# Conclusions, cont.

- Is it really the effect of the program?
  - without randomized experiments we can never be sure
  - evidence supports the causal effect interpretation
  - certainly the effect of better education (whether because of the program or not)

- Policy conclusions
  - integrated education *does not hurt* anyone *if done well*
  - *quality education* is the key to good results
  - teacher training can be effective

- What now?
  - the original program is going through many changes (will achievements be preserved?)
  - reinforces the need for *quality education*
  - potential policy interventions: teacher training, school management, incentives

Conclusions

- The effect of the OOIH program is positive
  - on students' reading skills
  - on students' admission to secondary schools
  - on students' self-esteem, locus of control and coping
  - on non-Roma students' social distance from their Roma peers (smaller distance)

- The effects are not very large
  - but they are present *in all dimensions*
  - and they are positive *for all kinds of students (Roma and non-Roma, disadvantaged and non-disadvantaged)*

- The mechanisms are complex
  - student-centered education and student autonomy seem important

- Program sometimes (but not always) breaks the negative effect of student composition
  - in many cases results are strong only if fraction Roma stays below 30%
  - inter-racial contact shown to always increase tolerance for non-Roma

Social distance and the ethnic composition of the class
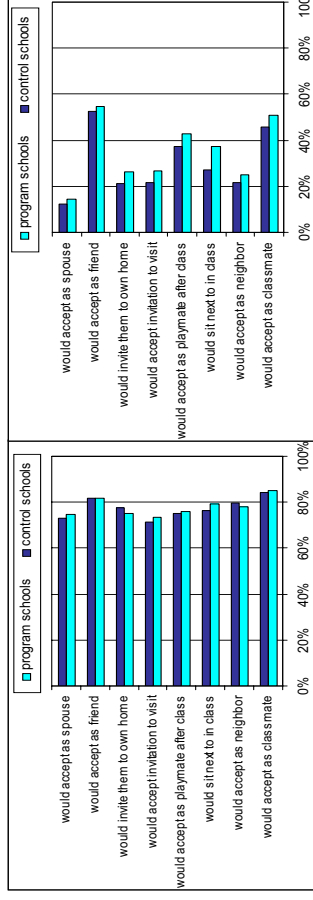
Social distance kept by Roma students
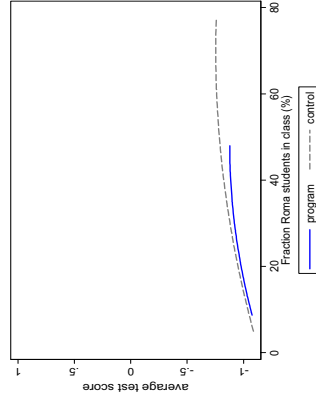
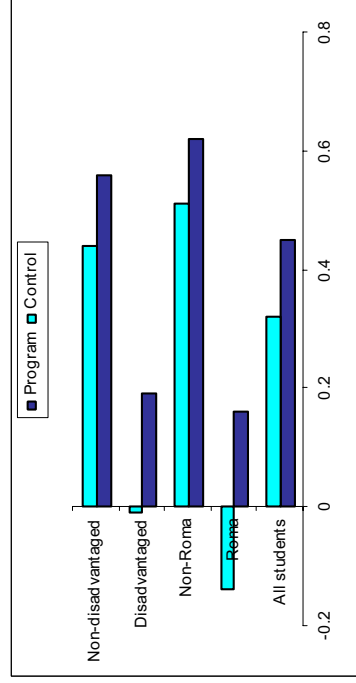Social distance kept by non-Roma students
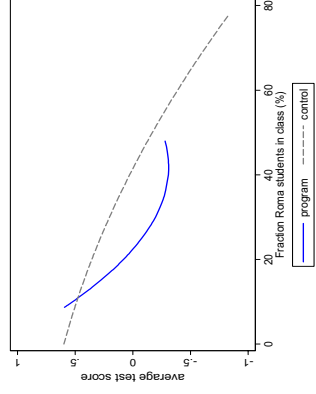
Social distance among ethnic groups

How much do the Roma
accept the non-Roma?

How much do the non-Roma
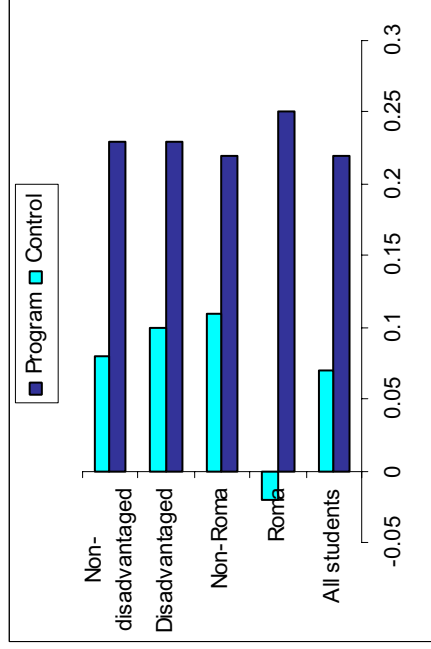accept the Roma?

Coping

Standardized Coping test results, grade 8

Note: 0 is the national average, lower than the sample average
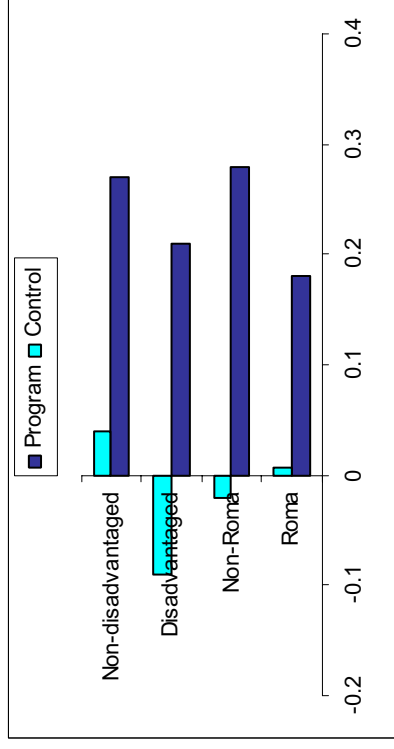
Locus of control

Standardized Rotter Locus of Control test results, grade 8

Note: 0 is the national average, lower than the sample average

Self esteem

Standardized positive self-esteem test results, grade 8

Note: 0 is the national average, lower than the sample average

"Non-cognitive skills"

- Self-esteem
  - measurement: adopted and standardized Harter-SPPC test (4 components /exterior, school performance, good behavior, social functioning/ plus general, aggregated into one score)

- Locus of control
  - the extent to which people think they can influence their own destiny
  - measurement: adopted and standardized Rotter test

- Coping
  - the extent to which people can go on w/o lasting negative consequences after some difficult situations even if the problem remains
  - measurement: standardized test of our own

- These traits are
  - as important as cognitive skills (in labor market success and avoiding deviant behavior)
  - can be influenced in adolescence (as opposed to cognitive skills)

# Admission to secondary schools (with maturity at end)

Admission rates (%) after having finished grade 8

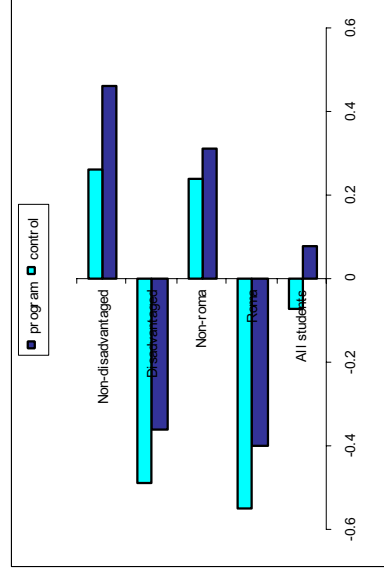|	Program	Control	**Diff**
All students	69	60	**+9**
Roma	49	37	**+12**
Non-Roma	77	70	**+7**
Disadvantaged (HH)	44	40	**+4**
Not disadvantaged (non-HH)	78	68	**+10**

Reading skills

Standardized reading skills, grade 8

Reading skills

Standardized reading skills, grade 4

Legend: program, control

Categories: Non-disadvantaged, Disadvantaged, Non-roma, Roma, All students
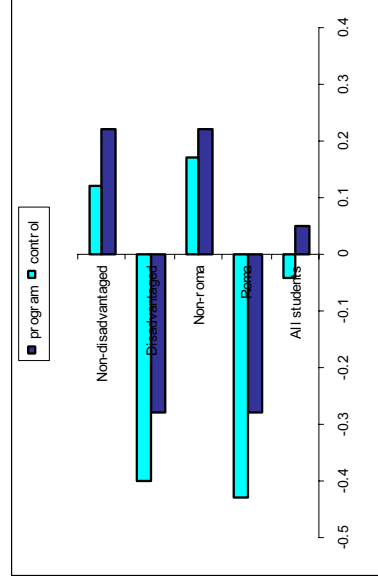
Student-teacher relationship, student autonomy

In program schools:

- Student-teacher relationship more personal
- Student-student relationship more cooperative
- Student autonomy higher

Distribution of classes observed (%)

	Grade 3			Grade 7		
	P	C	diff	P	C	diff
S-T relationship: personal contact	54	35	+19	39	26	+13
S-S rel.: cooperation med. or high	95	46	+49	82	34	+48
Student autonomy: medium or high	54	40	+14	47	33	+14

Forms of activity

In program schools, group activities (cooperative) are more frequent

Grade 3

Legend: Program schools, Control schools

Categories: Group work (%), Individual work (%), Frontal work form (%)

Axis: 0, 20, 40, 60, 80

Grade 7

Legend: Program schools, Control schools

Categories: Group work (%), Individual work (%), Frontal work form (%)

Axis: 0, 20, 40, 60, 80
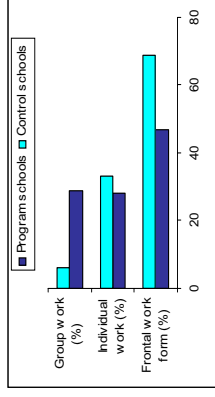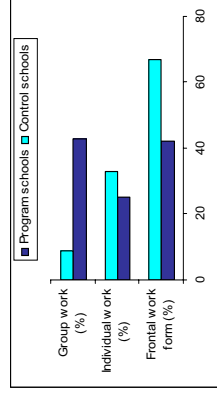
Integrated education

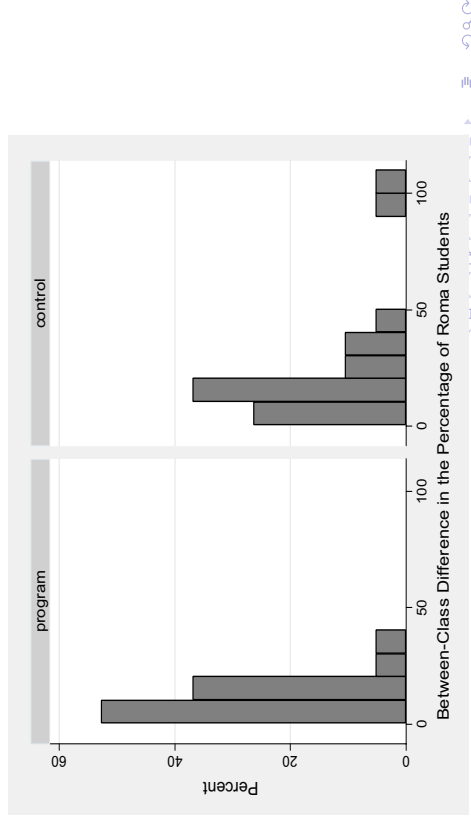In program schools, across-group differences within same grade are small in terms of ethnic composition. Such differences are large in quite a few control schools.

Results to be presented

- Schools
  - ethnic integration
  - some on teaching methods and classroom dynamics
- Student results
  - reading tests
  - secondary school admission
  - self-esteem, locus of control, coping
  - social distance to other ethnic group
- Student results and student composition in class
  - results of Roma and non-Roma by fraction of Roma students
- Simple comparisons presented only
  - regression estimates and restricted sample estimates show similar results (somewhat weaker for reading tests)

Measurement of ethnic identity

- Assessed by parents
  - "Please indicate which of the following characterizes the ethnic/national identity of your child. Feel free to indicate multiple categories. My child is
  - Hungarian, non-Roma; Hungarian, Roma; Hungarian, partly Roma; Non-Hungarian, Roma; Romanian; Slovak;..."

Fraction of Roma students from parents' declaration versus schoolteachers' estimates

	Grade 4		Grade 8	
	P	C	P	C
Fraction Roma, parental declaration (%)	**35**	**35**	**27**	**29**
Fraction Roma, schoolteacher estimates (%)	**34**	**36**	**27**	**33**
Missing parental declaration (%)	25	28	27	32

Measurement

Three waves of data collection

1. 2004/5: "input measurement"
   - students: cognitive and non-cognitive skills, grades, etc.
   - schools: class composition, participation in other programs etc.

2. 2005/6:
   - students: family background (questionnaire to parents)
   - classroom observations

3. 2006/7: "outcome measurement"
   - students: ethnic identity (from parents), cognitive and non-cognitive skills etc., grades, further education (admissions)

Geographic distribution of the matched sample

kontrolliskola
bázisiskola
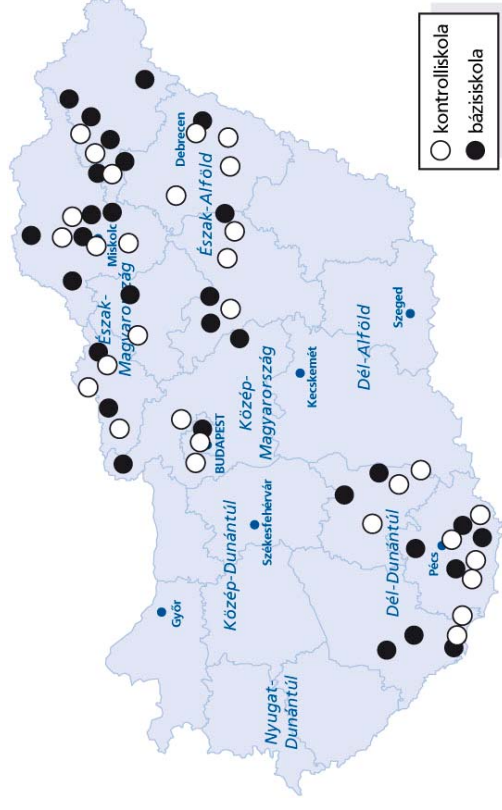
Characteristics of the matched sample

Student composition, measured in 2006

	Grade 3			Grade 7		
	Program	*Control*	*National*	*Program*	*Control*	*National*
Number of students with information	810	909	91,349	757	897	92,588
Fraction girls (%)	47	48	50	49	50	49
Welfare eligible (%)	37	37	19	31	35	20
Eligible for free meal in school (%)	59	60	28	10	8	4
Eligible for free school books (%)	73	83	57	66	78	52
Average family size	4.9	5.0	4.5	4.7	4.8	4.4
Fraction with father in family (%)	78	76	83	76	73	79
Mother uneducated (8 grades or less, %)	43	43	21	40	40	19
Father uneducated (8 grades or less, %)	35	35	16	32	29	13
Fraction with working mother (%)	41	42	66	52	51	73
Fraction with working father (%)	64	64	84	69	65	80
Avg. size of apartment (sqmeter/capita)	19.0	19.0	n.a.	20.8	20.5	n.a.
Average monthly spending (HUF '000)	109	110	n.a.	120	115	n.a.
Fraction who think poor (%)	38	38	17	29	29	14
Fraction who were not on holiday (%)	41	41	21	28	31	18
Fraction without a car (%)	46	48	27	44	43	27
0 to 50 books at home (%)	35	35	16	29	27	12

Control group selection here

Matching at school level

- 60 schools: 30 program schools and 30 control schools
- matched sample: every program school has a matched control pair
  - within same region and village/town type
  - propensity score matching using many pre-program characteristics (student composition, competence test results, some evidence on Roma students etc.)
  - checked with sociologists with local knowledge
- Student sample
  - all students who were in grade 1 or 5 in 2003/4
  - followed them through grade 4 and 8, respectively

Evaluation methodology

- The basic question
  - Results of participants (schools, students) after the program
  - Compared to the results they would have achieved without the program
    - comparison to control group

- Non-experimental evaluation
  - Control group: schools matched to the program schools
  - Methods of comparison:
    - simple comparison of mean outcomes "P" (program schools) versus "C" (control schools)
    - regression estimates controlled for family background and earlier outcome measures (and social desirability)
    - comparison in a selected sample of schools that were not integrating before the program
  - This presentation shows results from the simple comparisons
    - the more complicated methods yield very similar results

Evaluation questions

1. Effects on schools
   - integrated education
   - education methods, classroom management
   - student behavior

2. Effects on students
   - grades, further education, competence (reading tests)
   - self esteem, locus of control
   - social anxiety, social dominance orientation
   - prejudice, social distance across ethnic groups (Roma versus non-Roma)

- Results are published in Hungarian in a recent volume
  http://www.sulinovadatbank.hu/letoltes.php?d_id=19439
  - Under translation into English by the Roma Education Fund

The OOIH program

- National Integrated Education Network (Országos Oktatási Integrációs Hálózat, OOIH)

  - organized by the Hungarian Government
  - the evaluated program started in fall 2003
  - in 45 primary schools a.k.a. "bázis schools"
  - grandfathered, starting with those in grades 1 and 5 in 2003/4

- Goal: integrated and quality education of Roma/disadvantaged students

  - participating schools have sizeable Roma/disadvantaged minority
  - integration required across and within groups
  - financial support: equipment, physical environment, etc.
  - educational support: intensive training in modern methods, consulting, etc.
  - multiple elements, freedom of choice for schools
  - emphasis on schools (as opposed to individual teachers)
  - monitoring (by young Roma)

RESULTS FROM A SUCCESSFUL SCHOOL INTEGRATION PROGRAM:
Evaluation of the OOIH program, Hungary, 2005–2007

Gabor Kezdi & Eva Suranyi
(Central European University)

CEU

Budapest, May 7, 2008