Abhit Bhandari:

Connections, Gender, and Access to State-Facilitated Private-Sector Development: Evidence from a Field Experiment in Senegal

---

Tara Slough—NYU

September 15, 2022

Overview

Question: Do co-partisan and male applicants receive preferential treatment from bureaucrats when applying for business permits?

- Answer: No, but certain steps of the process may be smoother/better for favored groups.

Nice contribution: audit experiment of business registration process in Senegal.

Comment #1: Interpretation

1. "Rather than ultimately affecting the receipt of valuable permits, political and social biases operate at the first stage of the application process."
    - Why should we care about biases in processes if outcomes are equal?

Comment #1: Interpretation

1. "Rather than ultimately affecting the receipt of valuable permits, political and social biases operate at the first stage of the application process."
    - Why should we care about biases in processes if outcomes are equal?

2. Are bureaucrats supposed to…
    - Grant all applications, e.g., a permit is an entitlement?
    - Screen applications for some characteristic?

   … implications for interpretation of "bias."

Comment #1: Interpretation

1. "Rather than ultimately affecting the receipt of valuable permits, political and social biases operate at the first stage of the application process."
    - Why should we care about biases in processes if outcomes are equal?

2. Are bureaucrats supposed to...
    - Grant all applications, e.g., a permit is an entitlement?
    - Screen applications for some characteristic?

    ... implications for interpretation of "bias."

3. This is a partial equilibrium finding.
    - In principle, citizens select into applying for permits (maybe businesses).
    - If bias (or perceived bias) drives welfare loss, I suspect it comes through this type of selection, which is outside audit experiments.

Comment #2: Phantom counterfactuals

Bureaucratic processes categorized by sequential decisions that affect subsequent trajectory of case/task/application

- Standard causal estimands are not necessarily identified after first decision.

Comment #2: Phantom counterfactuals

Bureaucratic processes categorized by sequential decisions that affect subsequent trajectory of case/task/application

- Standard causal estimands are not necessarily identified after first decision.

This study:

- Randomization: partisanship or gender of confederate
- Selection: Application deposited successfully

Comment #2: Phantom counterfactuals

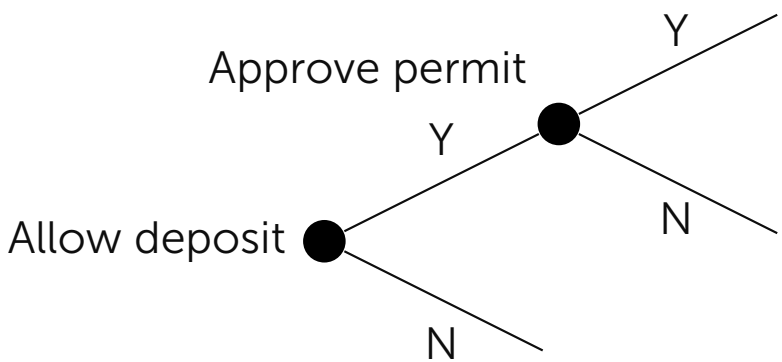
Bureaucratic processes categorized by sequential decisions that affect subsequent trajectory of case/task/application

- Standard causal estimands are not necessarily identified after first decision.

This study:

- Randomization: partisanship or gender of confederate
- Selection: Application **deposited** successfully

Simplified decision tree for most important bureaucratic actions in paper:



Comment #2 ctd: What is identified here?

Table 4: Average treatment effects: Gender

	Application process					Follow-up		
	Duration of visit (minutes) (1)	Number of visits required (2)	Waiting time until helped (3)	Number of people spoken to (4)	Application deposited successfully (5)	Number of follow-up calls required (6)	Site visit requested (7)	Permit conditionally approved (8)
Female applicant	−8.156	0.123*	−29.284***	−0.337***	−0.097*	−0.289**	−0.049	0.011
	(8.444)	(0.076)	(7.411)	(0.138)	(0.065)	(0.142)	(0.077)	(0.064)
Control group mean	93.7	1.18	51.2	1.94	0.839	1.54	0.402	0.287
Control group std. dev.	53.3	0.471	65.9	1.19	0.370	0.899	0.493	0.455
Fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	183	159	183	159	159	136	159	159

ATE

Not the ATE

Before or at selection

Post-selection

Comment #2: So what quantity is being estimated?

Paper imputes "0" for conditional approval when application wasn't deposted.

- $n = 159$ except for number of follow-up calls required(?)
- Imputation is discarding information

Comment #2: So what quantity is being estimated?

Paper imputes "0" for conditional approval when application wasn't deposted.

- $n = 159$ except for number of follow-up calls required(?)
- Imputation is discarding information

Without covariates/FE, you are estimating:

$$\beta = \pi_A SACE + \pi_T \overline{Y}(Z = 1|\theta = T) - \pi_U \overline{Y}(Z = 0|\theta = U),$$

where:

- $SACE$: causal effect among always depositors ← relevant measure of bias
- $\overline{Y}(Z = 1|\theta = T)$: Avg. treated PO among if-treated depistors
- $\overline{Y}(Z = 0|\theta = U)$: Avg. control PO among if-untreated depistors

Comment #2: Why it matters/alternatives

Suppose no women deposit because they are women, so $\pi_T = 0$. Simplifying:

$$\beta = \pi_A SACE - \pi_U \overline{Y}(Z = 0|\theta = U),$$

Comment #2: Why it matters/alternatives

Suppose no women deposit because they are women, so $\pi_T = 0$. Simplifying:

$$\beta = \pi_A SACE - \pi_U \overline{Y}(Z = 0|\theta = U),$$

Two interpretations of $\beta \approx 0$:

1. Among always depositors, there is no bias in permit approval. Men who deposited because they are men never get permits.
2. Among always depositors, women are favored. Some men who deposited because they are men get permits.

Comment #2: Why it matters/alternatives

Suppose no women deposit because they are women, so $\pi_T = 0$. Simplifying:

$$\beta = \pi_A SACE - \pi_U \overline{Y}(Z = 0 | \theta = U),$$

Two interpretations of $\beta \approx 0$:

1. Among always depositors, there is no bias in permit approval. Men who deposited because they are men never get permits.
2. Among always depositors, women are favored. Some men who deposited because they are men get permits.

Alternative strategies for analyzing post-selection outcomes:

- Outcome tests
- Bounding the SACE
- Sensitivity analysis for the SACE

Comment #3: Power woes

Sample size is very small for an audit experiment $n = 159$.

- You were asking them to do a lot, with ethical implications.

Interaction seems deeply, deeply underpowered:

- For a binary outcome, MDES on interaction for a power of 0.8 is $\pm \approx 0.4$.
  - Depending on outcome levels in other conditions, these effect sizes may be impossible.
- No directional prediction or a theoretical rationale for why we should care.
- I would omit this.