

# Chapter 8

## Socioeconomic Inequality and Student Outcomes in Swedish Schools



Petra Löfstedt

**Abstract** This chapter outlines the current Swedish school system and also explains its governance and administrative processes. Then follows an overview of the study population in general and educational outcomes of socioeconomically disadvantaged students. The chapter highlights how the gap between the high and low performing and socioeconomically advantaged and disadvantaged students has increased in Sweden over the last decades referring mainly to PISA survey data and national population grades. Lastly, the chapter describes the extensive school reforms that have taken place since the 1990s, including decentralization and marketization. The chapter evaluates whether these extensive reforms have contributed to the decline in performances and whether they have resulted in increased segregation and weakened the school compensatory assignment (which aims at minimizing negative effects of student background on performance). The chapter concludes with recent policy responses to these continuing negative trends of increasing performance gaps between socioeconomically advantaged and disadvantaged students.

**Keywords** Student achievement • Socioeconomic status • Inequality • Sweden

### 8.1 The Current Swedish School System

The Swedish educational system comprises pupil education (preschools, preschool classes, comprehensive schools, upper secondary schools, Sami schools, special needs comprehensive, and upper secondary schools) and adult education (Organisation for Economic Cooperation and Development, 2015a).

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P. Löfstedt (✉)

Department of Public Health and Community Medicine,  
Sahlgrenska Academy, University of Gothenburg, Gothenburg, Sweden  
e-mail: [petra.lofstedt@folkhalsomyndigheten.se](mailto:petra.lofstedt@folkhalsomyndigheten.se)

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Children may attend preschool from the time they are one-year-old, and it is voluntary (Skolverket, 2018a). Preschool activities primarily are intended to assist in children's development, and to allow them to meet and socialize with other children. The municipality is responsible for ensuring that children are assigned a place in a preschool. Of all children aged 4–5 years, 95% were enrolled in preschool during autumn 2017 (Sveriges kommuner och landsting, 2018).

When children turn 6, they are entitled to attend *preschool class*, which is a voluntary preparation class for compulsory school (Skolverket, 2018a). The aim of this class is to stimulate students' development and learning and prepare them for compulsory school. Preschool activities comprise education and teaching. In the academic year 2016/17, 98% of six-year-olds were enrolled in preschool class. Since autumn 2018, preschool classes are compulsory, and thus mandatory schooling is now extended by 1 year to a mandatory 10-year period in Sweden.

All children attend *comprehensive school* from about the age of 7 (Skolverket, 2018b). Comprehensive school is compulsory, and all children attend it for 9 years. Most children begin Year 1 in the autumn of the year they turn 7 and complete compulsory school at age 16 (Year 9). There is no tracking; everyone follows the same path and the same curriculum from Year 1 to Year 9. National final grades use the average final grade of the best 16 subjects (i.e., the subjects with the highest grades) for each student. The grading system is a criterion reference system, designed to assess and grade skill and knowledge levels. School grades are awarded from Year 6. National tests are compulsory at the end of Years 3, 6, and 9 in Swedish, English as a second language, mathematics, and science. Students have access to school healthcare, study and career guidance, and a school library. There are also state-run *Sami schools* for the Sami population in the north of Sweden, with teaching in Swedish and Sami (Organisation for Economic Cooperation and Development, 2015a).

*Upper secondary school* in Sweden is voluntary, but almost all students, approximately 98%, go on to upper secondary school after comprehensive school (Statistics Sweden, 2017). Upper secondary programs are 3 years in most cases (Skolverket, 2018c). Many students begin immediately after comprehensive school, when they are 16 years of age. The limit for beginning upper secondary school is the year they turn 20. After the students turn 20, it is possible to attend upper secondary adult education. All students attending upper secondary school are entitled to study grants.

Children with intellectual disabilities are not always able to manage ordinary comprehensive school. In such a case, the child can instead attend a *special needs comprehensive school* (Skolverket, 2018d). This is a separate form of schooling, providing education that is adapted to each student's circumstances and needs. After special needs comprehensive school, students can go on to a 4-year *special needs upper secondary school*. Its aim is to teach the student to manage ordinary tasks in working life.

Comprehensive and upper secondary school are free of charge that means there is no payment required for tuition, textbooks, or other school material. School lunches are also free.

There are also *international schools* that target children who temporarily reside in Sweden or who want to receive an education with an international dimension. These schools usually follow the curriculum of another country. Swedish children whose parents live abroad can be provided with nationwide boarding school education (Organisation for Economic Cooperation and Development, 2015a).

## 8.2 Governance and Financing

The municipalities are responsible for organizing and running primary, secondary, and adult education (Holmlund et al., 2014; SOU, 2014). An elected body, the Municipal Assembly, governs every municipality and appoints an education committee to govern its public education system. The municipalities and independent school providers are in charge of implementing educational activities, organizing and operating school services, allocating resources and ensuring that national goals for education are met (Organisation for Economic Cooperation and Development, 2015a). Since the municipalization reform in 1991, municipalities also received full employer responsibility for all school staff (SOU, 2014). The Ministry of Education and Research sets national educational goals and evaluates the results of the system, but decisions on how to achieve those goals are left to the municipal and school level. Both municipal and independent schools are funded through municipal grants from students' home municipalities and through state grants. Students are first allocated to a school based on geographical criteria. Families can then choose to stay in the school to which the student has been assigned or choose another public or independent school. A so-called school voucher, publicly funded can be transferred to the schools where students choose to be enrolled. School funding is shared between the state and municipalities. State funds are paid to municipalities through what is called the general state grant.

In 2016, the total cost for comprehensive school was 106 billion Swedish Crowns (Skolverket, 2018e) For municipal education providers it was 92 billion Swedish Crowns, which corresponds to 104,800 Swedish Crowns per student. For independent education providers, it was 14 billion Swedish Crowns, which corresponds to 96,000 Swedish Crowns per student. Compared to municipal schools, independent schools have on average higher costs per student for premises, school meals, and teaching materials. On the other hand, on average they have average lower costs for teaching, student health care, and other expenses.

## 8.3 Key Characteristics of the Swedish Student Population

Table 8.1 shows the number of students enrolled in the Swedish compulsory school system between 2008/09 and 2017/18. In 2017/18, around 1050 thousand students were enrolled, which was an increase of more than 25,000 students compared to the

**Table 8.1** Total number of students in comprehensive school by school year and responsible authority, 2008–2018

	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Comprehensive schools, total	906,189	891,727	886,487	888,658	899,185	920,997	949,460	985,613	1,023,944	1,049,476
Municipal education providers	816,606	795,648	781,210	776,356	779,327	794,869	815,361	839,981	870,246	887,837
Independent education providers	89,444	95,948	105,136	112,144	119,695	125,960	133,942	145,471	149,481	156,488
Sami schools	139	131	141	158	163	168	157	161	152	158
International schools										
Source Skolverket (2018e)									4065	4993

**Table 8.2** Percent (%) of students in comprehensive school by parental education and migration background, by responsible authority, 2010–2018

	2010	2011	2012	2013	2014	2015	2016	2017	2018
<i>Students with at least one parent with tertiary education</i>									
Comprehensive school, total	50	51	53	54	55	56	56	57	58
Municipal education providers	48	50	51	52	53	54	55	55	56
Independent education providers	63	64	65	65	66	67	68	69	69
<i>Students with migration background</i>									
Comprehensive school, total	18	19	19	19	20	21	23	24	25
Municipal education providers	18	18	19	19	20	21	22	24	24
Independent education providers	21	22	22	22	22	23	24	23	25

Source Skolverket (2018f)

previous year (Skolverket, 2018e). The vast majority of students are enrolled in municipal schools, but the number of students enrolled in independent schools has increased considerably. In 2008/09, 90% of the students were enrolled in municipal schools and 10% in independent schools. In 2017/18, the corresponding figures were 85% and 15%, respectively. The number of students in Sami schools has been relatively stable for the whole period. International schools have only been reported as a separate category since 2016; previously, they were categorized as independent education providers.

Table 8.2 shows the percent of all students in comprehensive school during the Years one to nine, by parental education, migration background and school provider (Skolverket, 2018f). The percent of students with at least one parent with tertiary education increased from 50 to 58% between 2008/09 and 2017/18. For the whole period, the percent of students with at least one parent with tertiary education has been higher in independent schools, compared to municipal schools. The percent of students with migration backgrounds, defined as being born outside Sweden or born in Sweden but with both parents born outside Sweden, increased from 18% in 2009/10 to 25% in 2017/18. The percent has been slightly higher in independent schools compared to municipal schools.

The most striking change in the student population in comprehensive school, particularly after 2015, is the number of asylum seekers. In 2014/15, there were 6695 asylum seekers in Swedish compulsory schools; in 2015/16, it was 11,853 and in 2016/17 it was 22,095 (Swedish Migration Agency, 2018). Expressed as a percentage of the total school population, around 2% of the total school population were asylum seekers in 2016/17.

## 8.4 Educational Outcomes of Low SES Children

In Sweden, data sources to measure trends in educational outcomes and their association with socioeconomic background are international surveys such as the Programme for International Student Assessment (PISA) and Trends in International Mathematics and Science Study (TIMSS), as well as final national grades. Register data are records kept by government agencies or other organizations, where data can be traced to individuals. Different data sources have varying strengths and weaknesses. The international PISA study, for example, does not consider the participating countries' respective curriculum (Skolverket, 2016a). The questions are designed to measure skills that are considered particularly important for life which enables comparison over time and between countries. PISA also includes a lot of information on preferences of students, motivation of students, and parents. On the other hand, it is cross-sectional data which hampers causal inference.

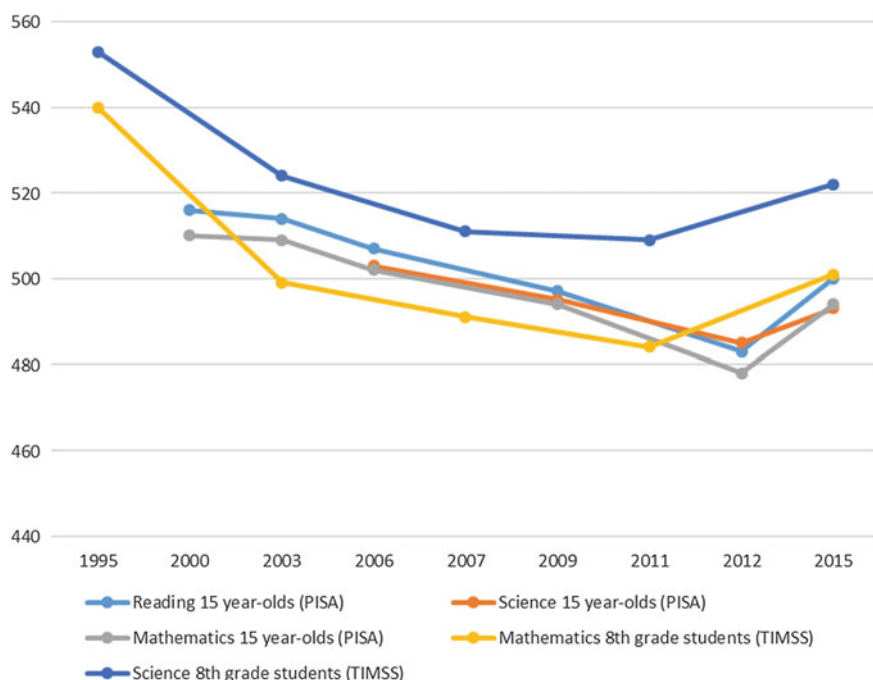
In contrast, the final grades are census data and therefore encompass the entire student population for each cohort. A problem with the final grades, on the other hand, is that since the final grades are subject to different interpretation of grading criteria by different teachers, schools, and regions, the comparability of the final grades is questionable. The problem of grade inflation has also been discussed (Skolverket, 2016b). For example, Swedish students' final grades of Year nine gradually increased between 1998 and 2012, at the same time the performance in PISA and TIMSS declined (Skolverket, 2016a, 2016c). The discrepancy between survey and administrative data results could suggest a possible grade inflation (Skolverket, 2016b).

There are also differences in the accuracy of measuring socioeconomic background between the different data sources. The PISA study, for example, relies on self-reported data, which is prone to measurement errors due to i.e. recall-bias. Instead, register data, kept by government agencies or other organizations, makes it possible to link all students to their parents and data with detailed demographic information (e.g., completed education and annual earnings). Furthermore, student educational outcomes can be linked to later labor market outcomes opening opportunities to investigate the impact of schooling on future career. On the other hand, administrative data does not include information on motivation of students and teachers, which are important for examining school systems cross-nationally.

There are strengths and limitations with the different data sources. Therefore, when presenting educational outcomes and socioeconomic background, the following section uses different data sources, including data from the PISA surveys as well as national final grades.

### 8.4.1 Educational Outcomes in Sweden According to PISA and TIMSS

When PISA was conducted for the first time in 2000, Swedish 15-year-olds performed better than the standardized international mean of 500 points in mathematics and reading (Henrekson & Jävervall, 2016). After that, the performance fell continuously between 2000 and 2012, (see Fig. 8.1). The total decline was statistically significant in both subjects (Skolverket, 2016a). No other country participating in PISA experienced a steeper decline over the past decade than Sweden. In comparison, the average performance in mathematics across all Organisation for Economic Co-operation and Development (OECD) countries remained roughly stable between 2003 and 2012. According to PISA data from 2015, there was a statistically significant improvement in learning outcomes in mathematics as well as in reading comprehension, indicating that the downward trend has reversed though the results did not reach the same levels as in the early 2000s (Skolverket, 2016a). In science, there was a decrease in performance between 2006 and 2012, and an increase between 2012 and 2015, but none of these changes were statistically significant.



**Fig. 8.1** Sweden's average scores in PISA and TIMSS by subject area, 2000–2015 *Sources* Organization for Economic Co-operation and Development (2016), Skolverket (2016c)

The results from the TIMSS assessment show similar trends (Fig. 8.1) (Skolverket, 2016c). Swedish 8th-grade students have participated in all of the TIMSS assessments since 1995. There was a significant fall in performance in both mathematics and science between 1995 and 2011. Like the PISA results, TIMSS 2015 results indicate significantly improved learning outcomes in mathematics and science between 2011 and 2015. (It is important to note that even though Fig. 8.1 provides the same scale for TIMSS and PISA, it is not directly comparable between both surveys due to different calculation methods.)

#### ***8.4.2 Performance Gap Among Low- and High-Achieving Students***

A measure of student performance is the percent of students who attain at least proficiency Level 2 on the PISA assessment (Organisation for Economic Cooperation and Development, 2016). Proficiency Level 2 is considered a baseline that all students should be expected to reach by the time they leave compulsory education. Low-achieving students score below Level 2. On the other hand, top-performing students are those who perform at or above Level 5.

Between 2000 and 2012, the percent of low-achieving students increased in both reading and mathematics but decreased in 2015. In science, low-achieving students increased between 2006 and 2015 (Skolverket, 2016a). In reading and mathematics, top-performing students decreased between 2000 and 2012, and then increased in 2015. The percent of top-performing students in science decreased between 2006 and 2012 and increased in 2015. These results indicate that average lower performance in Swedish schools found in recent years was due to the entire educational achievement distribution being shifted instead of e.g. only an increase of low performing students.

#### ***8.4.3 Educational Outcomes by Gender***

On average, girls and boys scored similarly in mathematics and science (Organisation for Economic Cooperation and Development, 2015b), but girls outperformed boys in reading. The Swedish gender gap was wider than the average across OECD countries. The gender gap in reading performance did not change since 2009. Twice as many boys (24%) than girls (12%) did not reach the baseline level of proficiency in reading in Sweden.



#### ***8.4.4 Educational Outcomes by Migration Background***

Among the students in Sweden who participated in the PISA survey in 2015, 9.8% were born in Sweden with migration backgrounds, and 7.6% were born outside Sweden with migration backgrounds. Compared to 2006, the whole group of students with migration backgrounds increased by almost 7 percentage points (Skolverket, 2016a).

In 2015, approximately 10% of natives were top-performing students in science (Skolverket, 2016a). Among students born in Sweden with migration backgrounds it was 3%, and for students born outside Sweden with migration backgrounds it was around 2%. The percent of native students who were low-achieving students in science was 17%. For students born in Sweden with migration backgrounds it was 33%, and for students born outside Sweden with migration backgrounds it was 50%. The pattern is similar for reading and mathematics.

Students with migration backgrounds were more often from disadvantaged socioeconomic backgrounds, compared to native students. When socioeconomic status was taken into account using a regression design, the difference between native students and students with migration background was reduced, but did not disappear (Skolverket, 2016a). Approximately one-third of the difference in science between natives and migrants could be explained by differences in socioeconomic background. The pattern is robust for reading and mathematics.

#### ***8.4.5 Educational Outcomes by Students Socioeconomic Background***

A student's socioeconomic status is estimated by the PISA index of economic, social, and cultural status (ESCS), which is derived from several variables related to students' family background: parents' education, parents' occupations, a number of home possessions that can be taken as proxies for material wealth, and the number of books and other educational resources available in the home (Organisation for Economic Cooperation and Development, 2016). Students are considered socioeconomically advantaged if they are at or above the 75th percentile of the ESCS index distribution in a respective country. Socioeconomically disadvantaged students are those placed at or below the 25th percentile and average socioeconomic status students are those in between both extremes of the distribution.

According to PISA 2015, in both reading and mathematics, socioeconomically advantaged students scored 41 points higher than disadvantaged students. This Swedish pattern is similar to the OECD average. Using a regression design, the share of the variation in student performance that can be attributed to students'

socioeconomic background was 11% in reading and 14% in mathematics, which is similar to the OECD average (Skolverket, 2016a).

In science, socioeconomically advantaged students scored 37 points higher than disadvantaged students in 2006; the difference increased to 44 points in 2015 (Skolverket, 2016a). That means that the gap in science between advantaged and disadvantaged students in Sweden was wider than the average across OECD countries. On the other hand, the share of the variation in student performance that could be attributed to students' socioeconomic background was 12% in Sweden, which was similar to the OECD average and did not change significantly since PISA 2006. Countries where students' socioeconomic background was of great importance were France, Hungary, Czech republic, and Luxemburg, where socioeconomically advantaged students scored over 50 points higher than disadvantaged students and/or the share of the variation in student performance attributed to students' socioeconomic background was over 20%. Estonia and Iceland were those countries across the OECD where students' socioeconomic background was of least importance, but even in the other Nordic countries—Denmark, Finland and Norway, the importance of students' socioeconomic background was less compared to Sweden.

Up to now, PISA results on educational achievement by socioeconomic background were discussed. How do they compare to results from administrative data? The Swedish National Agency for Education has analyzed the effect of students' family background on learning outcomes in comprehensive school, using national final grades (Skolverket, 2006, 2012, 2018g). The latest report, published in 2018, described the trends between 1998 up to 2016.

The data sources used to measure students' performance were (a) final grades from all 16 mandatory subjects in comprehensive school to calculate merit rating values, and (b) final grades in English and mathematics. English and mathematics are subjects supported by national tests and are therefore assumed to be more resistant to grade inflation.

The data sources used to measure students' socioeconomic background were (a) level of parental education, (b) parental income, (c) proportion of parents receiving welfare, and (d) a socioeconomic index computed by the three previous variables. Students' migration background was classified as (a) the student and at least one parent were born in Sweden, (b) the student was born in Sweden but both parents were born outside Sweden, and (c) the student was born outside Sweden.

In 2000, approximately 18% of the variance of students' average merit value in grade 9 could be explained by the socioeconomic index. In 2015, it had increased to 23%. For grades in mathematics and English it increased from around 17 to 23%.

Between 2000 and 2015, the importance of the socioeconomic index for average merit value increased from 9% to over 22% for students born outside Sweden, and from 10 to 12% for students born in Sweden having parents both born outside Sweden. Also for students with a Swedish background, there was an increase in the importance of the socioeconomic index for average merit value, from almost 20 to 22%, but it was significantly less compared to students born outside Sweden.

When analyzing the three variables included in the socioeconomic index separately, results showed that parental income was the main factor behind the increase for students with a Swedish background. The level of parental education was indeed the most important variable for the learning outcomes, but it has been relatively stable during the whole period. For students born in Sweden but with both parents born outside Sweden, there was no clear pattern. For students born outside Sweden, all three socioeconomic variables contributed to the importance of the socioeconomic background on learning outcomes, but it differed during different periods.

In sum, while administrative data and survey data results disagree on average achievement development in Sweden over time, both data sources indicate that the socioeconomic achievement gap has increased since 1995.

#### **8.4.6 School Segregation**

School segregation is presented in two ways. First, the focus is on the proportion of the total variation in socioeconomic background that can be explained by variation between schools. Secondly, school segregation is captured as the variation in student performance related to differences in the socioeconomic composition of the school's student population.

Using administrative data and analyzing school segregation separately for level of parental education, parental income, and the socioeconomic index, school segregation increased for all three socioeconomic variables (Skolverket, 2018g). During the 2000s, school segregation by parental education was relatively stable but started to increase during the 2010s. Between 2010 and 2016, it increased from 14 to 16%. School segregation by parental income, on the other hand, increased from 11% in 1998 to 20% in 2015. School segregation by the socioeconomic index increased by over 6 percentage points between 1998 and 2016, from approximately 15% to almost 22% (Skolverket, 2018g).

Segregation by migration background increased from 17 to 25% between 1998 and 2011, when students born in Sweden but both parents born outside Sweden and students born outside Sweden were combined. Segregation by migration for students born in Sweden but both parents born outside Sweden increased by almost 2 percentage points, from approximately 13 to 15%. For students born outside Sweden, school segregation increased from 1998 to the beginning of 2000s, but has remained at around 10% in recent years.

Once the focus is on survey data using PISA, school segregation in Sweden, according to PISA 2015, was over 13%, which is lower than the OECD average of over 23% (Skolverket, 2016a). Variation in student performance related to differences in the socioeconomic composition of the school's student population increased between 2003 and 2012, from 9 to 12% (Organisation for Economic

Cooperation and Development, 2015b). In PISA 2015, it was less than 16%. It is still lower than the OECD average of 30%, but still higher compared to the other Nordic countries. The lowest variation between schools was in Iceland, with less than 4% (Skolverket, 2016a).

Variation in student performance between schools, measured by final grades from comprehensive schools, increased from around 7% in 2000 to almost 14% in 2016, both for municipal and independent schools (Skolverket, 2018g). The importance of students' family background on learning outcomes increased for all students, especially from 2000 and onwards. The variation in student performance between schools almost doubled between 2000 and 2016.

Hence, results from both data sources confirm that school segregation has increased during the last decades. Still, according to PISA 2015, it is relatively low in Sweden, as well as in the other Nordic countries (Skolverket, 2016a). One reason why the Nordic countries have a relatively low level of segregation could be that the Nordic countries do not implement stratification policies, so-called *tracking*—the practice of sorting students into academic or vocational study programs. Instead everyone follows the same path and the same curriculum throughout compulsory school (Böhlmark, Holmlund, & Lindahl, 2015) (Skolverket, 2016a). Also for other countries, PISA results show that school systems with small between-school variations in performance tend to be those that are comprehensive, meaning that they do not sort students by programme or school based on ability (Organisation for Economic Cooperation and Development, 2016).

## 8.5 Major School Reforms in Sweden During the Last Decades

In the 1950s, the comprehensive school was introduced and formally decided upon in 1962 (Gustafsson & Yang Hansen, 2017). It meant that compulsory school was extended to comprise 9 years, and with a largely common and undifferentiated curriculum. The comprehensive school replaced a tracked school system in which the common elementary school in grade 6 was differentiated into a secondary grammar school with an academically oriented curriculum that prepared for further academic studies, while the remaining students finished school after 6 or 7 years or went into vocational education (Gustafsson & Yang Hansen, 2017; Husén, 1989). One main aim of the introduction of the comprehensive school was to provide equal educational opportunities for all children, irrespective of family background (Husén 1960).

In the 1990s, the Swedish society experienced several changes. The economic crisis had severe effects on employment and the state finances, while the Swedish school system needed to integrate a rising share of refugees (Holmlund et al., 2014). At the same time, income inequality increased.

After a series of parliamentary reforms in the early 1990s, a number of radical school reforms were launched. Until 1990, the Swedish education system had been largely centralized, and seen as a component of the social democratic welfare state (Organisation for Economic Cooperation and Development, 2015a). Many argued though that the centralized education system had become inefficient and too expensive. The 1990s series of reforms changed the education landscape in Sweden. The highly centralized Swedish school system was decentralized, giving the municipalities the responsibility for organizing and running the primary, secondary, and adult education (SOU, 2014). The intention of the new reforms was to make the school system more appropriate and effective and also to create an education system that increased cooperation between teachers and was better supported by citizens and school staff. A new curriculum for comprehensive and upper secondary school was implemented in 1994. It was designed as an adaptation to the new way of managing schools.

The development of independent schools was encouraged through a nationwide voucher system, which allowed private (“independent”) schools to be run with public funding in a quasi-market system (Gustafsson, & Yang Hansen, 2017; Organisation for Economic Cooperation and Development, 2015a). Parents and students could choose which school to attend, depending on availability of places, and municipalities had to ensure that any student in their catchment area could attend one of the public schools in the municipality. The element of choice was motivated by the idea that choice and competition should increase efficiency and boost educational outcomes (Böhlmark, Holmlund, & Lindahl, 2016).

Through the municipalization reform, municipalities received full employer responsibility for all school staff as of 1991 (SOU, 2014). Municipalities were also given responsibility for: determining how resources should be allocated between different parts of the school system; following up and evaluating their own activities, and developing these activities and offering continuing professional development for staff.

As a response to the decline in students’ performance, a new series of reforms were implemented in the 2000s. The aim was to give clearer learning goals, clearer performance requirements, more stringent qualification requirements, extensive initiatives for school improvement and continuing professional development, and stricter supervision (SOU, 2014).

In 2011, a new Education Act was implemented. The curricula from 1994 was redesigned, and a new grading system, with criterion-referenced grades in comprehensive school and criterion-referenced course grades in upper secondary school, was introduced.

Recent policy responses in form of “The Education Act” implemented in 2011, aim to provide all students with the opportunity to reach achievement targets and complete upper secondary school, with improved skills for both the labor market and further studies.

### ***8.5.1 The Swedish School System Compensatory Assignment***

The Swedish school system prioritizes equity which refers to equal access to high-quality education and aims to compensate for differences in students' capacity to benefit from education (Skolverket, 2018g). The school system shall also be compensatory, aiming at minimizing negative effects of student background on performance, and aims to provide all students with an equal opportunity to learn. All children and students should be provided with support and stimulation, so that they develop to the best of their abilities, regardless of their background or the school they attend (Skolverket, 2013).

### ***8.5.2 Evaluations of the Reforms and Policy Response***

The large school reforms of the 1990s resulted in the decentralization and municipalization of schools, the possibility to choose between schools (voucher system), and the establishment of independent schools. At the same time, according to international studies and administrative data, the socioeconomic achievement gap widened. Survey data indicate also a general decline in average achievement of Swedish 15-year-olds, which is not confirmed by administrative data.

Several studies and inquiries have been conducted in order to evaluate whether these extensive reforms have contributed to the decline in performances and weakening equity in Swedish schools, as well as offering proposals on how to improve learning outcomes and the quality of teaching and equity in Swedish schools.

### ***8.5.3 The Effects of the Reforms on Learning Outcomes***

The governmental inquiry *The Government Must not Abdicate*, initiated in 2012, aimed at analyzing the effects of the municipalization reforms on learning outcomes, the professional status of teachers and school heads' and teachers' working conditions, as well as equity in schools (SOU, 2014). The inquiry concluded that the reforms had a major impact on the declining results in Swedish schools. It declared that this was due to the transfer of power and responsibility for schools from the central government to municipalities, and the result-based and target-based management of schools. The municipalities were not prepared to take over the responsibility for the schools. Municipalization also resulted in poor salary growth for teachers for a long time, and the proportion of teachers lacking formal qualifications was high. In addition, teachers' working conditions deteriorated as a result

of increased external management of schools and extensive documentation and other administrative requirements.

Also in 2012, the government assigned the Institute for Evaluation of Labour Market and Education Policy (IELMEP) the responsibility of evaluating the decentralization of the school system (Holmlund et al., 2014). The report *Decentralisation, school choice and independent schools: results and equivalence in the Swedish school system* focused on the period between the end of the 1980s and 2006. One of the most important conclusions of the report is that the decline in results in the Swedish school system seems to have started already before the reforms of the 1990s. The declining trend did continue throughout the entire reform period, however, and it cannot be excluded that the trend has been affected by changes in the school system due to the school reforms in the 1990s. The report concludes though that there is no evidence that the reforms and the changes at the municipal level would have driven the decline in school results.

In other words, the two investigations on the effects of the reforms on learning outcomes reached contradicting conclusions.

#### ***8.5.4 The Effects of the Reforms on Equity in Swedish Schools***

Both the governmental inquiry *The Government Must not Abdicate* and the report *Decentralisation, school choice, and independent schools: results and equivalence in the Swedish school system* also analyzed the question of equity in Swedish schools. The governmental inquiry concludes that the municipalization reforms had an impact on equality in schools, as well as learning outcomes. The report *Decentralisation, school choice, and independent schools: results and equivalence in the Swedish school system* concluded that there was an increase in the differences between school results in comprehensive school since the end of the 1980s. This trend was partly explained by the fact that schools had become more segregated in relation to students' background characteristics, which was explained by increased housing segregation as well as school choice. The fact that the composition of students in the country as a whole had changed due to an increase in immigration, and strong increase in the income differences in society since the mid-1990s, were given as the main causes behind the housing segregation. The report concludes that the increased diversity in the results between schools can be related to the reforms.

The *Assessment of the Situation in the Swedish School System* reports published by the Swedish National Agency for Education focused on equity in Swedish schools (Skolverket, 2013, 2015). Even though only a proportion of the increased difference in results between schools can be explained by increased school segregation with regard to the socioeconomic composition of students, the schools seem to increasingly become different with respect to such qualities as students'

motivation to study. Peer effects and teachers' expectations differ more and more between schools so that it has become increasingly important which school a student attends. The Agency states that the equity level has deteriorated, and that the school choice reform has most probably contributed to the increased differences between schools. Each student and their parents now have an increased possibility to choose the school they believe is the best for the child, and there are plenty of schools to choose from. At the same time, the choice of school implies an action that can negatively affect students whose parents do not make an active choice.

In April 2015, the Swedish government appointed the Swedish School Commission to submit proposals aimed at improving learning outcomes, quality of teaching, and equity in schools (Skolkommissionen, 2017). The Commission identifies deficient equity as a serious problem in the Swedish school system, which involves a lack of quality in the teaching in certain schools or school classes and shortcomings in the school systems' compensatory assignment, (which aims at minimizing negative effects of student background on performance). The problem seems to be increasing over time. The compensatory assignment is made more difficult in segregated environments. There is also a major risk that less is expected of students in these school environments, and it is also more difficult to recruit experienced teachers and school heads to work in schools in socioeconomically vulnerable areas.

When it comes to the importance of parental education for student academic achievements Holmlund et al (2014) found that it has been relatively stable during the last 20 years, but other studies using a more refined measurement of parental education show an increase also in the importance of parental education (Gustafsson & Yang Hansen, 2017; Skolverket, 2018g).

The evaluations of the effects of the reforms on equity in Swedish schools conclude that the equity level in Swedish schools has deteriorated (Böhlmark et al., 2016; Holmlund et al. 2014; Skolkommissionen, 2017; Skolverket, 2018g; SOU, 2014).

Jenkins, Micklewright, & Schnepf's (2006) study of social segregation in schools in England proposed three main determinants of school segregation: where parents of different social backgrounds live (residential segregation), how parents of different social backgrounds choose schools for their children (parental school choice), and whether school choice of students relates to their social background (schools' selection of students). When students are assigned to their neighborhood school through catchment areas, it is likely that parental choice is executed through the choice of neighborhood, leading to school segregation (Böhlmark et al., 2016; Jenkins et al., 2006). However, even in a fully choice-based school system, residential segregation may also lead to school segregation. Parents might prefer to let their children attend a local school, and factors such as mobility costs might hinder parents from choosing a school outside of their local neighborhood. School choice opportunities can also affect school segregation in other ways. For example, parents who are better informed and have the resources to act on their preferred choice of school for their children are likely to be found in schools of higher quality.



Immigrant families might lack the networks and language in order to make an informed choice. In a school system where schools can select their students, by family background, or by tuition fees, school segregation will also increase.

Böhlmark et al. (2016) examine the most important determinants of school segregation in Sweden. Their main findings show that school segregation has increased between students characterized by native/immigrant background and by high/low education background. The most important factor to explain this increase is neighborhood segregation. Still, in regions in Sweden where school choice has become more prevalent, the school segregation increase exceeded what should be expected given neighborhood segregation.

### 8.5.5 *The Swedish School Commission*

The shortcomings identified by the Commission have resulted in a weakened and partly fragmented school system in which there is a low degree of cooperation, collaboration, and collective effort to improve differences between schools and education providers. The same weaknesses have also been noted in the Organisation for Economic Co-operation and Development's (2015a) review of the Swedish school system.

One of the measures proposed to break the trend of increased school segregation and to create a more equitable school system concerns active school choice. The Commission states that mandatory school choice, combined with relevant and comprehensive information to students and their parents/guardians, should be considered. Like the Organisation for Economic Co-operation and Development (2015a), the Commission considers that there is a need to develop a model that enables school choice while counteracting segregation and reduced equity at the same time.

The Commission also proposed a central government grant of six billion Swedish crowns with the purpose of making high-quality teaching and compensatory initiatives for equitable education possible. The responsible authority, Statistics Sweden, should be tasked with drawing up an annual socioeconomic index on which the allocation of the central government grant should be based. The purpose of the index values would be to support education providers in order to assist in the allocation of resources with respect to pupils' varying requirements for compensatory initiatives (Skolkommissionen, 2017). The proposal was decided upon by the government in 2018, and will be implemented, starting 2019.

Other areas the Commission proposed for improvement included, for example, strengthening education providers through central government support and collaboration, skills supply to the school system, increased national responsibility for school funding, and curriculum development and evaluation systems.

## 8.6 Conclusion

During the last decades, survey results indicate a decline of performance in Swedish schools. For the same time period, survey and administrative data suggest that the importance of students' socioeconomic background for academic performance has increased, and school segregation has become more prevalent.

The last decades saw also an implementation of extensive school reforms. The comprehensive school that was decided upon in 1962, aimed at providing equal educational opportunities for all children, irrespective of family background (Husén, 1960). The reforms of the 1990s and the 2000s, aimed at making the school system more appropriate and effective, but did not explicitly focus on reducing the gaps between low- and high-achieving students.

There are no simple answers to how the reforms of the 1990s have affected the Swedish school system, especially on learning and equity. The school system is complex, making it hard to isolate the causal link between different possible explanatory factors and trends in students' results. However, several evaluations of the effects of the reforms on equity in Swedish schools conclude that equity levels in Swedish schools have deteriorated and that schools have become more segregated (Böhlmark et al., 2016; Holmlund et al., 2014; Skolkommissionen, 2017; Skolverket, 2018g; SOU, 2014).

The Swedish School Commission proposed a number of measures to break the trend of increasing school segregation and to create a more equitable school system thereby reducing the gaps between low- and high-achieving students. One of the measures proposed concerns active school choice. The Commission states that mandatory school choice, combined with relevant and comprehensive information to students and their parents/guardians, should be considered. Another proposed measure was to allocate money to responsible authorities according to a socioeconomic index. It would enable the allocation of resources with respect to pupils' varying requirements for compensatory initiatives (Skolkommissionen, 2017).

It remains to be seen whether the proposals suggested by the Commission will be implemented, and if so, if they will have an effect on school segregation.

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