



Does School Segregation Lead to Poor Educational Outcomes?

Evidence from 15 Cohorts of Swedish Ninth Graders

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Background

- Choosing a school for children is an important decision for many parents
- Many parents invest time (and money) trying to find the best educational environment available
- Common assumption: school environment is important for educational outcomes

Background cont'd

- Increasing ethnic segregation in Swedish schools
- Many immigrant children start school with little or no knowledge of the language of instruction
- Relatively many newly arrived parents are poorly educated
- Central finding: there is a negative correlation between the average performance of students and the proportion of children of immigrants
- Not surprisingly some native parents are concerned about sending their children to schools with a high fraction of immigrants

Research question

- Are parents who are concerned about sending their children to schools with a high fraction of immigrants right?

Our study

- Effects of (ethnic) school segregation on school results in Sweden (1998-2012)?
- Average grades, and eligibility for future studies
- Correlation or causal effect?

Causality and observational data?

- Analyzing social environment effects on individual outcomes involves several methodological problems
- Variation in individual outcomes between schools:
 - (1) Selection effects (characteristics of students)
 - (2) Environmental effects (school quality)
 - **(3) Social interaction effects (students influence each other)**

Data and variables

- Swedish register data
- All pupils finishing 9th grade 1998-2012
- Åk9-registret, including school identifier
- N pupils finishing 9th grade= 1,574,237
- N schools= 1,339
- Link individual and family level variables from e.g. LISA

The outcomes

Grades (meritvärde)

- Summary of grades in 16 subjects, 0-320
Pass (10), Pass with distinction (15), Pass with great distinction (20)

Eligibility to secondary school

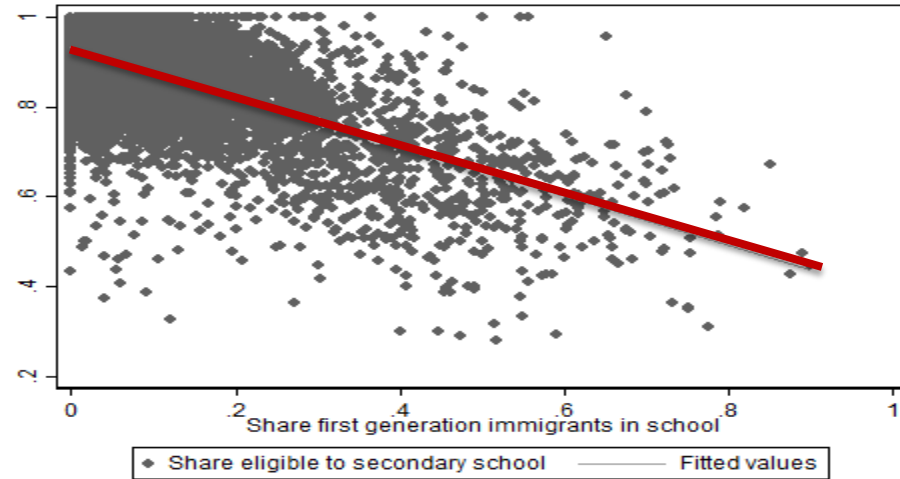
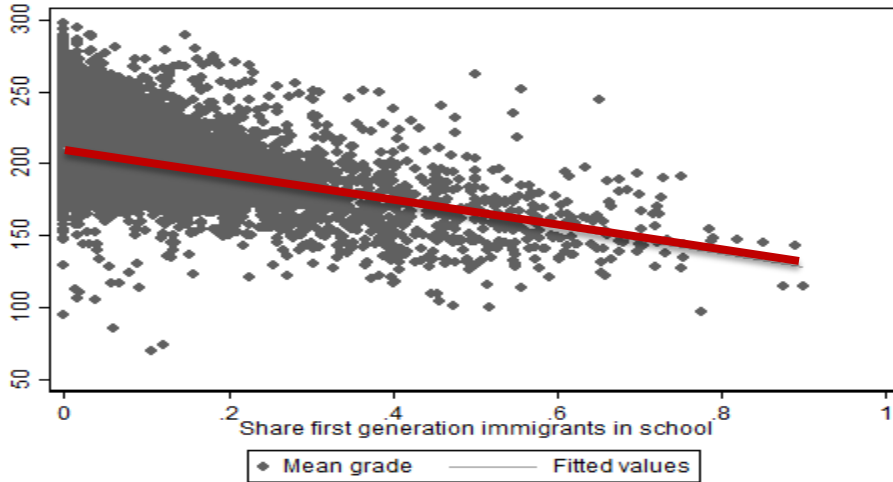
- Pass in English, Math and Swedish/Swedish as a second language (0 or 1)

Main independent variables (all in 9th grade)

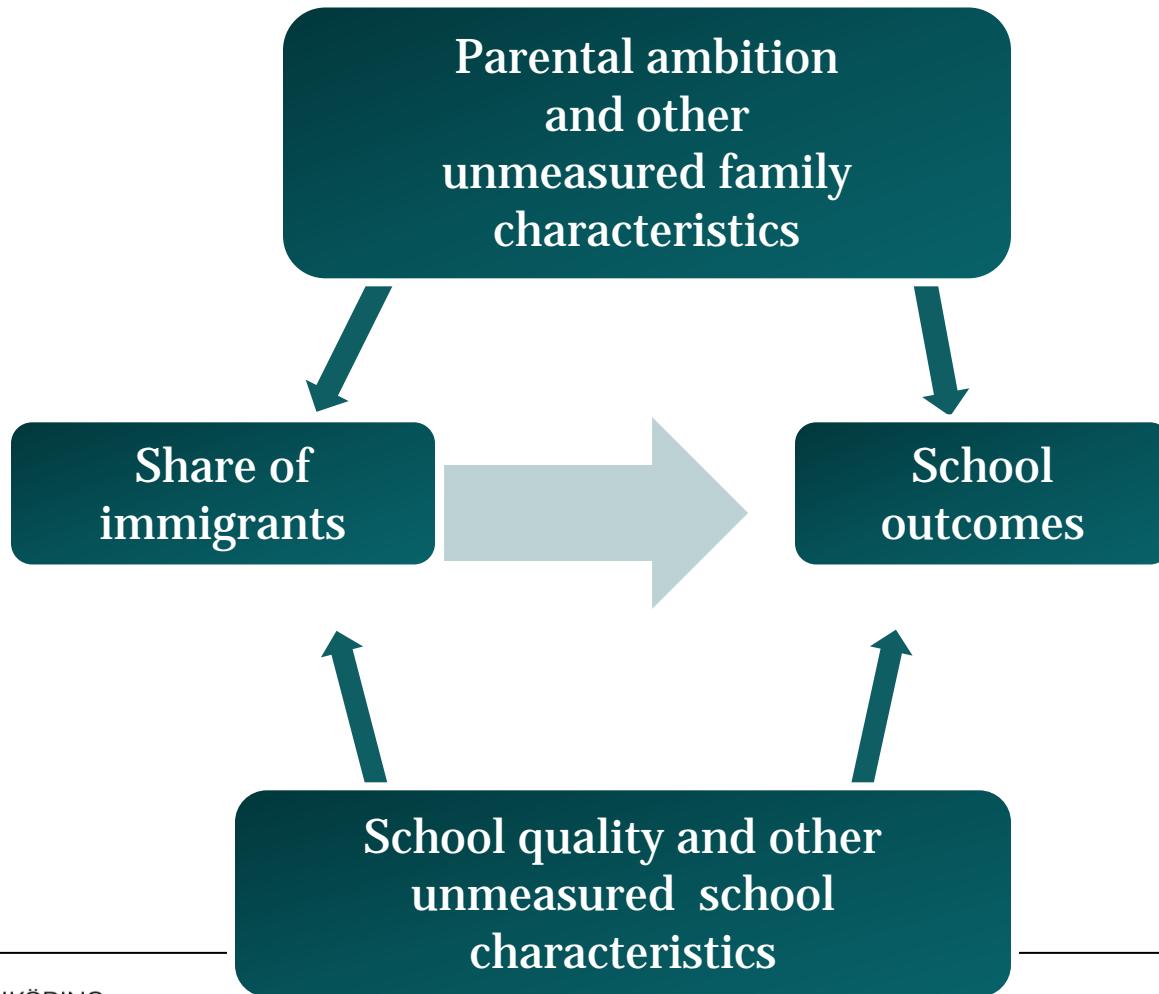
- Share of foreign born school mates
- Share of foreign born school mates immigrating after age 10

Share of immigrants and mean grades/share eligible pupils in Swedish schools 1998-2012.

17,246 school-by-year observations



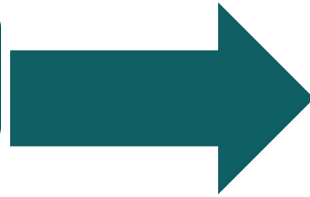




Parental ambition
and other
unmeasured family
characteristics

Family-FE-models

Share of
immigrants

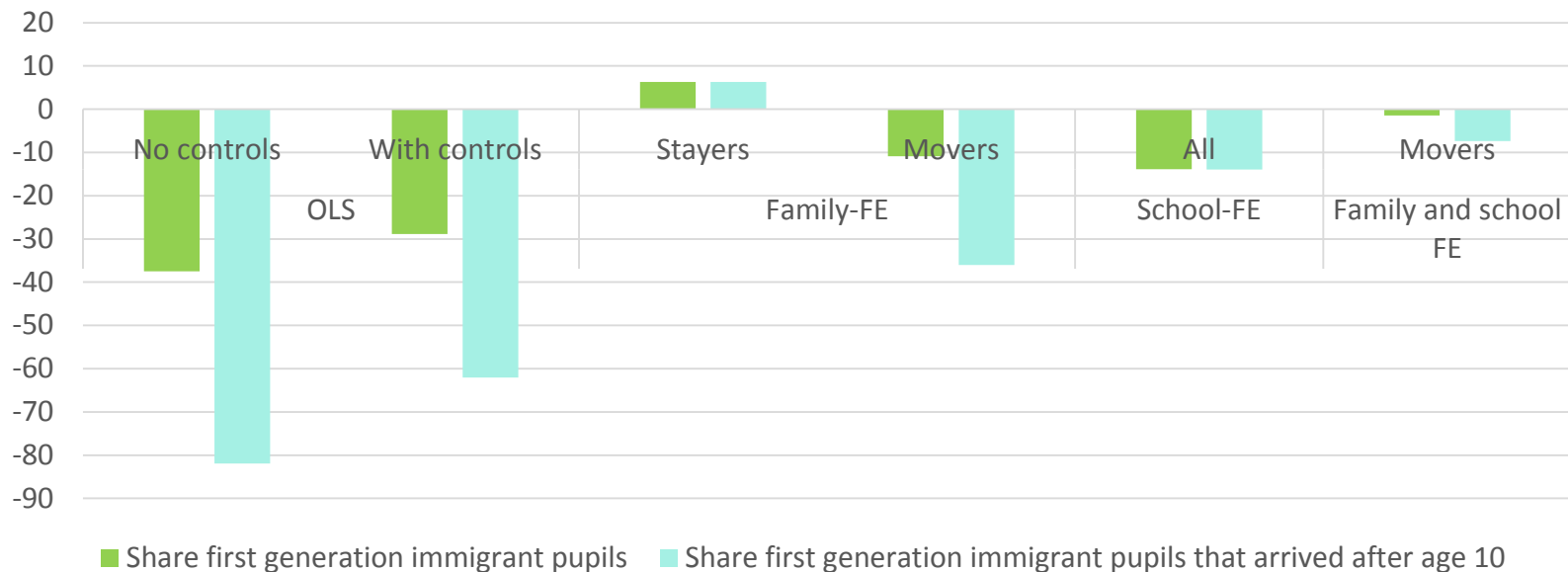


School
outcomes

School-FE-
models

School quality and other
unmeasured school
characteristics

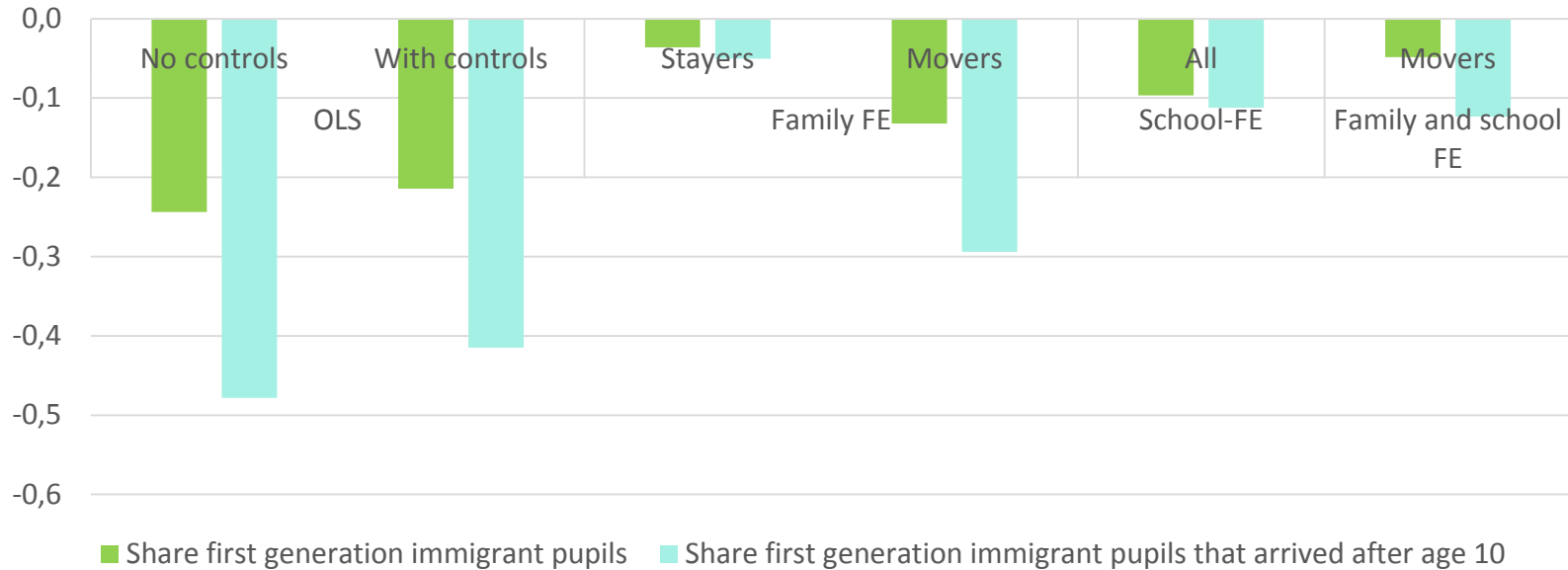
Grade points: Swedish background



Baseline model includes calendar year and independent school

Control variables include sex, educational level of parents, living in an intact family, number of siblings, sibling order, parental employment, household income, age at immigration (for foreign born), share pupils with academic background

Eligibility: Swedish background



Baseline model includes calendar year and independent school

Control variables include sex, educational level of parents, living in an intact family, number of siblings, sibling order, parental employment, household income, age at immigration (for foreign born), share pupils with academic background

Effect sizes: 10 percentage points difference in the independent variables

		Grade point	Eligibility
OLS without controls	Proportion first generation	-4	-.03
	Proportion who arrived after age 10	-8.2	-.05
Family fixed effects: stayers	Proportion first generation	~0	~0
	Proportion who arrived after age 10	~0	~0
Family fixed effects: movers	Proportion first generation	+1	-1.3
	Proportion who arrived after age 10	+3	-2.9
School fixed effects	Proportion first generation	-1.3	-.01
	Proportion who arrived after age 10	-1.4	-.01
Family & school fixed effects	Proportion first generation	~0	~0
	Proportion who arrived after age 10	~0	-.012

Concluding remarks

- Our study shows that for students with Swedish background:
- Share of immigrant school mates is moderately (negatively) correlated with grades and strongly correlated with eligibility
- The causal effect of ethnic environment on grade points is close to zero

Concluding remarks

- For eligibility there is a causal effect
- A 'realistic' assumption of 10 percentage points change in immigrant fraction gives around 1 percentage point fewer eligible students (baseline 10-11%)
- Effect size is rather small
- Concerns over the negative consequences of immigrant classmates for school outcomes may be overblown
- Indications in this direction are rather weak

- Thank You