

# MIGRANT CHILDREN IN SWITZERLAND'S EDUCATIONAL SYSTEM

## How school and integration policies affect educational inequalities

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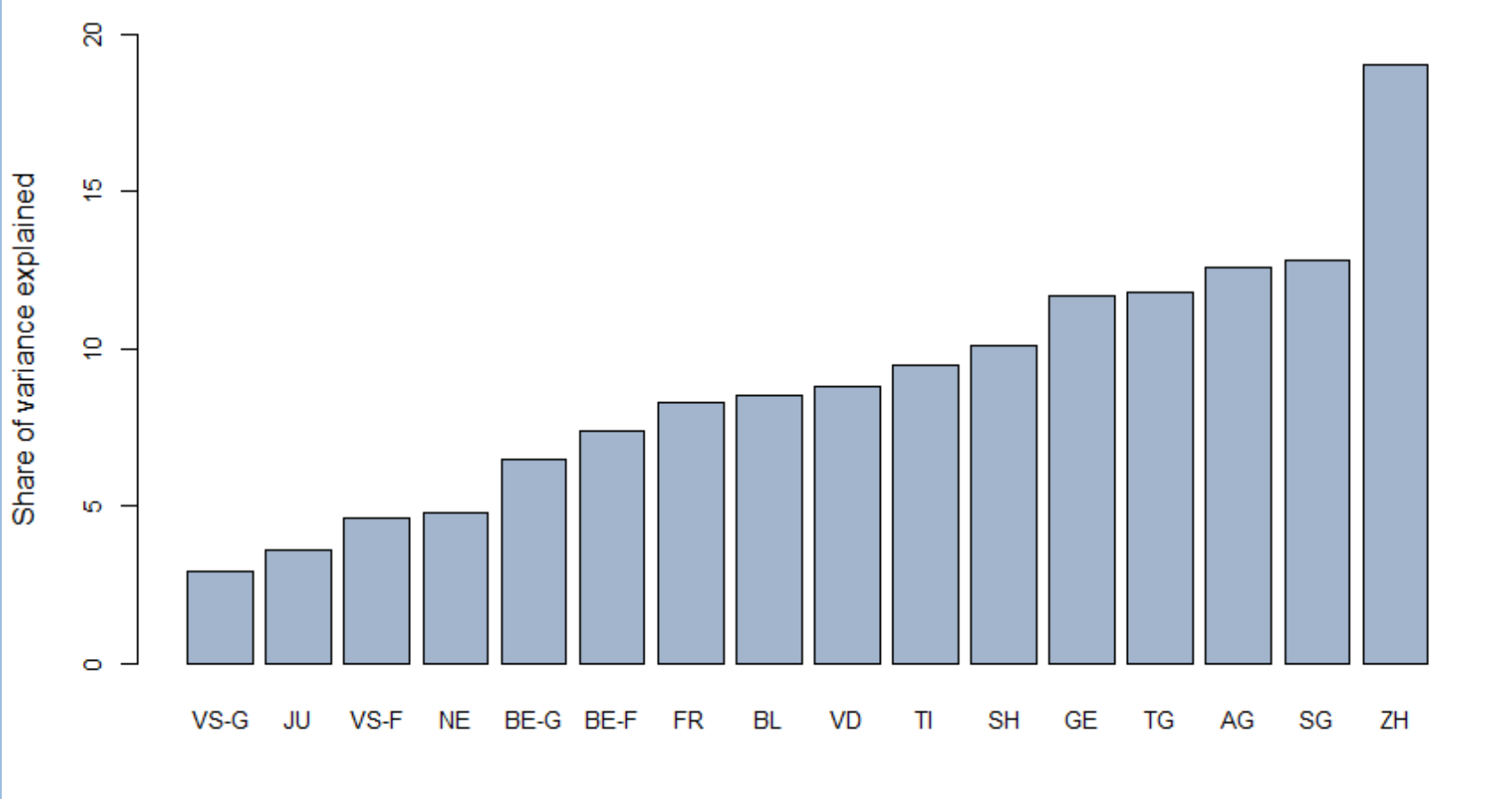
# Programm

- > Introduction
- > Educational inequality in Swiss cantons
- > Theory
- > Research design
- > Method and data
- > Empirical results
- > Conclusions

# Introduction

- > How do the different education and integration policies in the subnational units of Switzerland the cantons moderate educational inequality between immigrant and native children?
- > Why is this relevant?
  - Comparative research with regard to macro foundations of educational inequality is still relatively rare
  - In order to properly evaluate education and integration policy and its outcomes in decentralized countries, regional disparities must be considered !
    - Switzerland = prime example of a decentralized education system
  - Policies affect different groups of individuals differently: go for group-specific policy effects!

# Immigrant „penalty“ in the Swiss cantons regarding mathematical capabilities



# Theoretical background

- > Two crucial assumptions:
  - A neo-institutionalist approach
  - The effects of education and integration policies varies depending on individual resources, values, and behaviour patterns and may therefore impact social stratification of education
- > Two groups of policies
  - Education policies: direct impact on (un)equal opportunities in school
  - Integration policies: targeted at immigrants and their integration into the host society – and thus chances in school

# Education policy - hypotheses

- > encompassing preschool availability ↓
- > tracking ↑
- > track mobility ↓
- > class size ↑
- > hours taught ↓↑
- > public investments ↓

# Integration Policy - conceptualization

Table 1 – Measuring integration policy along the individual and cultural dimensions of citizenship

dimension	components	source	
		Koopmans et al. (2005)	MIPEX II (Koopmans (2010))
individual equality	access to nationality *	yes	yes
	anti-discrimination *		
	political participation *	party	yes
	labour market access *		
	family reunion *		
cultural difference	cultural requirements for naturalization *	yes	
	religious rights outside public institutions *		
	cultural rights in public institutions	yes	-
	political representation rights (specific cultural groups)	yes	-
	group specific affirmative action (labour market)	yes	-

Note: components adopted from Koopmans (2010). \* = components exhibiting variation at the cantonal level and accordingly included in the measurement of cantonal integration policies. Many components in the cultural dimension are not applicable at the cantonal level. However, this dimension has been amended by an additional component measuring the “tendency for legal recognition of minorities’ religions” in the cantons.

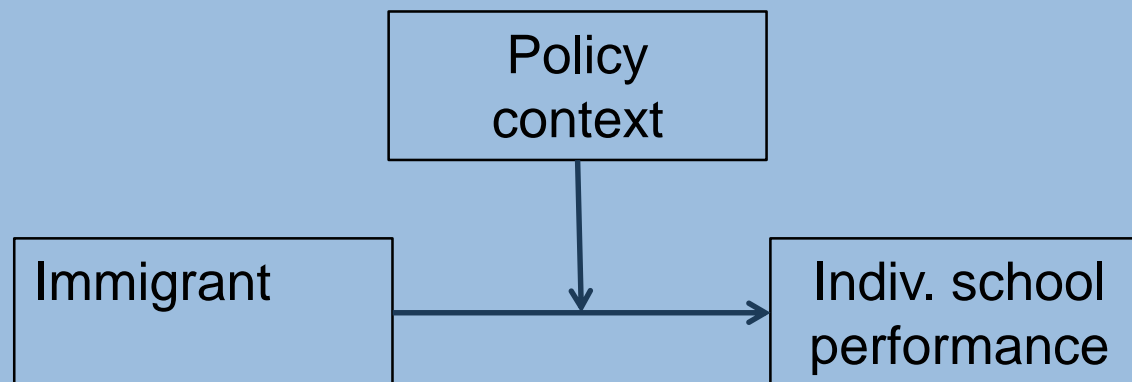
# Integration Policy - hypotheses

- > H1: liberal and culturally pluralist integration policies reduce immigrant educational inequality, as these policies are more inclusive and foster equal opportunities for immigrants.
- > H2: liberal and culturally pluralist integration policies aggravate the problem of immigrant educational inequality, as these policies might have segregationist side-effects.



# Research design

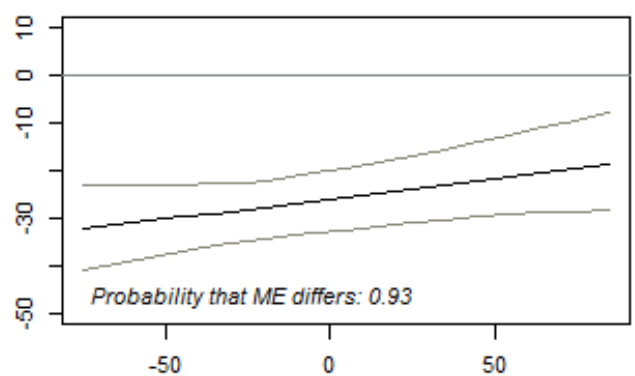
- > Swiss data from the 2006 PISA study: 17'560 15-year old pupils in 399 schools and 14 cantons
  - whereby for the bilingual cantons Berne and Valais two samples - one for the German- and one for the French-speaking part - are available
- > Immigrant inequality: How does the policy context moderate the immigrant «penalty»
- > Method: Bayesian multilevel analysis



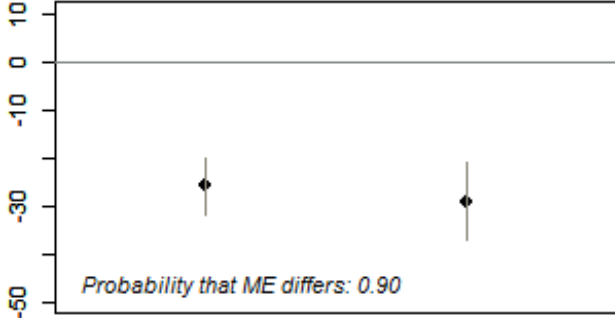
## In which situations does the model support our hypotheses?

- > The marginal effect of immigrant background...
  1. substantially **decreases** (or increases if an inequality-fostering effect is postulated) as the value of a given policy variable increases.
  2. The marginal effect of immigrant background **loses its systematic influence** (or gains influence if an inequality fostering effect is expected) for higher levels of a given policy variable.

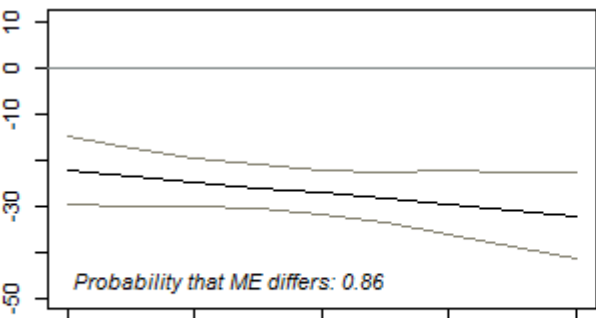
# Results I : 4 education policy variables moderate immigrant inequality



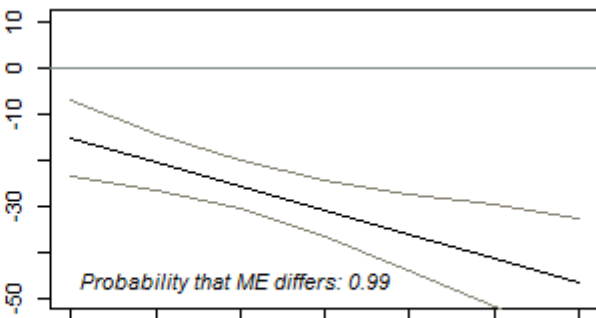
Hours taught at school (mean standardized)



No streaming      (Some) Streaming



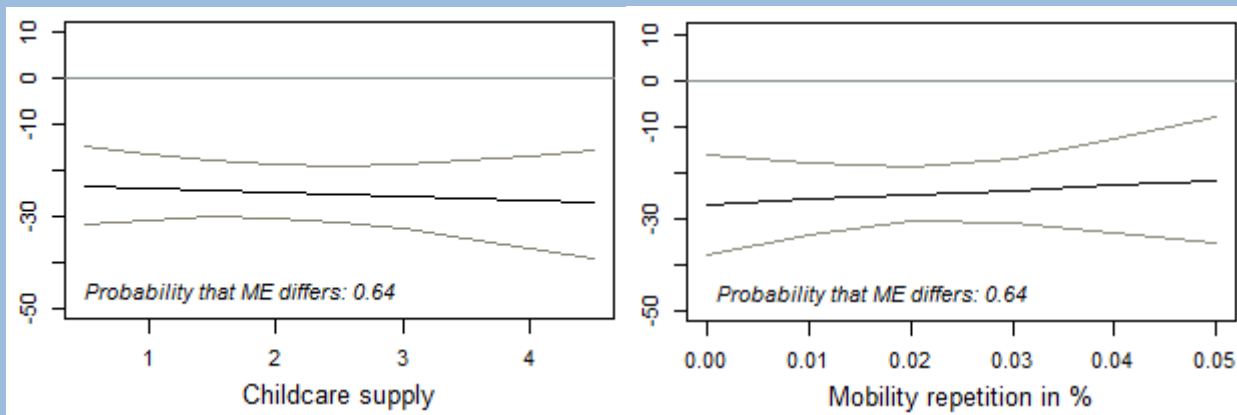
Maximal class size



Educational expenditures for primary school (in 1000 CHF per student)

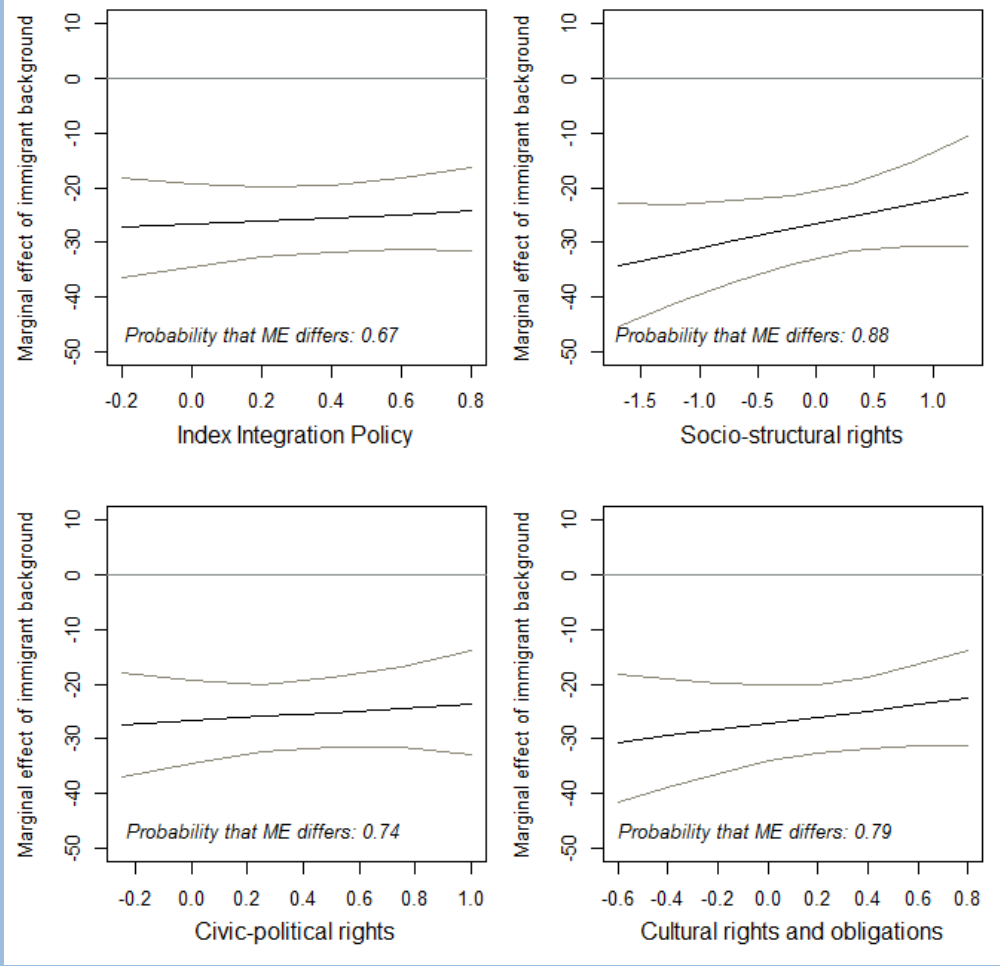
**But caution!**  
Zurich as outlier

## Results II: 2 «non-results»



**Childcare in Switzerland:**  
scarce and socially biased  
(not for badly educated  
immigrants)

# Results III: Integration policy – socio-structural rights matter most



# Conclusions

- > The degree of educational inequality between immigrant and native children substantially varies among the Swiss cantons
  
- > The school environment matters
  - but differently regarding various aspects of inequality
  - Here: probably more than integration policy
  
- > The general picture: application of an inclusive and egalitarian integration logic both in education and integration policy constitutes the most promising way towards educational equality between immigrant and native students

## Further plans and limitations

- > Find an encompassing theoretical framework for both education and integration policy
- > Immigrants are heterogeneous: go for even more detailed group-specific effects?
- > What is the interaction between education and integration policy?
- > But also: The number of units really limits the statistical possibilities

> Thank you for your comments!



# Appendix: Basic model of immigrant inequality

	Posterior mean (S.D)	Percentiles	
		5%	95%
Constant	538.60 (5.49)	530.10	548.44
<i>Individual level variables</i>			
Sex (ref.cat. female)	26.47 (0.86)	25.06	27.88
Parental education	2.73 (0.69)	1.66	3.87
Immigrant (ref.cat. born in Switzerland)	-29.34 (3.28)	-34.92	-24.24
Language spoken at home (ref.cat.: same as test language)	-8.66 (1.07)	-10.42	-6.90
<i>National program (ref.cat.: intermediate requirements)</i>			
Higher requirements	61.57 (1.49)	59.13	64.03
Basic requirements	-69.50 (1.37)	-71.74	-67.24
Heterogeneous class	-24.11 (2.80)	-28.74	-19.50
<i>School level variables</i>			
Private school (ref.cat. public school)	-51.84 (12.92)	-73.18	-30.73
Share of foreign students	-62.91 (13.30)	-84.77	-41.25
<i>Cantonal level variable</i>			
Urbanization	-0.50 (0.16)	-0.75	-0.22
<i>Random effects</i>			
Immigrant Variance	152.16 (67.29)	74.84	279.17
Covariance with random intercept	-222.13 (106.46)	-417.82	-99.41
Parental education Variance	5.98 (2.90)	2.72	11.50
Covariance with random intercept	28.09 (19.09)	4.85	62.94
Variance individual level	3150.44 (33.82)	3094.86	3093.54
Variance school level	341.21 (33.28)	289.24	397.98
Variance cantonal level	483.81 (210.83)	246.39	864.76
<i>N individual level</i>		17'500	
<i>N School level</i>		399	
<i>N cantonal level</i>		16	
<i>DIC</i>		187,904	

Notes: Posterior means (standard deviations in brackets) as well as 90% credible intervals (last 1,000 iterations). Estimates from Bayesian estimation (200,000 iterations, thinning: 1; burn-in: 50,000, uniform priors, no signs of non-convergence).