

# The performance gap between native and foreign-born pupils

---

*Hans Grönqvist*  
*Susan Niknami*

---

# Summary

THIS REPORT DOCUMENTS the differences in school achievements between native and foreign-born pupils in Sweden and investigates some of the underlying mechanisms that may explain any identified gaps.

The share of pupils in the Swedish school system who were born in another country has increased sharply between the years 2010 and 2017, from 6 to 13 percent, respectively. While we know from previous studies that foreign-born pupils on average perform worse than native-born pupils, there is no single coherent analysis that both documents the development of the achievement gap over time and also examines what factors may explain the gap. The lack of research is worrying, since school performance is closely connected to other long-run outcomes, such as employment and income. This means that early inequalities in educational achievement may produce persistent inequalities also in other dimensions.

This report uses rich register data covering about 3,2 million pupils who finished compulsory school starting in 1988. In addition to measures of their educational achievements (e.g. grades, eligibility for upper secondary education, and choice of program), the data includes information on the pupils' background (e.g. parental income, residential area, school, region of birth, and age at arrival). A strength of this rich data is that it is possible to follow the pupils over time from compulsory school to upper secondary school.

Our results reveal that there are large differences in the educational achievements between foreign-born and native pupils. For instance, while about 90 percent of native pupils become eligible for upper secondary school, the corresponding figure for immigrants is about 60 percent. There are also large and important differences between the two groups concerning their grade point averages, the likelihood of passing the »core« subjects, and the fraction of pupils who finish upper

secondary school. The difference in achievements has also increased over the past few years. This pattern is largely due to immigrants performing worse in school, but there is also a tendency for improvements in school performance among native pupils. These results seem to be consistent with the results in the latest PISA-report. One difference is, however, that PISA focuses on the results in three subjects, while we present results for a larger set of outcome measures. The sample in PISA is also substantially smaller compared to the population-based data used in this report. Below, we summarize a few of the key results.

- › There are large differences in school performance between native and foreign-born pupils, and this gap has grown for those pupils who finished compulsory school after 2005.
- › Foreign-born pupils are disproportionately concentrated in the lowest decile of the grade distribution.
- › While the school performance among foreign-born students who immigrated before the school starting age has slightly increased, the performance among pupils who immigrated at older ages has fallen sharply.
- › The achievement gap in upper secondary school is similar to that in compulsory school: foreign-born pupils perform worse than native pupils, and this gap has recently increased.

What factors can explain the achievement gap? Our analysis shows that parental socioeconomic background is strongly correlated with the size of the gap. Another strong correlate is neighborhood of residence. When comparing the size of the achievement gap between pupils who live in the same neighborhood and come from the same socioeconomic background, most of the gap is eliminated. The size of the achievement gap in upper secondary school also decreases substantially when we compare pupils who performed equally as well in compulsory school. School sorting also matters, but controlling for the pupils' choice of school reduces the size of the gap less compared to other factors.

Although the most recent results in PISA show that the educational results among native pupils have improved, the results are not statistically significant. One interpretation of this result is that the Swedish schooling system has at least not gotten worse in recent years. Our analysis also shows signs of improved results among native pupils. The question then becomes why do we observe more recently worse performance among immigrant pupils? In a separate analysis we examine how the size of the gap relates to the increase in the average age at immigration that we see in the data. Our results show that the increase in age at immigration can account for part of the increase in the size of the achievement gap, even after controlling for other factors.

# What can be done to reduce the achievement gap?

## POLICIES THAT IMPROVE LABOR MARKET OUTCOMES AMONG ADULT IMMIGRANTS

A key result in our report is that parental socioeconomic background is strongly correlated with the size of the achievement gap. Under the assumption that parental socioeconomic background is at least partly causally related to the pupils' educational achievements, this result suggests that broad interventions aiming to improve labor market and educational attainment among adult immigrants may, in the long run, also be seen as tools to reduce the achievement gap for their children. A complication is that these policies will likely not have an immediate effect.

The School Commission (2017) raised the possibility of distributing newly arrived immigrants more evenly across residential areas. A similar policy was practiced in Sweden in the 80s and early 90s: the »Whole of Sweden« policy. Past investigations, however, have shown that difficulties in finding appropriate housing caused many immigrants to be placed in areas with high unemployment. There is a risk that this type of policy would make it more difficult for immigrants to find work.

## REDUCING SCHOOL SEGREGATION IS LIKELY NOT THE BEST TOOL TO REDUCE THE ACHIEVEMENT GAP

Our analysis shows that sorting pupils between schools, i.e. school segregation, plays a relatively small role in explaining the achievement gap. This means that policies such as randomly allocating students to schools may not be the most efficient ways to reduce the achievement gap.

## EARLY INTERVENTIONS IN COMPULSORY SCHOOL MAY REDUCE THE ACHIEVEMENT GAP IN UPPER SECONDARY SCHOOL

We find that school performance in compulsory school is strongly linked to the size of the achievement gap in upper secondary school, even after controlling for socioeconomic background. Research has shown that early school interventions may be especially important for promoting long-run learning. One way to improve the school performance among low-achieving students is to allow more teaching time (e.g. extra teaching after regular school hours or teaching during school holidays). While costly, given the size of the achievement gap, this type of policy may still pass a cost–benefit analysis.

#### SWITCH BACK TO A GRADING SYSTEM BY SUBJECT

There is a risk that the current high school grading system, with grades in separate courses that the pupil takes during their first year, imposes a penalty for pupils who arrive later and who therefore, mechanically speaking, are less exposed to the Swedish schooling system. The pupil will have no means to undo poor initial performance, and it is possible that this may lead to worse performance also in later courses. A grading system based on courses seems to have a greater potential to keep pupils motivated.

#### LIMITATIONS OF THE REPORT

One important limitation of this report is that we do not observe separate origin countries in our otherwise rich data. It is possible that the »grouped« analysis we show when analyzing the achievement gap by region of birth masks important heterogeneity that may exist within these groups of countries. Our data also does not include individuals who arrived in connection to the large refugee inflow in 2015. How these pupils perform in school should be a top prioritized question for future research.