Oversight, Capacity, and Inequality

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Citizen complaint systems

- **Definition**: Institution that promotes citizen $\rightarrow$ government information transfer about errors of a bureaucrat.
  - Complaints generate information that a principal can use to identify and remediate bureaucratic errors.
  - Bureaucratic oversight institutions. Prendergast (2003, 2007)

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  - Bureaucratic oversight institutions. Prendergast (2003, 2007)
- Frequent source of citizen/government interaction in democracies and autocracies alike.

Question

- How does the design of bureaucratic oversight institutions affect "who gets what" from the state?
    - Effect of using information from citizens ("fire alarms") on distributive outcomes across a population.

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  - Effect of using information from citizens ("fire alarms") on distributive outcomes across a population.
- Two outcomes of interest:
  - Policy implementation capacity.
  - Inequality in access to services.

Approach

1. "Design of oversight" $\rightarrow$ game theoretic model
    - Oversight institutions as a contract specifying how a politician will monitor bureaucrat and punish errors.

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2. "Who gets what?" $\rightarrow$ examine implications of equilibrium contracts in different societies:
    - Citizen propensity to complain
    - Bureaucratic quality

Preview of Results

- Relative to a contract that does not incentivize citizens to make complaints, one that incentivizes...
  - Increases inequality in access to services.
  - Has an ambiguous effect on implementation capacity.
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  - Increases inequality in access to services.
  - Has an ambiguous effect on implementation capacity.
    - Depends on what share of citizens induced to complain.
- Broader takeaways:
  - Policy implementation is distributive.
  - Effects of institutions premised on citizen participation depend on who participates.

I. Empirical Motivation

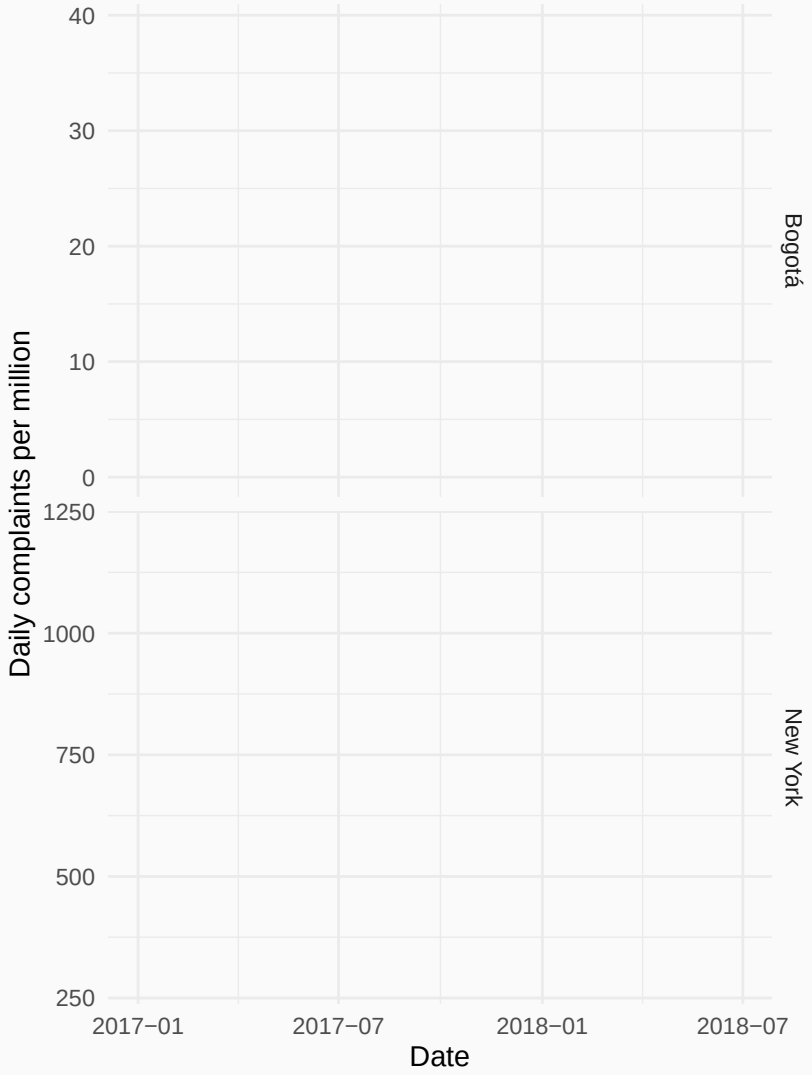
Stylized facts

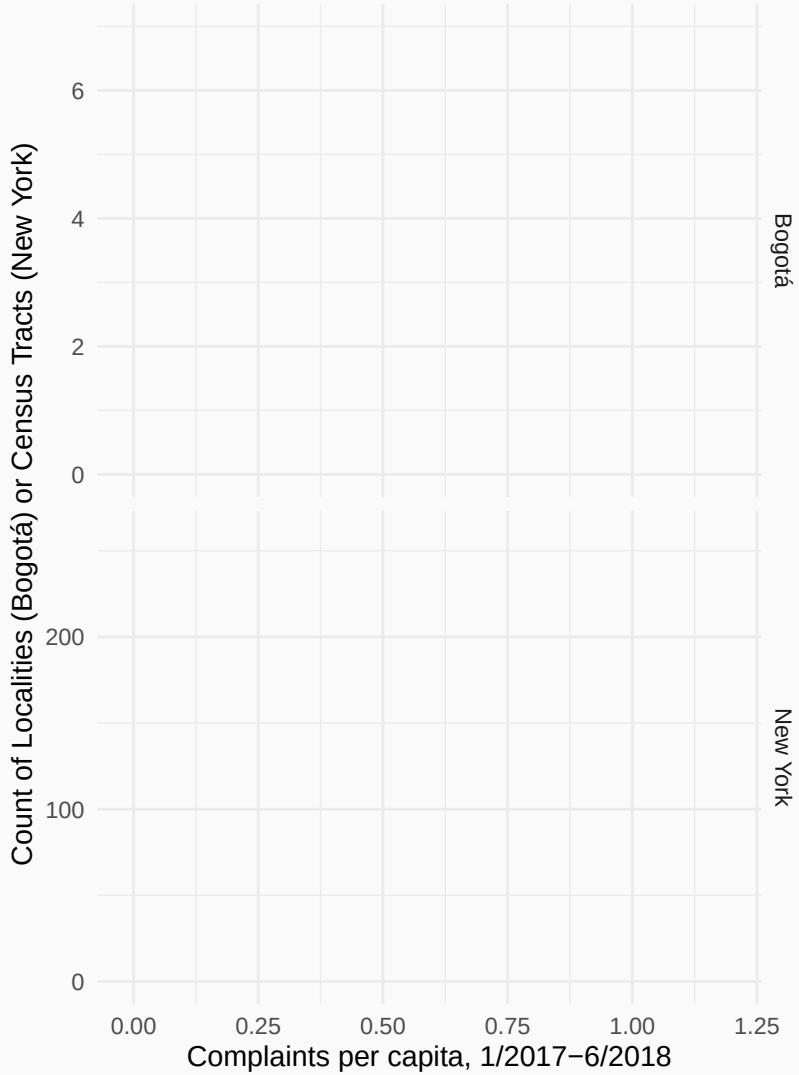
- Literature on responses to citizen complaints suggests variation in:
    1. Stakes of complaints for bureaucrats (Pan and Chen, 2018)
    2. Rates of redress by politicians (Chen et al.,2015; Christensen and Ejdemyr, 2020; Dipoppa and Grossman, 2020; Hamel and Holliday, 2019)
    3. Citizen uptake/rates of complaint-making, even holding institutional features fixed (Hamel and Holliday, 2019; Slough, 2020)

- Substantial variation in design of complaint processes across policy areas *within* country.

- In developing countries, donors push oversight systems with more citizen participation.

Selection into complaint-making





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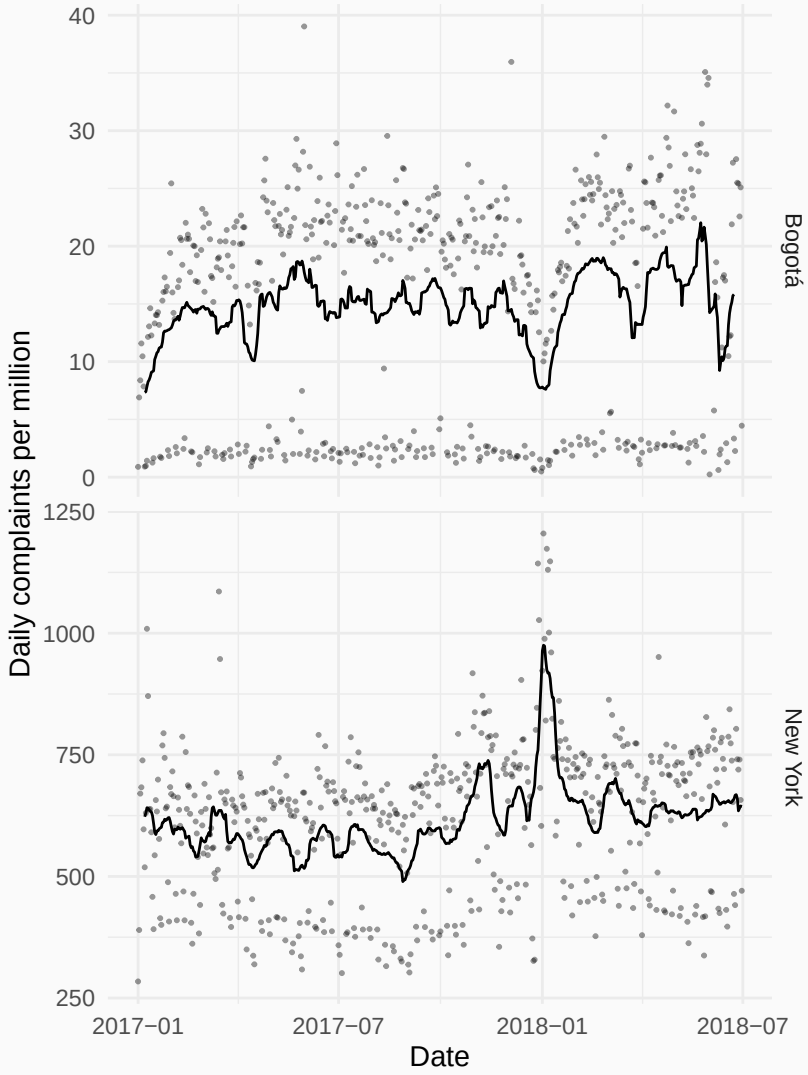

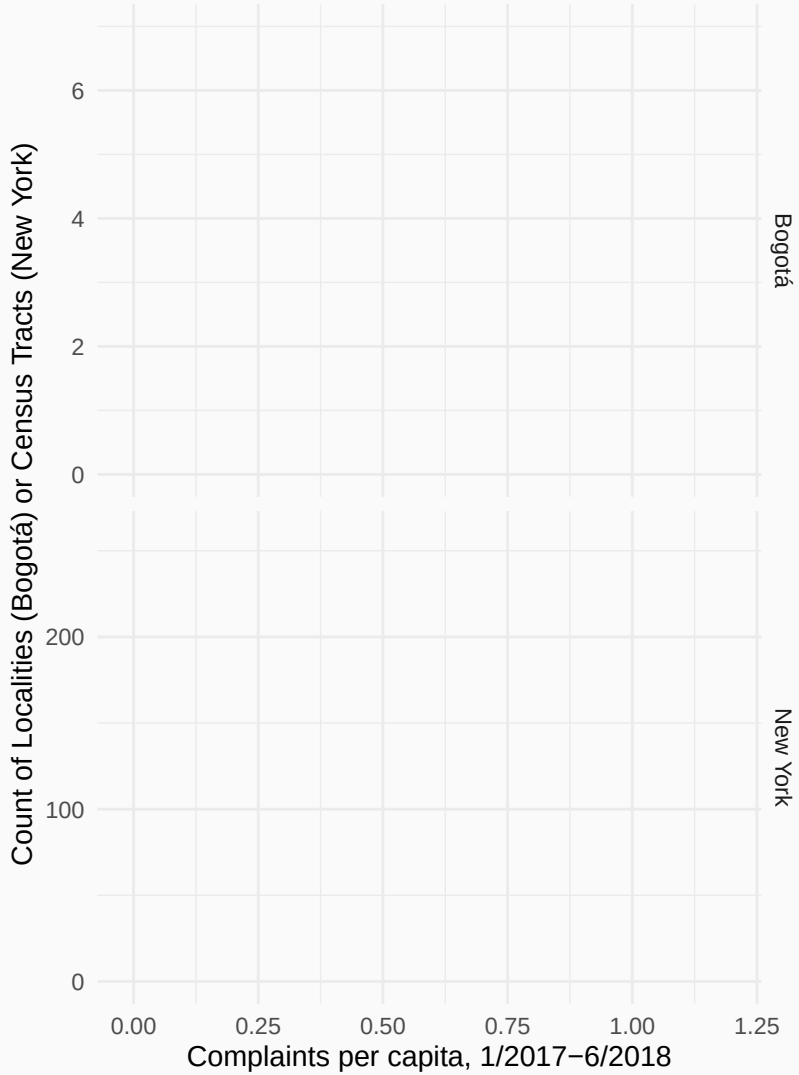

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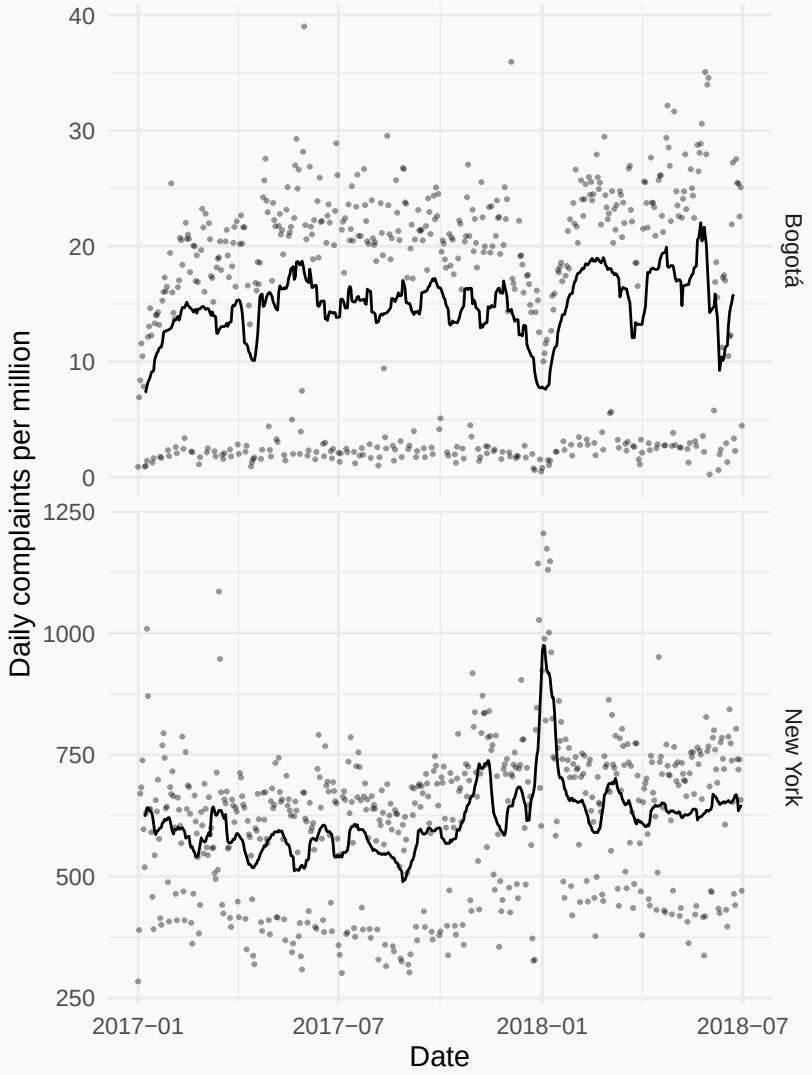

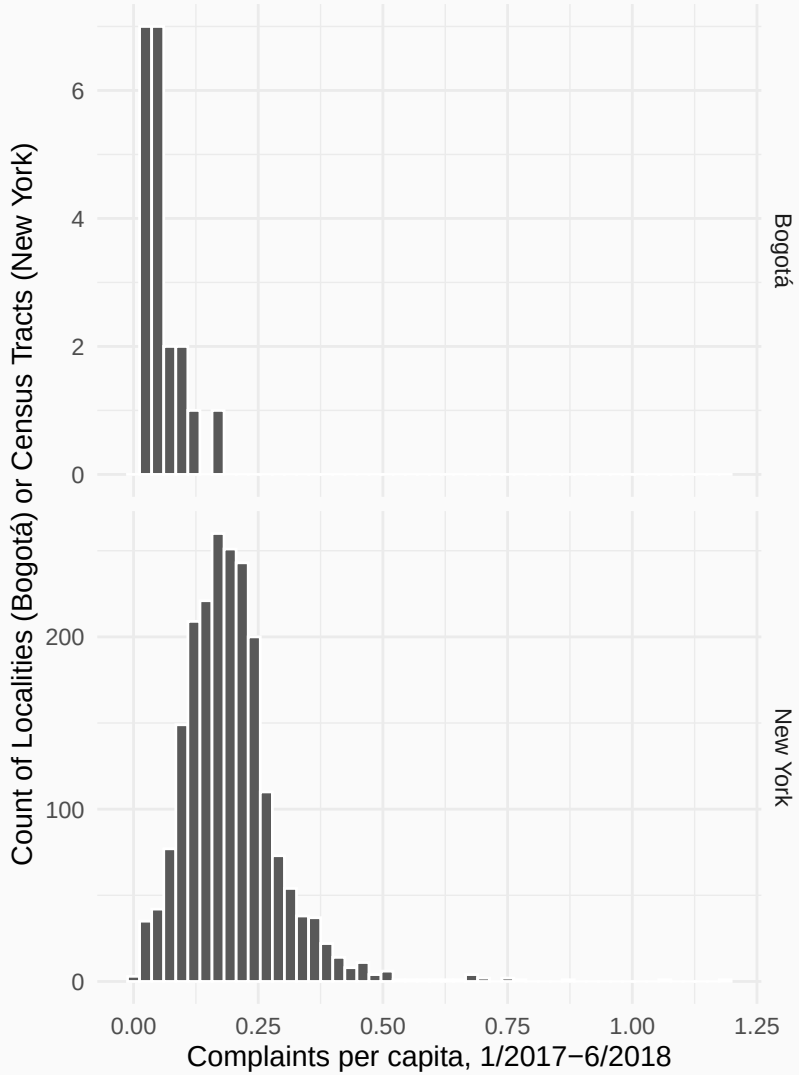

II. Model

The basics

- Adaption of Prendergast (2003).
- 3 actors: Citizen, Politician, Bureaucrat.
- State is a citizen characteristic: $\omega \in \{0, 1\}$, $\Pr(\omega = 1) = \frac{1}{2}$.
  - Substantively: eligible or ineligible for the service
  - Private information of the citizen
- Service allocation, $a^\dagger \in \{0, 1\}$, intended to match ω:
  - Implementation capacity:

$$Y = \mathbb{I}[\omega = a^\dagger]$$

Service provision

- Bureaucrat tasked with accurately allocating service (matching citizen's state).
  - Chooses effort, $e \in \{0, 1\}$. $e = 1$ incurs cost normalized to 1.
  - Determine an allocation, a. $\Pr(a = \omega) = q + pe$.
    - $q \in [\frac{1}{2}, 1]$: bureaucratic quality
    - $p \in [0, 1 - q]$: return to bureaucratic effort

- Citizen observes a, decides whether to complain $c \in \{0, 1\}$ at cost $\theta \geq 0$.
  - θ is common knowledge, independent of ω.
  - Think of the "Karens" of the world.

Contract

- Politician monitors bureaucrat according to contract:
  - Monitoring probabilities $\rho(a, c) \in [0, 1]$, at cost $\frac{\rho(a,c)^2}{2}$
    - Monitoring reveals errors $\rightarrow$ allocation reversed, bureaucrat punished.
    - Ultimate service allocation:

$$a^{\dagger} = \begin{cases} 1 - a & \text{if } a \neq \omega, \text{ monitored by } P \\ a & \text{else.} \end{cases}$$

  - Penalty, $\Delta \in [0, \overline{\Delta}]$ for the bureaucrat if $a \neq \omega$.
    - For this talk: $\overline{\Delta} \in \{0, \infty\}$, inverse measure of bureaucratic insulation.

Utilities

- Bureaucrat:

$$U_B = -\Delta \underbrace{\mathbb{I}[a^\dagger \neq a]}_{\text{reversed}} - e$$

- Citizen:

$$U_C = a^\dagger - \theta c$$

- Politician:
  - Maximizing capacity for citizen of type $\theta = \theta_P$.
    - Would a citizen of type θ_P complain?

$$E[U_P|a, c] = \begin{cases} 1 - \frac{\rho(a,c)^2}{2} & \text{if } \omega = a \\ \rho(a, c) - \frac{\rho(a,c)^2}{2} & \text{if } \omega \neq a \end{cases}$$

Ex-ante expected utility

Sequence

1. Politician chooses contract.
2. The state is realized and revealed only to the citizen.
3. Bureaucrat chooses effort level and allocates the service.
4. Citizen observes allocation, decides whether to complain.
5. Politician monitors according to the contract. If an error is detected, it is reversed and the bureaucrat is penalized.
6. Utilities are realized.

III. Optimal Contracts

Citizen complaints

- Citizen's complaint strategy:
  - If $\omega = 0$, the citizen will never complain.
  - If $\omega = 1$ and $a = 0$, the citizen complains if:

$$\theta \leq \underbrace{\rho(0,1)}_{\text{w/ complaint}} - \underbrace{\rho(0,0)}_{\text{w/o complaint}}$$

  - Implication: P learns state if only if:
    1. Bureaucrat allocated $a = 0$.
    2. Citizen is "legible:" $\theta \leq \rho(0,1) - \rho(0,0)$.

Bureaucrat's allocation

- Bureaucrat's effort, allocation strategy:
  - B exerts effort, exert $e = 1$ if:

$$\Delta \geq \frac{2}{p(\rho(0, c) + \rho(1, c))}$$

  - "Truth telling" problem manifests in two forms. $\Delta > 0$ introduces the possibility that B:
    1. Grants service to all legible citizens Prendergast (2003).
    2. Denies service to all illegible citizens.

Optimal Contracts

- Two qualitative features of contracts:
  - Effort incentives $\rightarrow$ will bureaucrat exert effort?
    - Requires sufficient Δ.
  - Information transfer $\rightarrow$ will any citizen complain?
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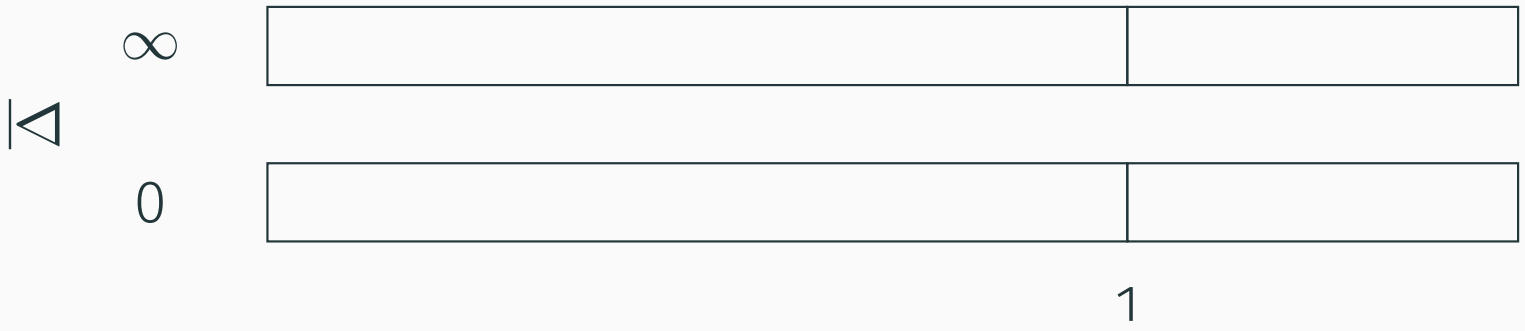

θ_P: Politician's type

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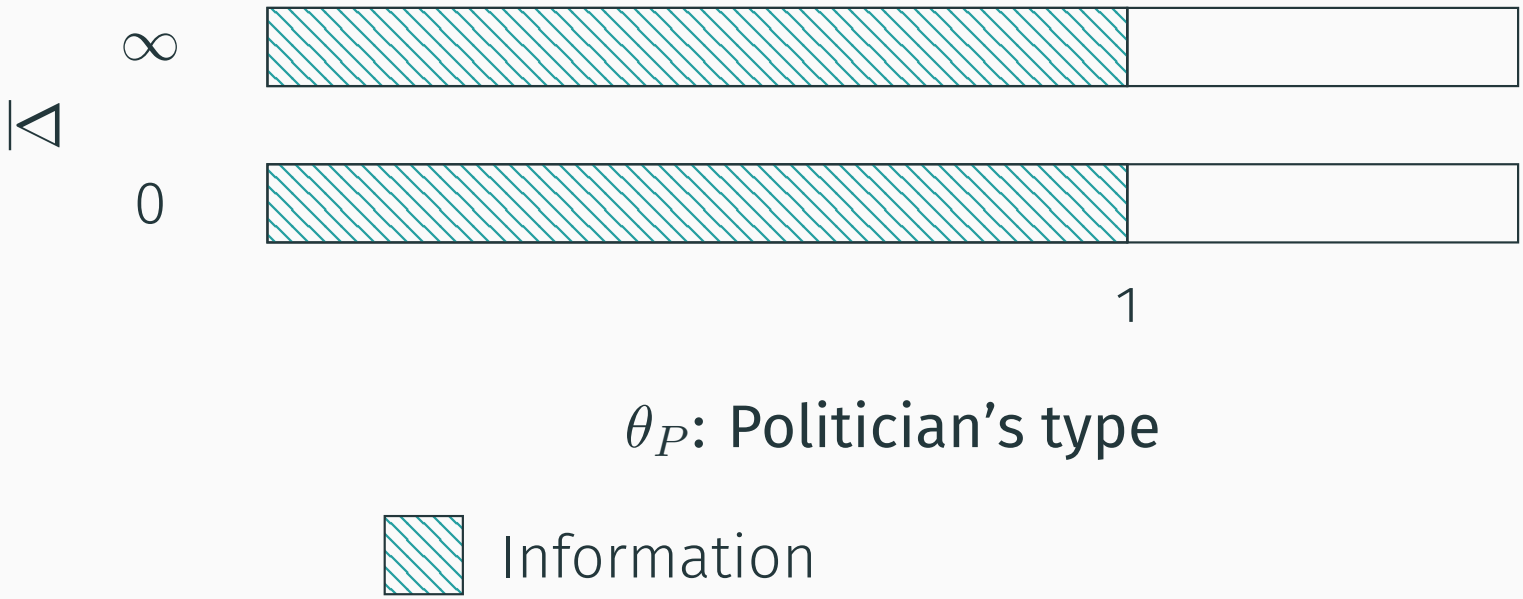

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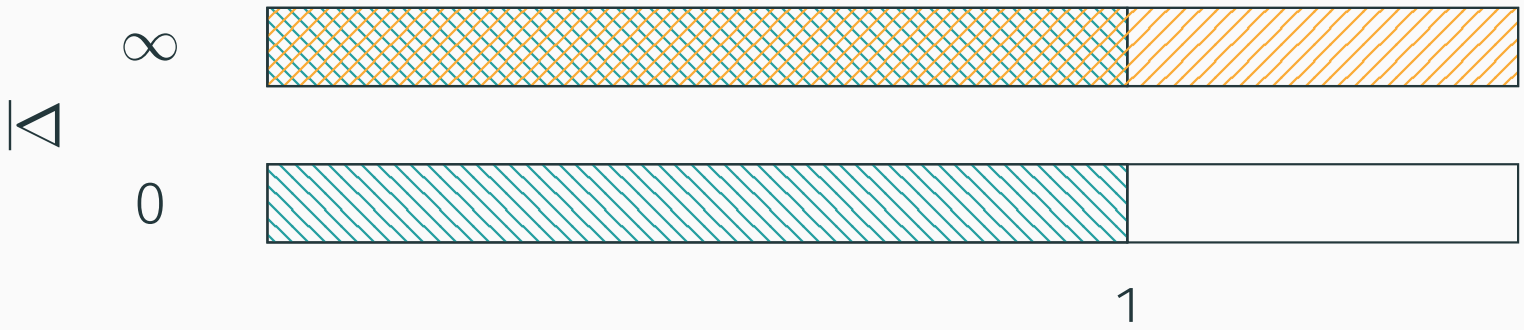

IV. Distributive Consequences

Overview

- Implications of contract for
  - Implementation capacity: Aggregate ability to match service to eligibility.
  - Inequality: Differences in receipt of service across population (net of eligibility).

- Societies vary in distribution of cost of complaint, θ:
  - $\theta \sim f(\cdot)$ with cdf $F(\cdot)$, where $F(0) = 0$
  - Will define the share of "legible" citizens under contract $\rightarrow$ those that would complain if not granted the service when eligible.

Implications for Capacity

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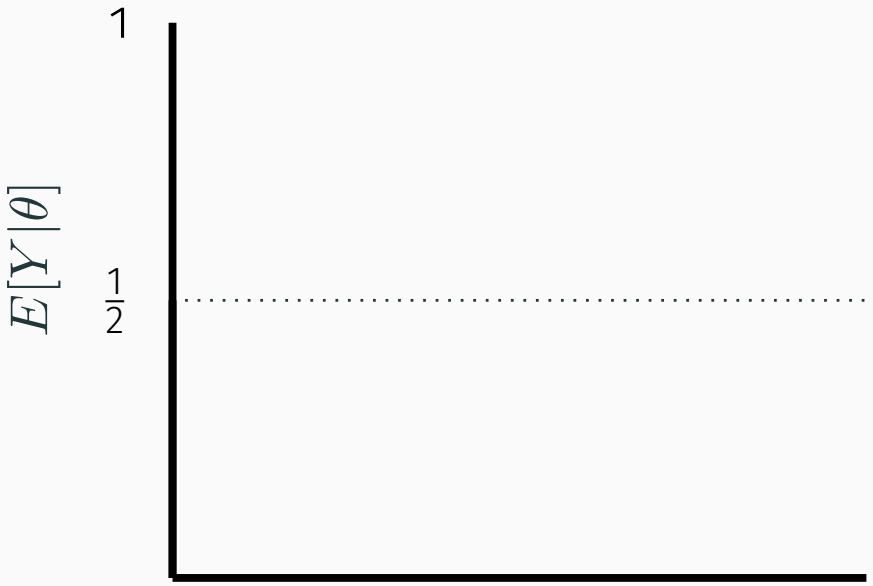

$F(\theta)$: CDF of citizen type

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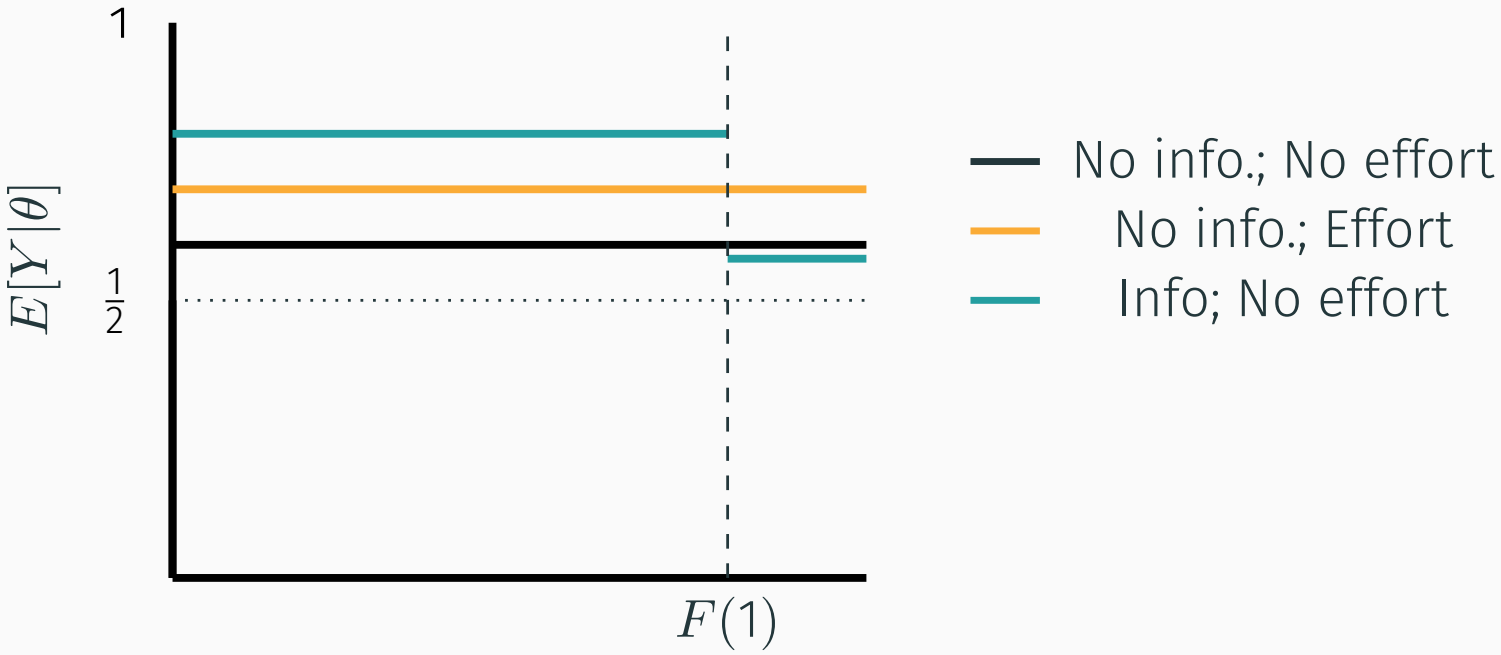

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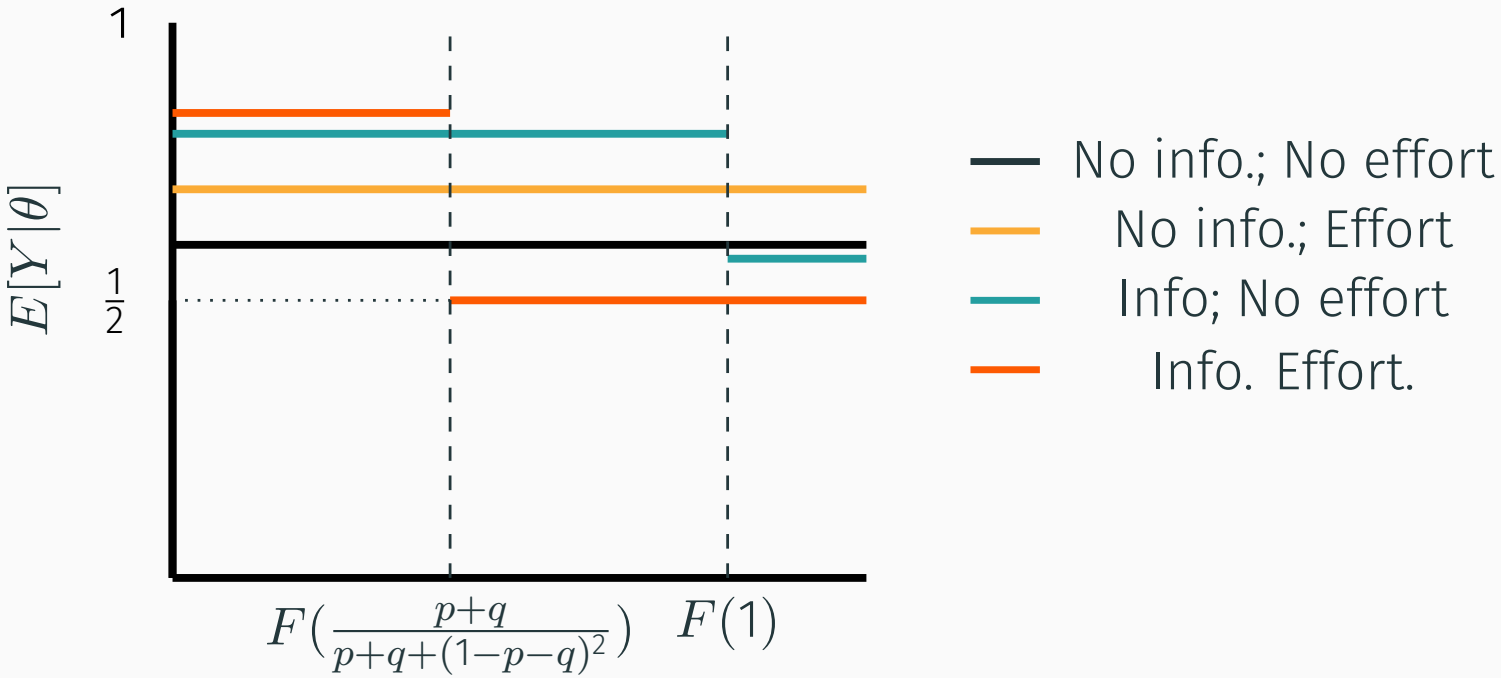

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Implications for Capacity

- Information transfer has ambiguous effect on capacity
  - If enough of population is legible $\rightarrow$ weakly $\uparrow$ capacity.
  - If not $\rightarrow \downarrow$ capacity.
- Ambiguous effect occurs because "illegible" receive worse service than they would under a contract with only police patrols.

Implications for Inequality

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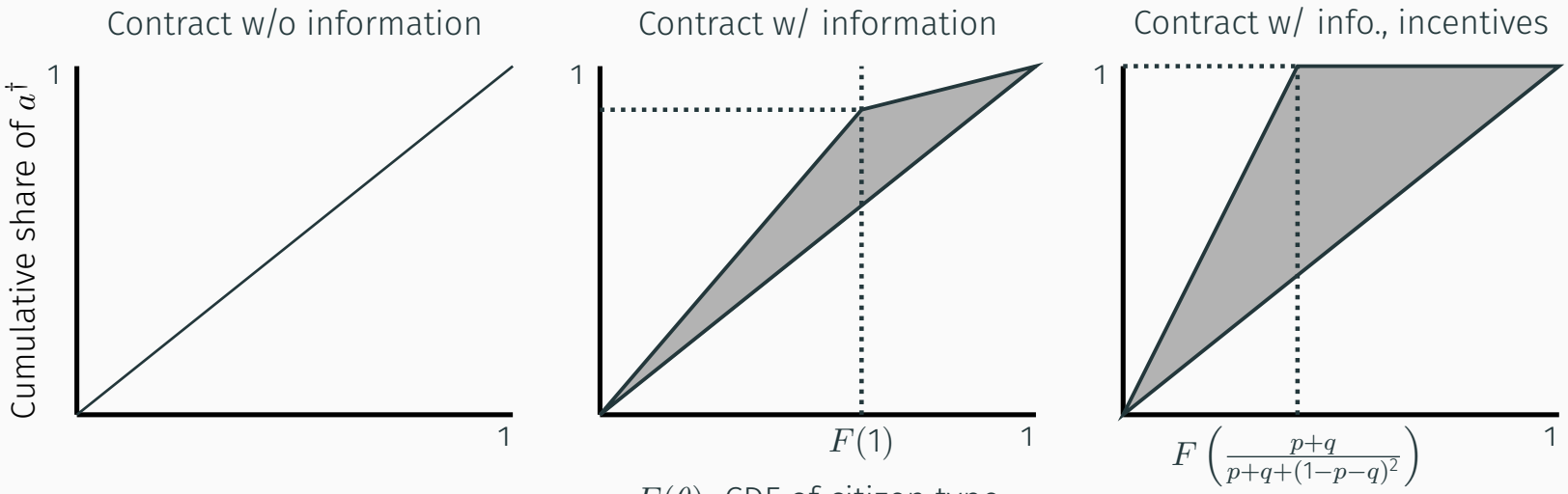

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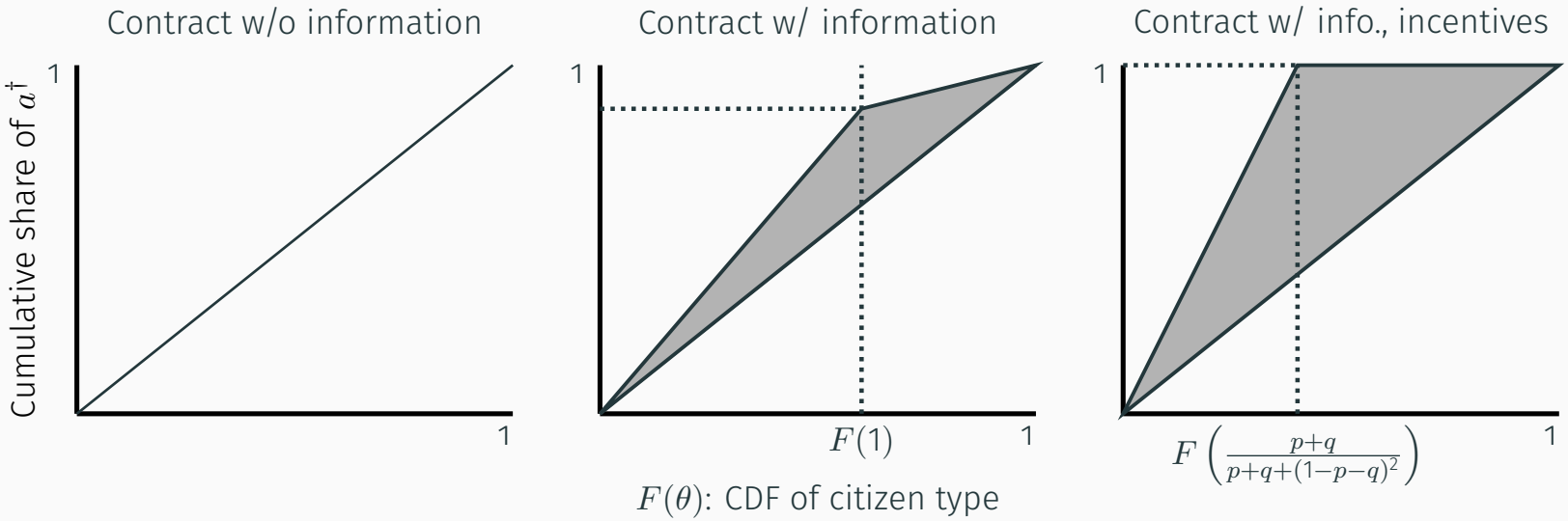

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- For any $F(1) < 1$, use of information generates inequality.
  - Inequality higher with information + incentives than with information alone.

V. Discussion

Summary

- Relying on citizen complaints (information) to remedy bureaucratic errors:
  - Introduces inequality in service provision when not all can complain, can reduce capacity as well.
  - Magnitude of effects relies on underlying distribution of costs of complaint in population.
- Design of bureaucratic oversight influences “who gets what.”

Broader Takeways

- Policy implementation has distributive consequences.
  - Service here is targeted, but not particularistic.
- Inequalities can be generated by efforts to expand state capacity.
  - May reconcile conflicting claims about the consequences of building capacity.

Thank you!

Email: tara.slough@nyu.edu

Paper: http://taraslough.com/assets/pdf/oci.pdf

Politician's *ex-ante* expected utility

$$E[U_P] = \underbrace{\frac{1}{2}}_{\omega=1}\left[\underbrace{(q+pe)}_{a=1}\left(1-\frac{\rho(1,c)^2}{2}\right)+\underbrace{(1-q-pe)}_{a=0}\left(\rho(0,c)-\frac{\rho(0,c)^2}{2}\right)\right]+$$
$$\underbrace{\frac{1}{2}}_{\omega=0}\left[\underbrace{(q+pe)}_{a=0}\left(1-\frac{\rho(0,c)^2}{2}\right)+\underbrace{(1-q-pe)}_{a=1}\left(\rho(1,c)-\frac{\rho(1,c)^2}{2}\right)\right]$$