



# Street-level rule of law: Prosecutor presence and the fight against corruption

Guillermo Toral

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  - Lack of data on prosecutor behavior



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- **Causally identified evidence of the effects of prosecutorial presence** on anti-corruption action, on public employment, and on corruption
- Complementary insights from in-depth **interviews** and **surveys**

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In sum, this paper provides rare quasi-experimental evidence on the effectiveness of prosecutors in fighting corruption and draws attention to presence as a key driver of effectiveness

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5. The broader project

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- **Politicians perceive a higher probability of detection**, which may deter malfeasance

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- **Institutions and bureaucratic norms closing revolving doors** and promoting commitment to the career
- **Rotation** or other designs that avoid long-term relationships and social embeddedness to develop

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  - Tenure for life
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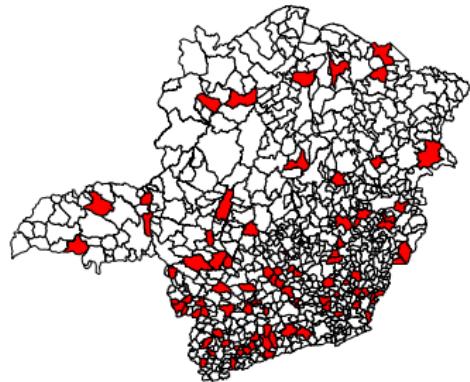
State of Minas Gerais (853 municipalities)



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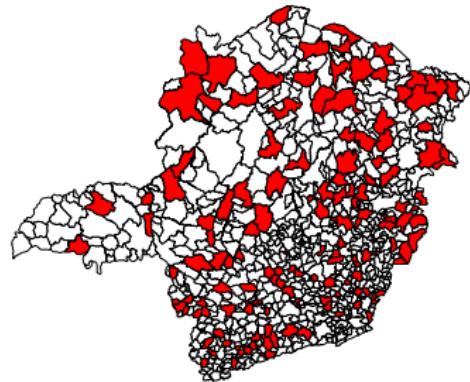


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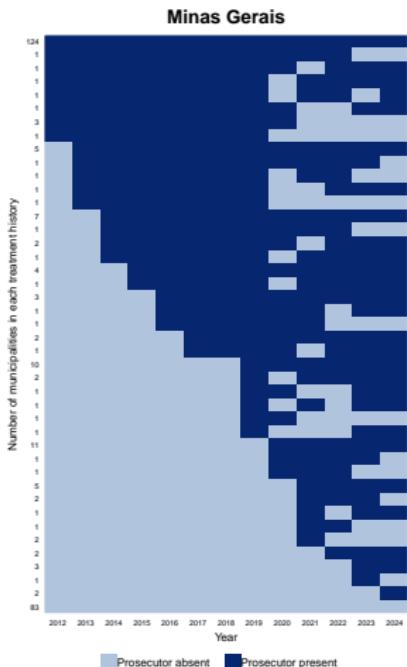
District headquarters with no prosecutor (2015)



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## MORALIDADE MUNICIPAL

**De cada dez cidades de São Paulo, quatro têm prefeitos condenados**

28 de fevereiro de 2016, 7h53

Por Lilian Matsuura, Thiago Crepaldi e Claudia Moraes

\* Texto publicado originalmente no [Anuário da Justiça São Paulo 2016](#)

Contratações sem licitação, fraudes a licitações, dispensa de concurso público, uso indevido de verbas públicas, uso da máquina para propaganda pessoal, nepotismo. Estes foram os principais motivos para as 266 condenações de prefeitos e ex-prefeitos do estado de São Paulo por improbidade administrativa, de novembro de 2014 a outubro de 2015. O levantamento, feito pelo Anuário da Justiça São Paulo, baseou-se na análise de 402 apelações julgadas no mérito em ações de improbidade administrativa contra prefeitos no período.

Constatou-se que 66% das ações terminaram com a condenação do acusado. Na maioria dos casos de absolvição (34%), a falta de provas ou da presença de dolo na irregularidade apontada fundamentam os acórdãos. De janeiro a setembro de 2015, 1.132 novos casos de improbidade (de diversos cargos públicos, não só de prefeito) foram distribuídos na Seção de Direito Público do Tribunal de Justiça de São Paulo.

Os processos de improbidade contra prefeitos começam na primeira instância. Uma das principais matérias-primas para ações de improbidade contra prefeitos são os pareceres do Tribunal de Contas do Estado. Promotores baseiam-se nos motivos para rejeição ou aprovação parcial das contas para pedir a responsabilização judicial do mandatário.

## AÇÕES DE IMPROBIDADE

|               |     |      |
|---------------|-----|------|
| Procedentes   | 266 | 66%  |
| Improcedentes | 136 | 34%  |
| Total         | 402 | 100% |

## PENAS APLICADAS

|                                |     |     |
|--------------------------------|-----|-----|
| Multa                          | 221 | 83% |
| Ressarcimento                  | 208 | 78% |
| Cassação de direitos políticos | 182 | 68% |

# Empirics: Design

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- Imputation-based **causal event study** (Liu et al. 2024), which is unbiased and consistent under a strict exogeneity assumption:
  - No time-varying confounders
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- **Inference by block bootstrap**, clustered at the municipality level

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► details

- Treatment = 1 in municipality-years with 12+ monthly prosecutor records

States with data on prosecutor presence



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- **Corruption:** administrative data from federal anti-corruption audits

# Results: Effects of prosecutor presence on anti-corruption action targeted at the local government

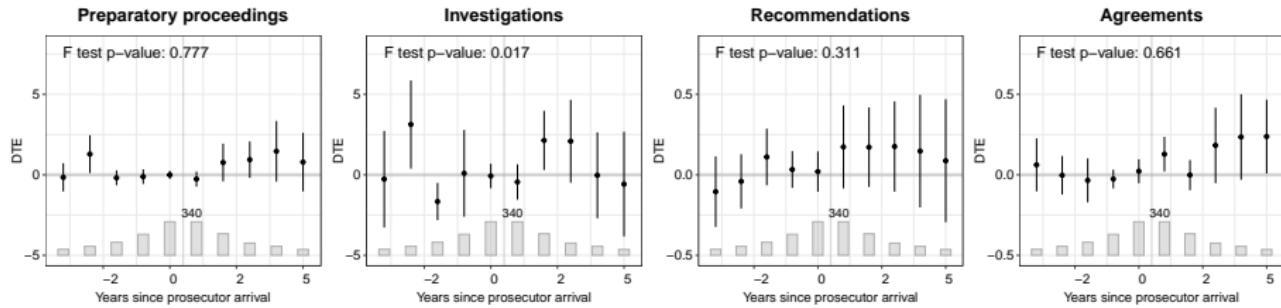
Table: Average Treatment Effect Estimates of Prosecutor Presence on Anti-Corruption Actions

|                            | Proceedings        | Investigations     | Recommendations    | Agreements         |
|----------------------------|--------------------|--------------------|--------------------|--------------------|
| $\widehat{ATT}$            | 0.611**<br>(0.211) | 1.033**<br>(0.392) | 0.177**<br>(0.065) | 0.103**<br>(0.037) |
| Mean outcome under control | 1.604              | 6.383              | 0.312              | 0.150              |

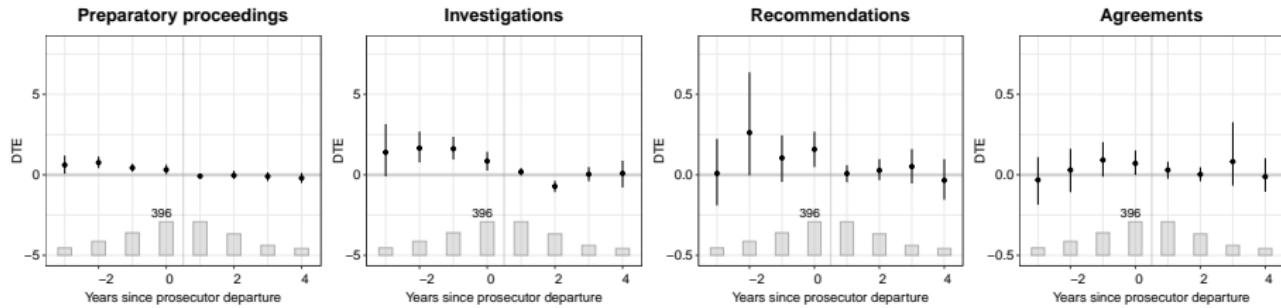
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- ▶ placebo test
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# Results: Effects of prosecutor presence on anti-corruption action targeted at the local government



# Results: Effects of prosecutor exit on anti-corruption action targeted at the local government



# Results: Effects of prosecutor presence on hiring decisions by local government officials

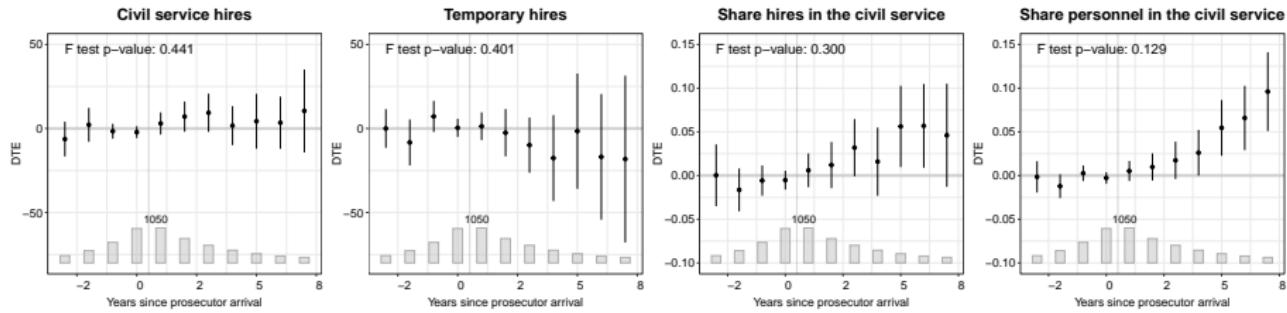
**Table:** Average Treatment Effect Estimates of Prosecutor Presence on the Hiring of Municipal Bureaucrats

|                            | Civil service<br>hires | Temporary<br>hires | Share hires in<br>the civil service | Share personnel in<br>the civil service |
|----------------------------|------------------------|--------------------|-------------------------------------|---|
| $\widehat{ATT}$            | 3.471<br>(3.073)       | -0.807<br>(6.291)  | 0.018*<br>(0.010)                   | 0.023**<br>(0.008)                      |
| Mean outcome under control | 57.025                 | 128.679            | 0.329                               | 0.664                                   |

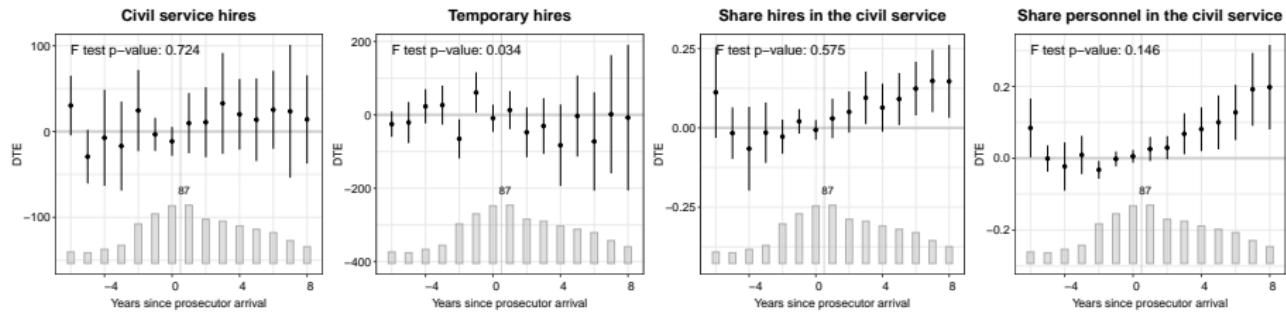
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# Results: Effects of prosecutor presence on hiring decisions by local government officials in states with staggered adoption



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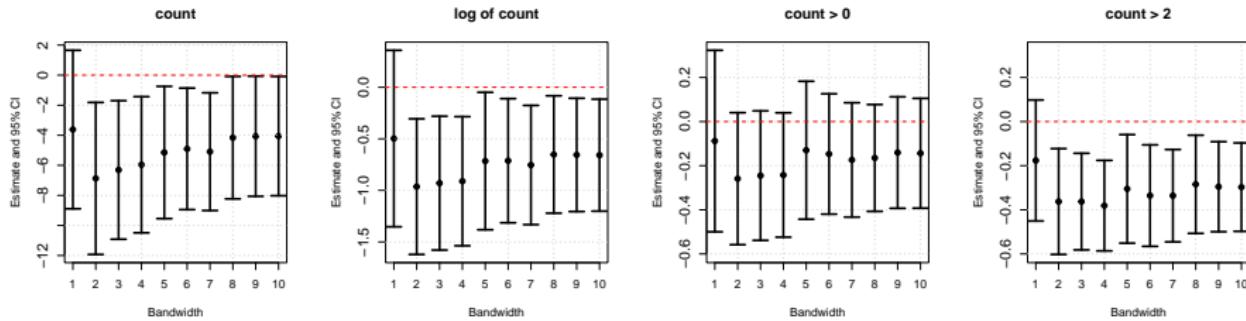
**Table:** Effect of Prosecutor Presence on Corruption Detected by Federal Auditors

|                    | Count of irregularities |                     |                    | Log(count+1)      |                     |                     | 1(count ≥ median) |                    |                    | 1(count ≥ 3Q)     |                     |                     |
|--------------------|-------------------------|---------------------|--------------------|-------------------|---------------------|---------------------|-------------------|--------------------|--------------------|-------------------|---------------------|---------------------|
| Prosecutor present | -2.449<br>(2.032)       | -6.307**<br>(2.088) | -6.307*<br>(2.100) | -0.277<br>(0.252) | -0.930**<br>(0.300) | -0.930**<br>(0.296) | -0.010<br>(0.099) | -0.245*<br>(0.141) | -0.245*<br>(0.134) | -0.106<br>(0.102) | -0.363**<br>(0.123) | -0.363**<br>(0.100) |
| Municipality FE    |                         | ✓                   | ✓                  |                   | ✓                   | ✓                   |                   | ✓                  | ✓                  |                   | ✓                   | ✓                   |
| Clustered SE       |                         |                     | ✓                  |                   | ✓                   |                     |                   | ✓                  | ✓                  |                   |                     | ✓                   |
| Mean under control | 7.515                   | 7.515               | 7.515              | 1.398             | 1.398               | 1.398               | 0.636             | 0.636              | 0.636              | 0.545             | 0.545               | 0.545               |
| Observations       | 124                     | 124                 | 124                | 124               | 124                 | 124                 | 124               | 124                | 124                | 124               | 124                 | 124                 |

\* p<0.10; \* p<0.05; \*\* p<0.01. HC2 or municipality-clustered standard errors in brackets.

These regressions include only observations where the arrival of a prosecutor to the municipality happened at most 3 years before/after the audit.

# Results: Effects of prosecutor presence on corruption in municipal finances uncovered by federal auditors as a function of the temporal bandwidth



## **Results:** Correlations from a survey of local politicians are consistent with contact as a mechanism

- Online survey of local politicians (mayors and key secretaries) in 2019 in the state of Rio Grande do Norte

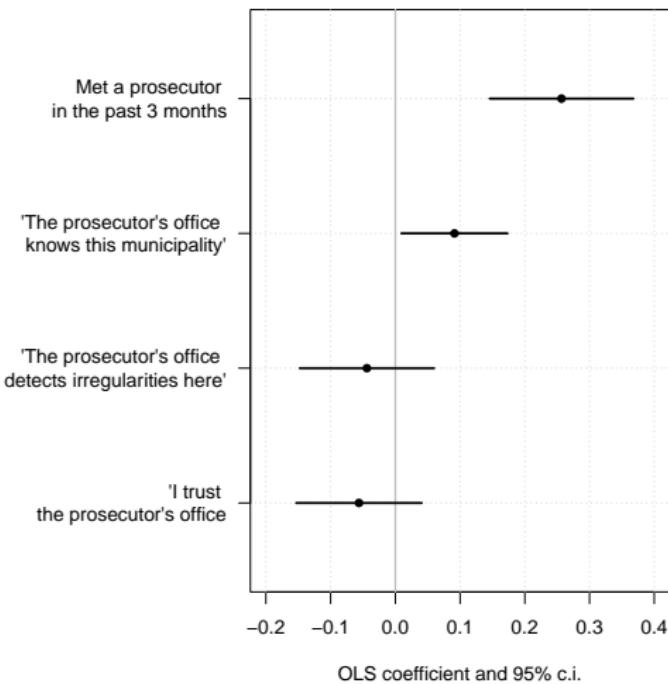
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- Internal organization in general, and physical presence in the territory in particular, may be an important **complement to the independence and capacity of rule of law institutions**
- Effects on civil service hiring and malfeasance suggest that effective anti-corruption action **can foster local state capacity**
- In contexts with high capacity and autonomy, policies at **expanding the territorial reach of anti-corruption institutions** through hiring, decentralization and rotation may be welfare enhancing

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- Police killings: Between prosecutors' oversight and dependence
- Political cycles and biases without political selection

# Additional materials

## Institutional environment

- Public employment
- Perceptions of temporary hires as political appointments

## Descriptives on prosecutor's offices

- Treatment histories by state
- Descriptive statistics by state
- Number of prosecutors by state and year
- Descriptive statistics by treatment group

## Results with alternative specifications

- Effects of prosecutorial presence on anti-corruption activity
- Effects of prosecutorial presence on municipal employment

## Placebo tests

- Effects of prosecutorial presence on anti-corruption activity
- Effects of prosecutorial presence on municipal employment

## Carryover tests

- Effects of prosecutorial presence on anti-corruption activity
- Effects of prosecutorial presence on municipal employment

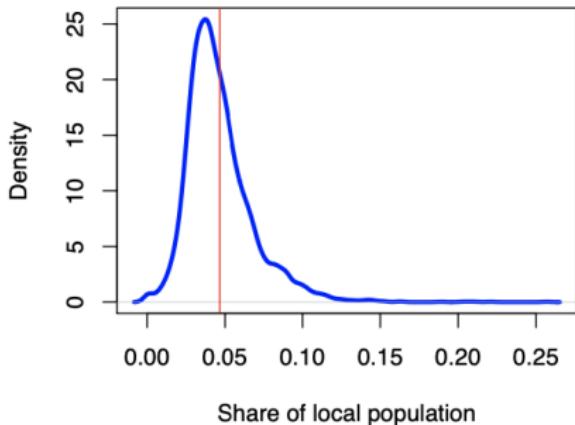
## Federal anti-corruption audits

- Null effects of audits on prosecutor presence

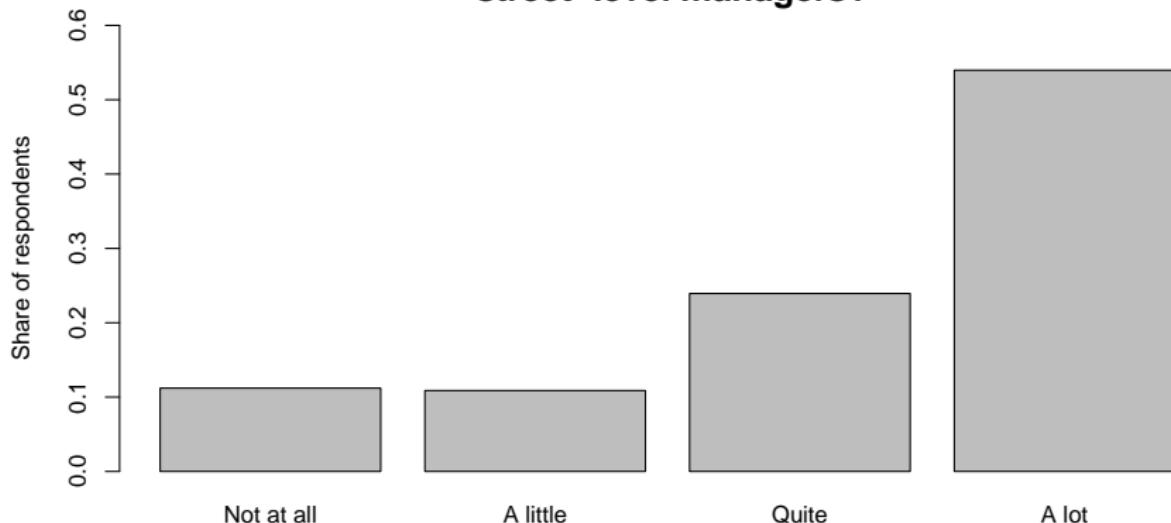
## Survey of politicians

- Correlations of prosecutor presence with contact and perceptions of the prosecutor's office

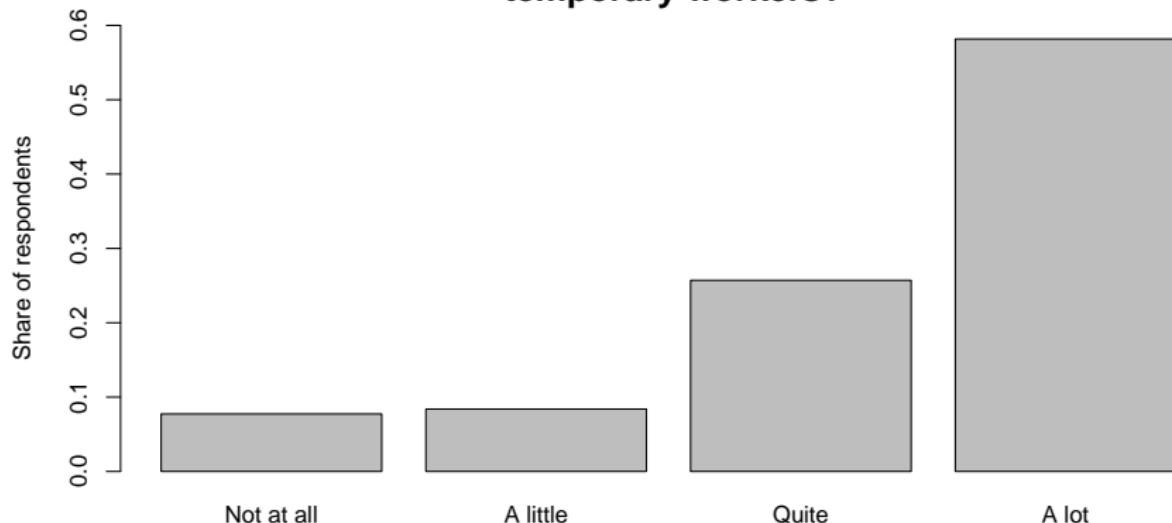
# Public employment in Brazilian municipalities

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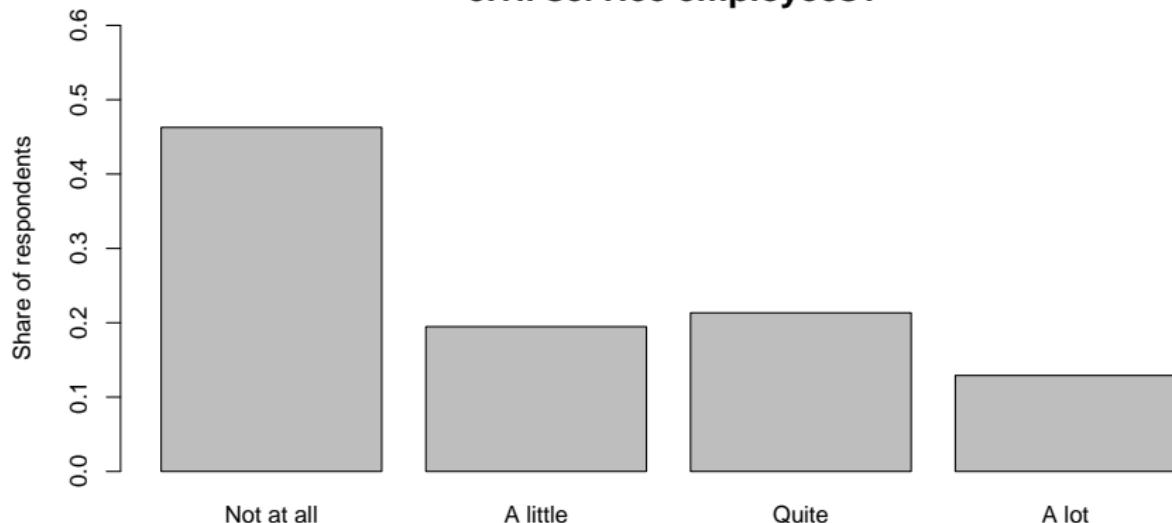
## Do political connections influence the hiring of street-level managers?



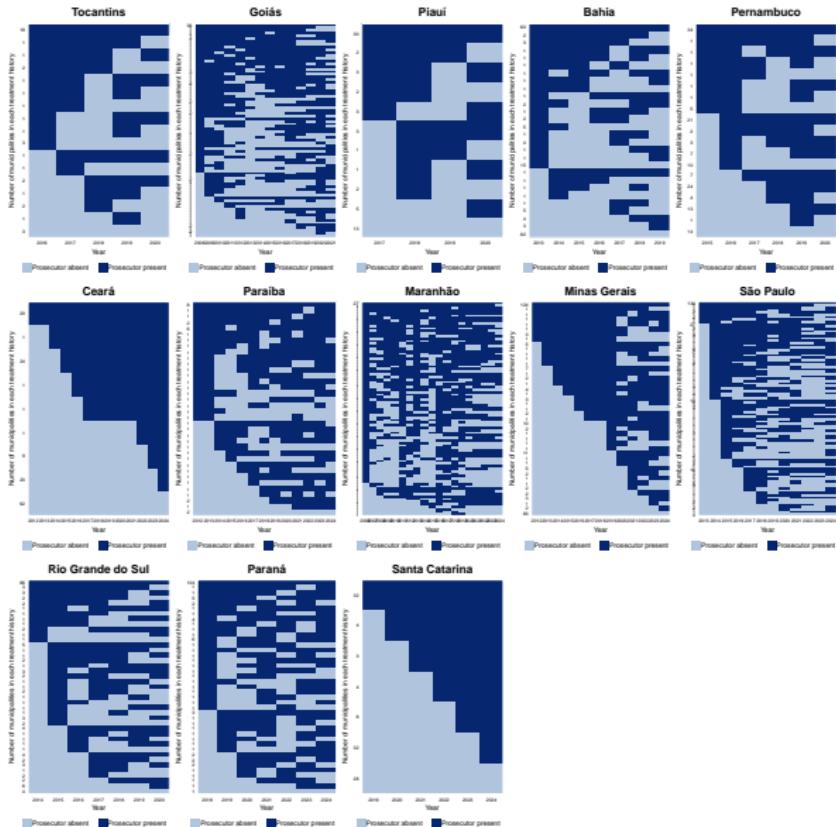
## Do political connections influence the hiring of temporary workers?



## Do political connections influence the hiring of civil service employees?



# Treatment histories by state

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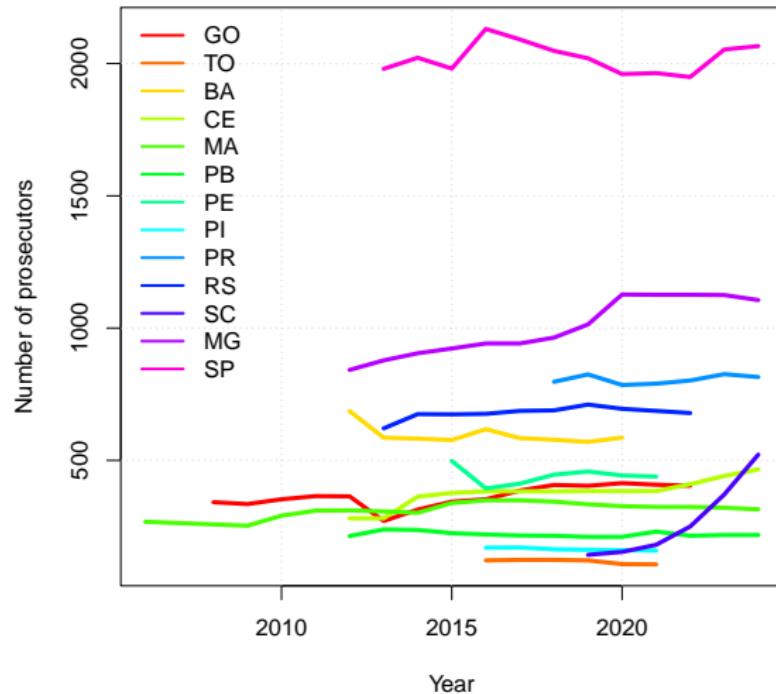
# Descriptive statistics of the states in the sample

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**Table:** Descriptive Statistics of the States Included in the Dataset

| Region      | State                  | Municipalities | Residents<br>(millions) | Prosecutorial<br>Districts | Prosecutors | Data on<br>activity |
|-------------|------------------------|----------------|-------------------------|----------------------------|-------------|---------------------|
| Northeast   | Bahia (BA)             | 417            | 14.2                    | 203                        | 586         | ✓                   |
|             | Piauí (PI)             | 224            | 3.3                     | 64                         | 161         | ✓                   |
|             | Paraíba (PB)           | 223            | 4                       | 51                         | 211         |                     |
|             | Maranhão (MA)          | 217            | 6.8                     | 110                        | 327         |                     |
|             | Ceará (CE)             | 184            | 8.8                     | 139                        | 384         |                     |
|             | Pernambuco (PE)        | 184            | 9.1                     | 152                        | 443         |                     |
| Southeast   | Minas Gerais (MG)      | 853            | 20.5                    | 297                        | 1127        | ✓                   |
|             | São Paulo (SP)         | 645            | 44.4                    | 318                        | 1982        | ✓                   |
| South       | Rio Grande do Sul (RS) | 497            | 10.9                    | 164                        | 695         | ✓                   |
|             | Paraná (PR)            | 399            | 11.4                    | 162                        | 785         |                     |
|             | Santa Catarina (SC)    | 295            | 7.6                     | 111                        | 154         |                     |
| Center-West | Goiás (GO)             | 246            | 7.1                     | 127                        | 414         |                     |
| North       | Tocantins (TO)         | 139            | 1.5                     | 41                         | 108         |                     |
|             | Total                  | 4523           | 149.6                   | 1939                       | 7377        |                     |

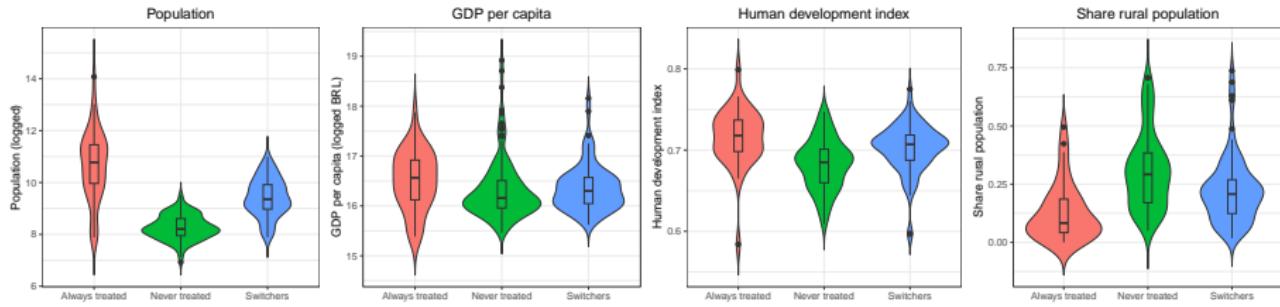
# Prosecutors by state and year



# Descriptive statistics of municipalities by treatment group

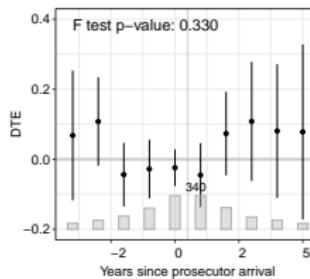
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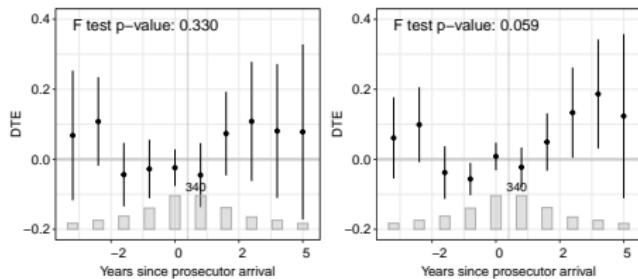


# Alternative specifications: Logged measures of anti-corruption action targeted at the local government

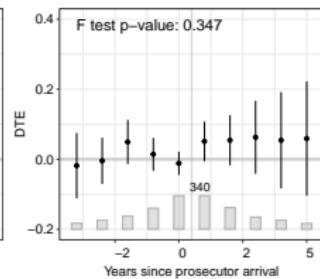
Preparatory proceedings (log)  
ATT: 0.14\*\*\* (0.04)



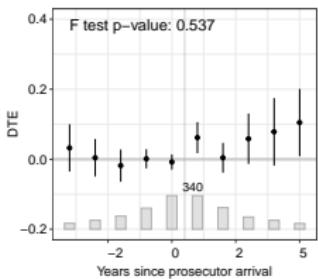
Investigations (log)  
ATT: 0.11\*\*\* (0.02)



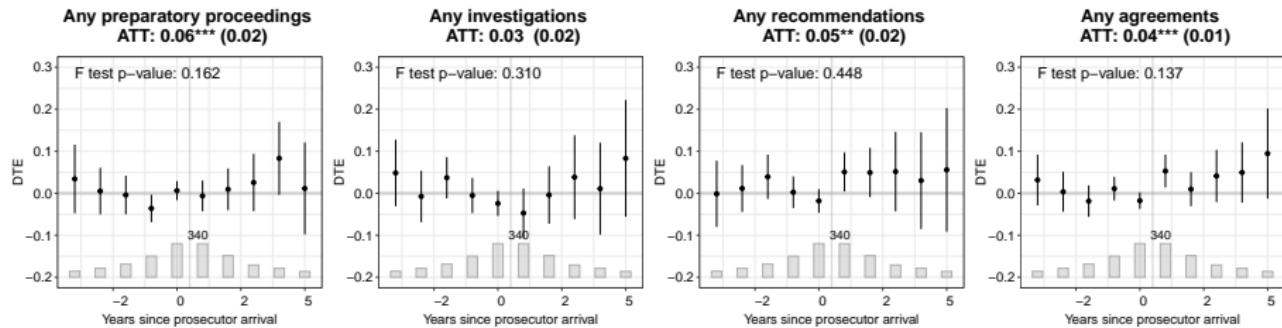
Recommendations (log)  
ATT: 0.06\*\* (0.02)



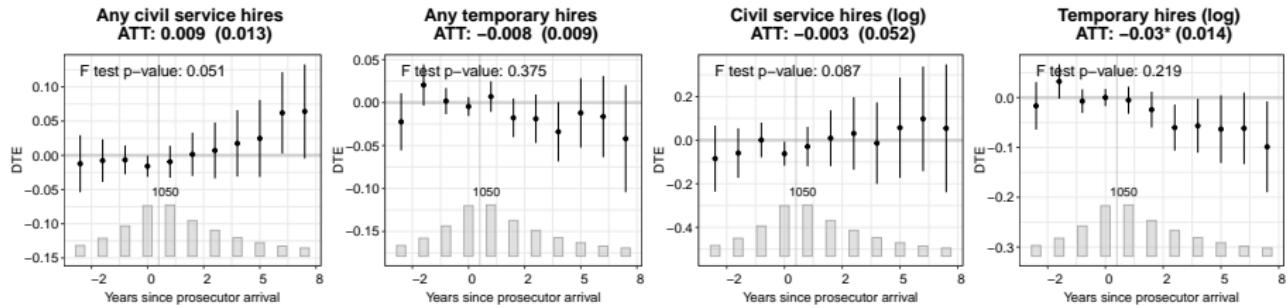
Agreements (log)  
ATT: 0.05\*\* (0.02)



# Alternative specifications: Binary measures of anti-corruption action targeted at the local government

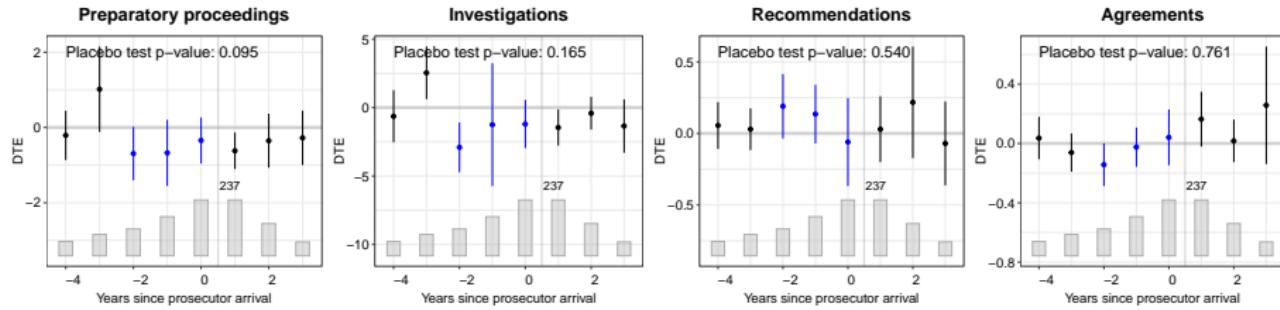


# Alternative specifications: Logged and binary measures of civil service and temporary hires



# Placebo tests: Effects of prosecutor presence on anti-corruption action targeted at the local government

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# Placebo tests: Effects of prosecutor presence on hiring decisions by local government officials

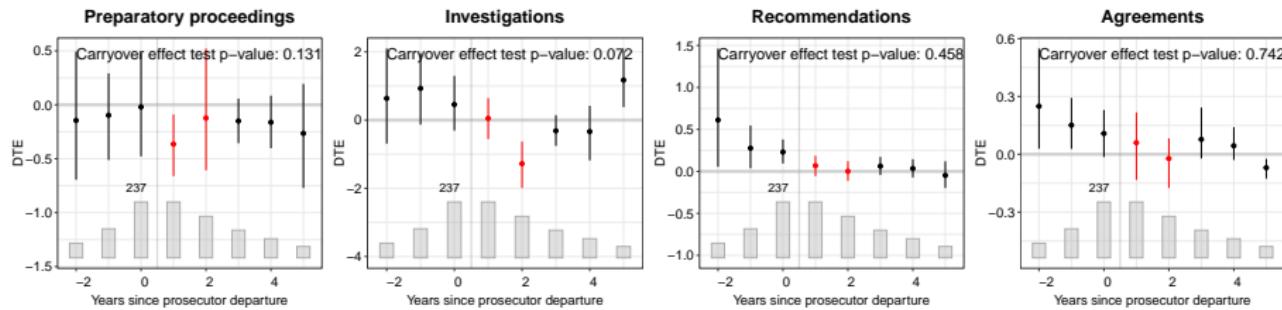
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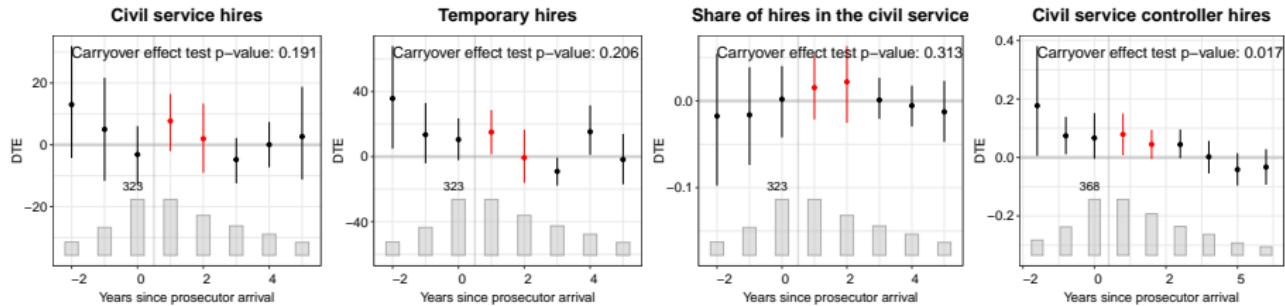


# Carryover tests: Effects of prosecutor presence on anti-corruption action targeted at the local government

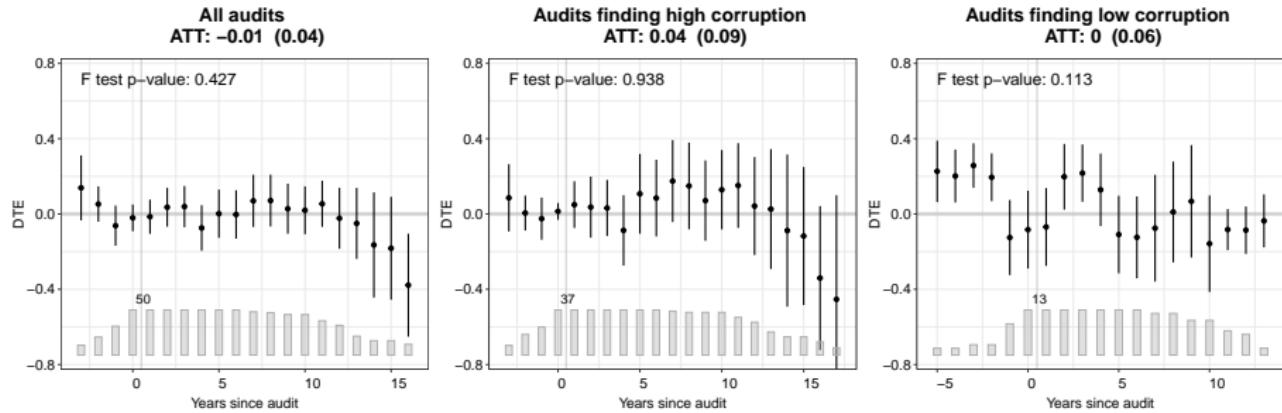
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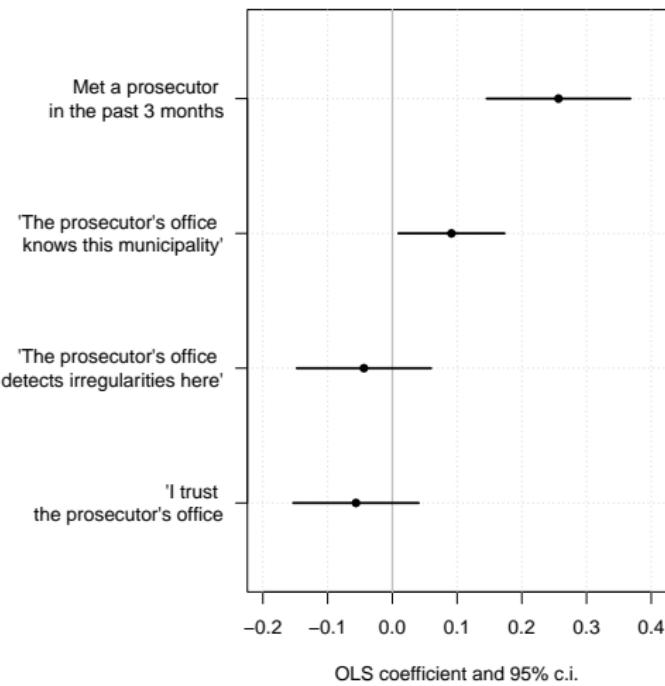
# Carryover tests: Effects of prosecutor presence on hiring decisions by local government officials

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# Null effects of federal audits on prosecutor presence



# Results: Correlations from a survey of local politicians are consistent with contact as a mechanism



- Online survey of local politicians in 2019 in the state of Rio Grande do Norte
- 455 respondents (response rate 45%)
- I examine correlation of responses to prosecutorial presence at the time
- Similar results controlling for population or omitting large districts

# Results: Correlations from a survey of local politicians are consistent with contact as a mechanism

**Table:** Correlation between Prosecutorial Presence and Politician Survey Responses

|                    | Met with<br>a prosecutor in the<br>past 3 months | Agreement with statement:           |   |                     |
|--------------------|--|-------------------------------------|---|---------------------|
|                    |  | "The MP knows<br>this municipality" | "The MP detects<br>irregularities here" | "I trust<br>the MP" |
| Prosecutor present | 0.257***<br>(0.056)                              | 0.091*<br>(0.042)                   | -0.044<br>(0.053)                       | -0.056<br>(0.049)   |
| Constant           | 0.337***<br>(0.034)                              | 0.765***<br>(0.027)                 | 0.613***<br>(0.031)                     | 0.801***<br>(0.026) |
| Observations       | 450  | 455                                 | 455                                     | 455                 |
| R-squared          | 0.060  | 0.011                               | 0.002                                   | 0.004               |

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001. Municipality-clustered standard errors in brackets. The dependent variables are dummies for whether the respondent reports having met at least once with a prosecutor over the previous 3 months, and whether the respondent's level of agreement is at or above the median for the following statements: "The prosecutor's office knows the reality of this municipality", "The prosecutor's office detects the management irregularities that take place in this municipality", and "I trust the prosecutor's office."