Aspirations, Social Norms and Development

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Motivation

Link b/w aspirations & individual investment opens possibility of **poverty traps**

- Standard poverty traps are generated by external constraints: malnutrition (Dasgupta-Ray 1986), credit mkt imperfections (Banerjee-Newman 1991), etc.
- Internal constraints may also generate poverty traps.

  Aspiration failures

  Poverty → low asp. → low investment → poverty…

Outline

1. What are aspirations?
2. Theories of aspirations
3. Correlates of aspirations: what do the data say?
4. **Changing aspirations**
   - Through counseling
   - Through role models
   - By changing stereotypes & norms
   - Through material endowments

1. What are aspirations?

What are aspirations?

Oxford dictionary:

- A hope or ambition of achieving something

Aspirations are not expectations

- We may aim or hope to achieve something, yet not realistically *expect* to achieve it
- Expectations internalize constraints, aspirations don't
  - Aspirations need not be «rational»

What are aspirations?

Goals vs. aspirations

- Goal: the object of a person's ambition or effort
- Goals are objective, measurable targets.
- Aspirations are subjective, intangible.

Econ literature does not really distinguish

- Aspirations as "reference points" in utility function

2. Theory of aspirations

Early insights

Sen (1985, 1999)

- «capabilities» and «freedom»

Appadurai (2004)

- «capacity to aspire » as a cultural capacity → future-oriented logic of development
- the rich have more capacity to aspire “because of their many opportunities to link material goods and immediate opportunities to more general and generic possibilities and options.” (p.69)

A. Individually-determined aspirations

Dalton, Ghosal, Mani (2014)

Individual has initial wealth z_0 and must choose effort $e \in [0,1]$ that will determine final wealth z. She has an aspiration level a for her final wealth.

- Utility:

$$U(e,a,z) = b(z) + v\left(\frac{z-a}{z}\right) - c(e)$$

utility from over-achieving w.r.t. aspiration

- Final wealth is produced through effort and initial wealth:

$$z = (1 + e)z_0$$

- At a solution, pair (e,a) must be mutually consistent:

  a must correspond to realized final wealth given effort chosen

$$a = (1 + e)z_0 \equiv f(e, z_0)$$

  → feedback from effort to aspirations

  → people always reach their aspirations. The question is whether these aspirations are set optimally.

- Normative benchmark: individual internalizes feedback from e to a:

$$\max_e U(e, f(e, z_0), f(e, z_0))$$

- Behavioral decision-maker takes a as given

$$\max_e U(e, a, f(e, z_0))$$

→ in this equilibrium, poorer people will have lower (e,a) hence lower z

→ behavioral **poverty trap**

- Lesson 1: **Poor people under-aspire**

  They put in lower effort, which in equilibrium implies lower aspirations & lower wealth

- Policy implication: **Boost aspirations!**

  External shocks to aspirations (e.g., role models, media, etc.) act as big push to get out of poverty trap

B. Socially-determined aspirations

Genicot and Ray (2016)

Intertemporal model. Parent has aspirations about child wealth *z* and chooses investment *k*.

- Aspirations depend on the distribution of income:

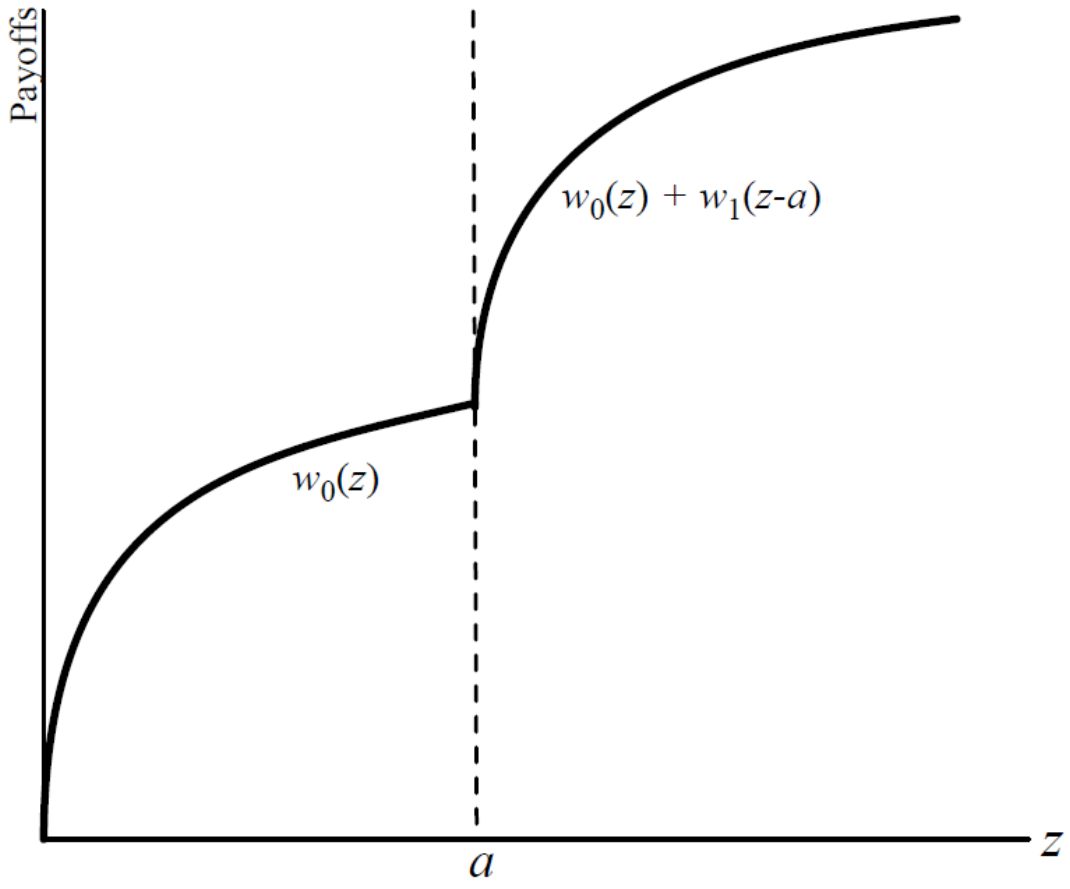
$$a = \Psi(y, F)$$

- Utility:

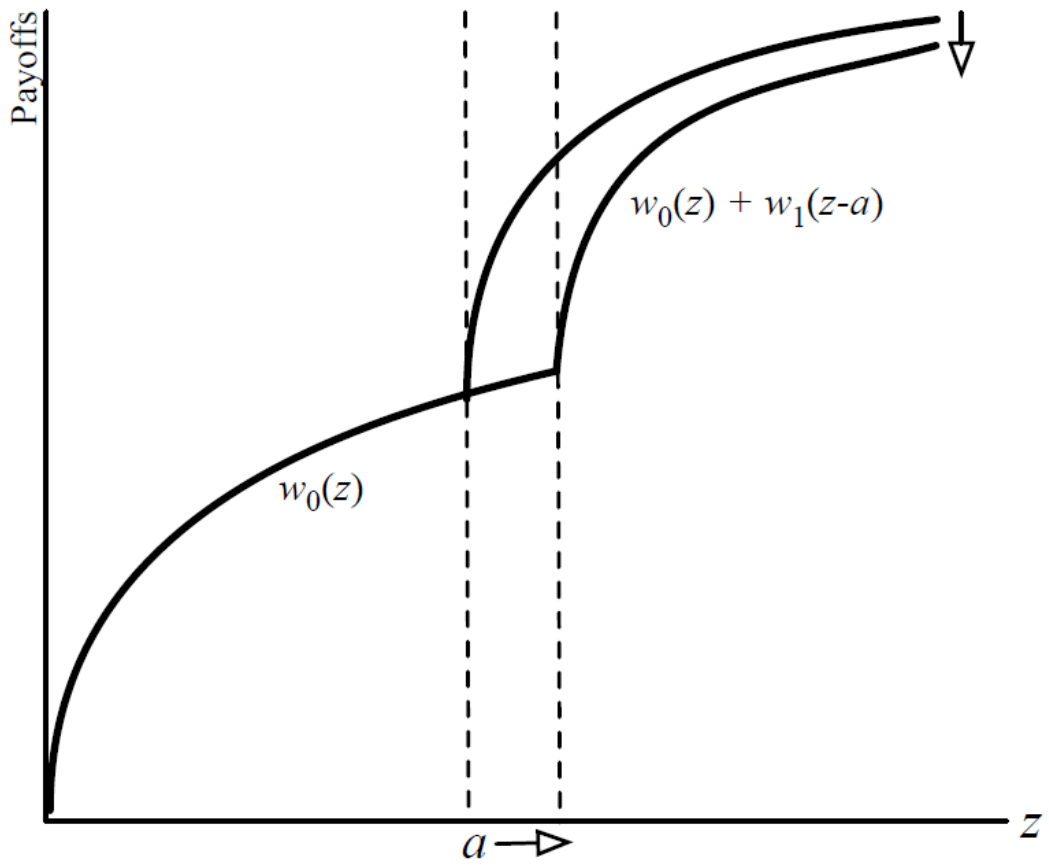
$$U(c, a, z) = u(c) + w_0(z) + w_1(\max\{z - a, 0\})$$

"milestone utility" from over-achieving w.r.t. aspiration

- Aspirations & payoffs



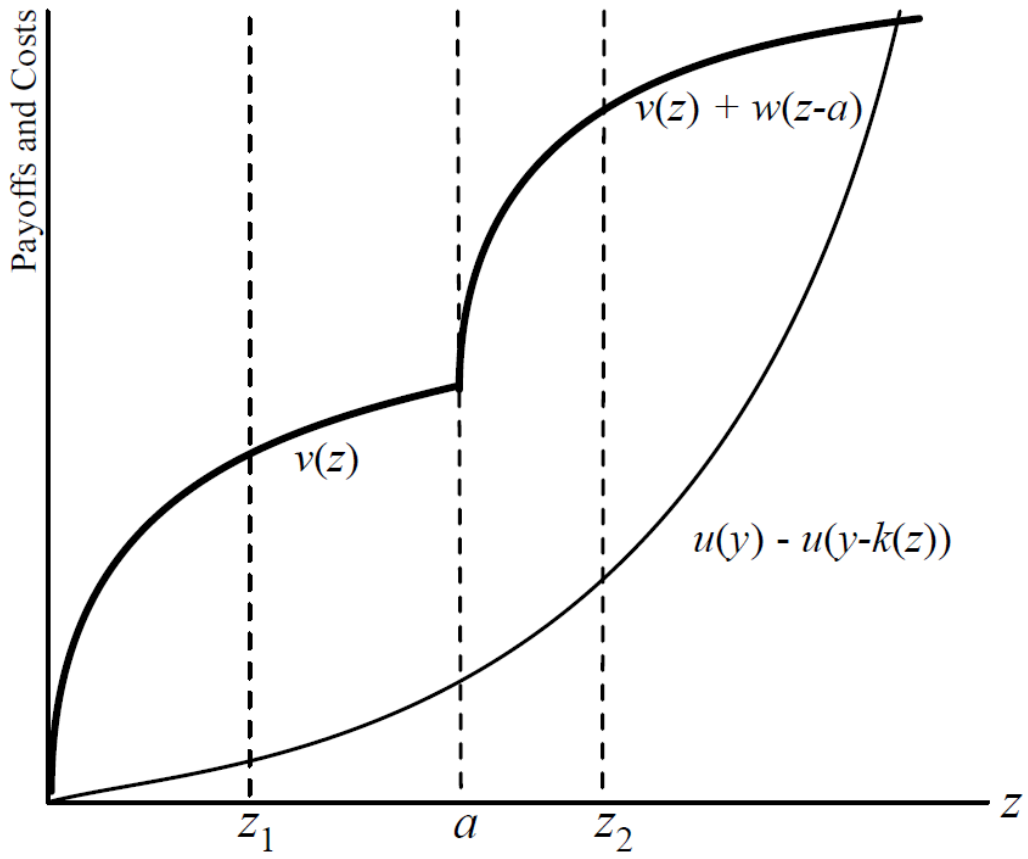
- What happens if we increase aspirations?



Kink shifts to the right

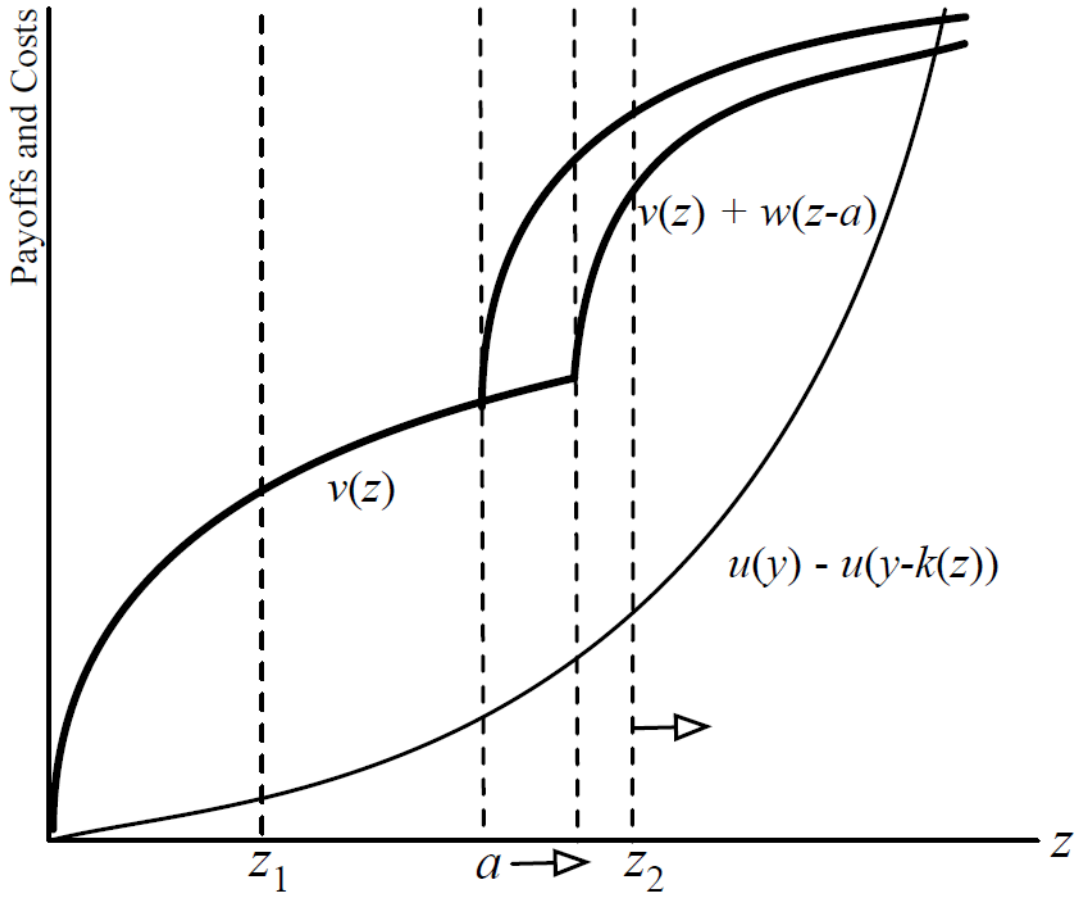
- effect on z may be >0 or <0 depending on starting point

- Aspirations and investment



- If initial a is low (close to 0), it is likely that global maximizer is z_2.

- Aspirations and investment



- If initial a is low (close to 0), it is likely that global maximizer is z_2
- As a moves right, global maximizer may become z_1

⇩

Frustration dominates and investment ↓

- Lesson 2: **Aspiration over-shooting is bad**

  There's an optimal level of aspirations for each initial wealth. If you go beyond that, investment will decrease.

  The more unequal the distribution of wealth, the more likely that we observe frustration effect.

- Policy implication: **Redistribute**

  Feedback from F to a → beyond a certain level of aspirations, increases in material endowments are needed.

C. Social constraints?

- A person's income or the income of people around them may not be enough to determine their aspirations
- Social norms: society sanctions what is "acceptable" for an individual
  - E.g., should girls study? Work outside the home? Own land?
- Social pressure: people care about what others think of them (Bursztyn & Jensen, 2015, 2017)
  - Other people's beliefs matter when setting aspirations
- More work needed to understand interplay b/w reference points & social beliefs/norms

3. Correlates of aspirations

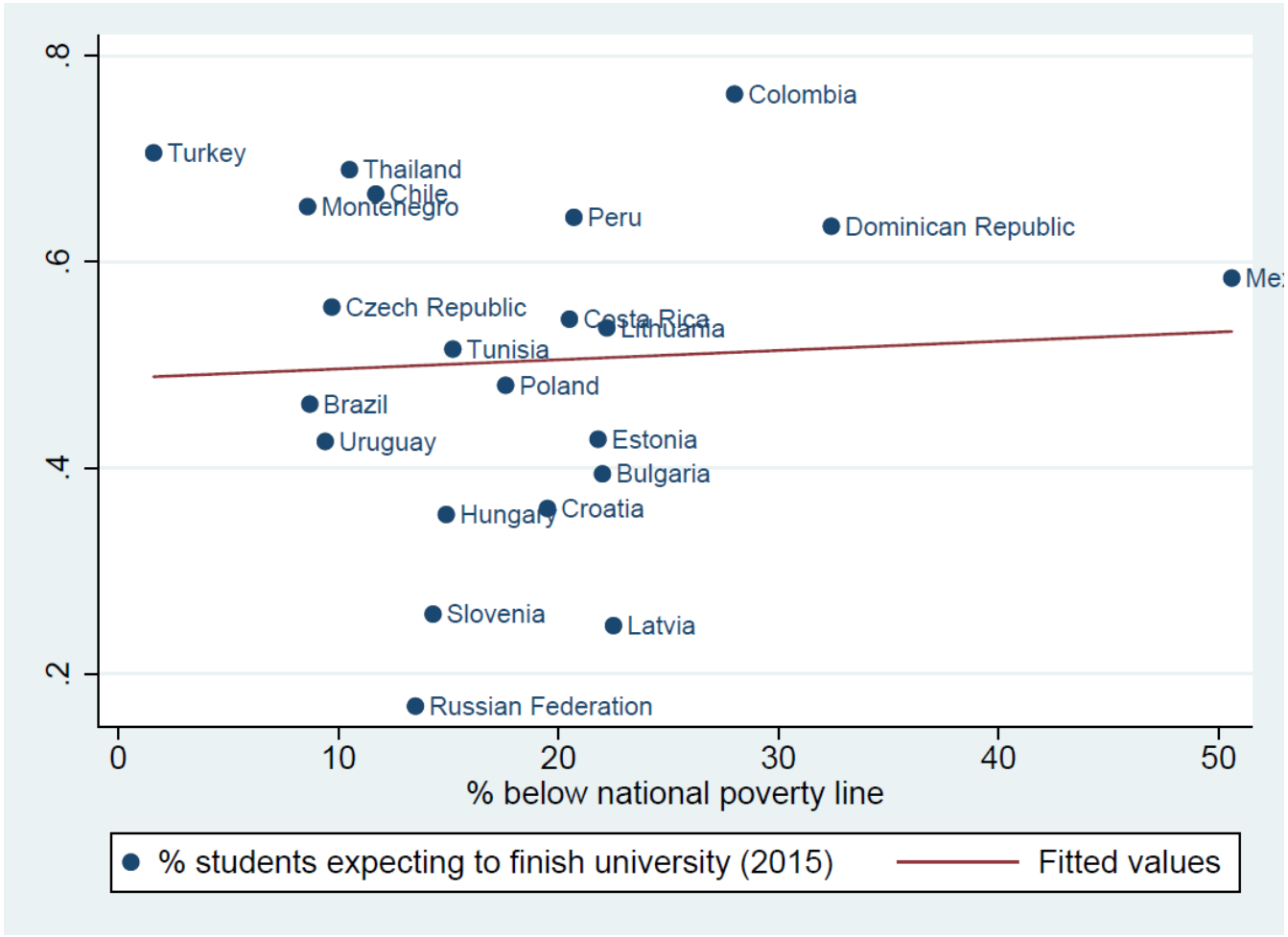
What do the data say?

3.1 The role of poverty and inequality

Cross-country data on aspirations

- OECD PISA data: international survey done every 3 yrs w/ 15-year-old students.
- Questions on students' expectations about future job and educational attainment
  - Educ. aspirations: expect to complete university (ISCED level 5A or 6)
  - Job aspirations: expect high status job at age 30 (ISEI ≥65)

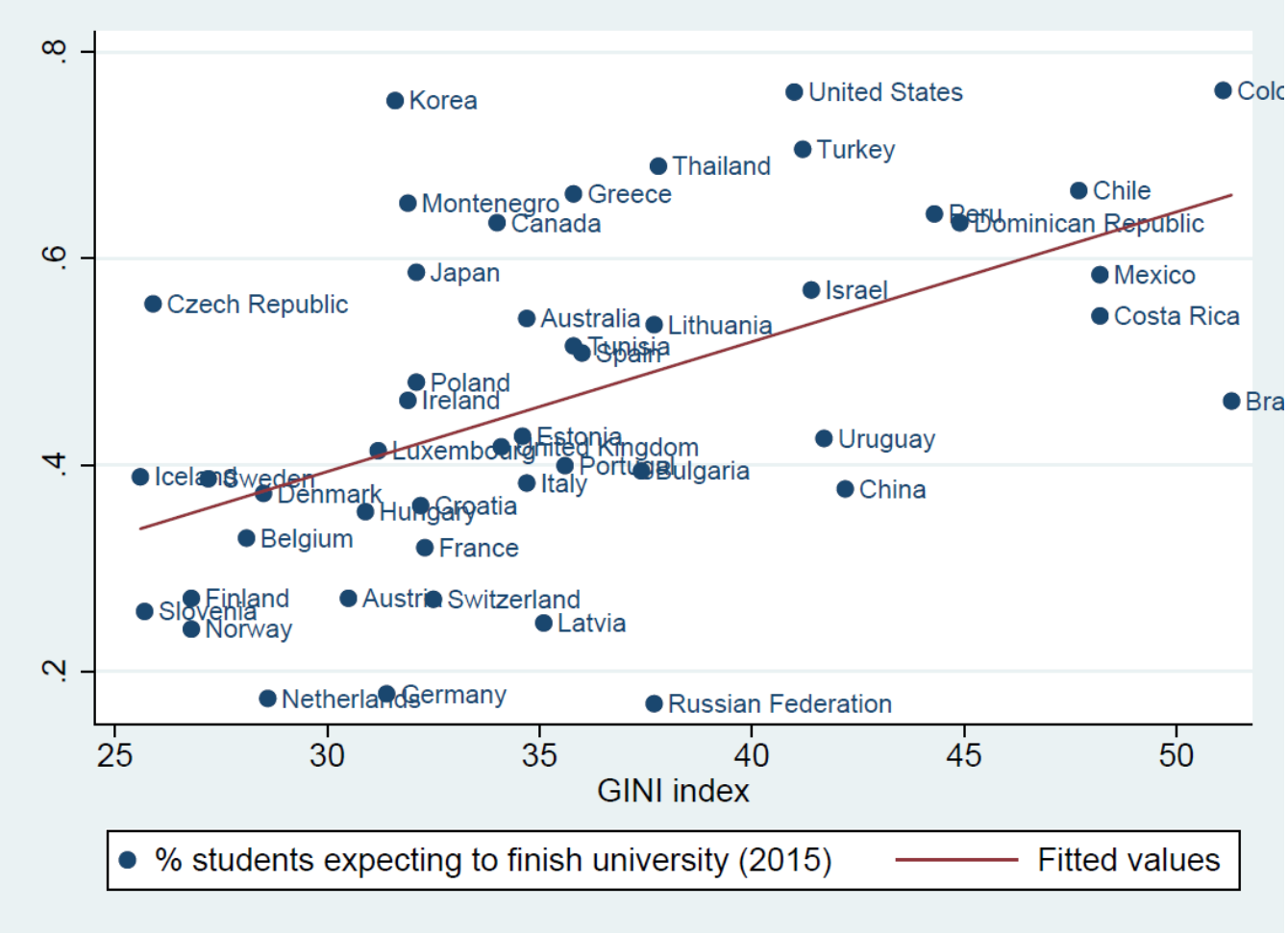
Education aspirations



Poverty

Source: own calculations on PISA 2015 and World Bank data

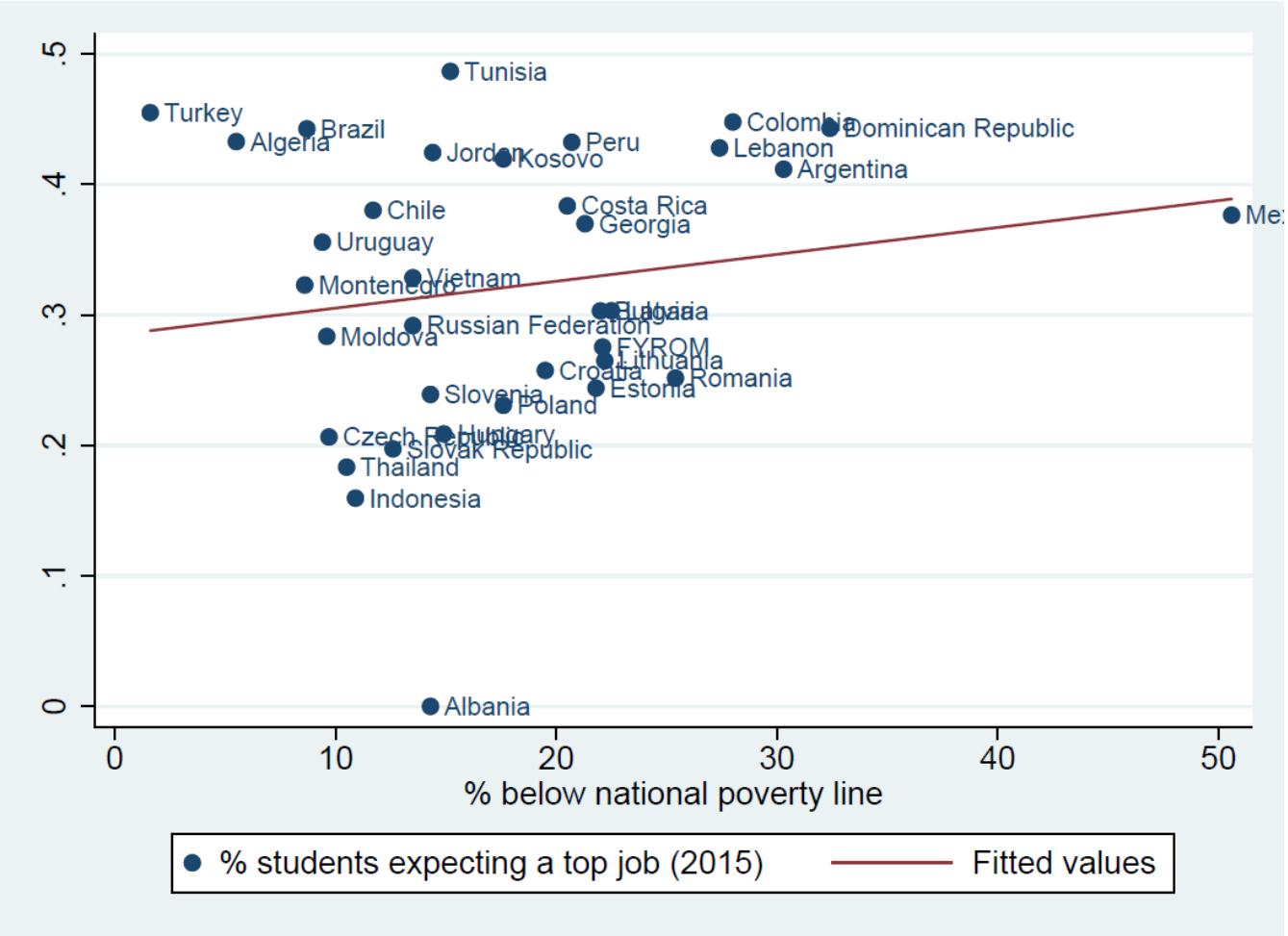
Education aspirations



Inequality

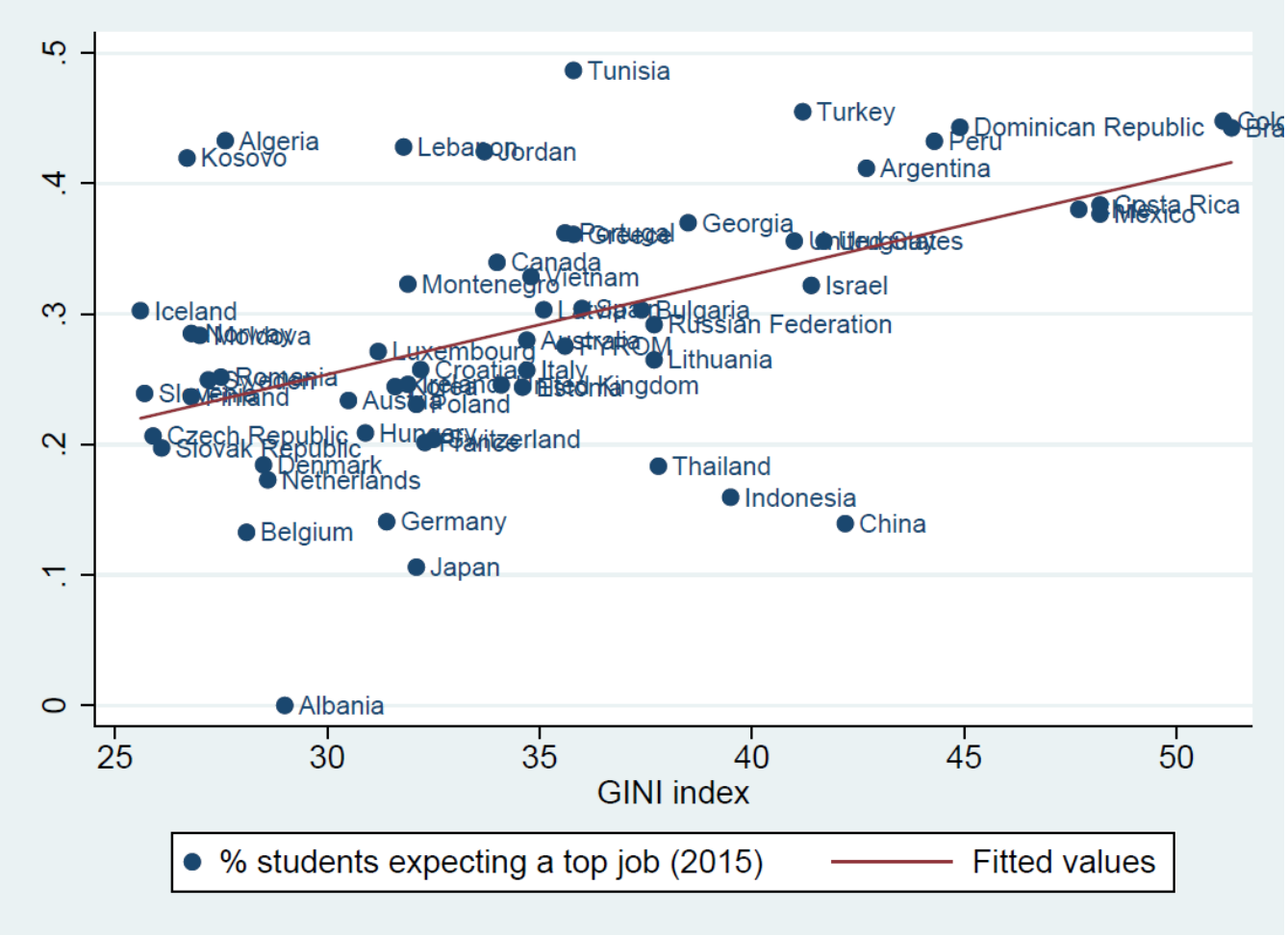
- Risk of overshooting & frustration effect?

Job aspirations



Poverty

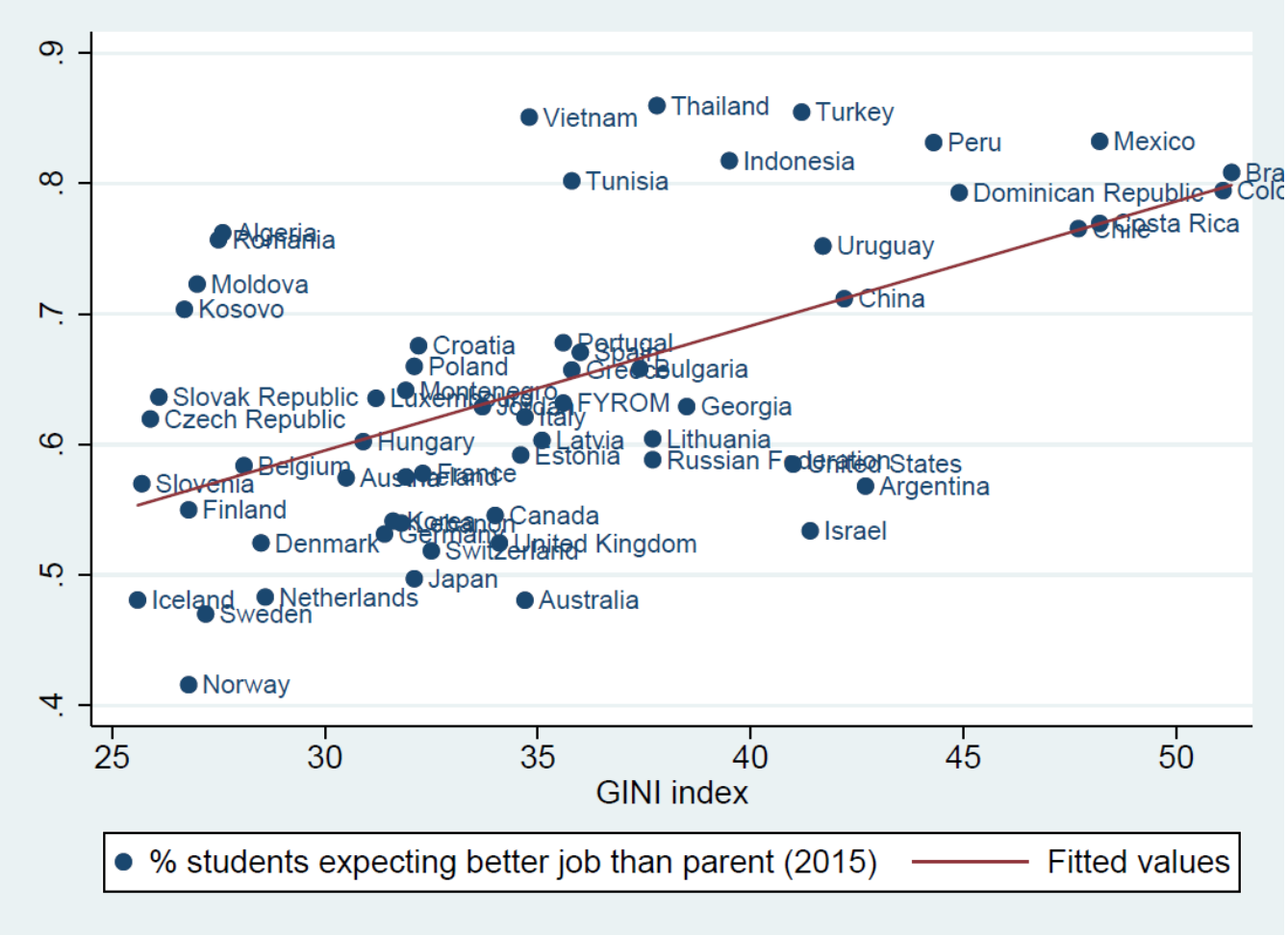
Job aspirations



Inequality

Aspirations of upward mobility

Share of students expecting better job than their parents



Inequality

3.2 The role of educ. institutions

School tracking (or horizontal differentiation)

- Diffs. in instruction within a grade
- In comprehensive education systems all 15-year-olds follow the same program; in stratified systems students are streamed into diff. programs according to interests and/or performance

  (OECD, 2010)

School stratification across countries

	Horizontal differentiation		
	Low	**Medium**	**High**
# school types	1.1	3	4.3
Age of selection	15.8	14.5	11.2
Countries (examples)	Denmark, Finland, Norway, Sweden, Spain, Greece, Russian Federation, UK, US, Canada, Australia, New Zealand, Argentina, Brazil, Chile, Colombia, Peru	Ireland, Italy, Portugal, Slovenia, Albania, Israel, China, Japan, Korea, Thailand, Mexico	Belgium, Germany, Netherlands, Switzerland, Austria, Czech Republic, Hungary, Turkey, Singapore

Source: OECD (2010)

Tracking and students' expectations

Dep. var. =1 if:	*Expect to finish university*	*Expect top job*
	[1]	[2]
Age of selection$_c$	0.0396*	0.0321***
	(0.0227)	(0.0106)
Programs available at 15$_c$	0.0281	0.0345*
	(0.0288)	(0.0172)
% selective schools$_c$	0.0325	-0.110*
	(0.131)	(0.0576)
Female$_i$	0.0944***	0.0297*
	(0.0171)	(0.0159)
Socio-economic status$_i$	0.0539***	0.0227***
	(0.00708)	(0.00454)
Mother completed university$_i$	0.0352***	0.00813*
	(0.0102)	(0.00456)
Father completed university$_i$	0.0486***	0.0104
	(0.00829)	(0.00836)
Obs.	258,780	286,643
Mean dep. var	0.502	0.388

The later you track students, the higher their expectations

Source: own calculations on PISA data

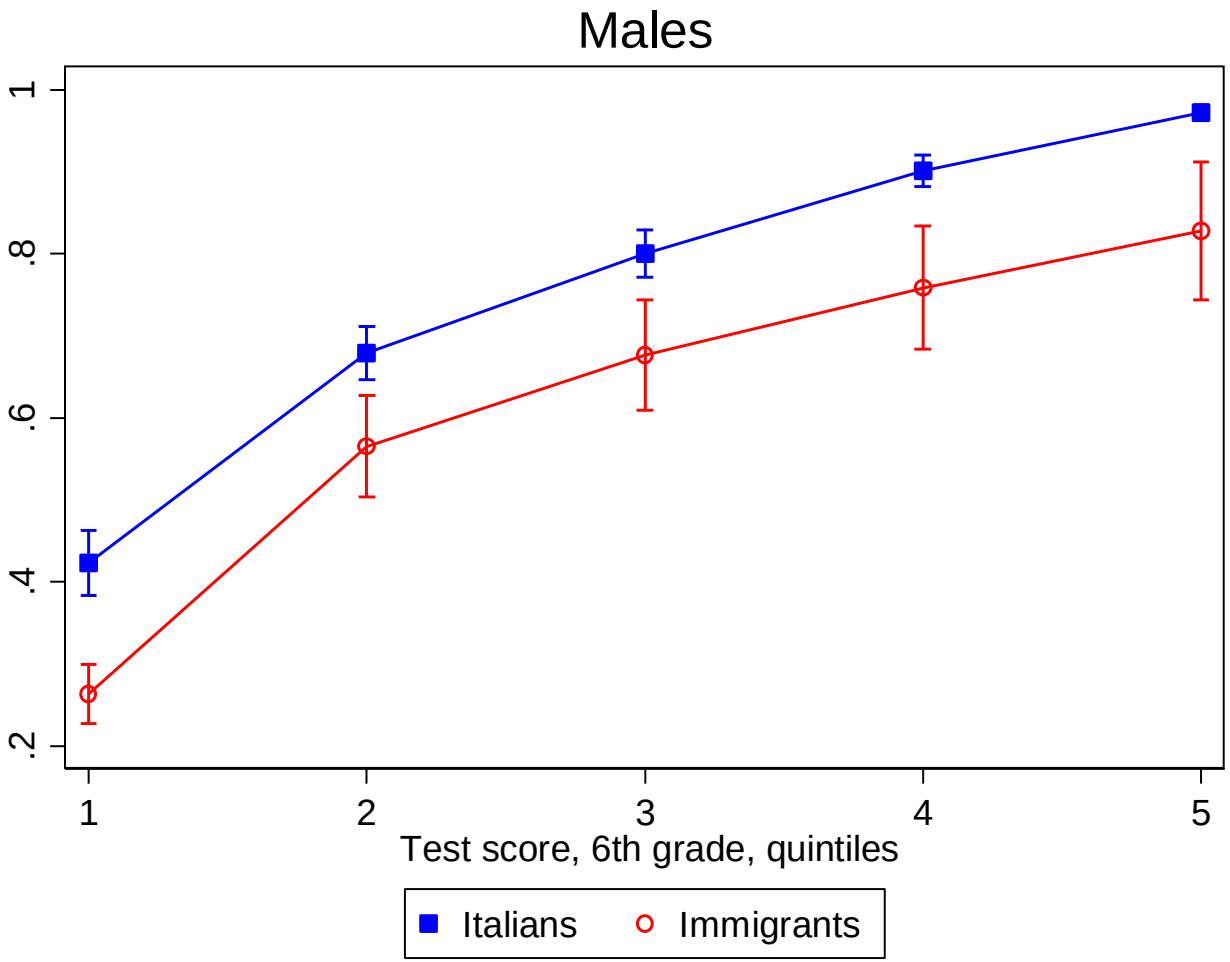
Distributional effects of tracking: Who "under-aspires"?

Carlana, La Ferrara, Pinotti (2018)

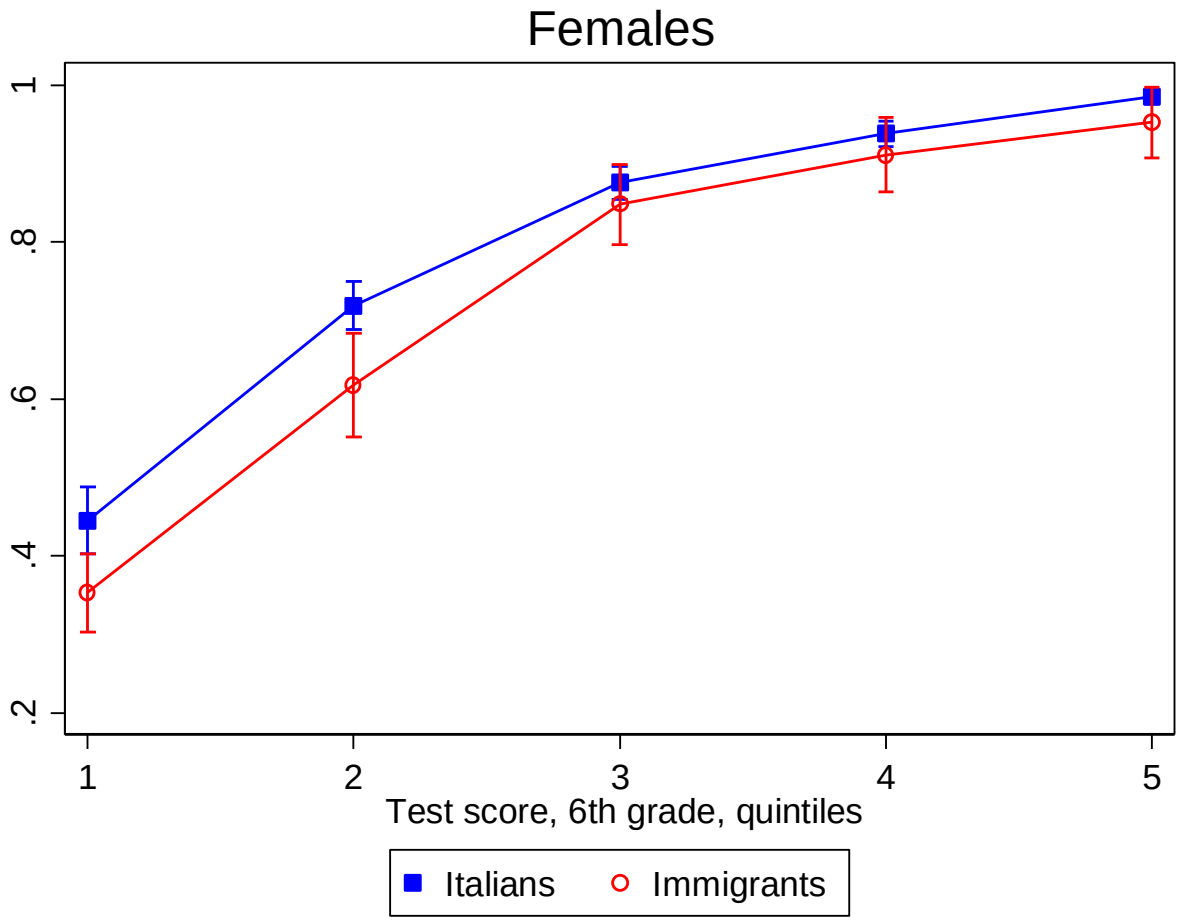
- Aspirations & school choice of **immigrants** vs natives
- Italian schooling system: after 8th grade stratification into 3 tracks
  - Academic oriented (liceo) → college
  - Technical → college or white collar jobs
  - Vocational → blue collar jobs

- Track choice conditional on standardized test score

Probability of enrolling in “high track” (Liceo/Technical)



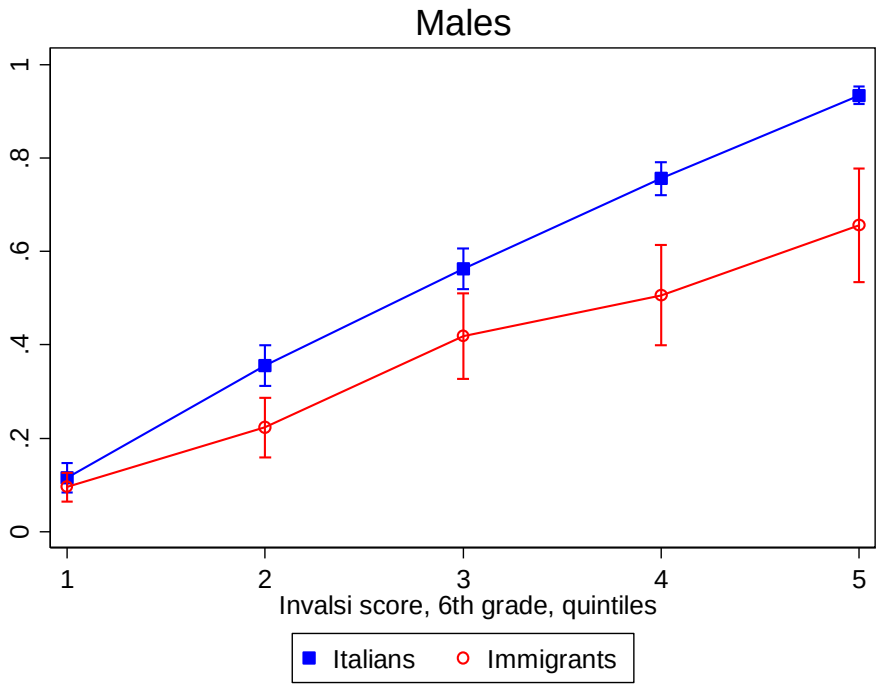
Probability of enrolling in “high track” (Liceo/Technical)

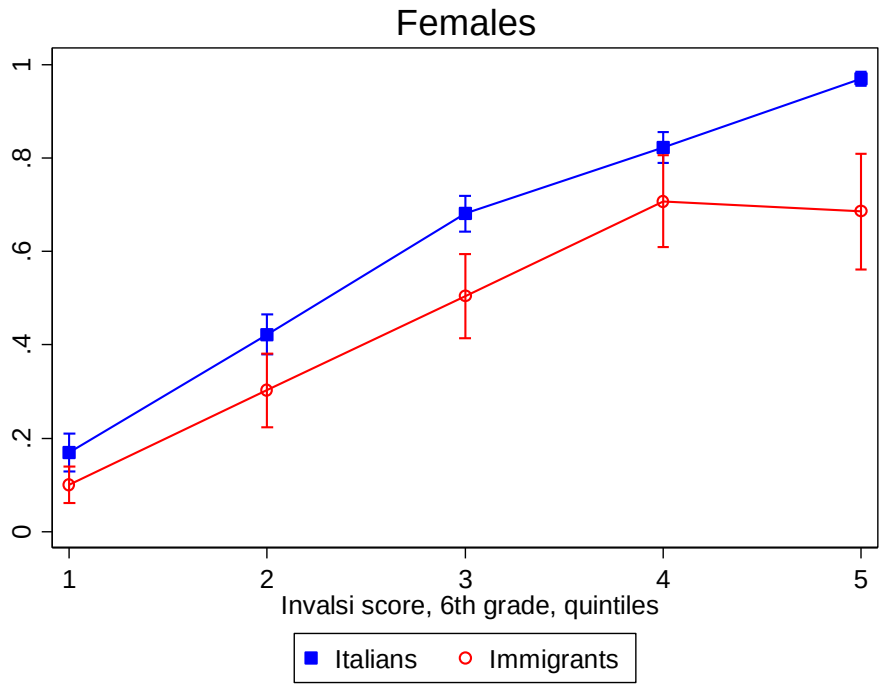


Why don't immigrants choose high tracks?

- Family background matters but does not fully account for it
- They perceive higher barriers (including discrimination)
- Teachers are less likely to recommend high track to immigrants, conditional on ability

Teachers' Recommendation (Liceo or Technical)





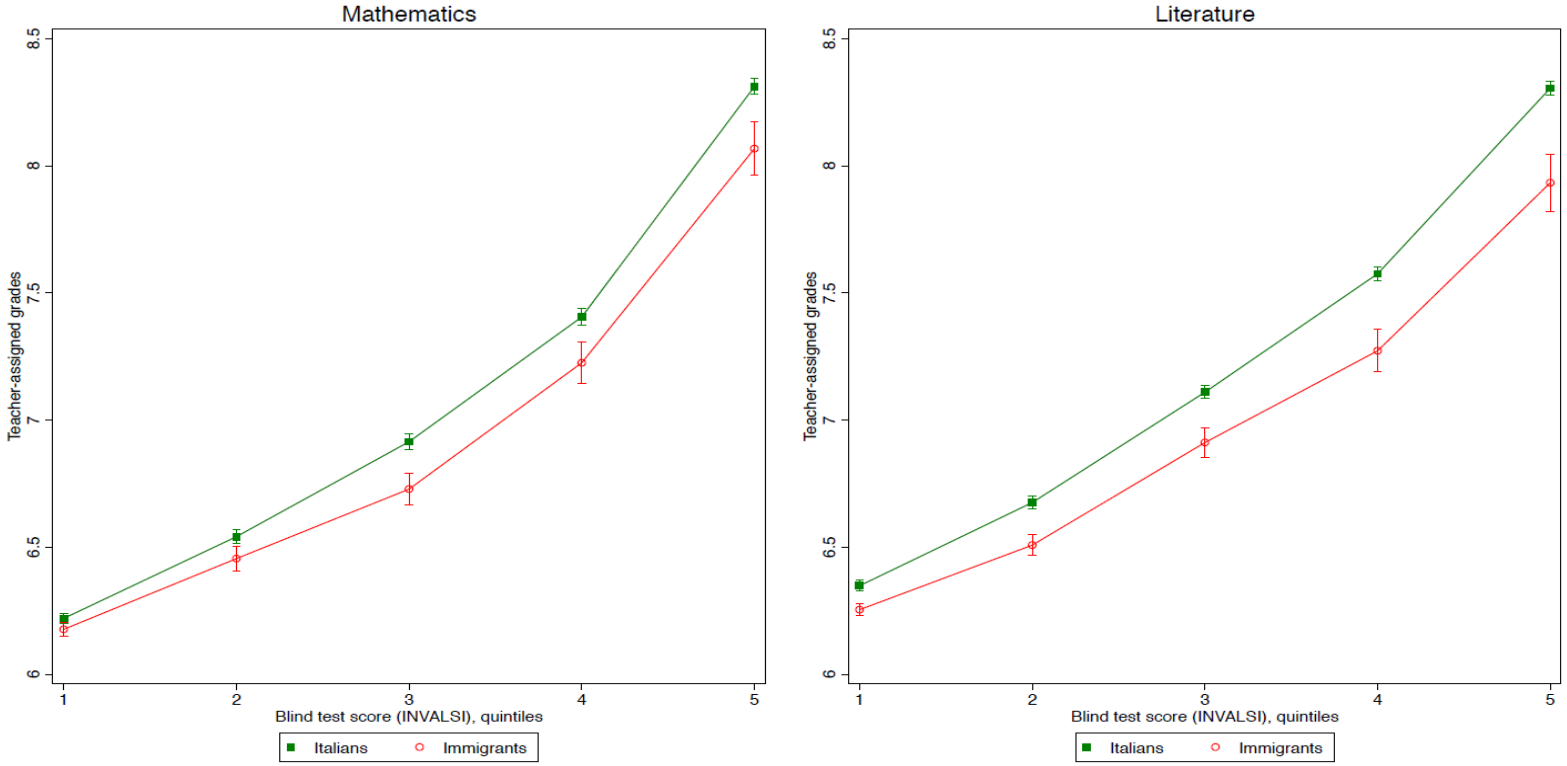
3.3. Ethnic stereotypes

Alesina, Carlana, La Ferrara, Pinotti (2018)

Teachers' recommendations partly stem from bias

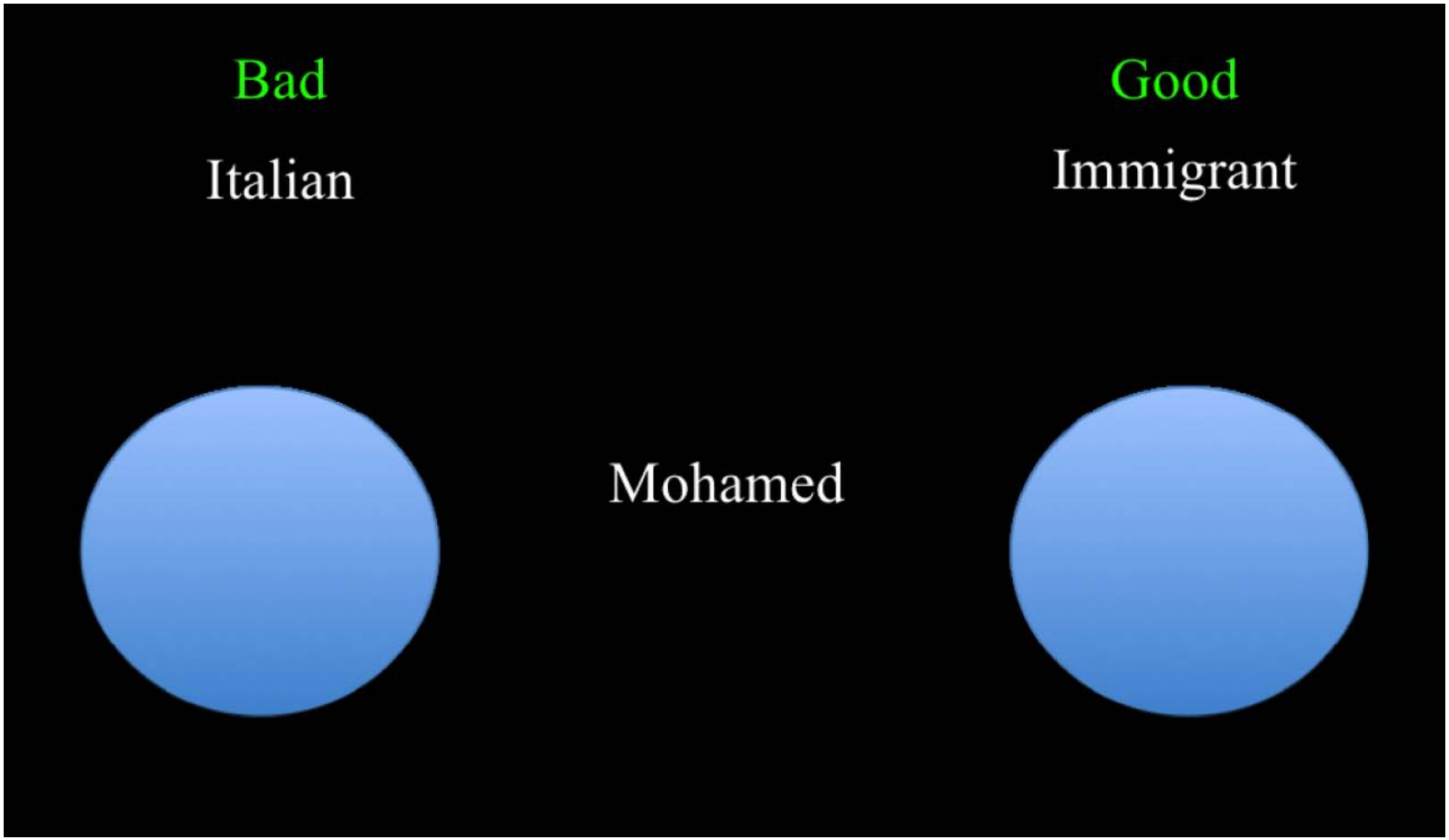
- Context: Italian middle schools, 1400 math and literature teachers
- Bias in grading: compare "subjective" evaluation to std. test. score – both exams taken in the same week at the end of grade 8

- Teachers give lower grades to immigrants, conditional on “objective” performance



- *How do we know it’s not unobservables?*

- Measure teachers' racial bias
- *Implicit* bias → Implicit Association Test (IAT)



- Gap b/w subjective & objective grade larger for biased teachers (teachers w/ high IAT)

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: **Dependent Variable Grades given by Math Teacher**						
Immigrant	-0.468***	-0.112***	-0.111***	-0.077***	-0.123***	-0.123***
	(0.026)	(0.019)	(0.019)	(0.024)	(0.034)	(0.034)
Imm*Std Race IAT Mat			-0.045**	-0.038*	-0.039*	-0.040*
			(0.022)	(0.021)	(0.021)	(0.021)
Mean of Native-Imm Gap	-0.468	-0.112	-0.112	-0.077	-0.077	-0.077
Obs.	21892	21892	21892	21892	21892	21892
R^2	0.095	0.470	0.470	0.497	0.497	0.497
Teacher FE	Yes	Yes	Yes	Yes	Yes	Yes
INVALSI cubic	No	Yes	Yes	Yes	Yes	Yes
Student Controls	No	No	No	Yes	Yes	Yes
Student Controls *Imm	No	No	No	No	Yes	Yes
Teacher Controls	No	No	No	No	No	Yes

Gender stereotypes

Carlana (2018)

Impact of teachers' gender stereotypes on students' outcomes

- Implicit stereotypes: Gender-Science IAT
- When assigned to biased teacher, girls:
  - Perform worse in math (std. test score)
  - Lower self-confidence in own math ability
  - Less likely to choose STEM track

4. Changing aspirations

Need to work on several dimensions

- What individuals think they are capable of (self-efficacy, motivation) → psychology
- The reference points people see around themselves → role models
- What society considers acceptable for them → stereotypes & social norms
- Material endowments

4.1. Changing aspirations through counseling

Carlana, La Ferrara, Pinotti (2018)

- Evaluate the program 'Equality of opportunity for immigrant students' (EOP), in collaboration w/ Ministry of Education & Invalsi
- Target: high-performing immigrant students from in middle school
- Goal: align their high school choice w/ their academic potential
- 145 schools in Northern Italy (70 randomly treated); 10 immigrant students w/ highest std. test score in 6th grade

Intervention

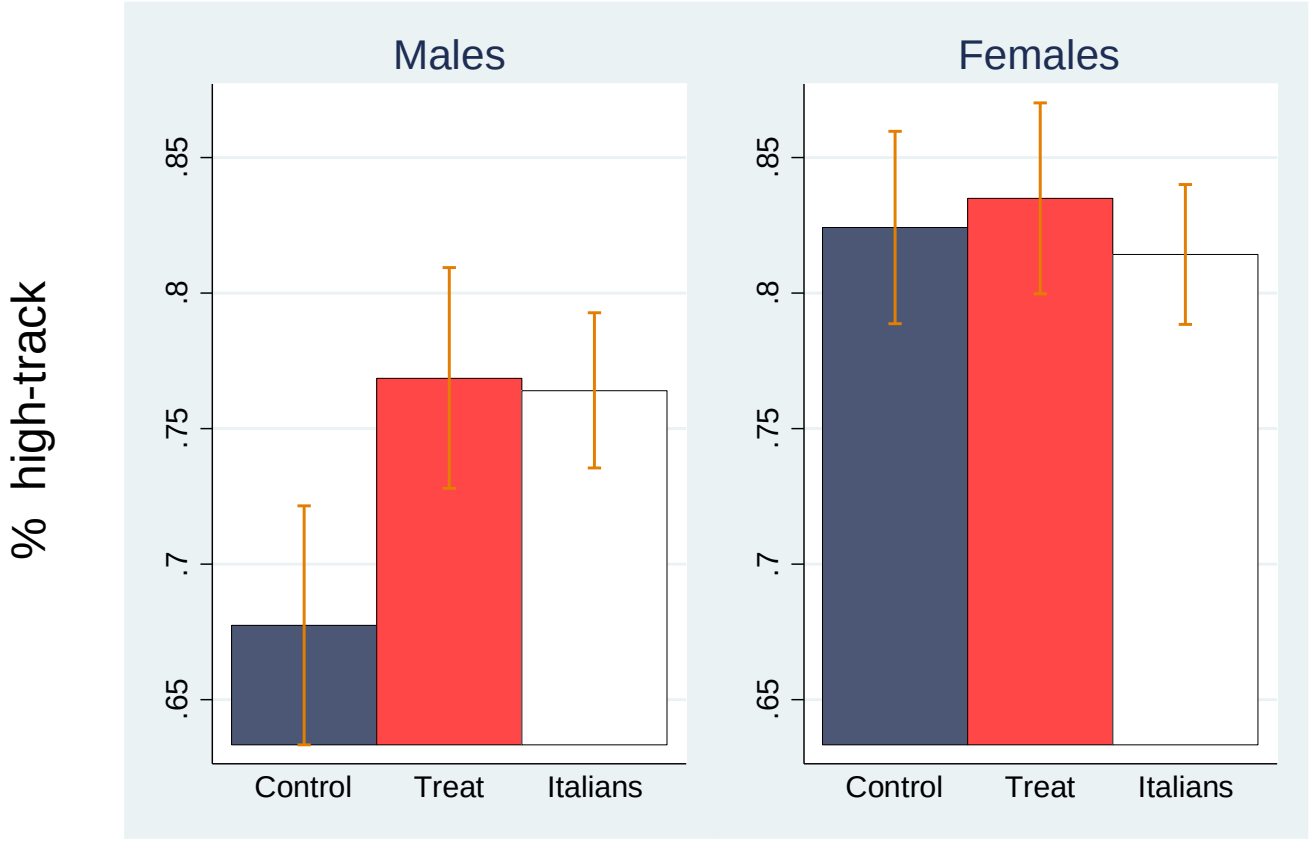
Students followed during grades 7 and 8.

Two types of activities:

1. **Career choice consultancy**
   - Information about Italian schooling system
   - Psychological support: 14 meetings
     - e.g., 5 experiences of success: which personal resources did you leverage?
2. **Tutoring**
   - Italian language tutor to facilitate studying

Impact on high school choice

- Treated boys 8 pct pt more likely to choose high track (12% increase). No effect on girls
- Closed gap w/ Italians



Mechanisms

A. Cognitive skills: improvement in std test scores for boys
B. *Non-cognitive skills: reduction of perceived barriers, improved motivation
C. *Teachers more likely to recommend treated boys for high track

4.2. Changing aspirations through role models

A. In person exposure

- College instructor w/ your characteristics improves academic performance
  - Gender (Hoffman-Oreopoulos 2009)
  - Racial minority (Fairlie-Hoffman-Oreopoulos 2009)

Teachers vs peers as role models?

- ongoing work on peer educators in Brazil

La Ferrara, Orozco, Rosa-Dias (in progress)

- Teen pregnancy rates in Bahia > 20%
- Work w/ Secretaria da Educação to evaluate peer education program in high schools of Salvador de Bahia

- Pregnancy not always unwanted

  Ask 15 yr olds: "Suppose you (your girlfriend) got pregnant in next 2 yrs. Do you see any advantages/disadvantages?"

	Boys	Girls
Disadvantages	59.80%	82.20%
Advantages	43.40%	22.30%

Not finish my studies

Gov't help

Social status (grown-up)

Child gives meaning

- Need to change life aspirations, in addition to health info!

Intervention

- Train teams of 6 students per school; 134 schools.
- Randomize selection method
  - T1: students chosen by teachers
  - T2: most “connected” students (eigenvector centrality)
  - T3: most “popular” students (coolness)

These students differ in their aspirations

	Coefficient (std. err.) on:				
	Eigenvector Centrality Friendship		Degree Centrality Popularity		
Dep. var:					Obs.
Expected Age - 1st Child	1.101*	(0.633)	0.0707***	(0.0267)	6,227
Desired Age - 1st Child	1.105*	(0.636)	0.0499*	(0.0257)	6,315
Expected Age - Marriage	1.350**	(0.568)	0.0587**	(0.0262)	6,490
Desired Age - Marriage	1.729***	(0.657)	0.0455*	(0.0269)	6,554
Wants to have Children	-0.0495	(0.0549)	0.00410*	(0.00220)	8,190
# of Desired Children	0.0313	(0.155)	0.0114*	(0.00621)	6,478
Wants to marry or live together at some point	-0.0162	(0.0570)	0.00397*	(0.00216)	8,190
Probability to have an intellectual work (0-10)	-0.220	(0.280)	0.0202*	(0.0121)	8,190
Wants to study Social Sciences	-0.0561	(0.0556)	0.00549**	(0.00220)	8,190
Wants to be an enterpreneur	0.0146	(0.0378)	-0.00226	(0.00143)	8,190
Wants to be a public employee	-0.0342	(0.0538)	0.00535**	(0.00217)	8,190

- Results: stay tuned…

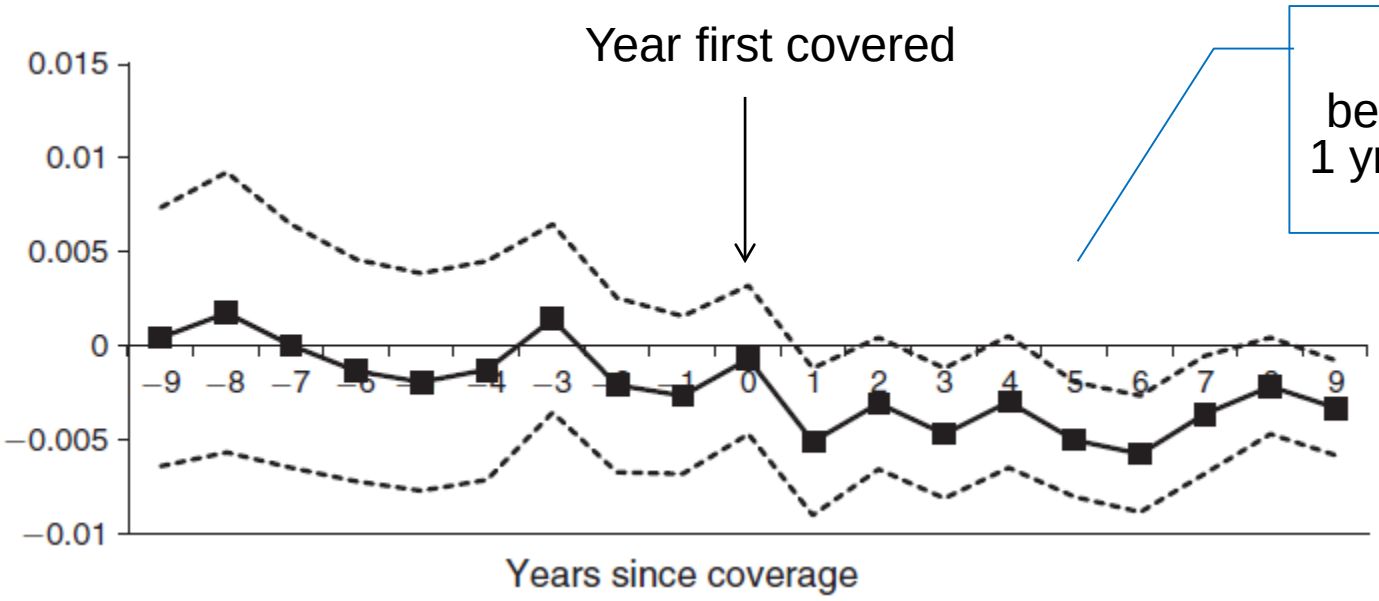
B. Exposure to role model through media

La Ferrara, Chong, Duryea (2012)

- Soap operas (*novelas*) by Rede Globo in Brazil displayed much smaller families than in reality

	Full sample percent novelas	Age of female1 < 50 percent novelas
Number of children		
0	62.2	71.6
1	19.8	20.0
2	9.9	7.4
3	4.5	1.1
4 or more	3.6	0
	($N = 111$)	($N = 95$)

- Identification: exploit staggered entry across municipalities over time
- Estimated coeffs for likelihood of giving birth:



Coefficients become negative 1 yr after coverage

- Decrease in fertility comparable to +2 yrs of educ.
- Effect stronger for poorer & less educated women

Suggestive evidence on **role model** channel:

- Naming patterns: children 25 pct pt more likely to be named after novela characters in municipalities covered by Globo
- Impact on fertility stronger
  - for women whose closer in age to novela character
  - after novelas w/ upward mobility story (aspirations)

"Edutainment" programs w/ role models

Short documentaries w/ success stories of micro-entrepreneurs

- Increase parents' aspirations about their children & education investment in Ethiopia, up to 5 years after intervention (Bernard, Dercon, Orkin, Taffesse 2014)

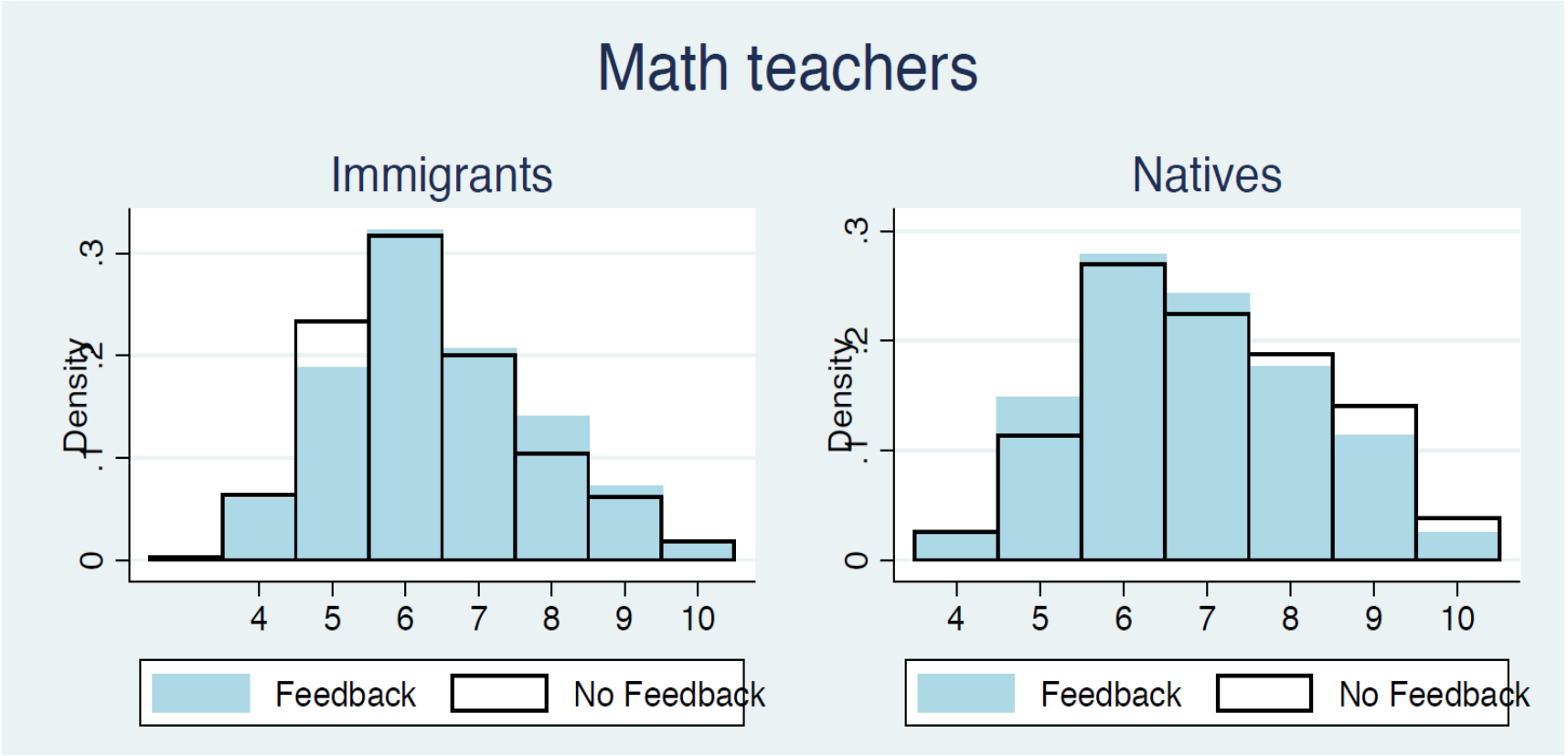
- Increase students' aspirations & likelihood of setting up own business in Tanzania (Bjorvatn, Cappelen, Helgesson Sekeiz, Sørensen, Tungodden 2015)

4.3. Changing aspirations by changing stereotypes & social norms

Alesina, Carlana, Pinotti, La Ferrara (2018)

- Teachers' bias against immigrants in Italian schools
- Intervention: randomize feedback to teachers on their IAT score.
  - ½ of the teachers get it 1 week before mid-year students assessment, ½ 1 week after

- Treated teachers increase grades given to immigrants



- Revealing stereotypes can work!

Beaman, Duflo, Pande and Topalova (2011)

- 1993 Indian law: political reservations for women in village councils generated random exposure to female leaders
- Increase in adolescent girls' career aspirations & educational attainment

Dhar, Jain, Jayachandran (2018)

- Multi-year school-based intervention in Haryana, India aimed at eroding support for restrictive gender norms: classroom discussions about gender equality among adolescents
- Improved adolescents' gender attitudes by 0.25 standard deviations
- More gender-equitable behavior, e.g. boys helping out w/ household chores

4.4. Changing aspirations through material endowments

A. Vocational training & skills

Bandiera, Buehren, Burgess, Goldstein, Gulesci, Rasul, Sulaiman (2017)

- Adolescent girls empowerment program in Uganda within girls' clubs (to reach school dropouts)
  - Skills transfers (vocational training)
  - Soft skills (info on marriage, etc.)
- Impact on girls's aspirations:
  - Delayed age at marriage (own & for their children)
  - Delayed age at 1st child
  - Lower desired fertility

B. Assets

Banerjee, Duflo (in progress)

- Ultra-poor (or "graduation") program in West Bengal, India. Productive asset transfer, followed by 13-40 weeks of basic income and 18 months of health/ savings/ life skills coaching.
- Evaluation 1, 3 and 10 yrs after intervention
- No impact on aspirations *for oneself* (type of job, moving outside village)
- Impact on aspirations for children's education (complete higher secondary); no impact on expectations

C. Land

Ali, Deininger, Goldstein, La Ferrara (2018)

- Land Tenure Regularization in Rwanda: nation-wide land titling program
- RCT: 50 sectors titled first (Jan 2011), 50 sectors last (Jan 2012); 3600 households surveyed.
- Inheritance & marriage law 1999, 2005: equal rights to spouses *w/ registered marriage*

  → LTR gives 50:50 land ownership to women!
- Impact on aspirations for children's education
  - Suppose you only had money to finance education for one of your children. Who would you choose, boy or girl?

Dep. var. =1 if prefer to educate girl

	Secondary school		University	
	wife	husband	wife	husband
Treated	-0.0429	-0.0517	-0.0407	-0.0389
	(0.0475)	(0.0440)	(0.0456)	(0.0442)
Treated*marriage certificate	0.0961*	0.0722*	0.0987*	0.0729*
	(0.0504)	(0.0431)	(0.0512)	(0.0427)
Marriage certificate	-0.0271	-0.0396	-0.0251	-0.0254
	(0.0398)	(0.0319)	(0.0409)	(0.0334)
Y_{t-1}	0.2134***	0.3245***	0.1877***	0.2919***
	(0.0252)	(0.0288)	(0.0241)	(0.0288)
Observations	1883	1732	1883	1732
R-squared	0.06	0.12	0.05	0.10
Mean Y in Control grp	0.233	0.238	0.23	0.234

5. Conclusions

Summing up

- Aspirations matter for educ. investments & occupational choice
- Changing aspirations is one way to reduce poverty (not a substitute for improving endowments)
- Social factors & norms shape what is considered feasible & acceptable

My personal aspiration as EEA representative…