Biased Teachers and Gender Gap in Learning Outcomes: Evidence from India
Sonali Rakshit (Arizona State University: srakshi3@asu.edu), Soham Sahoo (IIM Bangalore: soham.sahoo@iimb.ac.in)

Background and motivation:
• School participation has increased, gender gap has reduced
• Gender gap in learning outcomes and STEM participation still persists
  • Girls under-perform in mathematics in many countries
  • Women are under-represented in STEM occupations
• Is there a role of teachers in causing the gender gap in mathematics?

Objective of this paper:
• We investigate the effect of teachers’ gender-stereotype on math learning of students
  • Focus on the gender gap in math learning
  • Investigate whether teacher’s gender matters
  • Mechanisms – students’ attitude towards math

Data and measures:
• Young Lives school survey: Matched student-teacher level data on nearly 9000 students from 205 schools in India
• Test scores collected on the same 9th grade students twice: at the beginning and end of the school year
• Teacher-bias index derived from teachers’ responses in Likert scale (strongly agree – strongly disagree):
  • “Gender can predict how well the student will fare”
  • “Boys are able to do better in studies than girls”
  • And similar questions on caste and class

Main findings:
• Biased teachers negatively affect girls – widens gender gap in math learning. Effect significant only for male teachers, among medium-performing students, and in male-dominated classes
• Mediation analysis: significant negative effect on girls’ attitude towards math

See more in working paper: GLO Discussion Paper No. 684