



Bureaucrats Driving Inequality in Access: Experimental Evidence from Colombia

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CENTRO DE RECEPCION E INFORMACION CASA DE JUSTICIA



PUNTO DE ATENCION
CHIQUINQUIRA



On Measurement

Experiments as:

- ▶ **Impact evaluation:**
 - ▶ Change something in the world (intervention)
 - ▶ Look at changes in response (treatment effects)
- ▶ Experiment as **measurement**:
 - ▶ Look to study world as it is.
 - ▶ Randomize some stimulus to measure reaction.

Audit Experiment

- ▶ “**Mystery shopper**”
 - ▶ Experiment implies some randomized manipulation
- ▶ Request a service, measure response
 - ▶ Letters/emails to public officials (politicians, bureaucrats)
 - ▶ Here: **phone calls** to bureaucrats
- ▶ Ethics questions:
 - ▶ Use of **deception**
 - ▶ **Resource** consumption

Colombia, Social Policy Environment

Why Colombia?

- ▶ Tremendous variation local government **performance**
- ▶ Same institutional context
- ▶ Examine local administration of national social programs

Colombia, Social Policy Environment

Why Colombia?

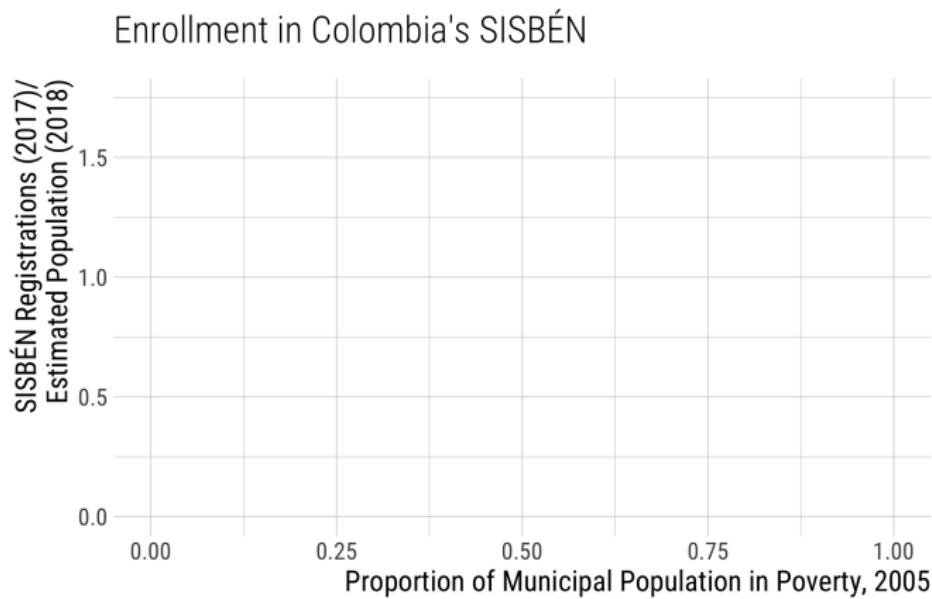
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Social Policy in Colombia

- ▶ High (extreme) levels of socioeconomic **inequality**
- ▶ Increase in programmatic policies across Latin America (e.g., Garay, 2016)
- ▶ Two largest social programs:
 - ▶ SISBÉN: means testing program
 - ▶ Más Familias en Acción (MFA): conditional cash transfer program
- ▶ Some aspects of each program administered by **local** bureaucrats

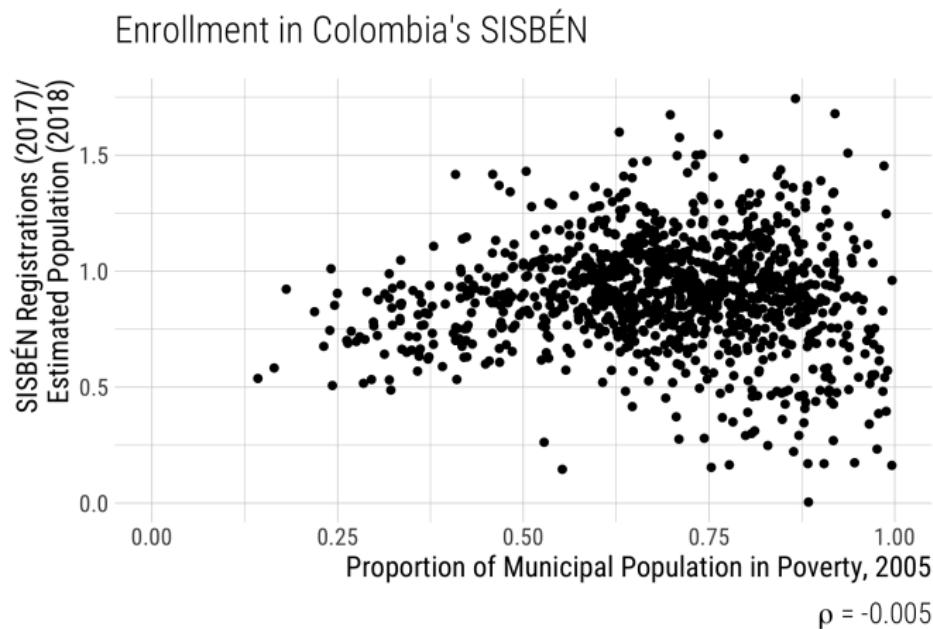
Variation in Administration: An empirical puzzle

Municipal enrollment in a national **means-testing** program:



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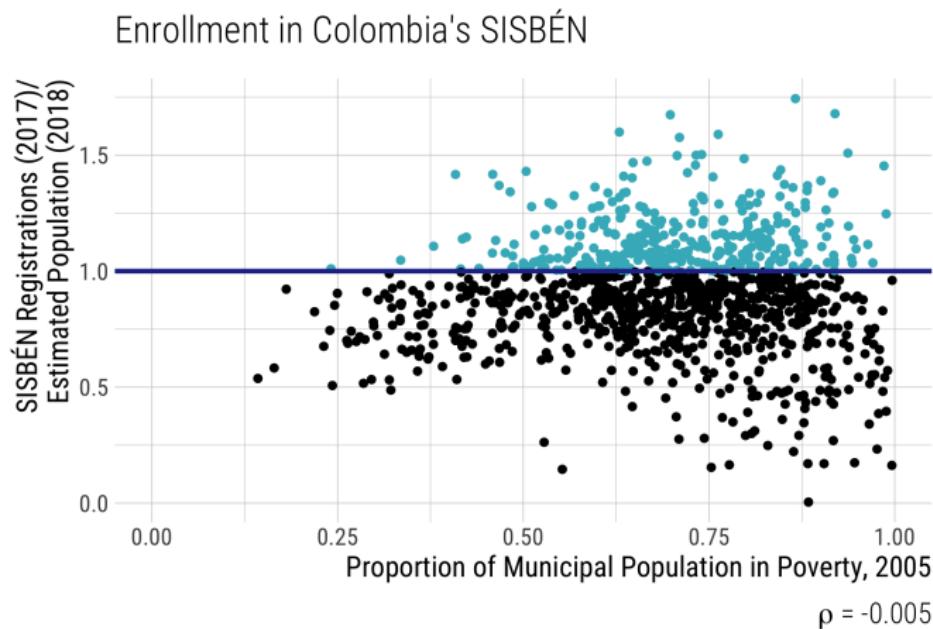
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Data: Departamento Administrativo Nacional de Estadística and Departamento Nacional de Planeación.

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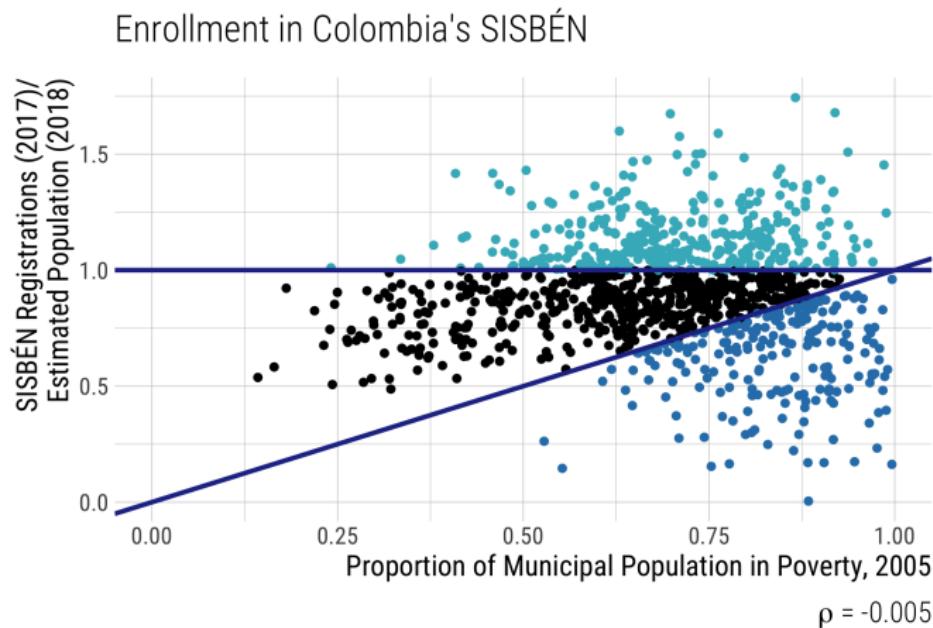
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Why an experiment?

1. Want to look at how bureaucrats' actions condition access to social programs:
 - ▶ **Audit** gathers behavioral outcomes directly.
2. **Identify** (measure) bias.
3. (Experimental and observational variation in other parameters of model allows for mechanism tests.)

Ethics of Experiment

Deception:

- ▶ Fake requests for service, deception is necessary for design
- ▶ Cannot ask for consent of bureaucrats
- ▶ Innovation: Create **partnership** with agencies
 - ▶ National Department of Planning (SISBÉN)
 - ▶ Department of Social Prosperity (MFA)
 - ▶ National Department of Public Administration (all bureaucrats)

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Waste of resources:

- ▶ Time of bureaucrats, phone use (minutes)
- ▶ Innovation: Careful consideration of **scale** with partners

Logistics of Experiment

Mode of petitions:

- ▶ National scale sought
- ▶ Feasible options: email, phone, or letters
- ▶ **Phone**: allows for interaction of petitioners and bureaucrats
- ▶ Recorded all calls (legal in Colombia)

Logistics of Experiment

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Avoid **detection**:

- ▶ How **weird** will these calls be? – sampling of municipalities
- ▶ Avoid **repetition** of calls, materials – variation in treatments
- ▶ Hired trained **actresses** to standardize calls

Sampling of Entities

Conflicting **Desiderata**:

- ▶ Maximize the amount of within-*alcaldía* variation (\uparrow power)
- ▶ Minimize the probability of detection

Heterogeneous Municipalities



Figure: Taraira, Vaupés (L); Medellín, Antioquia (R)

Sampling: Approach

- ▶ Stratifying on population

Stratum	Population	Sample	SISBÉN	MFA
Large	$\geq 100,000$	all		
Medium	$\in [35,000, 100,000)$	all		
Small	$< 35,000$	400 of 898		

Estimates:

- ▶ **Sample** quantities [here]
- ▶ Municipal-level quantities [companion paper]
- ▶ Population-weighted quantities [companion paper]

Manipulation (#1 of 4): Class

Socioeconomic Class

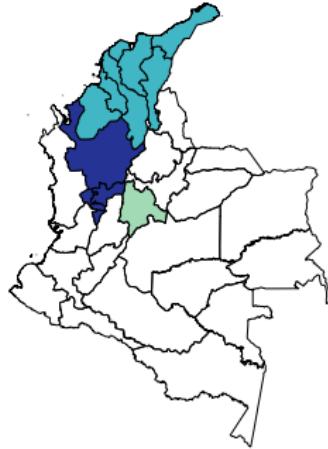
- ▶ Organizing feature of Colombian society
- ▶ At the national level...
 - ▶ **Lower class** refers to lowest ≈ 40 percent
 - ▶ **Lower-middle class** refers to next ≈ 35 percent
- ▶ Class
 - Lower
 - Lower-Middle
- ▶ Communication of class by phone:
 - ▶ Salutations of figures of authority
 - ▶ Vocabulary used
 - ▶ Way of presenting petition
 - ▶ *Identical statement of petition*
- ▶ Double coder compliance rate: **77.5%**

Manipulation (#2 of 4): Regional Accent

Regional Accent

- ▶ 12 regional accents from 3 families
- ▶ **Bogotá, Costeño, and Paisa** accents
- ▶ Spoken by \approx 60 percent of population

- ▶ Class
 - Lower
 - Lower-Middle
- ▶ Regional Accent
 - Bogotá
 - Costeño
 - Paisa



- ▶ Double coder compliance rate: **99.1%**

Manipulation (#3 of 4): Migration Status

Internal Migrant

- ▶ Class
 - Lower
 - Lower-Middle
- ▶ Regional Accent
 - Bogotá
 - Costeño
 - Paisa
- ▶ Internal Migrant
 - Migrant
 - Resident
- ▶ High rates of internal migration:
 - ▶ **Conflict-induced** (often IDPs): 15% of national population registered as IDPs
 - ▶ **Economic** migration: typically rural → urban
- ▶ Communicated via:
 - ▶ **"Migrant"** stated:
 - ▶ "...just arrived here 15 days ago"
 - ▶ **"Resident"** version said nothing
 - ▶ No specification of type, assumption of IDPs
- ▶ Double coder compliance rate: **97%**

Manipulation (#4 of 4): Class

Difficulty of Question

- ▶ Class
 - Lower
 - Lower-Middle
- ▶ Regional Accent
 - Bogotá
 - Costeño
 - Paisa
- ▶ Internal Migrant
 - Migrant
 - Resident
- ▶ Petition Difficulty
 - Easy/Registration
 - Technical

- ▶ Developed with government partners
 - ▶ From training manuals for new hires
 - ▶ Partners defined “**correct**”
- ▶ **Easy** version:
 - ▶ “... how to enter SISBÉN/MFA”
- ▶ **Technical** version:
 - ▶ SISBÉN: “... how to lower SISBÉN score to access a program”
 - ▶ MFA: “... how to change designated parent/guardian of an enrolled child”
- ▶ Double coder compliance rate: **99.3%**

Summary of Design

- ▶ Class
 - Lower
 - Lower-Middle
- ▶ Regional Accent
 - Bogotá
 - Costeño
 - Paisa
- ▶ Internal Migrant
 - Migrant
 - Resident
- ▶ Petition Difficulty
 - Easy/Registration
 - Technical
- ▶ Fully **crossed** all factors
- ▶ $2 \times 3 \times 2 \times 2$ factorial
- ▶ **24** conditions per program
- ▶ **48** total variants of the call
 - ▶ Differences between programs is non-experimental
- ▶ Other randomizations: **enumerator, time** of day, **order** in sequence

Logistics and Implementation:

Implementation

- ▶ 12 confederates; 4 per region
- ▶ **Actresses**: voiced both classes; all variants
- ▶ Rented a call center in Bogotá
 - ▶ Limit background noise
 - ▶ Eliminate geographic references in caller ID
 - ▶ **Record** all calls
- ▶ Confederates filled out an instrument upon completion of every call
- ▶ Later **double entered** by Colombian RAs



Outcome **measures**:

- ▶ **Access** to *alcaldía*:

- ▶ Dispatcher identification
- ▶ Call passed to second official
- ▶ Petition made
- ▶ Call reached program officer

- ▶ **Information** provided in response:

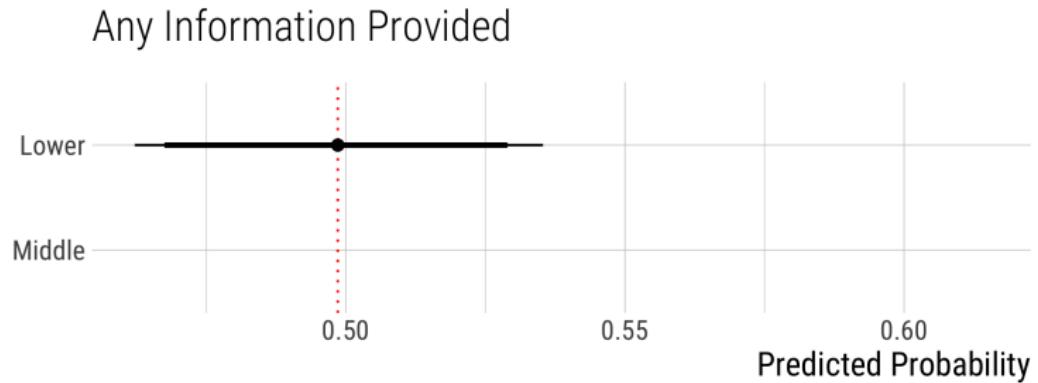
- ▶ Complete, correct response
- ▶ Partial response
- ▶ No information provided
- ▶ *Alcaldía* only
- ▶ Red tape (extra requirements)

Estimation: Identifying Bias

Identifying bureaucratic **bias**:

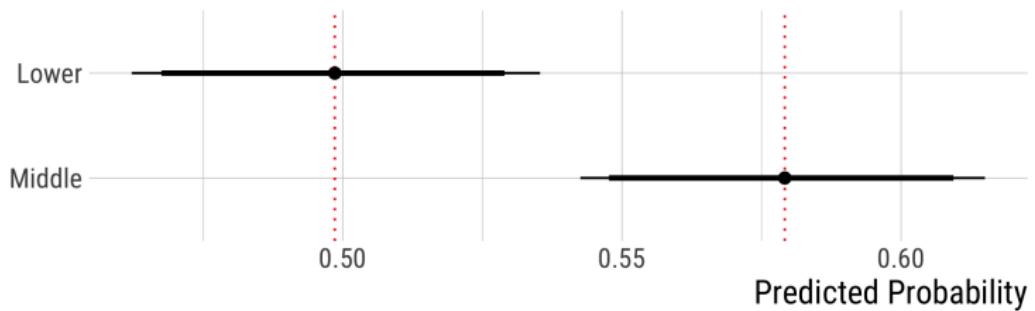
- ▶ Analyzed along the **margins**
- ▶ Estimated with OLS
 - ▶ Average Marginal Component Effect (AMCE):
 - ▶ With inverse probability weighting (IPW)
 - ▶ "Within" Average Marginal Component Effect (AMCE):
 - ▶ With *alcaldía* fixed effects
- ▶ $n = 1194$ in all specifications (unless noted)

Results Preview: Bias in information provision



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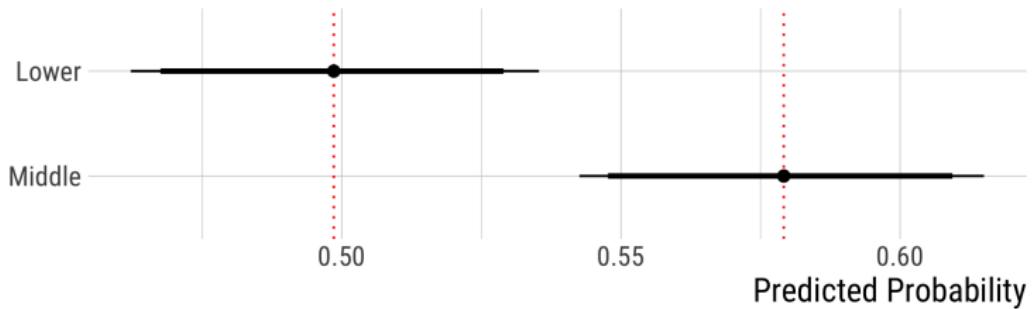
Any Information Provided



$$L \rightarrow M \sim \uparrow 8.1 \text{ p.p., } p < 0.005$$

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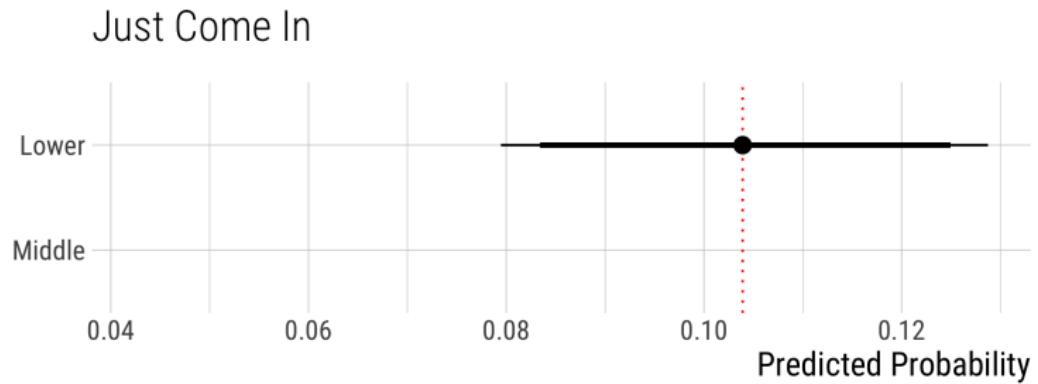
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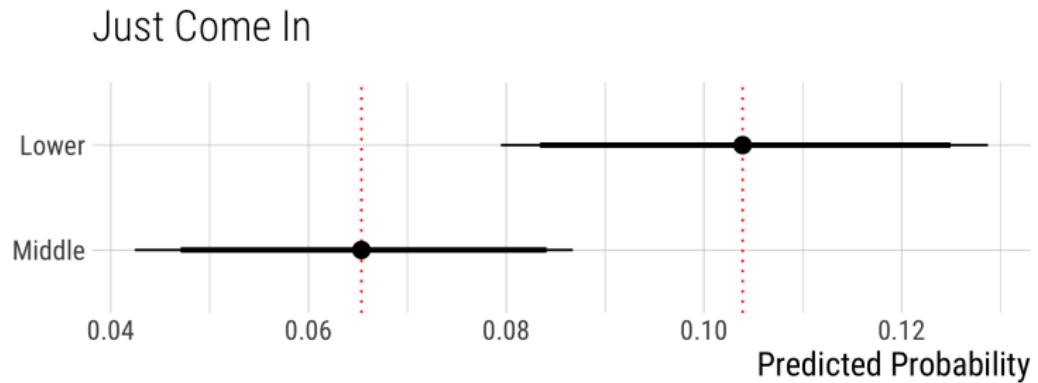
$$L \rightarrow M \sim \uparrow 8.1 \text{ p.p., } p < 0.005$$

Bias: Lower class petitioners receive **less information** than lower-middle class petitioners.

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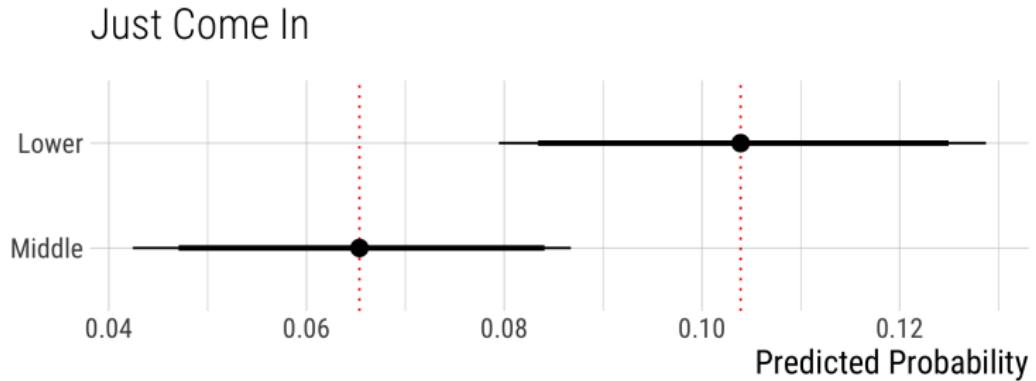


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$L \rightarrow M \sim \downarrow 3.9 \text{ p.p., } p = 0.025$

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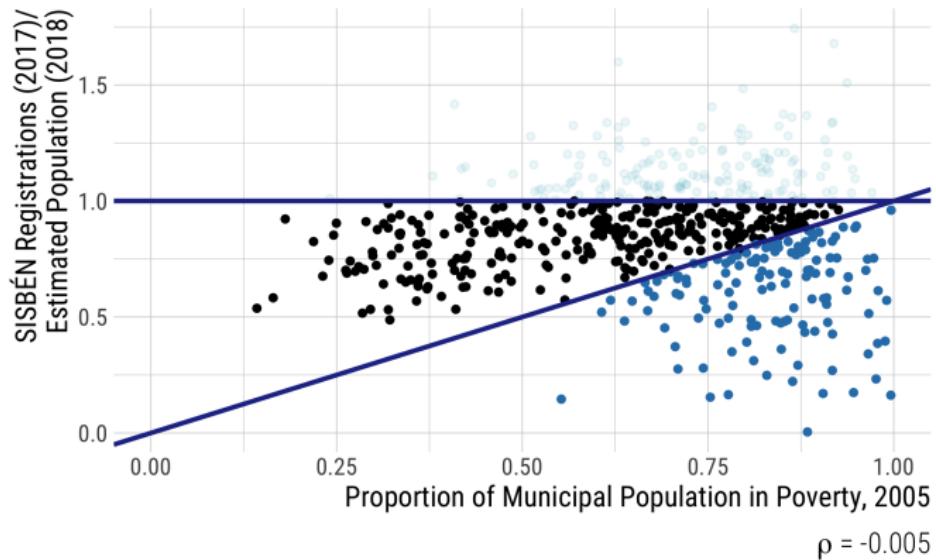
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Bias: Difference in **just come in** response is less than anti-lower class bias in information provision.

Bias and SISBÉN underprovision

- (Plausibly) **intended enrollment**: Enrollment rate \in [Poverty rate, 1]
- **Under-enrolled**: Enrollment rate $<$ Poverty rate

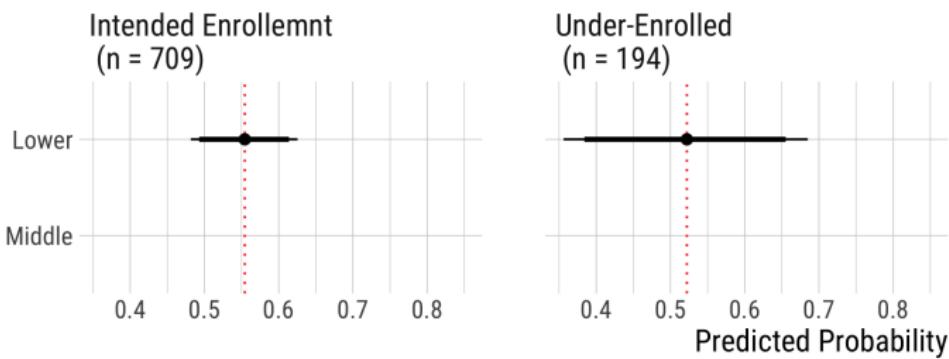
Enrollment in Colombia's SISBÉN in Experimental Municipalities



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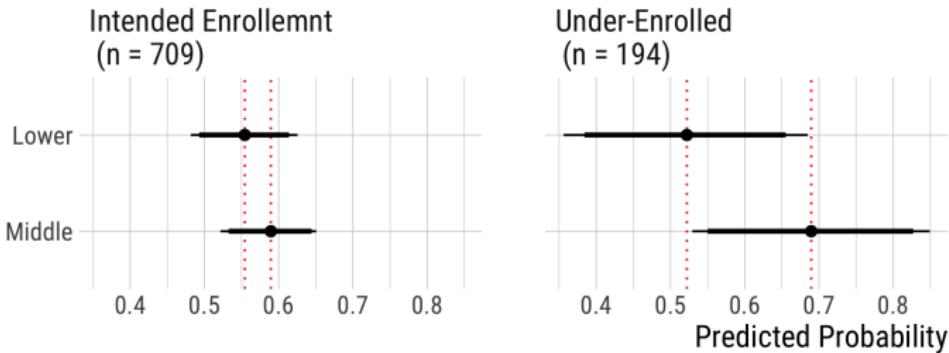
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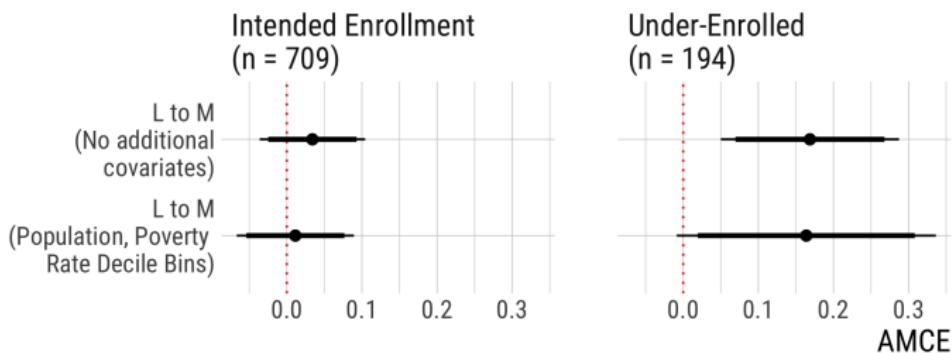
$$L \rightarrow M \rightsquigarrow \uparrow 3.4 \text{ p.p., } p = 0.34 \quad L \rightarrow M \rightsquigarrow \uparrow 16.9 \text{ p.p., } p = 0.02$$

Finding: High levels of anti-poor bias where SISBÉN is **underprovided**.

Bias and SISBÉN underprovision

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- **Under-enrolled**: Enrollment rate < Poverty rate

Any Information Provided



Summary of Findings

- ▶ Bias against the lower class in **information** provision
 - ▶ Occurs in municipalities where SISBÉN is **underprovided**
- ▶ Support for **complaint-driven** mechanism – bias emerges ...
 - ▶ On tasks where political oversight is most likely
 - ▶ In poorer municipalities where differences between lower and lower-middle class are most pronounced

Conclusion: On the Process

► Planning

- ▶ Lots of preparation needed to execute a successful experiment
- ▶ Useful to study the **context** and work with people that know it.
 - ▶ Design would look different elsewhere.

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► Why **audit** experiments?

- ▶ Opens some **black boxes** in governance

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Thank you!

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Garay, C. (2016). *Social Policy Expansion in Latin America*. Cambridge University Press, New York.