

Essays in Development and Labor Economics

External Committee Members: Orazio Attanasio (Yale), Costas Meghir (Yale),
and Petra Todd (Penn)

Matteo Bobba

Toulouse School of Economics (TSE)

November 6, 2023

A Few Words about Myself

- I am development economist interested in labor markets and human capital/A labor economist with a focus on Latin America...
- My approach in research is empirical with a strong theoretical grounding
 - Causal Inference + Model-Based Estimation = Structural Policy Evaluation
- and a keen interest in policy-relevant issues
 - Policy \iff Academia

Overview of Research Agenda and Collaborators

- 1 Labor markets and informality
 - Bianchi and Bobba (ReStud, 2013)
 - **Bobba, Flabbi, Levy and Tejada (JoE, 2021)**
 - **Bobba, Flabbi, and Levy (IER, 2022)**
 - New work on dynamic two-sided matching in the labor market

- 2 Sources of spatial inequality in education outcomes *within* countries
 - **Bobba and Frisancho (JoE, 2022)**
 - **Bobba, Ederer, Leon, Neilson, and Nieddu (RejR JPE)**
 - Follow up work on teachers in Peru

- 3 Scale-up effects of human capital interventions
 - Bobba and Gignoux (WBER, 2019)
 - **Agostinelli, Avitabile and Bobba (RR JPE)**
 - **Bobba, Frisancho, and Pariguana (2023)**
 - On-going work on scaling education policies

Labor Markets and Informality

- More than half of the labor force in Latin America is in the informal sector
 - Workers not contributing to and not covered by the social security system
 - Informal employees and (most of the) self-employed
- Patterns in the data are not consistent with either a segmented or a competitive view of the labor market
- Informal workers have started to gain access to non-contributory social security programs

Bobba, Flabbi, Levy [and Tejada] ([JoE, 2021], IER 2022)

- An equilibrium search model where:
 - 1 Search frictions generate mobility between formal and informal jobs
 - 2 Match-specific productivity and bargaining generate overlapping wage distributions
 - 3 Both ingredients generate a mix of formal and informal jobs in equilibrium
- Two important long-term “costs of informality”
 - Under-investment in education
 - Reduce on-the-job learning and skills acquisition

⇒ Reforming labor markets may enhance human capital accumulation

Spatial Inequalities and Students' Perceived Ability

- HK investments rely on expected individual-specific returns
- Providing information in education markets affect schooling decisions
 - School quality
 - Application procedures
 - Labor market returns
- High average returns but low individual-specific returns?
 - Mismatch and drop-out

Bobba and Frisancho (JoE, 2022)

- We design and implement a field experiment that provides students with individualized feedback on their academic skills
 - RCT embedded in school assignment mechanism in Mexico City
- Elicit repeated probabilistic statements on performance in the admission test
 - Longitudinal measures of subjective expectations are tightly linked to immediate and high-stakes schooling decisions
- Higher-SES students rely less on priors when updating and have higher signal pass-through

⇒ Information provision may not be enough to effectively undo miperceptions among the most vulnerable students

Spatial Inequalities and Teacher Sorting

- SES gradient in access to inputs of HK production function
 - Worse inputs in distressed areas
- Attracting good teachers in disadvantaged areas could be a policy leverage
 - Rigid wage profiles for public sector employees
 - Teachers sort on non-pecuniary aspects of employment
 - Reinforce disadvantage for children in remote/rural locations
- Can teacher wage policy be effective at mitigating structural inequalities?

Bobba, Ederer, Leon, Neilson, and Nieddu (RejR JPE)

- Link inequality in teaching quality and school/location choices
 - Large urban-rural gap in teacher qualifications and student test scores
 - Survey evidence on compensating differentials
- Evaluate the policy impact of unconditional wage increases in remote schools
 - 'Ceteris paribus' effect using RD
 - Overall effect using joint model of teacher school choice and value added
- Develop framework to design wage policy for given equity/efficiency objective
 - Leverage compensating differentials to inform wage schedule

⇒ Large efficiency and equity gains from optimal policy design, which requires information on teachers' absolute/comparative advantage

Scale-up Effects of Human Capital Interventions

- Recent interest in the ability of RCTs to inform policy decisions at scale
- A large-scale program will inevitably be run by the government
 - Positive selection of experimental sample
 - Fidelity and properties of the situation
- Spillover/equilibrium effects often arise at scale
 - Education policies are textbook examples
 - They can either hinder or sustain program impact

Agostinelli, Avitabile and Bobba (RR JPE)

- Mentoring program targeting primary schools in rural Chiapas (Mexico)
 - Mentors visit: community-schools and families at home
- Two RCTs for two program modalities
 - *Original* (status quo) vs. *Plus* (enhanced training for mentors)
 - Use infrastructure of an existing government-run program
- Change in program at scale after learning about pilot results
 - Study the role in scaling of mentors, parents, and teachers

⇒ New evidence of parents as means of scalability for educational programs

Bobba, Frisancho, and Pariguana (2023)

- Leverage field experiment in Bobba and Frisancho (JoE, 2022)
 - Quantify impacts on beliefs, school choice/placement and education outcomes for low-SES applicants
- Estimate a model of school choice to scale-up information intervention to all applicants
 - Simulate policy impacts at scale within a centralized assignment mechanism
 - Link counterfactual sorting to education outcomes with VA model
- Displacement effects may dampen positive impact of RCT for low-SES applicants

⇒ Quantifying scale-up effects through ex-ante model simulations seems a sensible alternative to ex-post program evaluation