

Education: The Man Made Trap

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14.73, Lecture 11

What we have seen so far

- There are clear benefits of education, both monetary and non-monetary.
- These benefits are experienced even by those who complete just some more years of primary education (like in Indonesia)

What we have seen so far

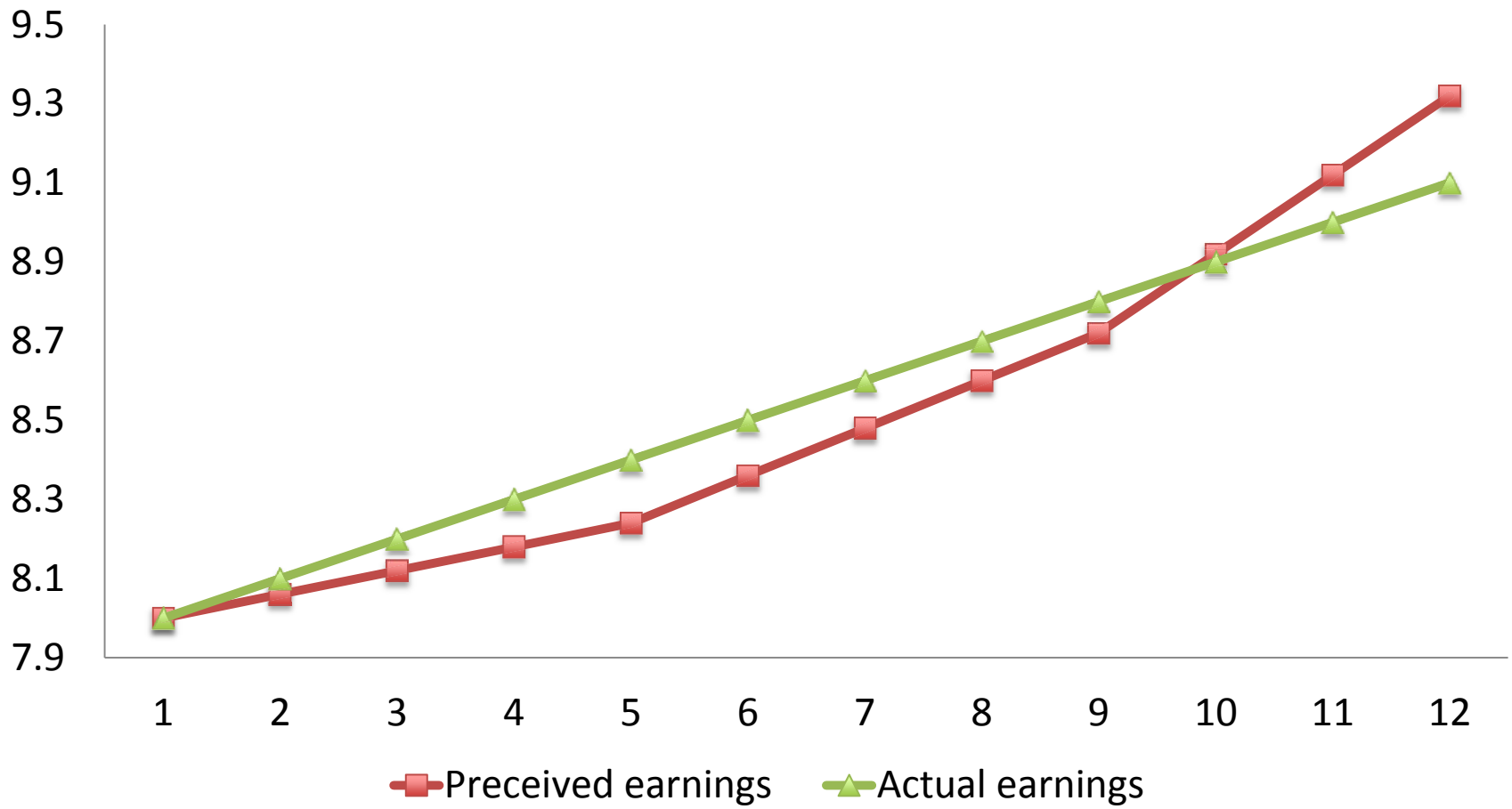
- However, the quality of education is very poor: schools deliver little to the poor
- And yet, it does not seem that difficult to improve quality a lot: Pratham's programs show tremendous progress with high school graduates.

What could be going on?

An illusory S-Shape

- Parents tend to believe that education is a lottery ticket:
 - In Madagascar, 70% of parents thought that a secondary education could lead to a government job. In fact, 33% of secondary school graduates get one.
- Parents tend to believe that returns to primary education are low, and returns to higher education higher
 - Madagascar: 6% per year for primary education, 12% per year for secondary education, 20% for tertiary education

Madagascar: real and perceived returns to education



Consequence of Elite Bias in Education

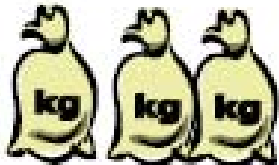

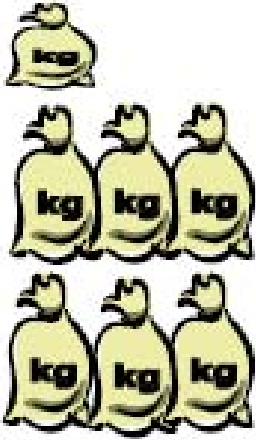

- The parents
- The teachers
- The students

The Parents

1. Parents believe that a little bit of education may not be worth the cost: unless the child can get enough education to get a lottery ticket, it is not worth it.
2. If they have several children, they may decide to treat them unequally: make sure that one gets enough education, even if this means that the other gets very little

Parents: Evidence

- Parents are sensitive to perceived returns to education when they make their education decision.
- In Madagascar, when they were shown the returns to education in a simple way, parents who were initially overestimating the returns reduced effort, and those who were underestimating increased effort.

	Without any degree	Primary school with CEPE	Lower secondary school with BEPC	At least high school with BAC
Female	34 524 Ar	44 119 Ar	73 771 Ar	163 344 Ar
Male	47 637 Ar	60 877 Ar	101 793 Ar	225 389 Ar
Gain				

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Parents: Evidence

- Parents discriminate between their children
 - In Burkina Faso, a study found that children are more likely to be in school if they do well on a cognitive test, but *less* likely if their sibling's do well (conditional on their own cognitive score)
 - In Colombia, another study found that when some kids were given a conditional cash transfer to stay in school, other kids were *less* likely to attend.

Parents: Evidence

- Parents are sensitive to actual job opportunities that education open, but increasing the opportunity may actually increase inequality
- Experiment in India (Robert Jensen): for 3 years, recruiters when to recruit boys and girls who had english education for BPO centers.

The results of the BPO experiment

- The results
 - BPO recruitment increased girls education
 - No average effect on boys BUT unequal effect:
 - Increase in education for boys whose parents said at baseline they wanted to send them to the city
 - Decrease in education for boys whose parents said at baseline they wanted to keep them in the farm.

Consequence of Elite Bias in Education

- The parents
- The teachers
- The students

Teachers

1. Teachers will teach to the top of the class, even when the majority of the students cannot follow what is going on
2. If teachers feel that the majority of their students are not “up to the mark” they will tend to blame the students, or the parents, and lose motivation: low effort
3. It will be difficult to convince teachers to change their practices, even with training

Teachers: The Evidence

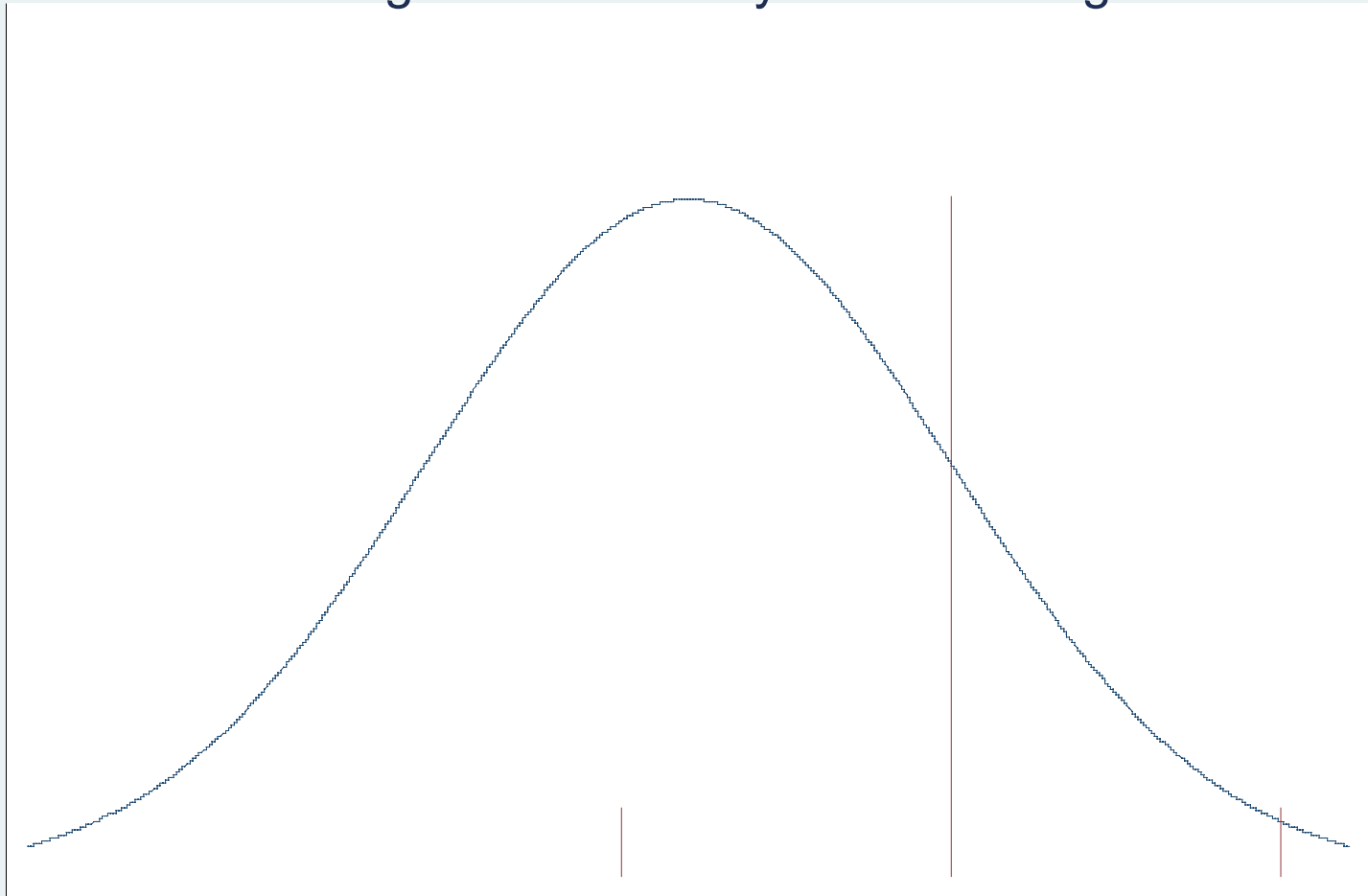
- The Pratham experiments provide evidence in this direction:
 - The program was effective in teaching all children, but teachers were not very interested in taking it up, except in the remedial summer camps
 - They can teach the basic, but they are not very interested to do it....

Teacher: The Evidence

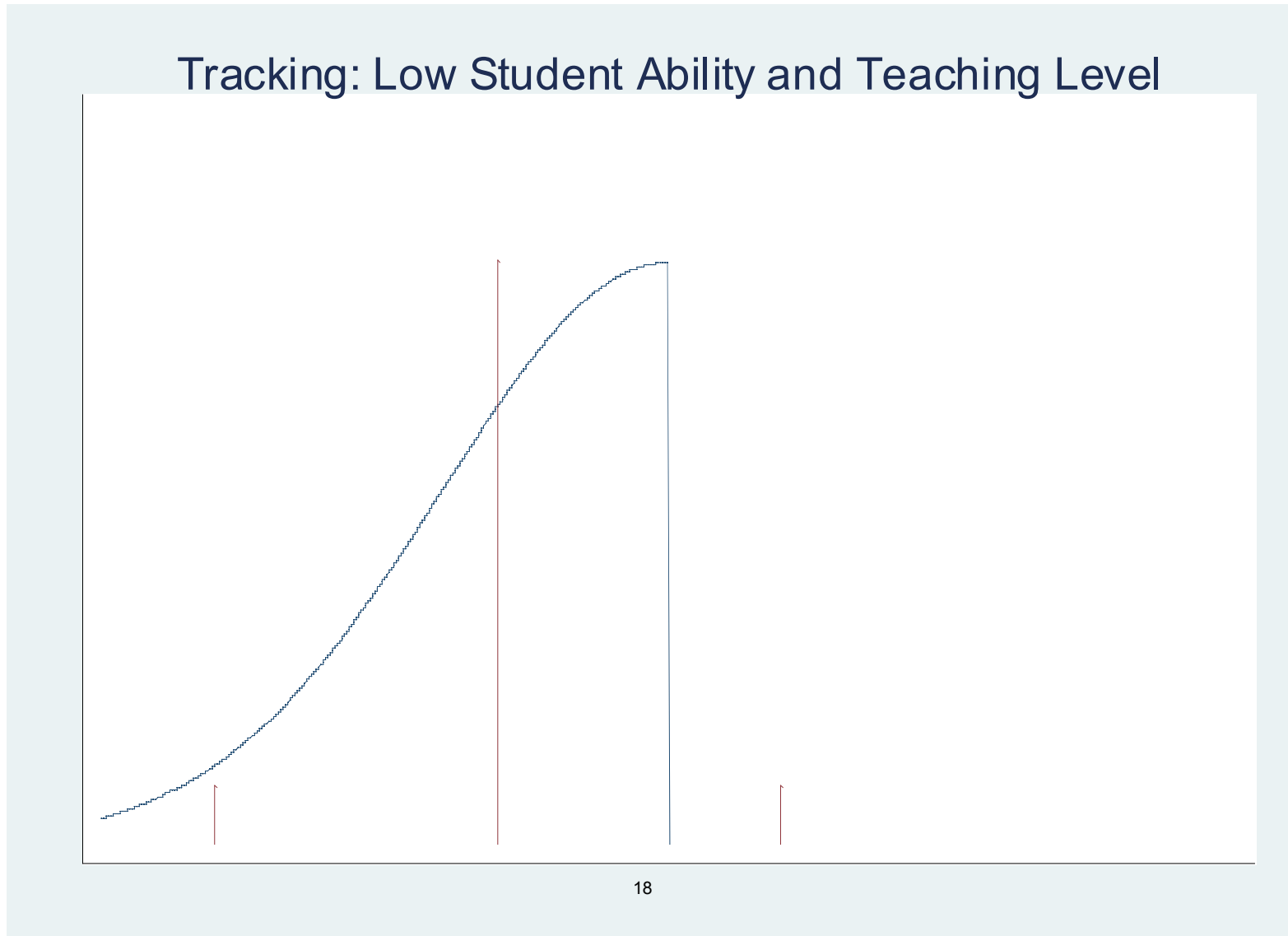
- An experiment in Kenya provides clear evidence of most of these points (Duflo, Dupas, Kremer)
- 120 schools in Kenya were provided with an extra teacher to cut class 1 in two
 - In 60 schools teachers were randomly assigned to a class
 - In 60 schools, students were divided into 2 groups based on prior achievement.
- What do we expect to see if teachers tend to teach to the top: the story in picture

No Tracking: Student Ability and Teaching Level

No Tracking: Student Ability and Teaching Level

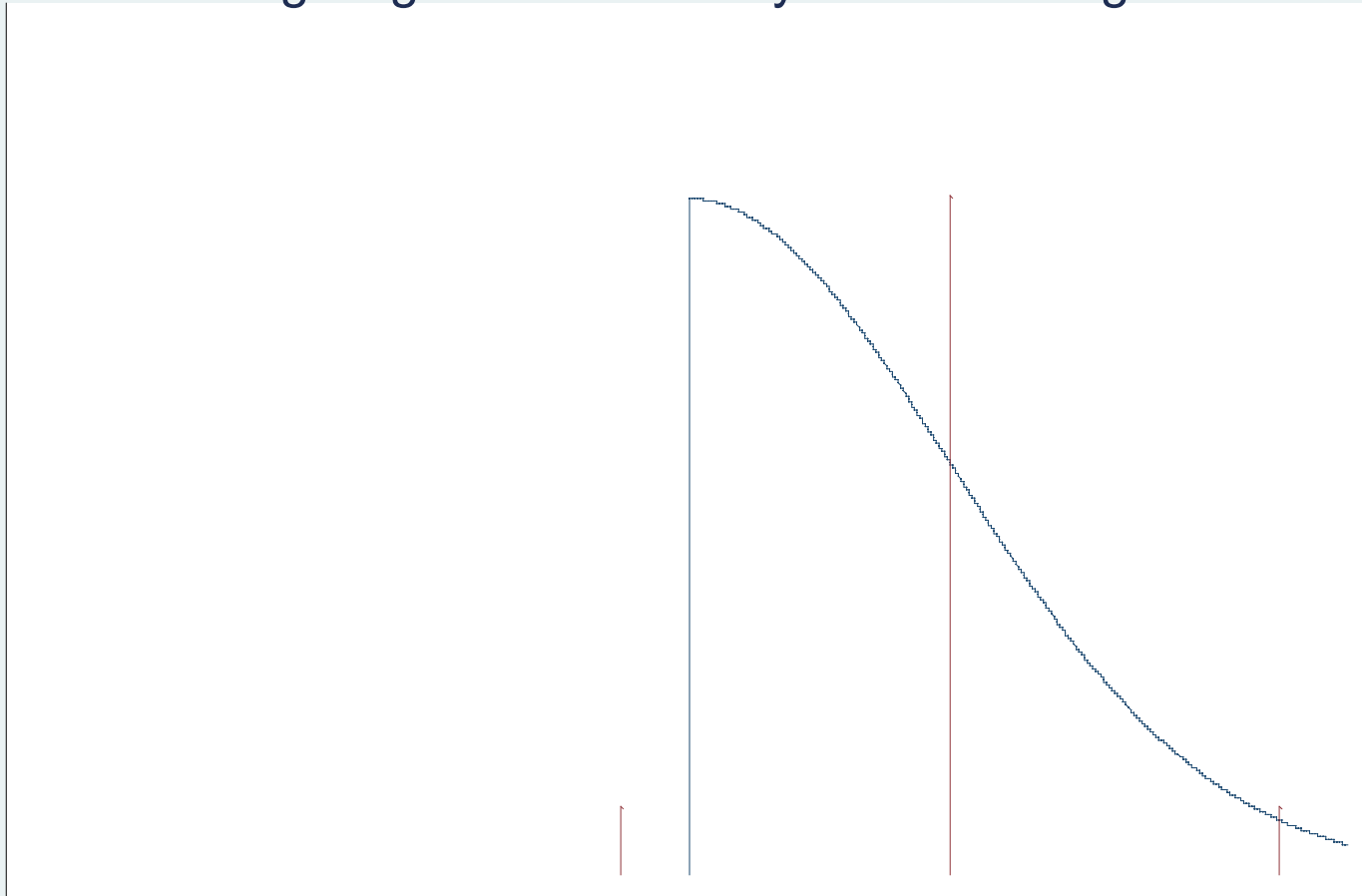


Tracking: Low Student Ability and Teaching Level



Tracking: High Student Ability and Teaching Level

Tracking: High Student Ability and Teaching Level



Expected results if teacher have elite bias

- Teachers would teach at a lower level in the bottom track, so closer to what the low ability children can understand: that will help them
- In the top track, students will not benefit from better targeting however:
 - They will have better peers
 - The teacher may work harder because he now mainly has students he care about
- So it is possible that everyone benefits from tracking

The results: Effect on teacher effort

	All Teachers			Civil-Service Teachers		
	(1)	(2)	(3)	(4)	(5)	(6)
	Teacher in school	If in school, found in class teaching	Teacher found in class teaching (unconditional on presence)	Teacher in school	If in school, found in class teaching	Teacher found in class teaching (unconditional on presence)
Tracking School	0.041 (0.021)**	0.079 (0.039)**	0.096 (0.038)**	0.054 (0.025)**	0.094 (0.047)**	0.112 (0.044)**
Bottom Half x Tracking School	-0.049 (0.029)*	-0.034 (0.042)	-0.062 (0.040)	-0.073 (0.034)**	-0.036 (0.059)	-0.076 (0.053)
Observations	2098	1782	2098	1633	1367	1633
Mean in Non-Tracking Schools	0.837	0.609	0.510	0.825	0.545	0.450
F test	2.718	7.693	9.408	2.079	4.414	5.470
Prob >F	0.011	0.000	0.000	0.050	0.000	0.000

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Learning: Tracking is good for everyone

(1) Tracking School	0.138 (0.078)*	0.175 (0.077)**	0.191 (0.093)**	0.18 (0.092)*
(2) In Bottom Half of Initial Distribution x Tracking School			-0.036 (0.07)	
(3) In Bottom Quarter x Tracking School				-0.044 (0.08)
(4) In Second to Bottom Quarter x Tracking School				-0.014 (0.07)
(5) In Top Quarter x Tracking School				0.028 (0.08)
Initial attainment percentile		0.018 (0.001)***	0.02 (0.001)***	0.022 (0.002)***
Individual Controls	no	yes	yes	yes
Observations	5796	5282	5282	5282
Total effects on bottom half and bottom quarter				
Coeff (Row 1)+Coeff (Row 2)			0.155	

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Students

- Students would easily get discouraged and demotivated when they stop understanding “school is not for me”
- They would be particularly sensitive to situations that reinforce the stereotypes that they are not good at school

Students: The evidence

- Huge student absenteeism: up to 30% student absence in Bihar! Part of this is due to other reason (work, health) but in many cases, students are just despondent
- “stereotype threat” : Low caste and high caste student were asked to solve mazes. Low caste students did more poorly when they full name (with caste) was announced publicly before starting the name

Discussion

What does all of this tell us we should do about education policy?

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