# Revealed and Concealed Repression

**Maria Titova**
Vanderbilt

**Nathan Canen**
Warwick

**Emily H. Ritter**
Vanderbilt

**Mehdi Shadmehr**
UNC

January 3, 2026

# The Global Challenge of Mitigating Repression

- The international community spends significant resources in the form of sanctions, aid, or soft power to mitigate repression:

  - Global Magnitsky Human Rights Accountability Act of 2016

  - Foreign Assistance Act of 1961 (section 502B)

  - Leahy laws

  - World Bank's Human Rights trust fund

  - European Union's Human Rights and Democracy Thematic Programme

  - World Bank reduces aid to countries shamed by the UN Human Rights Commission

  - US Millennium Challenge Corporation incorporates **Freedom House indices** into its criteria to determine a country's eligibility for assistance

  - Canada's Country Indicators for Foreign Policy project behaves similarly

# Measuring Repression

- **Regimes routinely conceal acts of repression**:

    - 1988 prison executions in Iran

    - 1989 Tiananmen Square massacre

    - Removing social media posts about arrests

    - Punish dissidents for fabricated non-political charges

    - Use stealth torture techniques even under the Brazilian military regime: "press hard without leaving marks"

## Measuring Repression

- **Regimes routinely conceal acts of repression**:

  - 1988 prison executions in Iran

  - 1989 Tiananmen Square massacre

  - Removing social media posts about arrests

  - Punish dissidents for fabricated non-political charges

  - Use stealth torture techniques even under the Brazilian military regime: "press hard without leaving marks"

- **Observed repression is a distorted measure of total repression and its trend**

  1. Total repression can be significantly higher than observed repression alone

  2. The trends of total and observed repression can even go in **opposite** directions

## Contribution

1. Develop a model of strategic repression and its concealment

2. Show that the strategic concealment can result in a **negative correlation** between observed and total repression

3. Show how concealed repression can be recovered from observable variables by leveraging equilibrium relationships

4. Provide a proof of concept for the empirical implementation of our approach

# Model

## Theoretical Setting: Informational Environment of Autocracies

- Regimes routinely conceal repression

    - Focusing on deterrence and signaling strength is misplaced

- The public is uncertain about whether there are organized activists. Observed repression signals the presence of organized activists

- The public is uncertain about whether the activists' goals are beneficial or harmful, or whether they are benevolent or selfish and self-serving

- Repression of dissidents (the use of coercive force by the state) is not generally viewed negatively by the public. . . ; the state *should* sometimes use coercion, though only when it is welfare-improving

## Model

- With probability $\gamma$, there is a window of opportunity and a non-strategic activist will mobilize

- The regime observes the activist and decides whether to concede or repress the activist, and whether to conceal that repression at a cost $c \sim H$

- If the regime concedes, the game ends

- If the regime represses, then the public decides whether to protest at a cost $\rho \sim G$
  - either after observing repression, or after observing no news
  - protest succeeds iff an activist has mobilized and the regime has not conceded

# Model

- With probability $\gamma$, there is a window of opportunity and a non-strategic activist will mobilize

- The regime observes the activist and decides whether to concede or repress the activist, and whether to conceal that repression at a cost $c \sim H$

- If the regime concedes, the game ends

- If the regime represses, then the public decides whether to protest at a cost $\rho \sim G$
    - either after observing repression, or after observing no news
    - protest succeeds iff an activist has mobilized and the regime has not conceded

- The activist is good $(G)$ for the public with probability $q$, and is bad $(B)$ for the public with probability $1 - q$

- The regime knows the activist's type and its concealment cost $c$, but not the public's protest costs $\rho$. The public's information is the reverse

# Model

- Regime's payoff

  1. following public protest is normalized to 0

  2. under the status quo is 1

  3. after conceding to a good activist is $1 - \alpha_G$, and to a bad activist is $1 - \alpha_B$, where $0 < \alpha_G < \alpha_B < 1$

- Public's payoff from the status quo is normalized to 0; under a good activist is $\beta_G$ and under a bad activist is $\beta_B$, where $\beta_B < 0 < \beta_G$

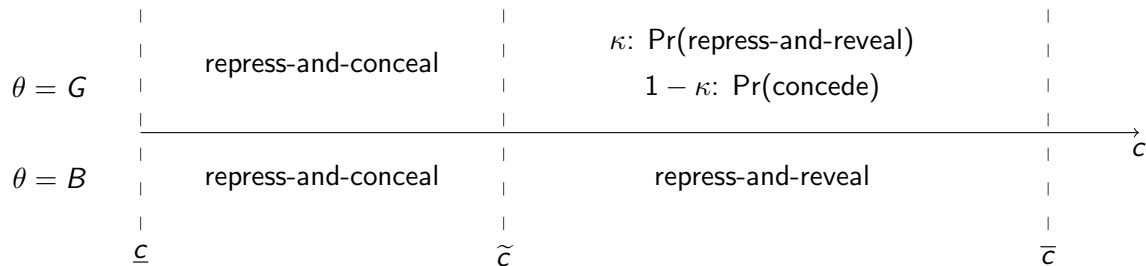- We solve for PBE with D1

# Analysis

- **Public:**

  - Upon observing repression, the public knows that it can overturn the status quo, but it must assess whether it wants to risk siding with potentially bad activists against the regime

  - Upon receiving no news, the public remains uncertain whether there is a window of opportunity for the activists or if the regime repressed organized activists and concealed that repression

- **Regime:**

  - For the regime, a costly concession is the safe choice compared to the risk of repression

  - Upon repression, concealment obscures the presence of an organized activist at a cost

## Equilibrium

| | | | |
|---|---|---|---|
| $\theta = G$ | repress-and-conceal | $\kappa$: Pr(repress-and-reveal) $1 - \kappa$: Pr(concede) | |

$\theta = B$     repress-and-conceal     repress-and-reveal        → $c$

$\underline{c}$                  $\widetilde{c}$                  $\overline{c}$

$$\text{Pr (revealed repression)} = (\kappa q + 1 - q)(1 - H(\widetilde{c}))$$

$$\text{Pr (concealed repression)} = H(\widetilde{c})$$

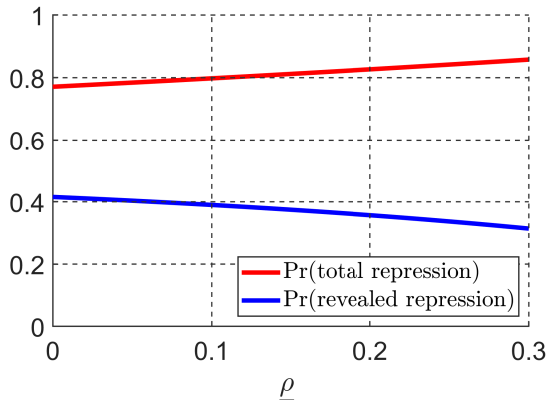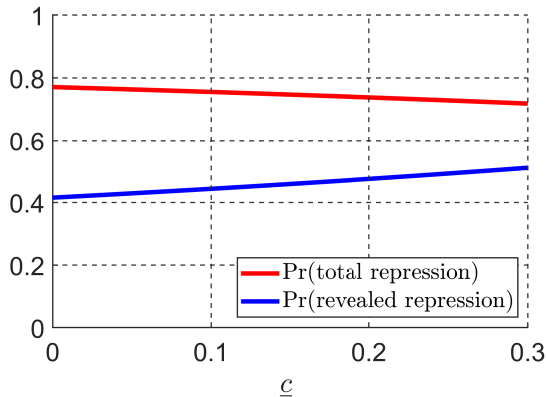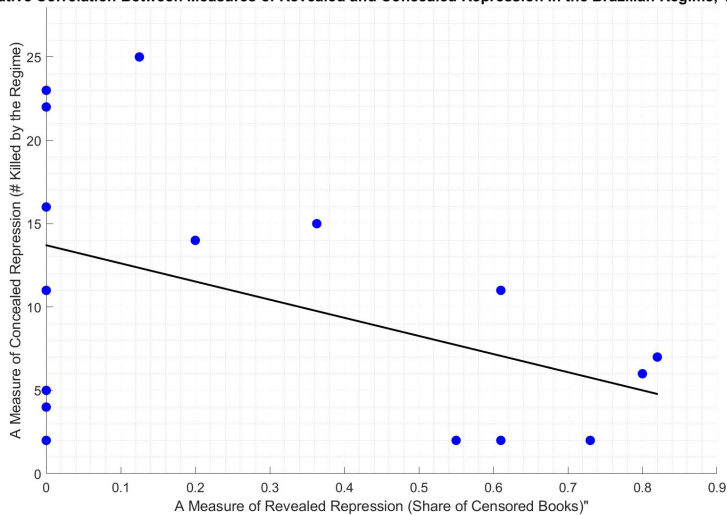# Distortion in Measurement of Trend



Figure: Left Panel: $G = U[0, 1]$ and $H = U[\underline{c}, 1]$; Right Panel: $G = U[\underline{\rho}, 1]$ and $H = U[0, 1]$.

- Negative correlation between total and revealed repression. Basing analysis or policy on the observable revealed repression can lead to perverse outcomes

# Distortion in Measurement: Negative Correlation



Negative Correlation Between Measures of Revealed and Concealed Repression in the Brazilian Regime, 1964-1979

## Identification

- A (conditional) measure of total repression:

$$\Pr(\text{total repression}) = \Pr(\text{revealed repression}) + \Pr(\text{concealed repression})$$

- The researcher observes the incidence of revealed repression and can estimate $\Pr(\text{revealed repression})$

- The researcher cannot observe the incidence of concealed repression and cannot estimate $\Pr(\text{concealed repression})$

- If we had $\kappa$ and $q$ then we could recover $\Pr(\text{concealed repression})$ from $\Pr(\text{revealed repression})$. In fact, measuring the public's beliefs before repression $q$, and after repression $q'$ is sufficient: $\frac{q'}{1-q'} = \frac{q}{1-q}\kappa$

## Identification

In any equilibrium,

$$\Pr(\text{total repression}) = 1 - \frac{q - q'}{1 - q} \; \Pr(\text{revealed repression})$$

## Identification

In any equilibrium,

$$\Pr(\text{total repression}) = 1 - \frac{q - q'}{1 - q} \; \Pr(\text{revealed repression})$$

- In terms of the primitives:

$$\Pr(\text{total repression}) = 1 - \frac{q\beta_G + (1-q)\beta_B - G^{-1}(\alpha_G)}{\beta_G - G^{-1}(\alpha_G)}(1 - H(\widetilde{c}))$$

where $\widetilde{c}$ is the unique solution to

$$\frac{\gamma H(\widetilde{c})}{\gamma H(\widetilde{c}) + 1 - \gamma} \left( q\beta_G + (1-q)\beta_B \right) = G^{-1}(\alpha_G - \widetilde{c}).$$

- Caution: one cannot arbitrarily manipulate $q'$ and $\Pr(\text{revealed repression})$, because they are endogenous equilibrium objects. For example, when $c \approx 0$ and $\alpha_G$ is large, Regime almost always represses and conceals that repression: $\Pr(\text{total repression}) \approx 1$ and $\Pr(\text{revealed repression}) \approx 0$

## Measuring Public Opinion

- $q$ and $q'$ are the likelihoods the public assigns to the event that the activist's success is beneficial to the public, before and after observing repression, respectively

- They can be recovered from carefully designed surveys. Researchers regularly run surveys in autocracies:

- There is a large literature on public opinion in dictatorships:

  - institutionalized cross-national surveys: AmericasBarometer, AfroBarometer, ArabBarometer, AsianBarometer, World Values Survey
  - Country-specific surveys: Russia, Iran, Saudi Arabia, China

# Measuring Public Opinion

- $q$ and $q'$ are the likelihoods the public assigns to the event that the activist's success is beneficial to the public, before and after observing repression, respectively

- They can be recovered from carefully designed surveys. Researchers regularly run surveys in autocracies:

- There is a large literature on public opinion in dictatorships:

  - institutionalized cross-national surveys: AmericasBarometer, AfroBarometer, ArabBarometer, AsianBarometer, World Values Survey
  - Country-specific surveys: Russia, Iran, Saudi Arabia, China

- Meanwhile, as a proof-of-concept, (1) we plan to use public opinion data from Russia (Levada, **VCIOM**, RES), and (2) possibly cross-national settings

# Preliminary Correlations in Russia: $q' < q$

|                          | Civilian Targeting (lag) | Fatalities (lag) | Approval–Opposition |
|--------------------------|--------------------------|------------------|---------------------|
| Civilian Targeting (lag) | 1.0000                   |                  |                     |
| Fatalities (lag)         | 0.4872                   | 1.0000           |                     |
| Approval–Opposition      | -0.4579                  | -0.3380          | 1.0000              |

# Conclusion

- Regimes routinely conceal repression

- Observed repression is generally a distorted measure of total repression and its trend

- This measurement problem undermines both policy efforts to mitigate repression, and scholarly research on state-society interactions

- We leverage equilibrium relationships to propose a method of estimating concealed repression based on observable variables, including public opinion data

- We aim to provide an example-implementation as a proof of concept, using existing data

# Thank You

## Extra: Identification

In any equilibrium,

$$\Pr_{ex-ante}(\text{total repression}) = \gamma - \frac{q - q'}{1 - q} \Pr_{ex-ante}(\text{revealed repression}) \tag{1}$$

Three approaches:

1. Why wouldn't activists mobilize? What derives $1 - \gamma$? The literature: repression
   - An extension with strategic activists, showing that an activist would always mobilize absent repression. Thus, the measure of repression $M$ should be:

   $$M = 1 - \gamma + \Pr_{ex-ante}(\text{total repression}) = 1 - \frac{q - q'}{1 - q} \Pr_{ex-ante}(\text{revealed repression})$$

## Extra: Identification

In any equilibrium,

$$\Pr_{ex-ante}(\text{total repression}) = \gamma - \frac{q - q'}{1 - q} \Pr_{ex-ante}(\text{revealed repression}) \qquad (1)$$

Three approaches:

1. Why wouldn't activists mobilize? What derives $1 - \gamma$? The literature: repression

   - An extension with strategic activists, showing that an activist would always mobilize absent repression. Thus, the measure of repression $M$ should be:

   $$M = 1 - \gamma + \Pr_{ex-ante}(\text{total repression}) = 1 - \frac{q - q'}{1 - q} \Pr_{ex-ante}(\text{revealed repression})$$

2. Measure $\gamma$ based on data, directly or indirectly based on regression (1) if the LHS is available

3. If we care about trends/changes, not levels, and we believe that $\gamma$ does not change in the period under study (like FE), then $\gamma$ is irrelevant