



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

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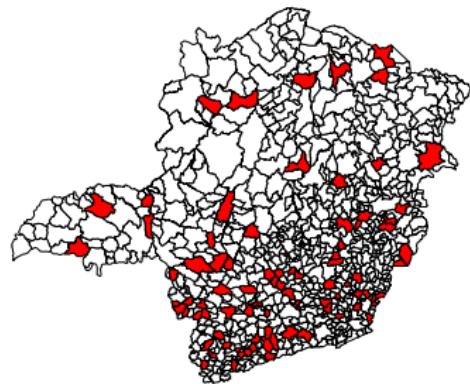
State of Minas Gerais (853 municipalities)



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District headquarters with no prosecutor (2020)

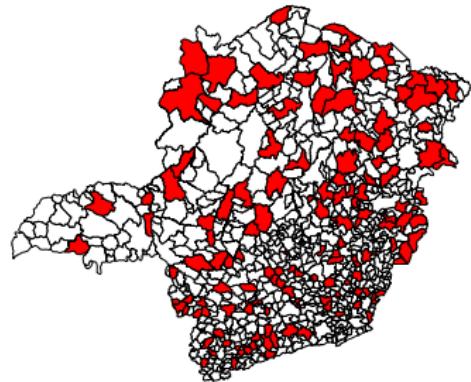


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## MORALIDADE MUNICIPAL

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

28 de fevereiro de 2016, 7h53

[Imprimir](#) [Enviar](#) [Facebook](#) [Twitter](#) [Gmail](#)

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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  - Dynamic treatment effects by period (DTE)
  - Average treatment effect on the treated (ATT)

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- **Inference by block bootstrap**, clustered at the municipality level

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- **Presence:** administrative data from the webs of 8 state prosecutor's offices

▶ details

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

States with data on prosecutor presence



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- Recommendations
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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
$\widehat{ATT}$	0.743*** (0.183) [0.384, 1.102]	1.587*** (0.381) [0.840, 2.334]	0.186** (0.065) [0.060, 0.313]	0.086* (0.033) [0.020, 0.151]
Mean outcome under control	0.755	3.378	0.194	0.112

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001. The municipality-clustered standard errors are in brackets, and the 95% confidence intervals, in square brackets, below them. Both are estimated through the block bootstrap.

- ▶ dynamic treatment effects plots
- ▶ placebo test
- ▶ carryover test
- ▶ treatment effects relative to prosecutor exit

# 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 servants	Temporaries	Share civil servants	Controllers
ATT	7.326* (3.563) [0.342, 14.310]	4.123 (6.736) [-9.080, 17.326]	0.020* (0.011) [-0.003, 0.042]	0.038* (0.017) [0.005, 0.070]
Mean outcome under control	27.805	56.055	0.347	0.088

\* p<0.10; \* p<0.05; \*\* p<0.01; \*\*\* p<0.001. The municipality-clustered standard errors are in brackets, and the 95% confidence intervals, in square brackets, below them. Both are estimated through the block bootstrap.

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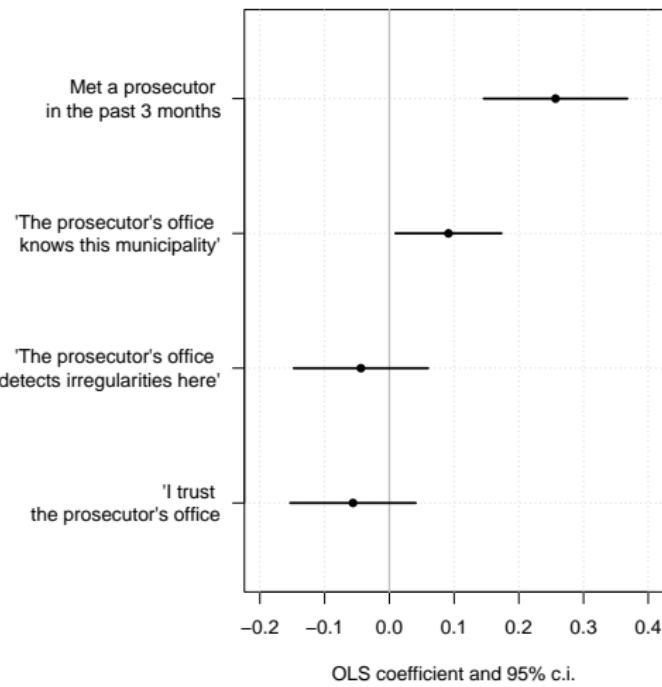
# Results: Effects of prosecutor presence on corruption uncovered by federal auditors

Table: Effect of Prosecutor Presence on Corruption

Measure of corruption →	Count	Log(count+1)	1(count≥3Q)			
Prosecutor present	-1.635 (1.687)	-4.250 (3.452)	-0.508 (0.351)	-0.866 (0.705)	-0.349* (0.172)	-0.500* (0.289)
Municipality fixed effects		✓		✓		✓
Mean outcome under control	4.5	4.5	1.331	1.331	0.7	0.7
Observations	47	47	47	47	47	47
R <sup>2</sup>	0.017	0.887	0.047	0.744	0.083	0.594

\* p<0.10; \* p<0.05; \*\* p<0.01. HC2 standard errors in brackets. The unit of analysis is municipal yearly accounts subject to federal audits. The independent variable is an indicator for whether a prosecutor was present during the year of the audited accounts. The dependent variables are all a function of the number of serious irregularities uncovered by the federal auditors. These regressions exclude observations where the arrival of a prosecutor to the municipality happened more than 3 years before or after the year of the audited accounts.

# 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

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- Presence in the communities they monitor is an **under-appreciated source of effectiveness** for prosecutors and potentially other accountability actors
- 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**

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- **Text of prosecutors' recommendations and agreements** (requirements, style, sentiment, parties, etc.)

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- Political cycles and biases without political selection

# Additional materials

## Institutional environment

- Public employment
- Perceptions of temporary hires as political appointments
- Prosecutors' advantages in the fight against corruption

## Treatment histories

- Treatment histories by state
- Treatment histories in the whole sample

## Descriptive statistics

- Descriptive statistics by state
- Descriptive statistics by treatment group

## Treatment effect plots

- 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
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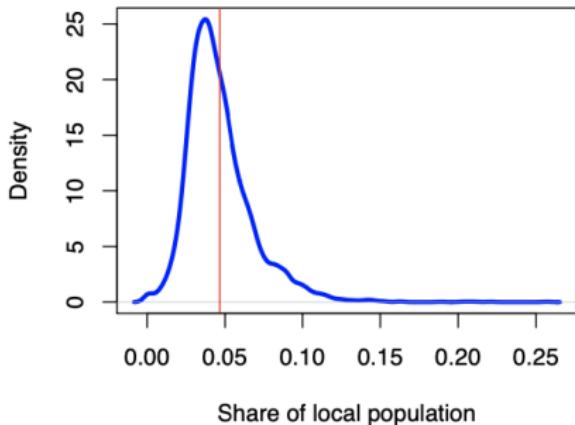
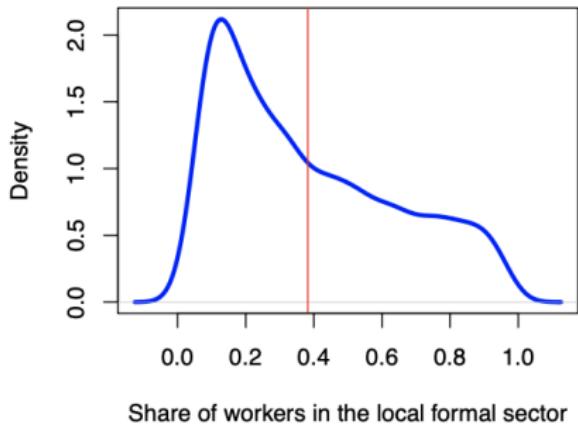
## Carryover tests

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

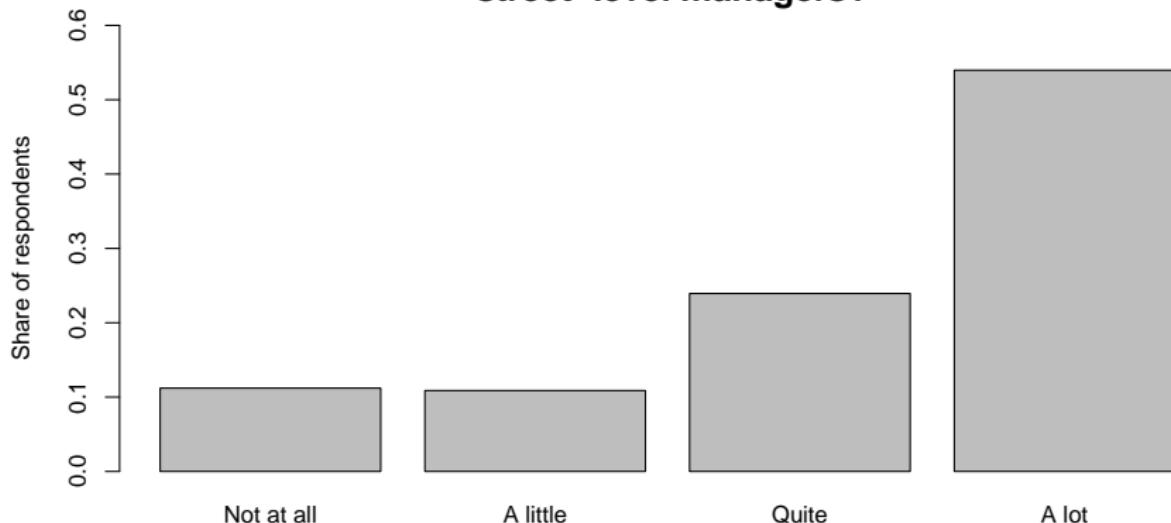
## Survey of politicians

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

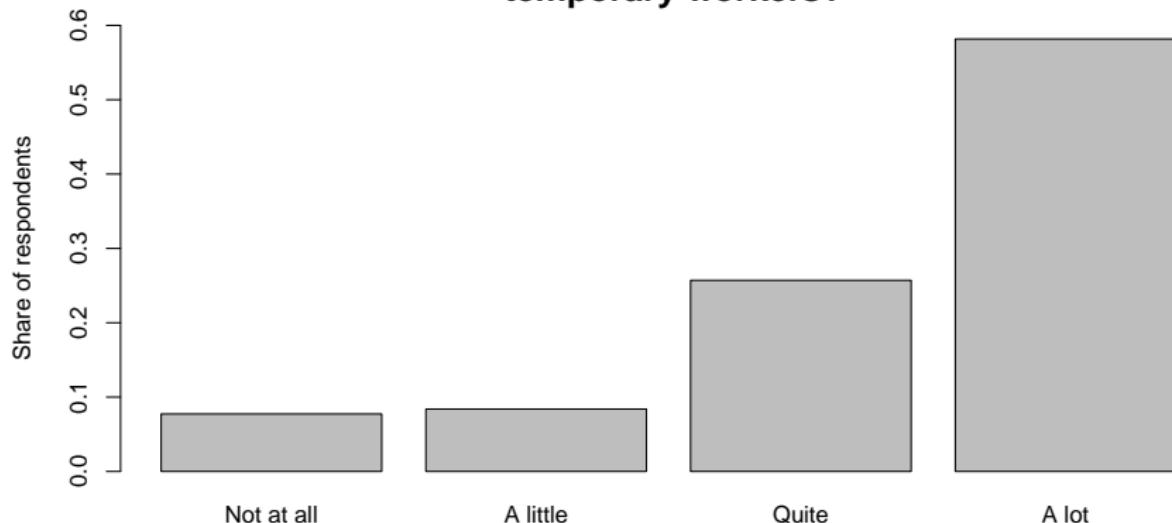
# Public employment in Brazilian municipalities

[◀ back](#)[◀ appendix](#)

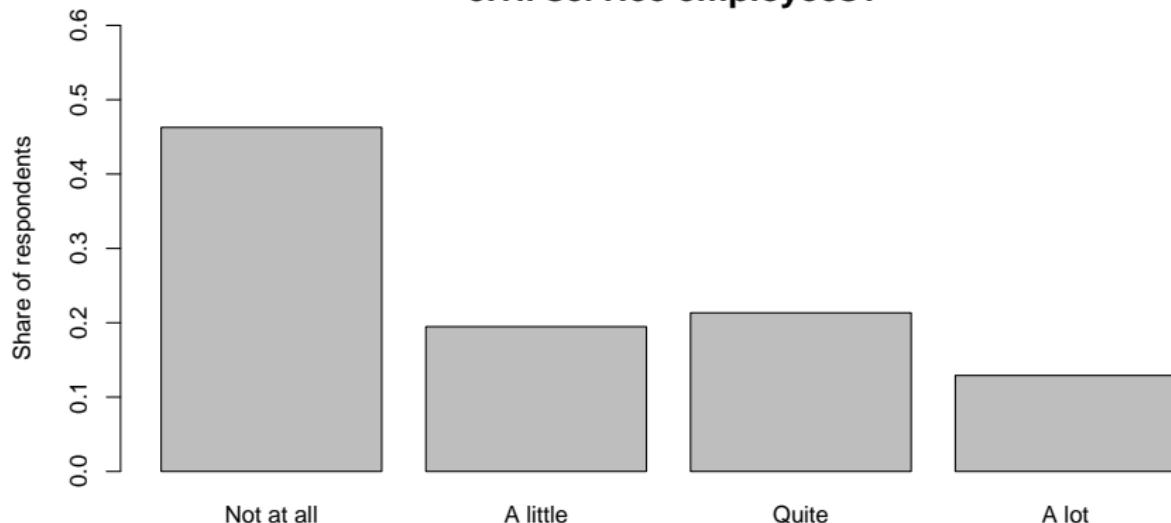
## Do political connections influence the hiring of street-level managers?



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



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



# Prosecutors' advantages in the fight against corruption

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  - Judges
  - External auditors
  - Internal auditors

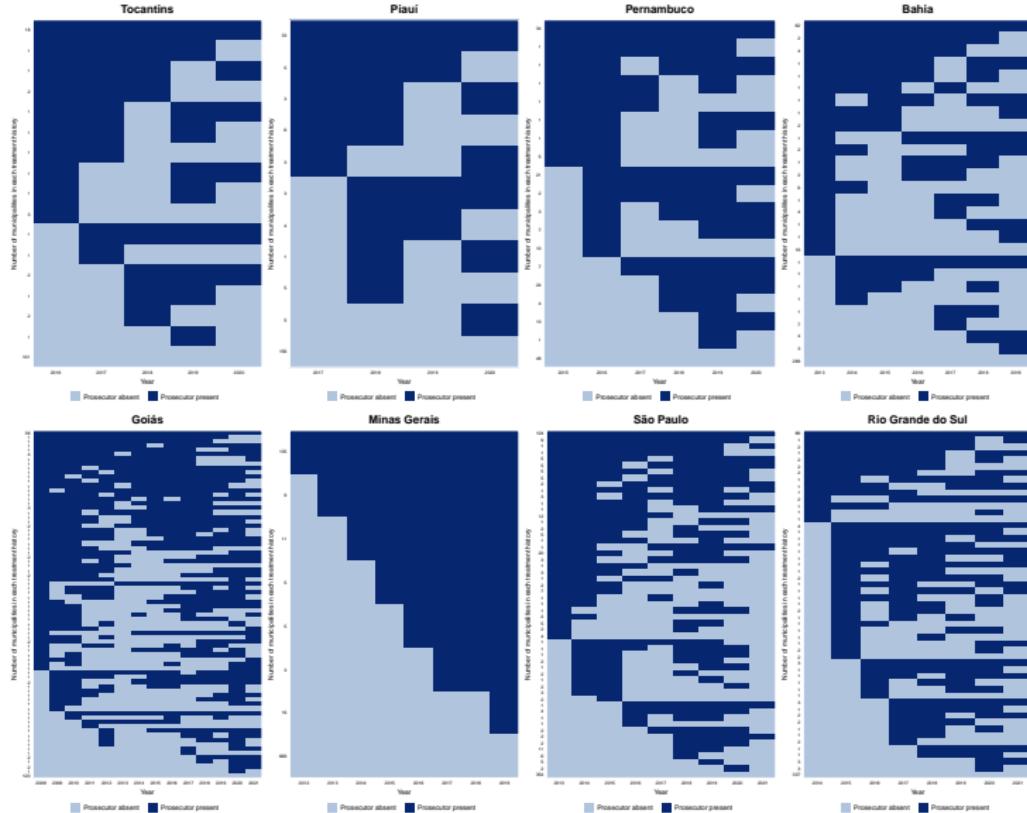
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  - Extra-judicial action : nudges, recommendations, agreements

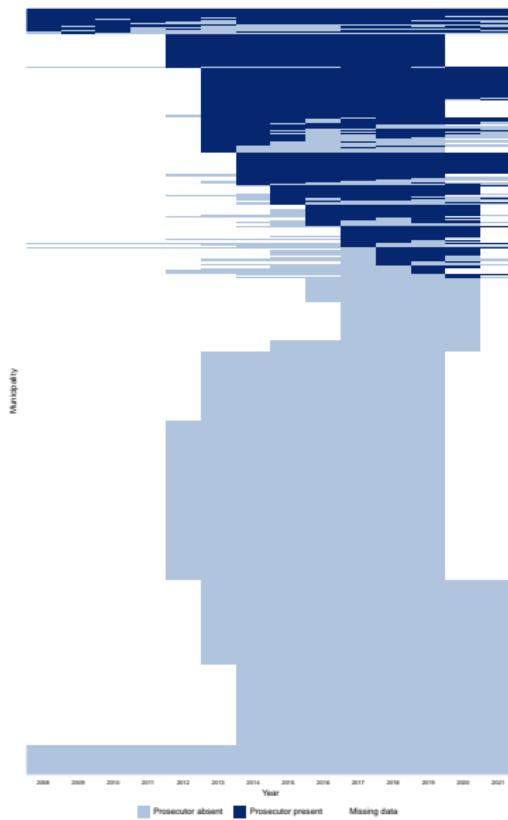
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  - Extra-judicial action : nudges, recommendations, agreements
- **Can act in real time** and deter malfeasance before it takes place

# Treatment histories by state

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# Treatment histories in the whole sample

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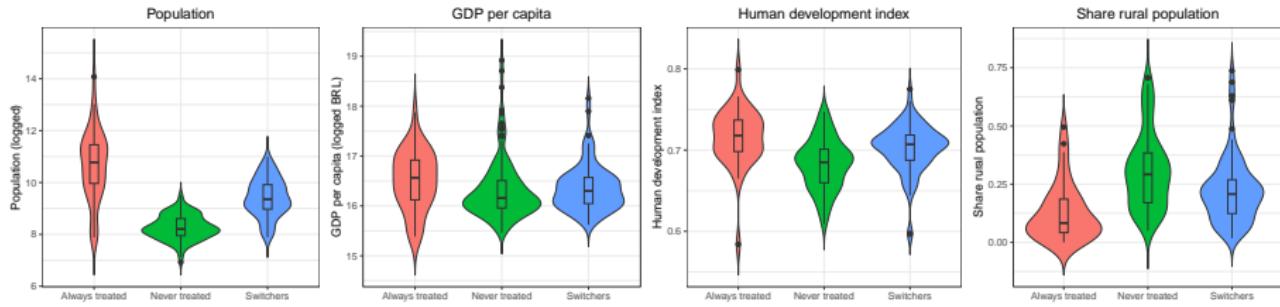
**Table:** Descriptive Statistics of the States Included in the Dataset

	SP	MG	BA	RS	PE	GO	PI	TO	All
Residents (in millions)	44.4	20.5	14.1	10.9	9.1	7.1	3.3	1.5	110.9
Municipalities	645	853	417	497	184	246	224	139	3,205
Prosecutorial districts	318	297	203	164	152	127	64	41	1,366
Prosecutors	2,058	1,063	586	695	443	414	161	108	5,528
Data on prosecutor presence	✓	✓	✓	✓	✓	✓	✓	✓	
Data on prosecutor activity	✓	✓	✓	✓	✗	✗	✓	✗	

# Descriptive statistics of municipalities by treatment group

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[◀ appendix](#)



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

	Proceedings	Investigations	Recommendations	Agreements
$\widehat{ATT}$	0.743*** (0.183) [0.384, 1.102]	1.587*** (0.381) [0.840, 2.334]	0.186** (0.065) [0.060, 0.313]	0.086* (0.033) [0.020, 0.151]
Mean outcome under control	0.755	3.378	0.194	0.112
$\widehat{ATT}$ as percent of mean	98.410	46.980	95.876	76.786

\* p<0.05; \*\* p<0.01; \*\*\* p<0.001. The municipality-clustered standard errors are in brackets, and the 95% confidence intervals, in square brackets, below them. Both are estimated through the block bootstrap.

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

	Civil servants	Temporaries	Share civil servants	Controllers
$\widehat{ATT}$	7.326* (3.563) [0.342, 14.310]	4.123 (6.736) [-9.080, 17.326]	0.020* (0.011) [-0.003, 0.042]	0.038* (0.017) [0.005, 0.070]
Mean outcome under control	27.805	56.055	0.347	0.088
$\widehat{ATT}$ as percent of mean	26.348	7.355	5.763	43.182

\* p<0.10; \* p<0.05; \*\* p<0.01; \*\*\* p<0.001. The municipality-clustered standard errors are in brackets, and the 95% confidence intervals, in square brackets, below them. Both are estimated through the block bootstrap.

# Results: Effects of prosecutor presence on corruption uncovered by federal auditors

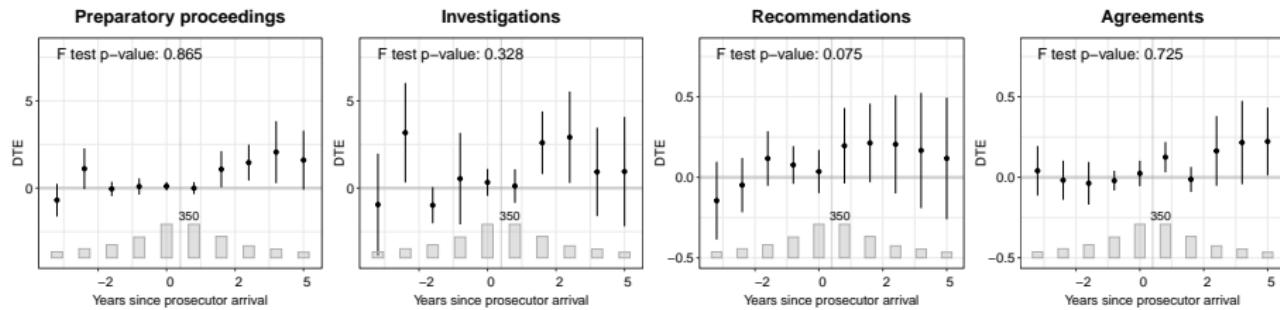
Table: Effect of Prosecutor Presence on Corruption

Measure of corruption →	Count	Log(count+1)	1(count ≥ 3Q)			
Prosecutor present	-1.635 (1.687)	-4.250 (3.452)	-0.508 (0.351)	-0.866 (0.705)	-0.349** (0.172)	-0.500* (0.289)
Municipality fixed effects		✓		✓		✓
Mean outcome under control	4.5	4.5	1.331	1.331	0.7	0.7
Observations	47	47	47	47	47	47
R <sup>2</sup>	0.017	0.887	0.047	0.744	0.083	0.594

\* p<0.10; \*\* p<0.05; \*\*\* p<0.01. HC2 standard errors in brackets. The unit of analysis is municipal yearly accounts subject to federal audits. The independent variable is an indicator for whether a prosecutor was present during the year of the audited accounts. The dependent variables are all a function of the number of serious irregularities uncovered by the federal auditors. These regressions exclude observations where the arrival of a prosecutor to the municipality happened more than 3 years before or after the year of the audited accounts.

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

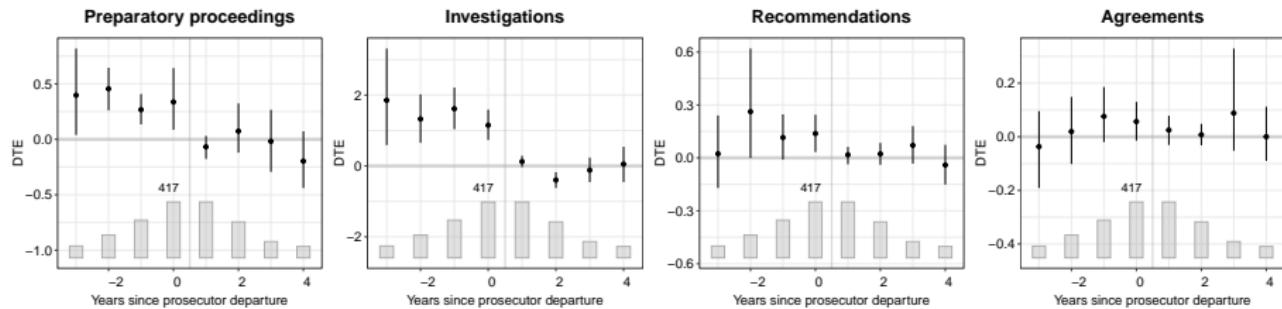
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# Results: Effects of prosecutor presence on anti-corruption action targeted at the local government relative to prosecutor exit

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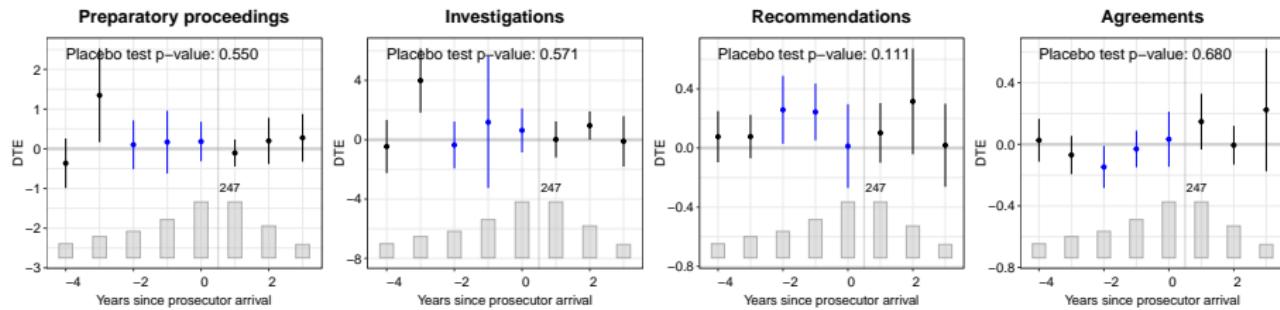


# Results: Effects of prosecutor presence on hiring decisions by local government officials

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

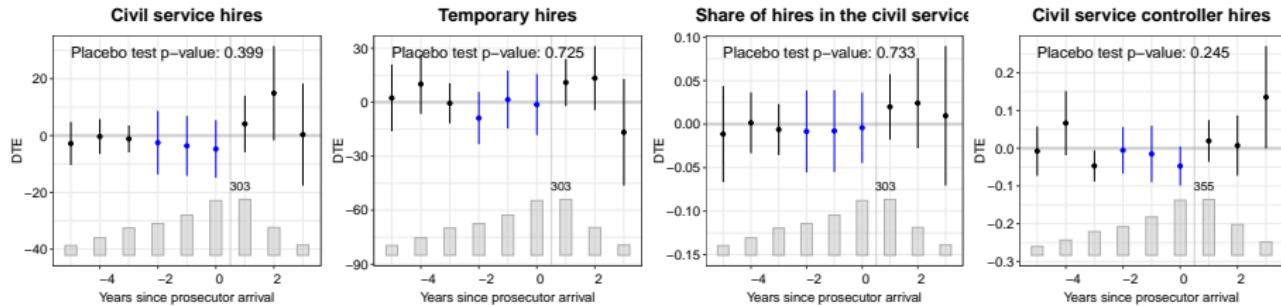
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# Placebo tests: Effects of prosecutor presence on hiring decisions by local government officials

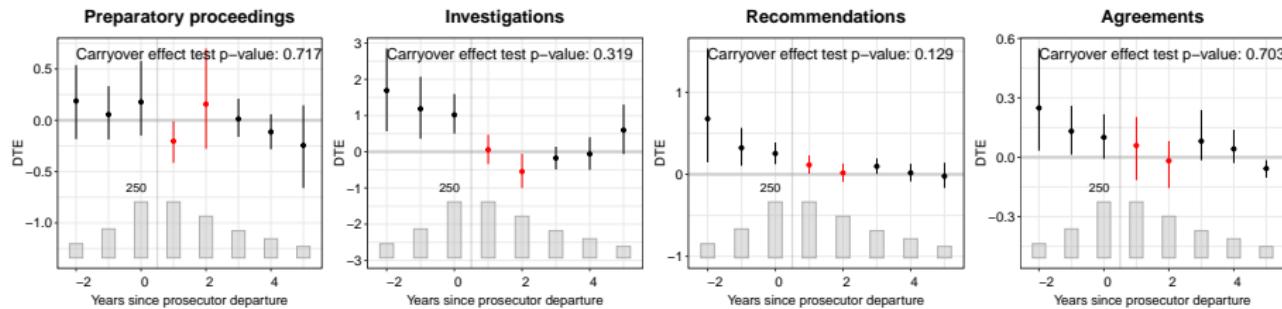
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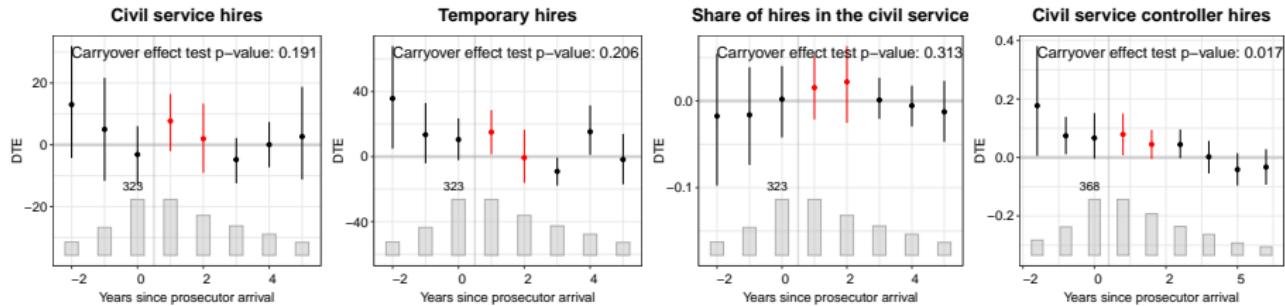


# Carryover tests: Effects of prosecutor presence on anti-corruption action targeted at the local government

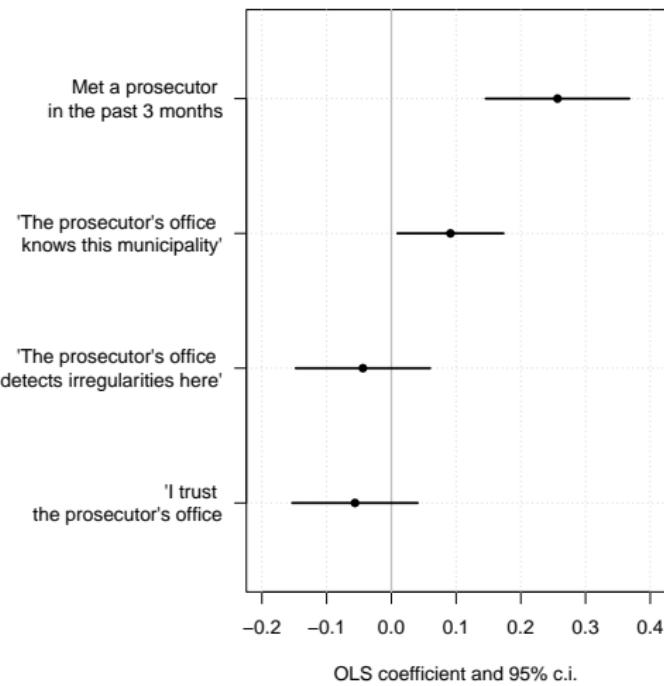
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# Carryover tests: Effects of prosecutor presence on hiring decisions by local government officials

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# 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 a prosecutor in the past 3 months	Agreement with statement:		
		“The MP knows this municipality”	“The MP detects irregularities here”	“I trust the MP”
Prosecutor present	0.257*** (0.056)	0.091* (0.042)	-0.044 (0.053)	-0.056 (0.049)
Constant	0.337*** (0.034)	0.765*** (0.027)	0.613*** (0.031)	0.801*** (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."