3.2.3. Group 3. One municipality without strong segregation	14
3.2.4. The municipality of Nyköping	15
4. Conclusions.....	17
REFERENCES.....	19

LIST OF TABLES

Table 1. Strongly segregated schools divided by provider category	12
Table 2. School segregation in Sundsvall municipality	13
Table 3. School segregation in Varberg municipality.....	14
Table 4. Skövde, the only municipality without strong segregation	14
Table 5. Segregation in Nyköping, academic year 2016/2017	15
Table 6. Segregation in Nyköping, academic year 2011/2012	15

LIST OF FIGURES

Figure 1. The changing face of school segregation in Nyköping.....	16
---	----

1. INTRODUCTION

Segregation between schools is one of three big challenges for the Swedish school system identified by the Swedish National Agency for Education (Fredriksson, 2018)¹. In this paper we study segregation in 30 medium-sized municipalities in Sweden, and analyse our findings in the light of both Swedish and international research.

In the early 1990s, Sweden decentralised its national school system into 290 municipalities, after which a school market was introduced. According to international studies (Thullberg, 2012), Sweden's state-controlled school system prior to these reforms had been among the world's highest achieving and most equitable. One of the system's underlying principles had been to avoid the segregation of pupils from different social classes into separate schools – i.e. to create an inclusive and egalitarian school system. Following the market reforms, Sweden has been noted in international debate as having the most neoliberal school system in the world. In this regard, the country has diverged markedly from its neighbours in Scandinavia (Wiborg, 2013).

The market reforms took Sweden from a centralised model with a single, highly regulated national school system, first to a decentralised system with 290 municipalities responsible for school education in an outcomes-based system. This arrangement was then swiftly transformed into a full-blown market with both municipal and independent² providers (including both non-profit and, increasingly, for-profit business groups). This system was intended to foster competition, make schooling more efficient and, above all, offer individual parents greater choice. Under the current system, parents are able to choose a school for their child, and public financial resources are allocated solely on the basis of the choices made. Independent schools have the right to establish themselves freely, and no limits are placed on the level of profits that can be made on the basis of the public funding received.

Due to some efforts being made to increase control over schools by public authorities (Bunar, 2010), the Swedish system has also been described as a 'hybrid model'. At the same time, however, market-led principles such as the free choice of a school, and the right of private initiatives to establish schools – and to make a profit – have been both defended and preserved (Hennerdal et al., 2018). The Swedish Schools Inspectorate, established in 2008, controls applications by organisations wishing to open schools, while school vouchers are regulated by individual municipalities³, without any national guidelines or restrictions (other than generically worded legislation that states they should take into consideration socioeconomic factors among students). According to historian Björn Åstrand, market reforms have returned Sweden's schools to the hybrid model of public and private education and the inequality that existed before the 'short-lived success of the Social Democratic welfare state' (Åstrand, 2016).

Most studies of segregation in Sweden have been performed either on single municipalities (e.g. Trumberg, 2011) or on a nationwide scale (e.g. Andersson et al., 2012). Municipalities in Sweden vary

¹ The other two challenges being a shortage of teachers and a decline in equity.

² These terms are applied throughout the report. Independent schools means non-public schools, whereas municipality schools are public and organised by the municipalities. The term is somewhat misleading, as most 'independent' schools actually belong to large, for-profit corporations.

³ A school voucher is a certificate of government funding for a student at a school chosen by the student or the student's parents. The funding is usually for a particular year, term or semester. In most municipalities in Sweden, vouchers are the only means of funding for schools, both independent and municipal.

widely in size and composition, with the smallest, Bjurholm, having less than 3,000 inhabitants, and the largest, Stockholm, containing more than one million. Consequently, the school market in very small municipalities is very different from that in the big cities. To avoid effects generated by size, and to illustrate segregation within average Swedish cities, we chose to study the 30 municipalities that have between 50,000 and 100,000 inhabitants, covering a combined total of around 2,000,000 inhabitants.

Data was analysed from 312 lower secondary schools in these municipalities. Our study reveals that a tiered school system exists in 29 out of Sweden's 30 medium-sized municipalities – and that in 16 of these, school choice has further contributed to segregation. In these 16 municipalities, students with well-educated and/or Swedish-born parents are, to a large extent, served by different schools and teachers from those students with less well-educated parents and/or those with immigrant background. Our study also reveals a more general segregation that has its basis in housing segregation – but the level of school segregation at lower secondary level is a remarkably high. This is in line with the findings of other studies and international experiences discussed in this paper.

All of this is at odds with the Swedish school system's statutory compensatory assignment, which stipulates that schools should even out differences in their pupils' opportunities and capabilities, not reinforce them. It is also highly likely that segregation has contributed to declining equity and lower results that have been observed both by Swedish authorities and researchers in OECD's large comparative PISA studies, and in Swedish data (i.e. grades and national tests). School segregation has a number of negative social and economic consequences, both within the schools and for the surrounding society – consequences that stand in stark contrast to stated ambitions of the Swedish Education Act.

2. SCHOOL CHOICE AND SEGREGATION

The concept of an inclusive and equitable school system has become the backbone of modern democracy. It has its roots in the 17th-century enlightenment, and in the EU has been enshrined in The European Pillar of Social Rights⁴. In many countries, the idea of school choice is an important aspect of core democratic values in education. It builds on the right of parents to influence the upbringing of their children, or the right of various groups to tailor their children's education to their beliefs.

Market-based, or neoliberal ideas, arising in education in the 1950s, suggest that education should be transformed into a market with choice, vouchers and profits as mechanisms (Friedman, 1955). In such models, parents' choices are seen as vehicles to achieve this market. Market mechanisms should, according to these theories, create individual freedom, accelerate development of quality, and increase efficiency. According to some of the most influential proponents of this view, school choice would also lessen segregation, due to the opportunity of every parent to choose the best school for their child (Friedman and Friedman, 2017).

This paper does not address the issue of the claims made by neoliberal ideology that school markets would lead to economic efficiency or higher quality. We can only note that there is much evidence that, for a plethora of reasons, transforming education into a market does not increase efficiency. One of these reasons is the need for costly control mechanisms to prevent abuse (Gewirtz et al., 1995; Hood and Dixon,

⁴ The European Pillar of Social Rights: https://ec.europa.eu/commission/priorities/deeper-and-fairer-economic-and-monetary-union/european-pillar-social-rights/european-pillar-social-rights-20-principles_en.

2015). Gains in quality achieved through marketisation, if at all present, are small (Skolverket, 2012; Hennerdal et al., 2018). One prevailing effect of school choice, however, does appear to be an increase in segregation (Musset, 2012).

The negative effects of segregation on school results have been pointed out previously by the OECD. In a study comprising results from 69 countries over a number of years, OECD analysts concluded that the likelihood of students from the weakest socio-economic backgrounds reaching a median proficiency level (level 3) in PISA tests increases with the school's average socio-economic make-up. In other words, 'negatively' segregated schools have a particularly negative effect on school results for those students who are already most vulnerable (Agasisti et al., 2018). A related factor that could explain the decline in results in 'negatively' segregated schools is educational segregation. Hansson and Gustafsson (2016) used this concept to highlight a 'lack of equivalence in both the conditions for and the design of teaching'. They investigated how teacher competence (measured by the presence or absence of certification, and correspondence between the subject being taught and the subject knowledge of the teacher) was distributed over time between schools with varying proportions of pupils with foreign backgrounds. It was found that teacher competence decreased over time in schools with many students with immigrant background – and that the greatest decline in teacher competence since the mid-1990s has occurred in municipal schools serving these students.

The Swedish Teachers' Union also noted a connection between the proportion of certified teachers and the level of education among pupils' parents, using statistics from the National Agency for Education. Schools containing more children with well-educated parents tended to have more certified teachers, while the opposite applies to schools in which more pupils have less-educated parents. In a survey among its members, the Swedish Teachers' Union also found that it was in those schools with the least privileged and the lowest proportion of certified teachers that the resource shortages were greatest. In schools whose pupils have less-educated parents, one-third of teachers responded that their resources were insufficient – three times as many as in schools with many highly-educated parents, where only 12 percent of teachers feel resources are inadequate (Läraryrket, 2016). These indications of pedagogical segregation are echoed by Sweden's School Inspectorate, which in its latest annual report writes that it perceives major challenges for principals and teachers in schools with more vulnerable students. These schools experience difficulty in recruiting competent and experienced teachers, which 'risks further aggravating the lack of equity' (Skolinspektionen, 2018). Among segregated schools where more students have highly educated parents, another problem has become increasingly noticeable in recent years: grade inflation. School researcher Jonas Vlachos noted last year that 'all independent school groups consistently awarded higher grades than municipal schools after taking into account the results of the national tests' (Vlachos, 2018).

In addition to its effects on schools, segregation has many other negative consequences. Recently, for example, a British study showed that schools with a less segregated student composition contribute to increased social cohesion. The researchers write: 'Our findings are clear: pupils from one ethnic group feel more positive towards another group if they encounter more pupils from that group in their school' (Burgess and Platt, 2018). Strong indications exist that schools that are more heterogeneous with regard to their students' ethnicity and socio-economic background, can be a key factor in increased social trust.

2.1. Swedish studies on segregation

In 2013, the Swedish National Agency for Education (Statens skolverk) described school choice and the school market as a 'genuine dilemma'. It argued that the increased differences between schools' performance required vigorous action at national and municipal levels to maintain equity in the school system (Skolverket, 2013). Between 2000 and 2012, Sweden's results in PISA and TIMSS dropped, along with equity measures. Although average results in Swedish schools, as measured in these studies, have in PISA 2015 increased and are back to their 2009 levels, equity has continued to decline and the differences between schools and between pupils from different socio-economic backgrounds continues to increase (Skolverket, 2017). The Swedish school system has thus become increasingly segregated with regard to parents' level of education, ethnic background and economic status. In its latest report on equity in compulsory schooling, the National Agency for Education states that:

- Socioeconomic background has become a more important determining factor in students' grades.
- The distribution of students between schools has become increasingly divided on the basis of socio-economic background, i.e. differences in socio-economic composition between schools have increased.
- Students have become increasingly divided between schools on the basis of whether they come from any form of foreign background. Differences in results between schools – the so-called 'inter-school variation' – have almost doubled between the years 2000 and 2016.
- Increased school segregation can explain most of the increasing inter-school variation in the years 2000–2010, and just over half of the variation in the years 2010–2015 (Skolverket, 2018).
- A school's socio-economic profile is now a more important factor (than before) in determining students' results, particularly for students with low socio-economic status.

In a blog post for The Swedish Teachers' Union, Ernestam (2018) shows that children attending independent schools are usually those whose parents have spent longer in education, and that this applies to students both with Swedish and with foreign backgrounds. Overall, Ernestam says, independent schools have 'an easier to teach student body than municipal schools do'. His analysis indicates that:

- Of those schools in which students' parents rank among the 20 % most educated, approximately half are independent. In contrast, just over one in ten schools in which students' parents are the least educated are independent.
- An average independent school with a given proportion of pupils from a foreign background has a higher proportion of parents with a post-secondary education background than does a municipal school.
- Of those schools in which less than 40 % of students' parents have post-secondary education, very few are independent.
- Schools that have received newly arrived students (those who have immigrated within the last four years) are largely municipal. At all levels of education, it is more common for new arrivals to go to municipal schools than to independent schools.
- The lower the average level of education among the parents of students at a school, the higher the proportion of newly arrived students in the school's population is. This indicates that newly arrived children are received into segregated schools.

This analysis can be supplemented with other figures from a report written by Ernestam in 2015 (Arevik, 2015):

- 65 % of pupils at independent schools had at least one highly educated parent, compared with 25 % at municipal schools.
- 47 % of pupils at independent schools had no low-educated parent. The corresponding figure for municipal schools is 16.5 %.
- 85.4 % of independent schools contained no newly immigrated students. For municipal schools, this figure is 37.6 %.

In 2015, Sweden's Institute for Labour Market and Education Policy Evaluation (IFAU) found that the free-school expansion explained about 18 % of the total increase in segregation between pupils with foreign and Swedish backgrounds during the period 1993–2009. Furthermore, they found that school segregation between foreign and Swedish-born pupils, as well as between pupils with foreign and Swedish backgrounds, has increased more in the municipalities where choice for independent schools has become more widespread, when compared to municipalities in which school choice is unusual (Böhlmark and Lindahl, 2015).

Using data for 13-year-old ninth-graders, Brandén and Bygren (2018), studied the way in which the ability to choose between schools affected the level of school segregation between foreign and native-born children, and between those whose parents were low- and highly educated. They found that increased opportunities for school choice led to increased school segregation. To a large extent, this was due to a higher propensity among native children and children with well-educated parents to attend newly established independent schools. The segregating effect of opportunities for school choice is uniform across school areas with different socioeconomic and ethnic profiles. Where areas are residentially integrated, an increase in school choice options results in a much greater increase in school segregation. Brandén and Bygren conclude: 'The lesson to be learned from the Swedish case is that large-scale school voucher systems need to be designed to include mechanisms that counteract the strong segregating forces that such systems appear to produce.'

Kallstenius (2010) and Trumberg (2011), in their studies of school choice in the municipalities of Stockholm and Örebro respectively, highlighted so-called 'white flight' as a strong mechanism driving segregation. This term is used to describe better-educated parents placing their children in schools with children who come from a similar ethnic/educational background, preferably outside socio-economically weak areas. Trumberg writes: 'An evasive behaviour can be seen in families with resources to choose other schools, where mainly pupils with Swedish background choose other schools. (...) The school as a meeting place between majority and minority populations has stopped working in these places.' Kallstenius argues: '(...) the free school choice risks increasing segregation at school level in such a way that resource-rich and study-motivated students are turning away from schools with [perceived] low status.'

Östh et al. (2012) find that the trend towards increasing gaps in performance between Swedish schools cannot be explained by shifting patterns of residential segregation. Instead, they argue it is better explained by the rapid structural transformation of the Swedish school system. They write that the rapid growth in the number of students attending voucher-financed, independent schools has been an important element in this process. They also comment on Friedman's argument that vouchers would lead to improved school results, arguing that this is not what has been observed in the case of Sweden. Conversely, as school choice has expanded, the differences between schools have increased, and at the same time, Sweden's comparative performance has declined.

Other studies from the United States confirm the Swedish experience, that a general trend exists for disadvantaged ethnic and social groups to possess lower mobility-positional capital than those groups who are less disadvantaged. Greater constraints on using school choice to improve educational opportunities exist for foreign-born and visible-minority students, students from families without higher education, and students from families receiving social assistance. Andersson et al. (2012) conclude that increased segregation, white flight, and the emergence of ‘cream-skimming’ and so called ‘loser’-schools⁵, have strongly influenced inter-school variation. One indication that school segregation may have contributed to deteriorating school results appears in a study by Jan-Eric Gustafsson and Kajsa Yang Hansen, which found an increasing correlation between parents’ educational level and pupils’ school results in the years 1988–2014 (Gustafsson and Hansen, 2017). As the above studies show, there is a pressing need for greater understanding of the ways in which school choice and the school market influence student composition in Swedish schools.

2.2. Selected international studies on school choice and segregation

Smith and Meier summarise American and international research, and report on the results of their own study, in which they test the market hypothesis in the school sector. They describe what appears to be a recurring theme in international studies: namely, that more well-established families use school choice either to avoid their children having to share schools with ‘low-status children’; or that school choice leads to ‘self-segregation’, in which parents seek specific religious environments. According to Smith and Meier, there is little evidence that parents prioritise quality when exercising school choice. Instead, Smith and Meier argue, what parents ‘buy’ with school vouchers is racial segregation and/or religious homogeneity (Smith and Meier, 2015).

In a study of school choice reforms in New Zealand, Waslander and Thrupp (2006) showed that the effects differed between schools. Schools dominated by parents with low socio-economic status often entered a negative spiral, while schools with a high socio-economic status remained relatively unaffected. They argue that government measures are necessary to counter the segregating effects of market forces. Hattie (2014) notes that school election reform in New Zealand enabled ‘white flight’ from areas with lower socio-economic status to areas of higher status, leading to an increasing concentration of ethnic minorities in schools with lower socio-economic status. In a later paper, Hattie argues that school selection in Australia has contributed not only to increased segregation but also to poorer school results (Hattie, 2016).

Lankford and Wyckoff (2006) show that school choice in the US affects racial segregation in schools, with white parents tending to opt out of schools that contain even moderate percentages of Latino or African-American students, and instead opting for private schools with fewer non-whites. Bifulco and Ladd (2007) note that the introduction of ‘charter schools’ (publicly funded independent schools) increased racial segregation in North Carolina, and also increased the knowledge gap (the differences between pupils’ school results). Garcia (2008) finds that racial segregation is due to both ‘white flight’ and to ‘self-segregation’ among black students and students of Indian origin. According to Frankenberg, Siegel-Hawley et al. (2011), a pattern in which school choice isolates students by class and race appears to apply to all cases in the US in which such systems have been studied.

⁵ Schools that enter a negative feedback-loop where they are not chosen by more resourceful students/parents and therefore get a troublesome financial situation, leading to a further decline in attractiveness, and so on.

Chile is an interesting case because it is perhaps the only country that has implemented school market reforms that are as far-reaching as those in Sweden, using the same arguments. In Chile, the school market was supposed to lead to increased efficiency, higher quality and less segregation. The financing model was also similar to that in Sweden, as both were very directly influenced by the school voucher ideas of Rose and Milton Friedman. According to Thieme and Treviño (2011), however, the reforms have not resulted in higher efficiency, but in lower quality – and above all, in large differences between schools. Changes have recently been made to Chile’s school voucher and selection systems, and schools are no longer allowed to be run by for-profit companies (Santiago et al., 2017; Zelaya, 2015).

In the Netherlands, ethnically segregated schools have become a widespread phenomenon. According to a study by Karsten et al., school segregation is the result of both housing segregation and school choice, and partly due to the efforts of principals to influence the student composition of Dutch schools. The study argues that one can speak of ‘irreconcilable differences between civil liberties in making residential and educational choices and the desire to combat the erosion of the cohesion of Dutch society’ (Karsten, et al., 2003).

In Norway, the school system as a whole has not followed Sweden’s move towards a school market (Wiborg, 2013) – although local exceptions do exist. Among these, the municipality of Oslo stands out. Since the beginning of the 1990s, Oslo has introduced instruments to stimulate competition between schools. These have, in a sense, created a ‘quasi-market’. Free school choice, public reporting of test-scores and grades, a school voucher system, and industrial management ideas, have all been introduced within a public municipal system. Differences between schools in Oslo have increased in terms of both financial conditions and student composition (Bjordal, 2016).

Analysis of data from the OECD’s major international PISA survey shows that school choice frequently leads to segregation. The OECD recommends that countries wishing to allow school choice should supplement this with measures that counteract its negative effects (Musset, 2012). There is no evidence that school choice exerts a positive influence on pupil results – and, by increasing school inequality, it can actually serve to destroy some of the positive effects it purports to promote. The OECD therefore recommends that care should be taken in considering school choice models (OECD, 2014). In two special reports, the organisation has proposed reform of the school choice system in Sweden, with the aim of reducing segregation (OECD, 2015; Cerna et al., 2018). This proposal has, for political reasons, not been acted upon.

3. SEGREGATION IN 30 SWEDISH MUNICIPALITIES

Social and ethnic segregation is a very concrete issue. Where present, it is noted by teachers, principals and students. This study seeks to illustrate what school segregation looks like at local level in medium-sized Swedish cities. To do so, we have studied 30 municipalities with populations of between 50,000 and 100,000 inhabitants, in order to capture the situation in ordinary Swedish cities. Segregation is a local phenomenon; it varies between municipalities, and is strongest during the final years of elementary school, i.e. in lower secondary. In earlier years, school choice is influenced more by uptake area. We therefore chose to study segregation at the end of compulsory schooling, in lower secondary school (years 7-9).

3.1. Method

Thirty municipalities in Sweden were selected, each having between 50,000 and 100,000 inhabitants. Using data from the National Agency for Education⁶ on all 312 lower secondary schools within these municipalities, we ranked the schools in each municipality according to an index. This was constructed from data for the school year 2016/2017 indicating whether students' parents had been educated to higher than secondary level, and/or if both parents were born in Sweden. These two variables were chosen because parents' education is one of the most important background factors affecting student learning outcomes, and can serve as a proxy of socio-economic resources. The other variable, foreign-born parents, could be used to indicate segregation based on ethnic background.⁷

For each school, the index was normalised against the average for the municipality. Schools in each municipality were then ranked according to the index we had constructed. We applied an arbitrary cut-off (+20 and -20) on the index, in order to be able to compare schools that had many highly educated and/or Swedish-born parents, with schools containing many low-educated and/or foreign-born parents. For the purposes of this report, strong segregation is defined as having an index higher than +20 or lower than -20. Such a score indicates that the composition of parents' education and immigration background at the school deviates strongly from the average for the municipality in question.

We use the fact that admission criteria differ between independent schools and municipal schools as a proxy to evaluate the effect of school choice on segregation. Independent schools are allowed to use queueing time as an admission criterion, whereas municipality schools are forced by law to use the proximity of a student's home to the school. Segregation among municipality schools is therefore always primarily caused by housing segregation; this is not the case among independent schools.

If the findings of the national and international research mentioned above have any bearing on the municipalities studied, we would expect to see a higher proportion of Swedish-born and highly educated parents among independent schools, due to the more active exercise of school choice by these parents.

We also took a closer look at the municipality of Nyköping, where local politicians have made an acclaimed attempt to diminish segregation. For Nyköping, we conducted a comparison between the school years 2010/2011 and 2016/2017.

3.2. Results

Of the 30 municipalities examined, 29 contained schools that are strongly segregated at lower secondary level (years 7-9) – that is, having at least one school with an index above 20 or below -20). In 16 of these municipalities, segregation at lower secondary school level appears to be strongly caused by school choice. The municipalities with apparent school choice segregation were: Borlänge, Hässleholm, Falun, Gotland, Norrtälje, Östersund, Karlskrona, Kalmar, Halmstad, Södertälje, Sundsvall, Nyköping, Växjö,

⁶ The data is available at: <https://www.skolverket.se/skolutveckling/statistik/sok-statistik-om-forskola-skola-och-vuxenutbildning?sok=SokA>

⁷ This index is arguably a rather crude approximation of segregation, as it comprises an aggregate of two measurements that are also likely to act independently. We are working on an analysis using independent variables that also include school distances. The initial results from this second study appear to strengthen rather than diminish our results, so we feel confident that the method used here provides a good approximation of segregation in the municipalities concerned (Kornhall, P., G. Bender and Östlundh, J. (In prep).

Kungsbacka, Solna and Luleå. Municipalities that exhibit strong segregation, but in which housing segregation cannot be ruled out as the main factor, were: Uddevalla, Örnsköldsvik, Trollhättan, Varberg, Mölndal, Järfälla, Sollentuna, Botkyrka, Karlstad, Haninge, Kristianstad and Täby. The only municipality in which strong school segregation was not apparent was Skövde.

Of all 312 lower secondary schools in the municipalities studied, 140 (i.e. roughly four in ten) are strongly segregated. Independent schools are strongly over-represented among those schools which have a large proportion of children with Swedish-born and/or well-educated parents, and heavily under-represented among schools in which many children have lower-educated and/or foreign-born parents. Over half, 56 %, of those segregated schools which possessed a high proportion of well-educated and/or Swedish-born parents, are independent. Only 9 % of strongly segregated schools with a high proportion of foreign-born and/or less educated parents are independent.

Thus, children with foreign-born and/or less educated parents are almost exclusively catered for by municipal schools. Since many independent schools are small and many municipal schools large, the picture changes slightly if we consider the number of *students* in year nine at these schools, rather than the number of *schools*. Almost half (49 %) of pupils in segregated schools with a high proportion of Swedish-born and/or highly educated parents, attend independent schools, while only 6 % of the pupils with low-educated and/or foreign-born parents attend independent schools⁸.

Table 1. Strongly segregated schools divided by provider category.

Type of strong segregation	Municipal	Independent	Share of students in independent schools
Number of students at schools with many children of educated and/or Swedish-born parents	1,680	1,565	49%
Number of students at schools with many children of low-educated and/or foreign-born parents	4,539	210	6%

Source: Kornhall and Bender, 2018. p.9.

If one considers that several of the segregated municipal schools possessing a high proportion of well-educated and Swedish-born parents are so-called ‘municipal free schools’ (such as municipal-run Montessori schools, schools with different profiles, and the like), it appears that our data does not exaggerate, but probably underestimates, the segregation caused by school choice. School choice also causes segregation between municipal schools. It is worth noting that among the few strongly segregated independent schools that possess a higher proportion of low-skilled and foreign-born parents, only two belonged to large, for-profit business groups (these schools were in the suburban municipalities of Järfälla and Sollentuna, outside Stockholm).

To illustrate our results, we divided the municipalities into three groups, according to the degree of the segregation. Group 1 comprises 16 municipalities with clear school-choice segregation. Group 2 consists of 13 municipalities in which segregation was clearly apparent, but in which school choice could not be

⁸ It is a weakness of this study that we group together two variables that should probably be studied separately i.e. parents’ foreign-born status and educational level. In an ongoing study, these variables are considered separately. Preliminary results of this second study suggest that segregation is even stronger when these variables are analysed them separately (Kornhall, et al. in prep.).

School segregation in Sweden:
evidence from the local level

confidently identified as the strongest driving force. Group 3, comprises a single municipality that cannot be said to be strongly segregated at all. For each group, we present one municipality to represent that group. The criteria used to place municipalities into Group 1 was that most of the schools with an index of 20 or over were independent. As explained above, this can indicate the effect of school choice, as admission procedures for independent schools are based on queueing time, whereas proximity is the main principle applied by municipal schools.

3.2.1. Group 1. Municipalities with strong school-choice segregation

The 16 municipalities in this group clearly demonstrate strong segregation caused by school choice. This means that Swedish-born and well-educated parents have largely opted their children out of municipal schools, and into independent schools. The children of low-educated and/or non-Swedish-born parents, conversely, largely attend municipal schools. A typical example of this situation is the municipality of Sundsvall:

Table 2. School segregation in Sundsvall municipality.

Schools in Sundsvall		UB	UE	BIV	UIV	Index of segregation
Sundsvall, all providers		14	41			
Schools where parents are to a high degree highly educated and/or Swedish-born	Heliås lärcentrum	3	15	-11	-26	37
	Mimerskolan	3	16	-11	-25	36
	Sundsvalls Montessoriskolan	8	22	-6	-19	25
	Engelska Skolan i Sundsvall	13	22	-1	-19	20
	Kunskapsakademin	5	30	-9	-11	20
Not very segregated schools	Vibackeskolan 7-9	10	38	-4	-3	7
	Bergsåkers skola	9	40	-5	-1	6
	Matfors skola	4	46	-10	5	5
	Prolympia, Sundsvall	6	49	-8	8	-0
	Stöde skola	14	58	0	17	-17
Schools where parents are to a high degree lower educated and/or foreign-born	Höglundaskolan	29	46	15	5	-20
	Hagaskolan 2	26	51	12	10	-22
	Nivrenaskolan	19	58	5	17	-22
	Lidens skola	25	70	11	29	-40

Note: UB = the share of students with both parents being foreign-born. UE = Share of students where no parents have higher than secondary education. BIV and UIV, respectively, are the differences between a school's UB and UE, compared to the municipality's average or each figure (BIV = UB [school] minus UB [all providers]; UIV = UE [school] minus UE [all providers]). The index of segregation is the sum of BIV and UIV, with the opposite sign (i.e. a negative sum becomes positive; a positive sum become negative). School names in blue are independent schools; red indicates municipal schools. The green area is above our cut-off at +20 and the red area below -20 (Note that Vibackeskolan was incorrectly marked as segregated in the figure in the original).

Source: Kornhall and Bender 2018, p.10.

3.2.2. Group 2. Other segregated municipalities

This group consists of 13 municipalities that show strong segregation, but in which school choice is not clearly apparent as the cause. One example in this group is the municipality of Varberg:

Table 3. School segregation in Varberg municipality. (For explanations, see Table 2.)

	Schools in Varberg	UB	UE	BIV	UIV	Index of segregation
Schools where parents are to a high degree highly educated and/or Swedish-born	Varberg, all providers	12	40			
	Ankarskolan 6-9	5	27	-7	-13	20
Not very segregated schools	Lindbergs skola 4-9	6	38	-6	-2	8
	Blåshammar skola 1-9	11	35	-1	-5	6
	Påskbergsskolan 7-9	13	33	1	-7	6
	Kunskapsskolan Varberg	16	36	4	-4	0
	Almers skola 7-9 och grundskolan äldre elever	20	33	8	-7	-1
	Rolfstorps skola F-3, 7-9 och fritidshem	5	48	-7	8	-1
	Håstensskolan 8-9	16	44	4	4	-8
Schools where parents are to a high degree lower educated and/or foreign-born	Våröbackaskolan F-3, 7-9 och fritidshem	9	52	-3	12	-9
	Hagaskolan 4-9	27	41	15	1	-16
	Vidhögeskolan 6-9	12	58	0	18	-18
	Bosgårdsskolan 6-9	18	58	6	18	-24

Source: Kornhall and Bender, 2018. p.12.

As can be seen in the table above, there are two strongly segregated schools in Varberg. Both are municipal. The independent school, Kunskapsskolan, is not characterised by a higher level of students with well-educated or Swedish-born parents.

3.2.3. Group 3. One municipality without strong segregation

The last group contains the one municipality that did not exhibit strong segregation according to our index, Skövde:

Table 4. Skövde, the only municipality without strong segregation (For explanations, see Table 2.)

Schools in Skövde	UB	UE	BIV	UIV	Index of segregation
Skövde all providers	20	43			
Vasaskolan	13	38	-7	-5	12
Stöpenskolan	9	51	-11	8	3
Vasaskolan	22	42	2	-1	-1
Eriksdalskolan	18	54	-2	11	-9
Helenaskolan	37	45	17	2	-19

Source: Kornhall and Bender, 2018. p.13.

As can be seen in the table above, differences still exist between schools in Skövde, but they are not strong. In addition, no independent provider has established a school in the municipality. The reasons for this could be many. The establishment of Independent schools is seldom related to reasons of quality. One common reason is that the value of an average voucher within a given municipality is too low to make worthwhile for a for-profit company to consider establishing a school. Another reason can be that local politicians have not acted to attract independent providers. In the case of Skövde, a third reason could be that it is one of the smaller municipalities in our sample, and therefore also not attractive to the big companies. The total number of students is too low to enable schools to be run for profit.

3.2.4. The municipality of Nyköping

One of the municipalities in Group 1 (that is, municipalities that display clear school-choice segregation) is Nyköping. We examined this municipality more closely, as it has received acclaim, both nationally and internationally, for its local political attempt to reduce segregation (Tenfält, 2016; Kinnander, 2016; Carlbom, 2017; Johansson, 2017). The municipality has invested heavily in the building of one new large school instead of four smaller, lower secondary, schools. The idea was to integrate all municipally-educated students into a single school, and in doing so reduce segregation within the municipality. However, our study shows that this project has not been as successful as hoped, or as reported in media. Admittedly, Nyköping has removed the worst ‘negative’ segregation, i.e. no students attend a school that is totally dominated by students with lower-educated and/or foreign-born parents. The municipality has, however, been unable to stop the outflow of students with Swedish-born and/or well-educated parents from the single, newly established and more mixed municipal school (see Table 5). The result has become a powerful situation of ‘white flight’. As can be seen in the table, the municipality’s four independent schools are strongly segregated, and predominantly contain students with Swedish-born or well-educated parents.

Table 5. Segregation in Nyköping, academic year 2016/2017. (For explanations, see Table 2.)

Schools in Nyköping	UB	UE	BIV	UIV	Index of segregation
Nyköping all providers	21	48			
Nyköpings Friskola	6	22	-15	-26	41
Kunskapsskolan Nyköping	7	33	-14	-15	29
Mikaeliskolan	11	29	-10	-19	29
Vittra Kungshagen	11	38	-10	-10	20
Nyköpings högstadium	26	54	5	6	-11

Schools where parents are to a high degree highly educated and/or Swedish-born

Not very segregated schools

Source: Kornhall and Bender, 2018. p.14.

School segregation in Sweden:
evidence from the local level

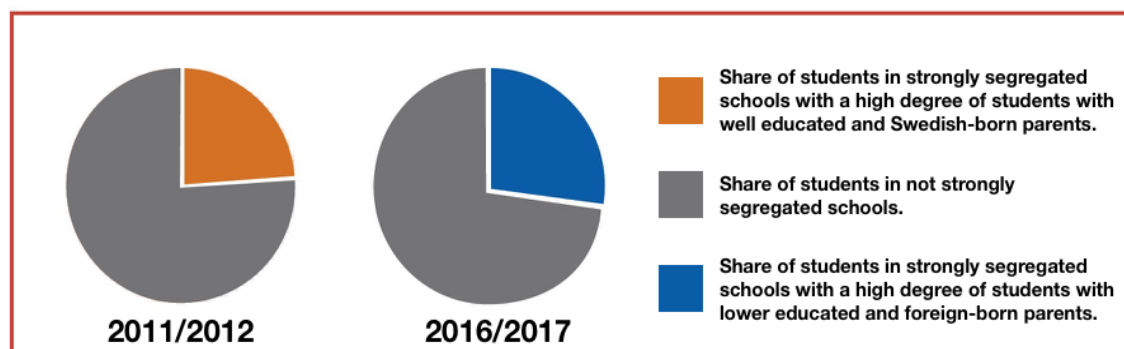
Table 6. Segregation in Nyköping, academic year 2011/2012 (for explanations, see table 2).

Schools in Nyköping		UB	UE	BIV	UIV	Index of segregation
Nyköping, all providers		15	51			
Not very segregated schools	Kunskapsskolan Nyköping	10	43	-5	-8	13
	Vittra Kungshagen	10	46	-5	-5	10
	Borgmästarhagsskolan	11	51	-4	0	4
Schools where parents are to a high degree lower educated and/or foreign-born	Oppebyskolan	5	59	-10	8	2
	Nicolaiskolan	24	63	9	12	-21
	Långbergsskolan H	70	80	55	29	-84

Source: Kornhall and Bender 2018, p.14.

In the 2011/2012 academic year, 621 pupils attended Nyköping's two independent schools, Vittra and Kunskapsskolan. In 2016/2017, the number of independent schools offering lower secondary education had increased to four, catering for a total of 1022 pupils. All of these schools were strongly segregated, with a high proportion of students having Swedish-born and well-educated parents. The proportion of pupils attending independent schools increased during this period, between 2011/2012 and 2016/2017 from 12 to 18 %, and the pupils in these schools increasingly comprise the children of Swedish-born and well-educated parents. Over time, this development can be characterised as a journey from one type of powerful segregation to another.

Figure 1. The changing face of school segregation in Nyköping.



Source: Kornhall and Bender, 2018. p.15

Segregation has thus not decreased in Nyköping; it has simply changed face. The result of the merger of municipal schools in Nyköping, which was intended by local politicians to lessen segregation, has actually resulted in more students now being educated in a homogeneous environment than before.

4. CONCLUSIONS

Our study shows that a tiered school system has emerged in most of Sweden's 30 medium-sized municipalities. Students whose parents are well-educated and/or Swedish-born are, to a large extent, served by separate schools and teachers from those with either Swedish-born parents with a low level of education, and/or students from an immigrant background. In 16 municipalities, this tendency is greatly exacerbated by school choice. While our study shows general segregation that has its basis in housing segregation, the strength of segregation caused by school choice at lower secondary level in these 16 municipalities is remarkable. This finding is in line with what might be expected, given other studies and international experiences. It also demonstrates that the effect of a certain policy may vary greatly between municipalities.

The example of Nyköping shows that a municipality can attempt to remove the most powerful segregation among children with lower-educated and foreign-born parents by consolidating these students into schools with a broader mix. But local politicians have proved unable to control the segregation that arises when Swedish-born and well-educated parents choose to send their children to independent schools, to avoid having them placed together with the children of less-educated or immigrant parents (the problem of so-called 'white flight'). The example clearly demonstrates the way in which better-off families have been able to opt out of a local society's democratic ambitions, via the school choice 'shop'. The rules for the establishment of independent schools (the so-called 'free establishment right') do not support the generation of heterogeneous student bodies, and thereby undermine the ambitions of local authorities to act on school segregation.

Compared with other countries, Sweden's far-reaching and unregulated school market is an extreme case. This market comprises: the socially segregating right of school choice; a virtually free right of for-profit business groups to establish private independent schools (with no limit on the level of profit that can be made); and individual vouchers (the value of which is set by municipalities) being the only form of funding for most schools. At a policy level, support for the system is still surprisingly strong, as the issue is viewed as a question of individual freedom.

But it is also a matter of debate. One respected senior official, Per Molander, has written in a report to the Expert Group for Studies in Public Economics (ESO) that: 'The state should regain full responsibility for the entire school system in order for the national interests associated with the education system to be adequately catered for. The free right of establishment and private schools should be phased out. School choice should be phased out and replaced with an opportunity to express ranked preferences for school affiliation that is matched against social goals of equality and integration' (Molander, 2017). The Director General of the National Agency for Education, Peter Fredriksson, expressly formulates the insight that permeates our study: 'We have created a system where the individual perspective – to choose a school – goes before the citizen perspective. We know that social benefits are greater if schools are less segregated, but the system we have contributes to segregation.'

Under the January 2019 agreement (the so-called 'Januariavtalet') that guaranteed parliamentary support to the Swedish government from two centre-right parties, the issue of for-profit schools is unfortunately taken off the table. This effectively renders it a political non-issue for the coming years. However, the agreement also states that all pupils should enjoy equal opportunities to succeed in school, and that the government will investigate how the state can assume responsibility for all public schools, which are currently run by the municipalities (Socialdemokraterna, 2019).

As we noted in our introduction, segregation between schools is one of the three big challenges facing the Swedish school system that were raised by the Swedish National Agency for Education in a recent analysis. In its analysis, the Agency wrote: 'In order for the school to be a cohesive force in a democratic society, it is important that students with different backgrounds meet and have opportunities to create common experiences and understanding of each other. An overly extensive school segregation can thus entail increased difficulties for the school system to carry out both its compensatory assignment and its core values mission' (Skolverket, 2018, p. 39, author's translation).

In summary, it is likely that segregation has contributed to the trend towards reduced equity and declining educational results observed in both the OECD's large comparative PISA studies and in other Swedish school results (in grades and national tests). It is also obvious that segregation has had a number of negative consequences, both within schools and in the surrounding society – consequences that stand in stark contrast to central wording of the Swedish Education Act.

REFERENCES

- Agasisti, T., Avvisati, F., Borgonovi, F. and Longobardi, S. (2018). Academic resilience: What schools and countries do to help disadvantaged students succeed in PISA. OECD Education Working Papers. Paris, OECD.
- Andersson, E., Malmberg, B., and Östh, J. (2012). 'Travel-to-school distances in Sweden 2000–2006: changing school geography with equality implications.' *Journal of Transport Geography* 23: 35-43.
- Arevik, N. (2015). Bristen på likvärdighet större än någonsin. *Pedagogiska magasinet* 19 November. <https://pedagogiskamagasinet.se/bristen-pa-likvardighet-storre-an-nagonsin/>
- Bifulco, R. and Ladd, H. (2007). 'School choice, racial segregation, and test-score gaps: evidence from North Carolina's charter school program.' *Journal of Policy Analysis and Management* 26(1): 31-56.
- Bjordal, I., (2016). Markedsretting i en urban norsk skolekontekst – Et sosialt rettferdighetsperspektiv, Norges teknisk-naturvitenskapelige universitet, Trondheim. Doctoral.
- Brandén, M., and Bygren, M. (2018). 'School Choice and School Segregation: Lessons from Sweden's School Voucher System.' The IAS Working Paper Series. The Institute for Analytical Sociology. 1.
- Bunar, N. (2010). 'Choosing for quality or inequality: current perspectives on the implementation of school choice policy in Sweden.' *Journal of Education Policy* 25(1): 1-18.
- Burgess, S. and Platt, L. (2018). 'Integrating the next generation: how school composition affects inter-ethnic attitudes.' LSE British Politics and Policy. <http://blogs.lse.ac.uk/politicsandpolicy/integrating-the-next-generation-school-composition/> 2018.
- Böhlmark, A. and Lindahl, M. (2015). 'Independent Schools and Long-run Educational Outcomes: Evidence from Sweden's Large-scale Voucher Reform.' *Economica*. 82(327): 508-551.
- Carlbohm, T. (2017). 'Fyra högstadier blev ett för alla - bröt segregationen'. Dagens Samhälle, 27 April. <https://www.dagensamhalle.se/nyhet/fyra-hogstadier-blev-ett-alla-brot-segregationen-16935>
- Cerna, L., Andersson, H., Bannon, M., and Borgonovi, F. (2019). Strength through Diversity's Spotlight Report for Sweden. OECD Working Paper. 194.
- Ernestam, J. (2018). 'Vilka elever går i friskola.' <https://www.lararforbundet.se/bloggar/lararforbundets-utredarblogg/vilka-elever-gaar-i-friskolor> 2018.
- Frankenberg, E.; Siegel-Hawley, G.; and Wang, J. (2011). 'Choice without equity: Charter school segregation.' *Education Policy Analysis Archives* 19(1).
- Fredriksson, P. (2018) Skolchefernas tio punkter för hur skolans problem kan lösas. DN Debatt, 5 June 2018. <https://www.dn.se/debatt/skolchefernas-tio-punkter-for-hur-skolans-problem-kan-losas/>
- Friedman, M. (1955). The Role of Government in Education. In: Robert A. Solo, ed. (1955), *Economics and the Public Interest*. Rutgers University Press. pp. 123–144.
- Friedman, M. and Friedman, R. (2017). Frihet att välja Stockholm, Timbro förlag.
- Garcia, D. R. (2008). 'The Impact of School Choice on Racial Segregation in Charter Schools.' *Educational Policy* 22(6): 805-829.
- Gewirtz, S., Ball, S. J., and Bowe, R. (1995). *Markets, Choice and Equity in Education*. Buckingham, Open University Press.

- Gustafsson, J. E. and Hansen, K. Y. (2017). 'Changes in the Impact of Family Education on Student Educational Achievement in Sweden 1988–2014.' *Scandinavian Journal of Educational Research* 62(5).
- Hansson, Å. and J.-E. Gustafsson (2016). 'Pedagogisk segregation: Lärarkompetens i den svenska grundskolan ur ett likvärdighetsperspektiv.' *Pedagogisk Forskning i Sverige* 21(1-2).
- Hattie, J. (2014). *Synligt lärande. En syntes av mer än 800 metaanalyser om vad som påverkar elevers skolresultat.* Stockholm, Natur and Kultur.
- Hattie, J. (2016). *Mindframes and Maximizers.* Third annual Visible Learning conference, Washington DC.
- Hennerdal, P., Malmberg, B., and Andersson, E. K. (2018). 'Competition and School Performance: Swedish School Leavers from 1991–2012.' *Scandinavian Journal of Educational Research.* DOI: 10.1080/00313831.2018.1490814
- Hood, C., and Dixon, R. (2015). *A Government that Worked Better and Cost Less? Evaluating Three Decades of Reform and Change in UK Central Government.* Oxford, Oxford University Press.
- Johansson, T. (2017). 'Nyköpingsmodellen får pris – i Österrike'. Södermanlands Nyheter, 9 December. <https://www.sn.se/nykoping/nykopingsmodellen-far-pris-i-osterrike/>
- Kallstenius, J. (2010). *De mångkulturella innerstadsskolorna Om skolval, segregation och utbildningsstrategier i Stockholm.* Acta Universitatis Stockholiensis. Stockholm Studies in Sociology New series 49, Stockholm.
- Karsten, S., Ledoux, G., Roeleveld, J., Felix, C. and Elshof, D. (2003). 'School Choice and Ethnic Segregation'. *Educational Policy*, 17(4), 452–477. doi:10.1177/0895904803254963
- Kinnander, P. (2016). 'Nyköpings skolmodell får pris för jämlikhet'. SVT 16 September. <https://www.svt.se/nyheter/lokalt/sormland/nykopings-skolmodell-far-pris-for-jamlikhet>
- Kornhall, P. and Bender, G. (2018) *Ett söndrat land. Skolval och segregation i Sverige.* Stockholm: Arena idé.
- Lankford, H. and Wyckoff, J. (2006). 'The Effect of School Choice and Residential Location on the Racial Segregation of Students. Improving School Accountability.' *Advances in Applied Microeconomics* 14: 185-239.
- Läraryrket (2016). *Lägre andel behöriga på skolor med stora utmaningar.* Stockholm: Läraryrket.
- Molander, P. (2017). *Dags för omprövning – en ESO-rapport om styrning av offentlig verksamhet. Rapport till Expertgruppen för studier i offentlig ekonomi, Expertgruppen för studier i offentlig ekonomi.* 2017:1.
- Musset, P. (2012). 'School Choice and Equity: Current Policies in OECD Countries and a Literature Review.' *OECD Education Working Papers* (66).
- OECD (2014). 'When is competition between schools beneficial?' *Pisa in Focus* (8).
- OECD (2015). *Improving Schools In Sweden. An OECD Perspective.* Paris, OECD.
- Santiago, P., Fiszbein, A., Jaramillo, S.G. and Radinger, T. (2017). *OECD Reviews of School Resources: Chile 2017, OECD Reviews of School Resources, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264285637-en>.*
- Skolinspektionen (2018). *Årsrapport 2017. Strategier för kvalitet och helhet i utbildningen.*
- Skolverket (2012). *En bild av skolmarknaden Syntes av Skolverkets skolmarknadsprojekt. Skolverkets aktuella analyser 2012.* Stockholm, Skolverket.
- Skolverket (2013). *Skolverkets lägesbedömning 2013. Rapport 387.* Stockholm, Skolverket.
- Skolverket (2017). *Skolverkets lägesbedömning 2017.* Stockholm, Skolverket.

- Skolverket (2018). Analyser av familjebakgrundens betydelse för skolresultaten och skillnader mellan skolor. En kvantitativ studie av utvecklingen över tid i slutet av grundskolan. Rapport 467. Stockholm, Skolverket.
- Smith, K.B. and Meier, K.J. (2015). *The Case Against School Choice: Politics, Markets, and Fools*. New York, Routledge.
- Socialdemokraterna (2019). Utkast till sakpolitisk överenskommelse mellan Socialdemokraterna, Centerpartiet, Liberalerna och Miljöpartiet de gröna. <https://www.socialdemokraterna.se/globalassets/aktuellt/utkast-till-sakpolitisk-overenskommelse.pdf>. 2019-01-29.
- Tenfält, T. (2016). 'Nyköping byggde ny skola och bröt segregationen.' Dagens Nyheter, 7 July. <https://www.dn.se/nyheter/sverige/nykoping-byggde-ny-skola-och-brot-segregationen/>
- Thieme, C. and Trevino, E. (2011). 'School Choice and Market Imperfections: Evidence From Chile.' *Education and Urban Society* 45(6) 635–657; 45(6): 635-657.
- Thullberg, P. (2012). Därför statlig grundskola: Bakgrund får inte avgöra skolgång. Grundskolan 50 år: Från folkskola till folkets skola. C. Isaksson. Stockholm, Ekerlids förlag: 69-88.
- Trumberg, A. (2011). 'Den delade skolan. Segregationsprocesser i det svenska skolsystemet.' Örebro studies in Human Geography (6).
- Vlachos, J. (2018). 'Trust based evaluation in a market oriented school system.' IFN Working Paper (1217).
- Waslander, S.; and Thrupp, M. (2006). 'Choice, competition and segregation: an empirical analysis of a New Zealand secondary school market 1990-1993.' *Journal of Education Policy* 10(1): 1-26.
- Wiborg, S. (2013). 'Neo-liberalism and universal state education: the cases of Denmark, Norway and Sweden 1980–2011.' *Comparative Education* 49(4): 407-423.
- Zelaya, V.J. (2015) 'Chile's Educational Reform: The Struggle Between Nationalization and Privatization.' Pepperdine Policy Review: Vol. 8, Article 7.
- Åstrand, B. (2016). From Citizens to Consumers. The Transformation of Democratic Ideals into School Markets in Sweden. In: *Global education reform: how privatization and public investment influence education outcomes*. Adamson, F.; Åstrand, B.; and Darling-Hammond, L., eds. New York, Routledge.
- Östh, J., Andersson, E. and Malmberg, B. (2012). 'School Choice and Increasing Performance Difference: A Counterfactual Approach.' *Urban Studies* 50(2): 407-425.