

Social inequality in educational transitions in Russia

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Basic facts about social inequalities in education

- ▶ Social inequalities in education exist in all countries and contexts
- ▶ Central question: how can we explain them?
 - ▶ Inheritance. Clever parents have clever kids, and there is nothing we can do about it. Sociology used to ignore this explanation, but given recent advances in behavioral genetics and cognitive science we can no longer do this
 - ▶ Environment: parental influence, financial and cultural resources, social capital, habitus, peer effects, etc.
- ▶ This is a classic 'nature vs nurture' debate

Primary and secondary effects

- ▶ One way to look at this problem is to separate primary and secondary effects of social background (Boudon)
- ▶ Primary effects are about the effects of social background on performance. Children from wealthier and more educated families do better in school
- ▶ Secondary effects are about the effects of social background on transitions controlling for performance. Children from poor families are less likely to move to the next stage of education even when they do equally well in school as children from wealthier families
- ▶ The literature has focussed mostly on technical issues of decomposing primary and secondary effects in non-linear models
- ▶ The bigger problem though is that you can never properly control for performance

Good things about Trec

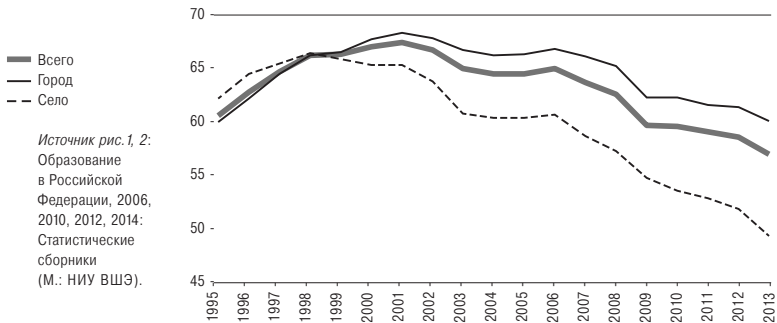
- ▶ Longitudinal data
- ▶ Better chances to control for performance as we have both TIMSS and PISA tests conducted on the same sample of pupils
- ▶ Better data on parental background from the survey of parents (in PISA it is reported by pupils)

Educational transition after 9th grade in Russia: Some results from Trec

- ▶ Transition after 9th grade often ignored in the literature and public debates that focus on the 11th grade and university admissions
- ▶ We argue that the transition after 9th grade is crucial for further educational trajectories and for social inequalities
- ▶ We focused on gender and parental education
- ▶ Data from three waves of Trec (2011-13)
- ▶ Published in Educational Studies (2016)

Not every pupil progresses to 10th grade

Рис. 2. Доля учеников, поступивших в 10-й класс, от числа окончивших 9-й класс



10th grade vs vocational schools: Characteristics of pupils

	10th grade	vocational
PISA math	520	446
PISA reading	501	426
both parents with degree	21%	4%
household income under 20,000 / month	33%	50%
% girls	53%	46%

Gender: there are no secondary effects

Таблица 2. **Результаты регрессионного анализа фактора пола**

Переменная	Модель 1 (базовая)	Модель 2 (контроль успеваемости)	Модель 3 (контроль результатов PISA и TIMSS)	Модель 4 (контроль всех факторов)
	Коэффициент [95%-ный ДИ]			
Пол (0 — мужской, 1 — женский)	0,09*** [0,05; 0,13]	-0,03 [-0,07; 0,01]	0,06*** [0,02; 0,10]	-0,02 [-0,06; 0,02]
<i>n</i> (число учеников)	3268	3268	3268	3268

Parental education: large secondary effects

Таблица 3. **Результаты регрессионного анализа фактора образования родителей**

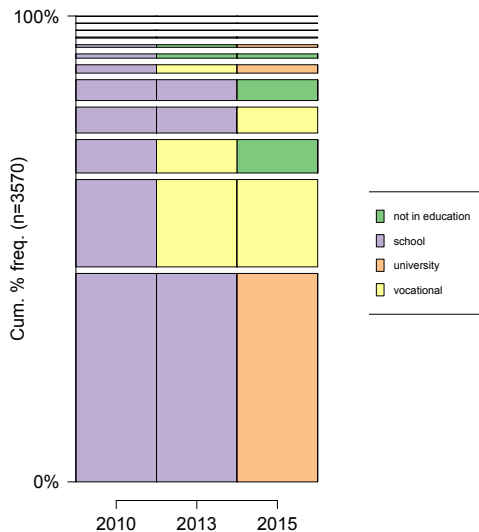
	Модель 1 (базовая)	Модель 2 (контроль успеваемости)	Модель 3 (контроль результа- тов PISA и TIMSS)	Модель 4 (контроль всех факторов)
Переменная	Коэффициент [95%-ный ДИ]			
Высшее образование родителей (базовая категория: у обоих нет высшего образования, 38%)				
У обоих родителей есть (14%)	0,36*** [0,30; 0,42]	0,16*** [0,10; 0,22]	0,19*** [0,13; 0,26]	0,14*** [0,08; 0,20]
У одного родителя есть, у другого нет или информация отсутству- ет (26%)	0,20*** [0,15; 0,25]	0,08*** [0,04; 0,13]	0,12*** [0,07; 0,17]	0,07*** [0,03; 0,12]
У одного родителя нет, по другому информация отсутствует (19%)	-0,09*** [-0,15; -0,02]	-0,05* [-0,10; 0]	-0,06* [-0,12; 0]	-0,04 [-0,10; 0,01]
По обоим родителям ин- формация отсутствует (3%)	0,05 [-0,09; 0,19]	-0,002 [-0,11; 0,11]	0,01 [-0,11; 0,14]	-0,01 [-0,11; 0,10]
<i>n</i> (число учеников)	3268	3268	3268	3268

It is unlikely that this can be explained by measurement issues

New waves of Trec

- ▶ New waves of Trec (2014-15) allow us to look at educational transition after 11th grade

Summary of educational trajectories



Summary of educational trajectories (2)

- ▶ Academic school (11 grades) -> university: 52%
- ▶ 9 grades -> vocational school: 22%
- ▶ 9 grades -> vocational school -> not in education: 8%
- ▶ 11 grades -> vocational school: 7%
- ▶ 11 grades -> not in education: 5%
- ▶ other: 5%
- ▶ Most 11th grade graduates continue to university. The most important transition seems to be after 9th grade

Characteristics of pupils in groups

	11 to uni (52%)	9 to voc (22%)	9 to 2-y voc (8%)	11 to voc (7%)	11 to nowhe (5%)
both parents with degree	26%	6%	1%	6%	14 %
income under 20,000	29%	51%	55%	55%	42%
EGE taken	100%	10%	18%	95%	90%
mean EGE math	53	44	48	38	41
mean EGE Russian	71	52	60	56	56
% girls	57%	43%	43%	63%	33%

Conclusions

- ▶ Large secondary effects of social background at transition after 9th grade, unlikely to be explained by heredity only
- ▶ Main transition after 9th grade, with a majority of 11th grade graduates continuing to university