



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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Empirical:

- **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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- **Rotation** or other designs that avoid long-term relationships and social embeddedness to develop

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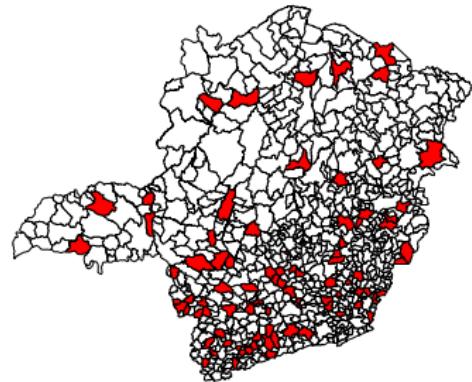
State of Minas Gerais (853 municipalities)



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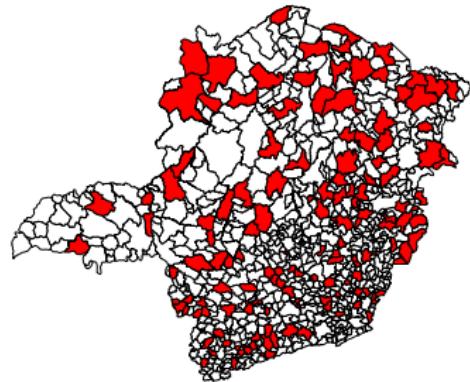


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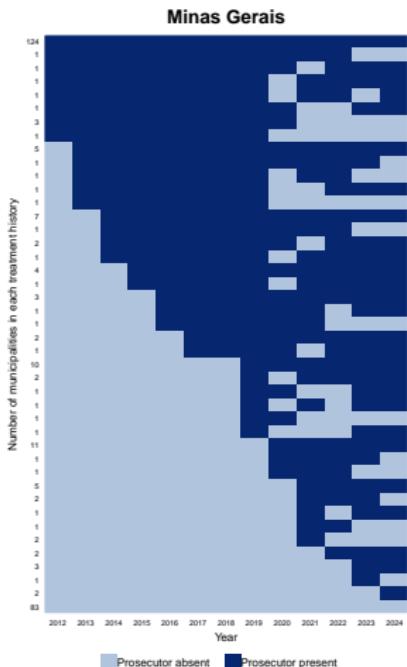
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MORALIDADE MUNICIPAL

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
 - No anticipation effects
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- **Estimation by imputing individual counterfactuals**, and from there estimating:
 - Individual treatment effects (ITE)
 - 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 13 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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- Preparatory proceedings
- Civil investigations
- Recommendations
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States with data on prosecutor activity



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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

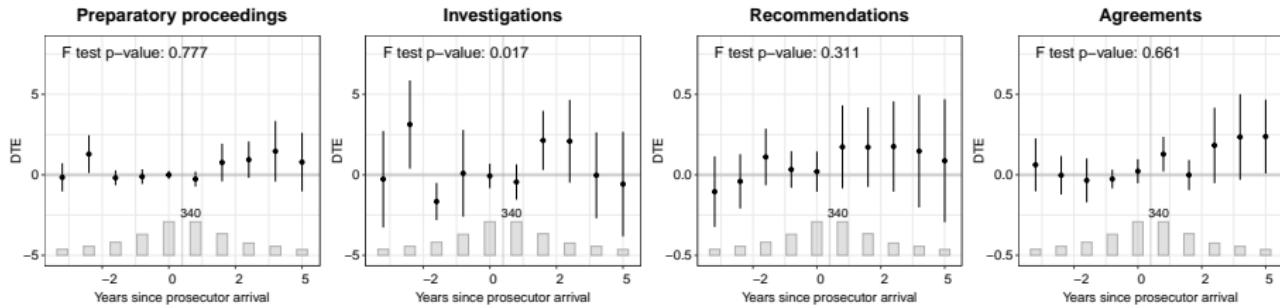
Table: Average Treatment Effect Estimates of Prosecutor Presence on Anti-Corruption Actions

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

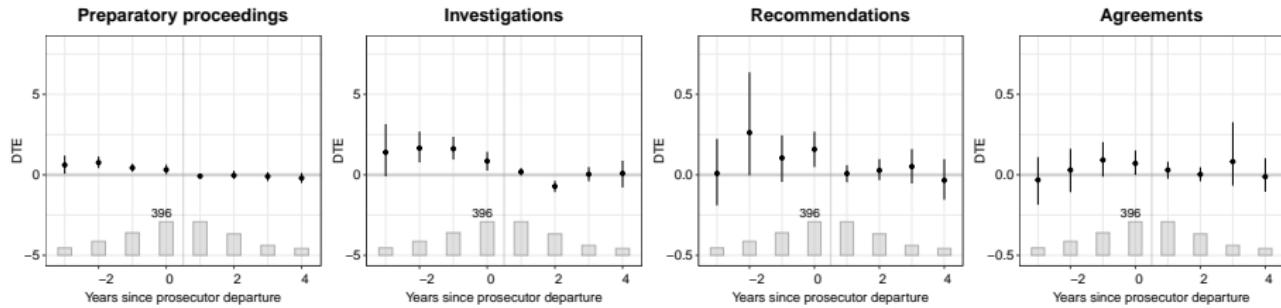
* p<0.05; ** p<0.01; *** p<0.001. Municipality-clustered standard errors in brackets.

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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

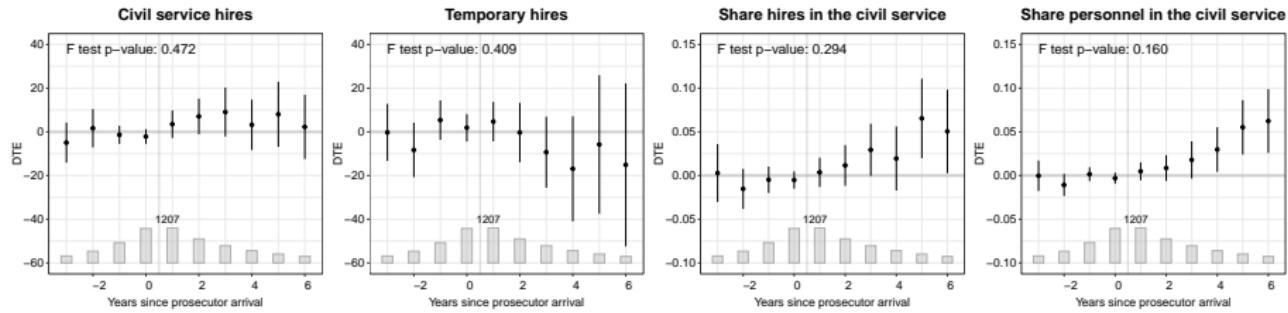
Table: Average Treatment Effect Estimates of Prosecutor Presence on the Hiring of Municipal Bureaucrats

	Civil service hires	Temporary hires	Share hires in the civil service	Share personnel in the civil service
\widehat{ATT}	1.934 (2.875)	-1.171 (5.879)	0.016* (0.009)	0.021** (0.007)
Mean outcome under control	59.183	135.738	0.324	0.662

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



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

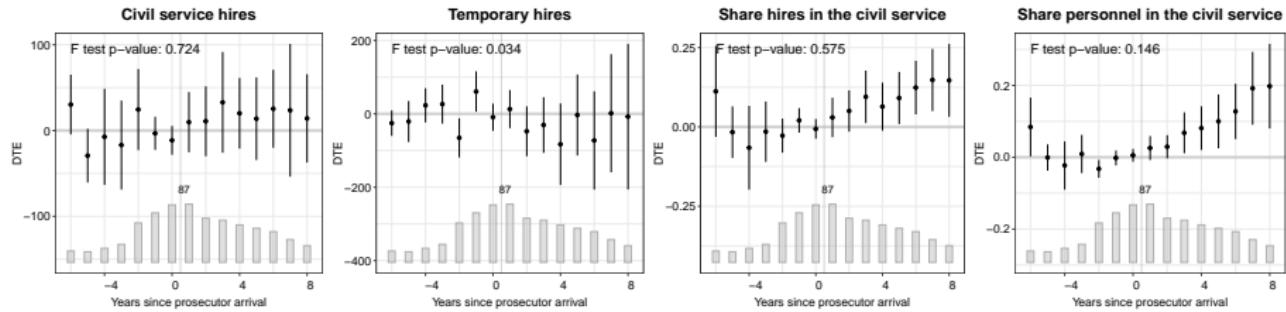
Table: Average Treatment Effect Estimates of Prosecutor Presence on the Hiring of Municipal Bureaucrats

	Civil service hires	Temporary hires	Share hires in the civil service	Share personnel in the civil service
ATT	18.090 (17.932)	-28.277 (38.584)	0.081** (0.031)	0.082*** (0.0238)
Mean outcome under control	77.559	178.498	0.339	0.647

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Results: Effects of prosecutor presence on corruption in municipal finances uncovered by federal auditors

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

	Count (logged)			At least 1 (median)			At least 3 (third quartile)		
Prosecutor present	-0.410** (0.155)	-0.405 (0.248)	-1.370* (0.506)	-0.105* (0.057)	-0.167 (0.110)	-0.455* (0.157)	-0.225*** (0.065)	-0.262* (0.127)	-0.455* (0.157)
Sample Number of observations	All 261	Staggered 61	Switchers 13	All 261	Staggered 61	Switchers 13	All 261	Staggered 61	Switchers 13

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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

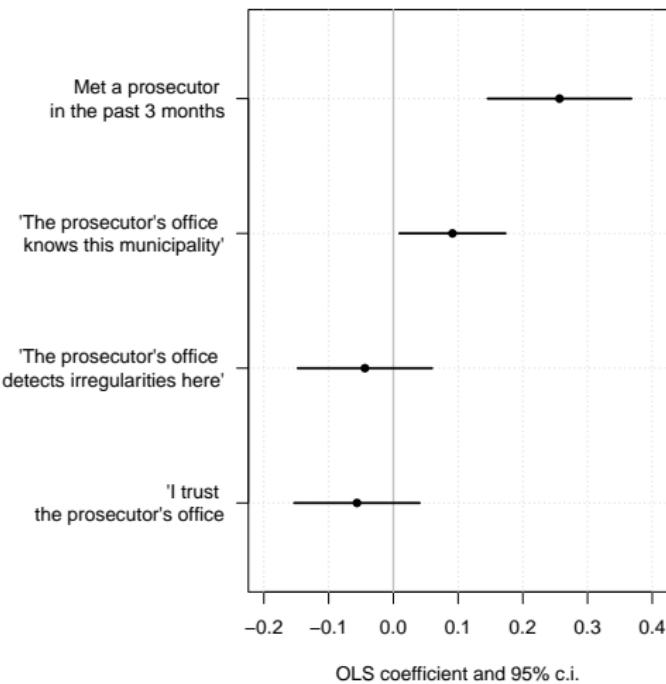
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- Internal organization in general, and physical presence in the territory in particular, may be an important **complement to the independence and capacity of rule of law institutions**
- Effects on civil service hiring and malfeasance suggest that 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

Broader project:

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- 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
- Distribution of prosecutor-month records
- 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

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Carryover tests

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Federal anti-corruption audits

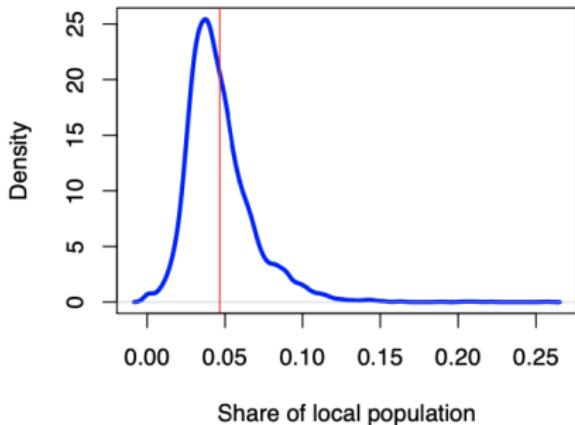
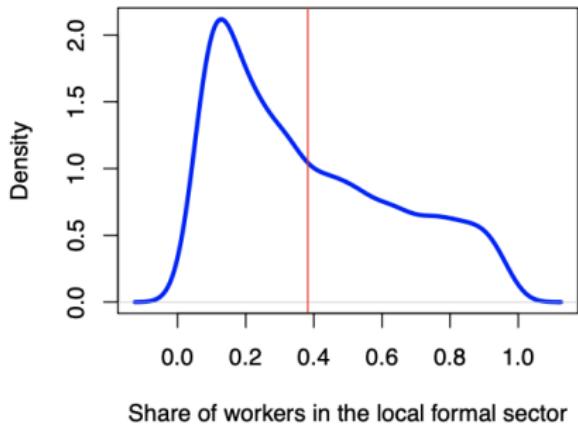
- Null effects of audits on prosecutor presence

Survey of politicians

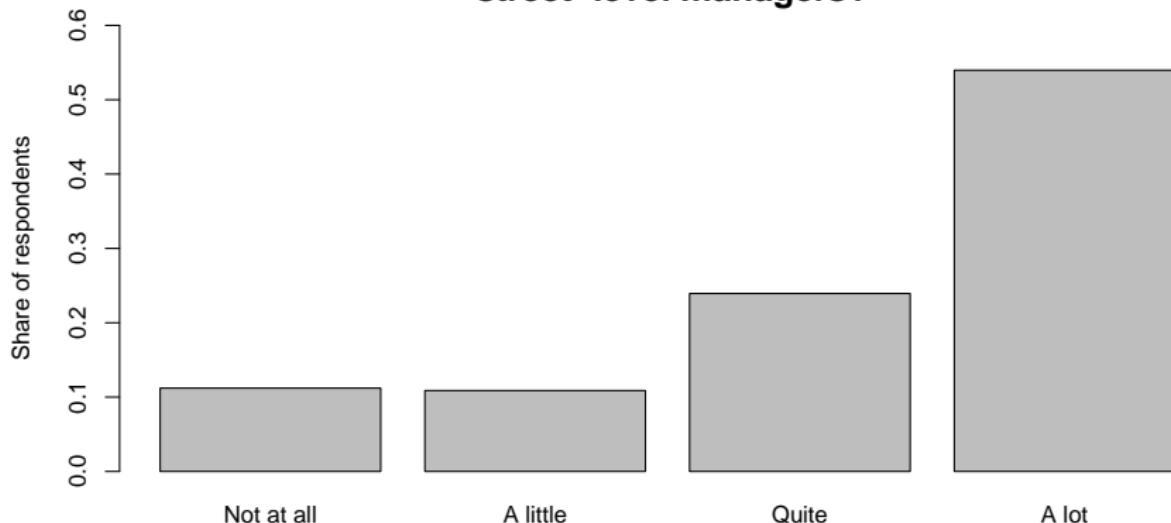
- Correlations of prosecutor presence with contact and perceptions of the prosecutor's office

Null effects on municipal underspending

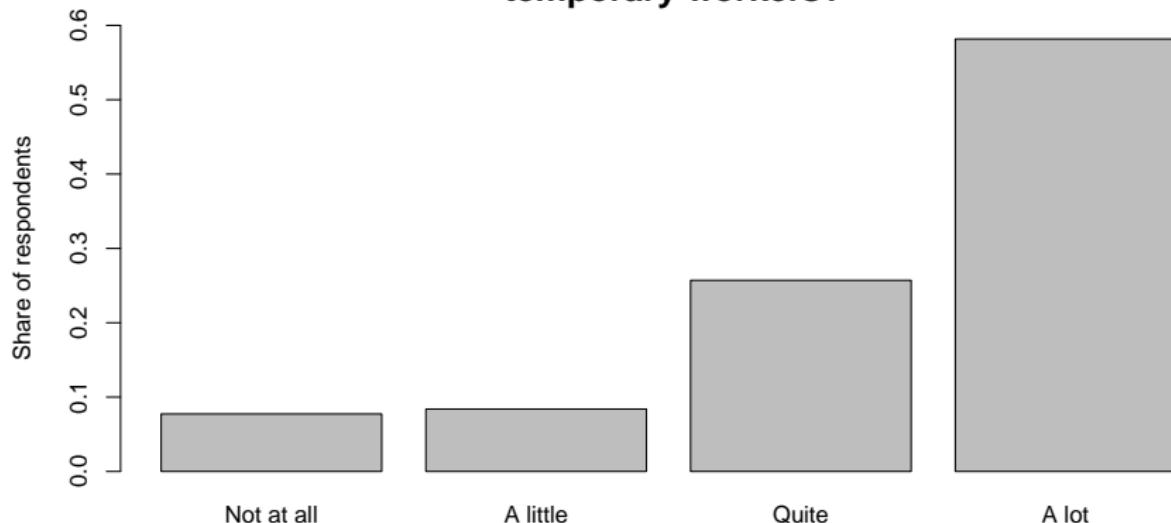
Public employment in Brazilian municipalities

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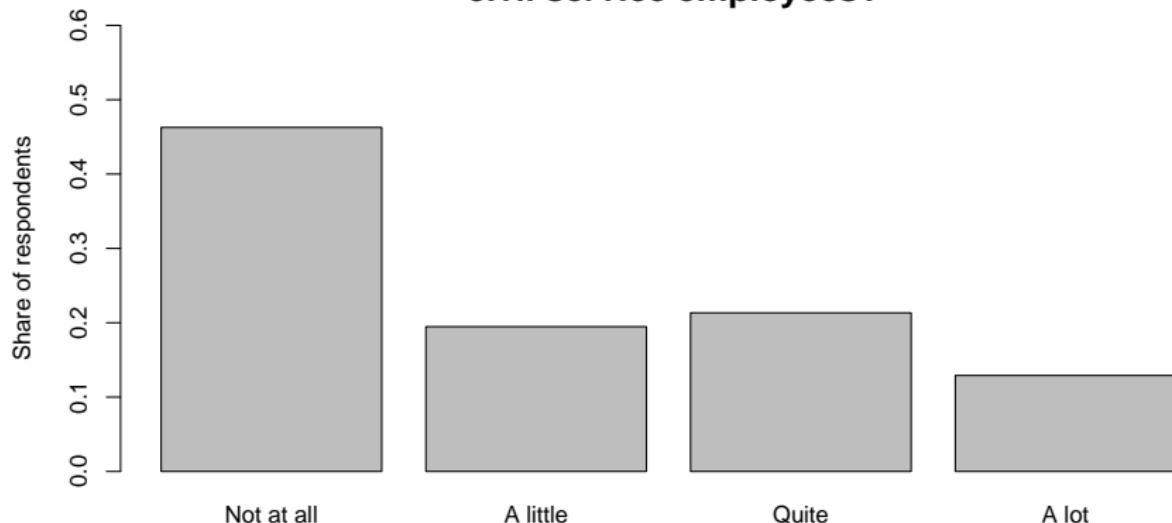
Do political connections influence the hiring of street-level managers?



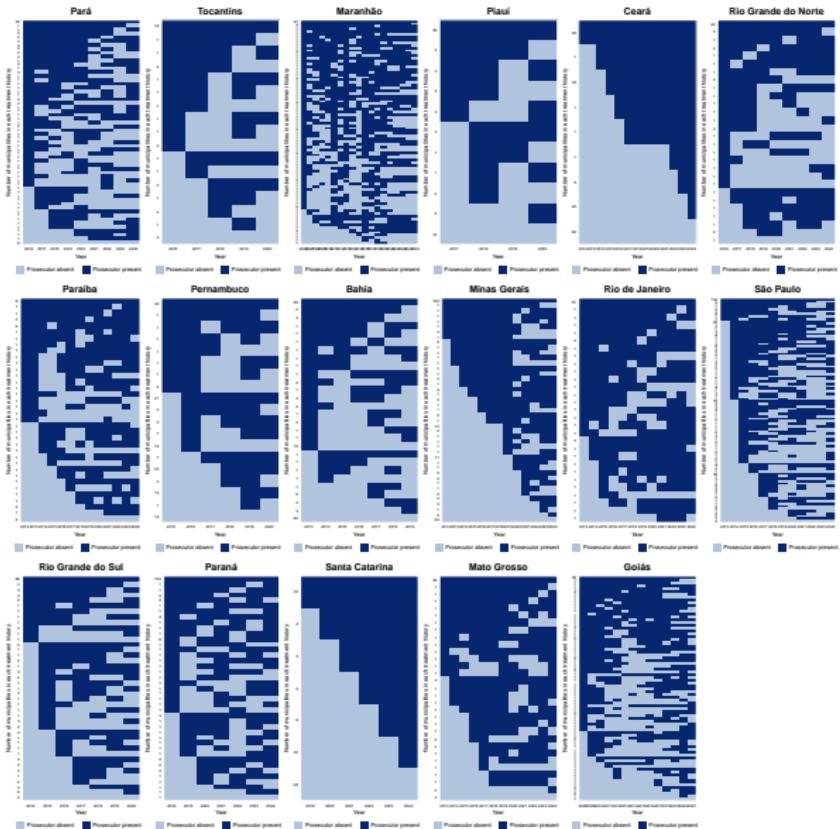
Do political connections influence the hiring of temporary workers?



Do political connections influence the hiring of civil service employees?



Treatment histories by state

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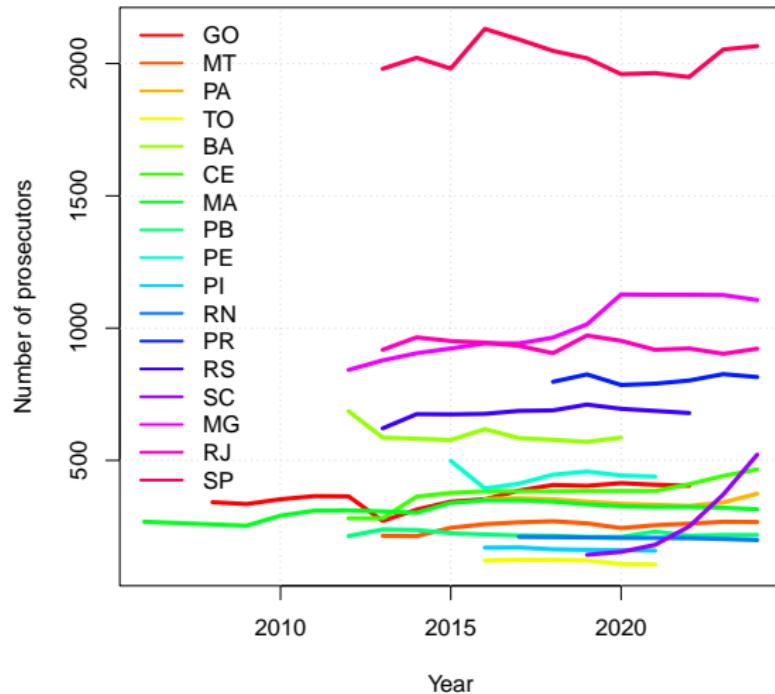
Descriptive statistics of the states in the sample

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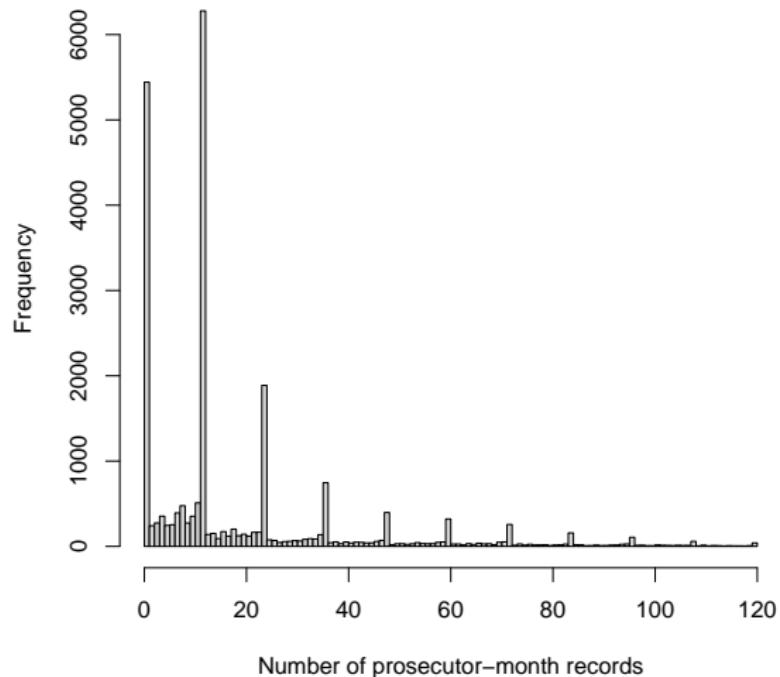
Table: Descriptive Statistics of the States Included in the Dataset

Region	State	Municipalities	Residents (millions)	Prosecutorial districts	Prosecutors	Data on 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	
	Rio Grande do Norte (RN)	167	3.3	57	207	
Southeast	Minas Gerais (MG)	853	20.5	297	1127	✓
	São Paulo (SP)	645	44.4	318	1982	✓
	Rio de Janeiro (RJ)	92	16.1	81	952	
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	
	Mato Grosso (MT)	142	3.7	76	244	
North	Pará (PA)	144	8.1	120	336	
	Tocantins (TO)	139	1.5	41	108	
Total		5068	180.8	2273	9116	

Prosecutors by state and year



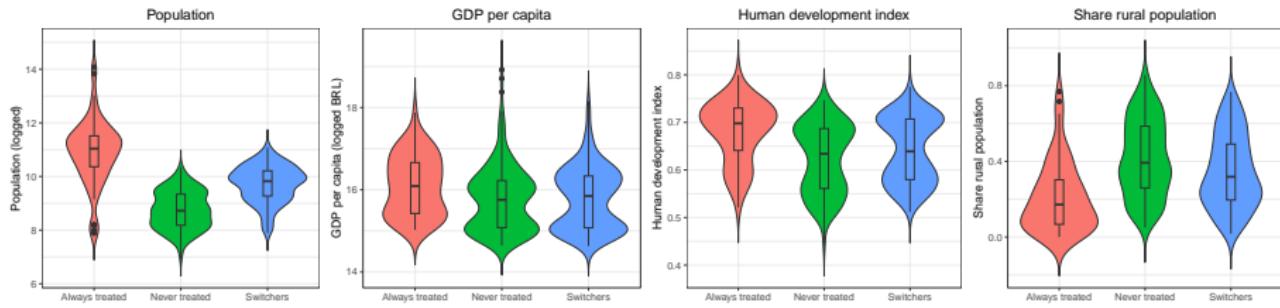
Distribution of prosecutor-month records



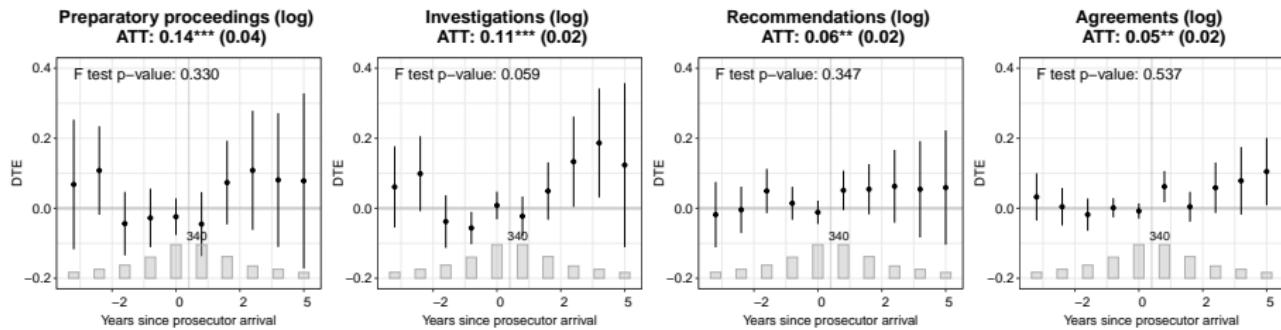
Descriptive statistics of municipalities by treatment group

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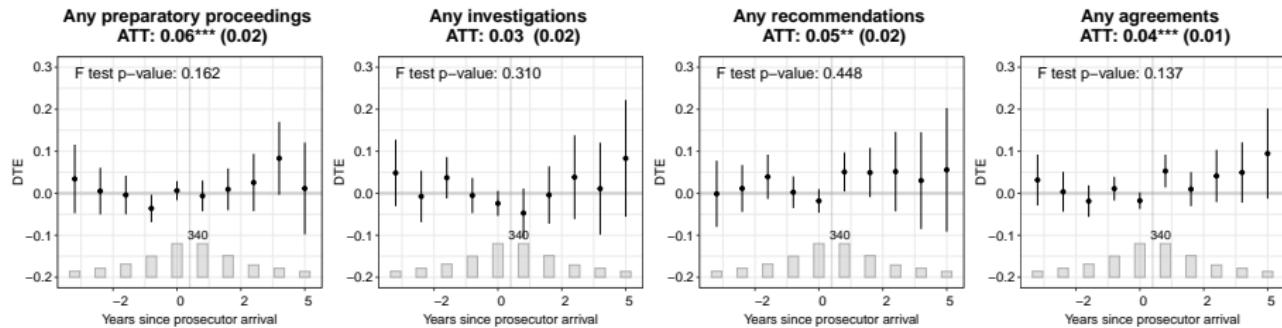
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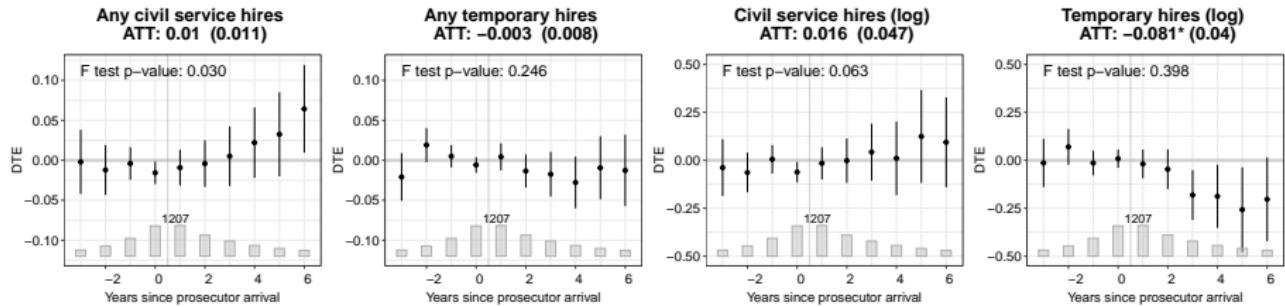
Alternative specifications: Logged measures of anti-corruption action targeted at the local government



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

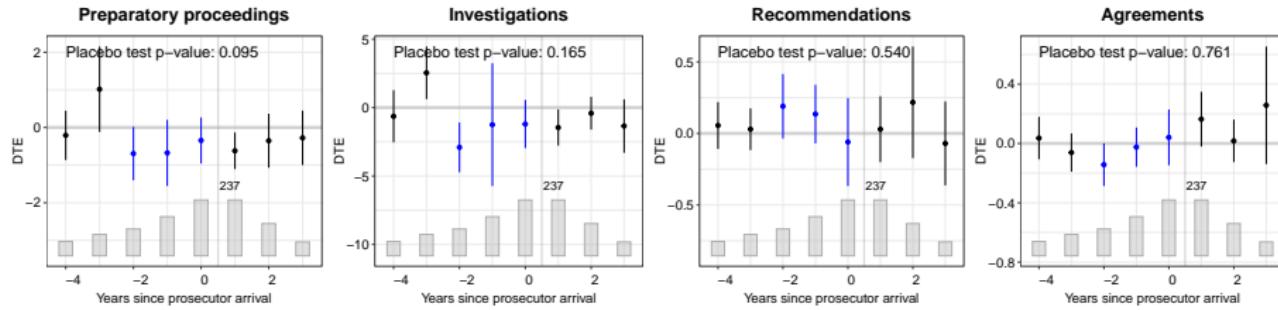


Alternative specifications: Logged and binary measures of civil service and temporary hires



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

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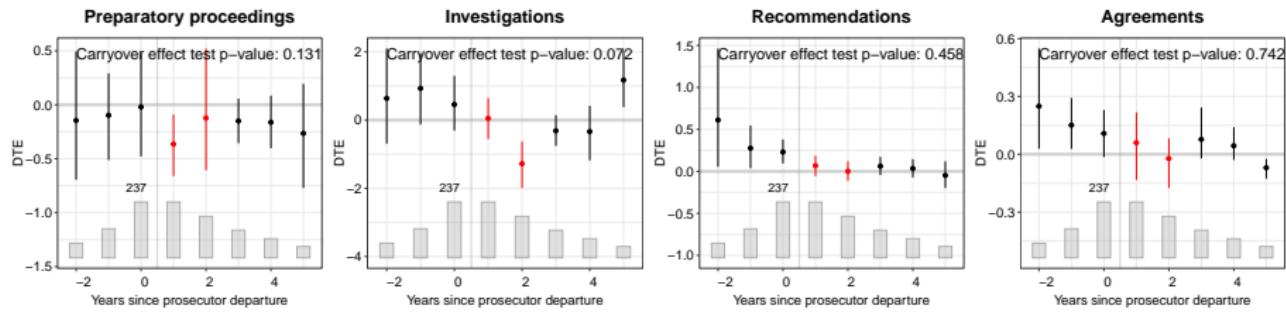


Placebo tests: Effects of prosecutor presence on hiring decisions by local government officials

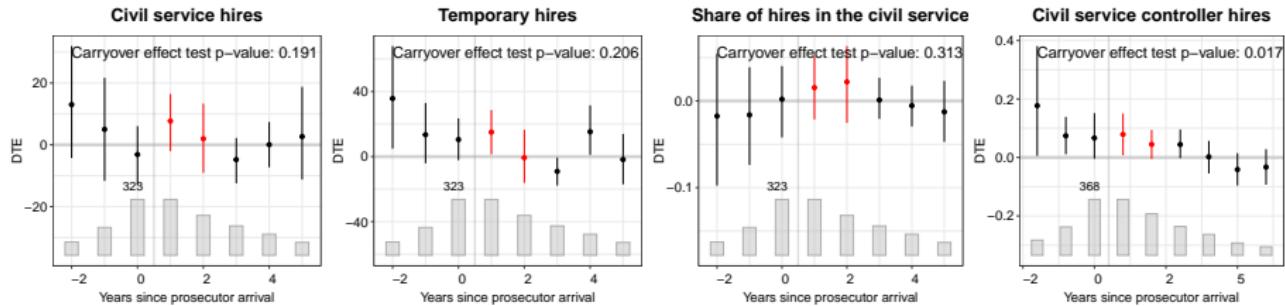
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Carryover tests: Effects of prosecutor presence on anti-corruption action targeted at the local government

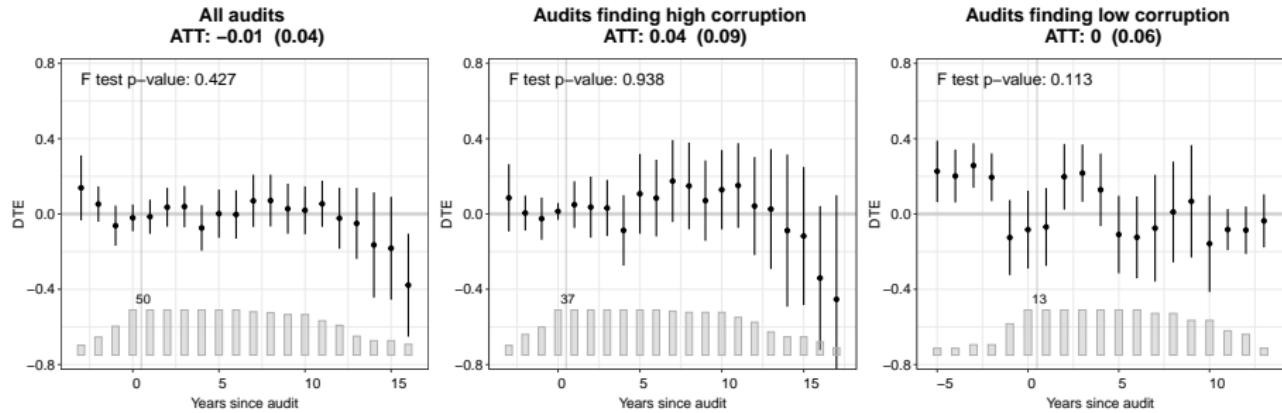
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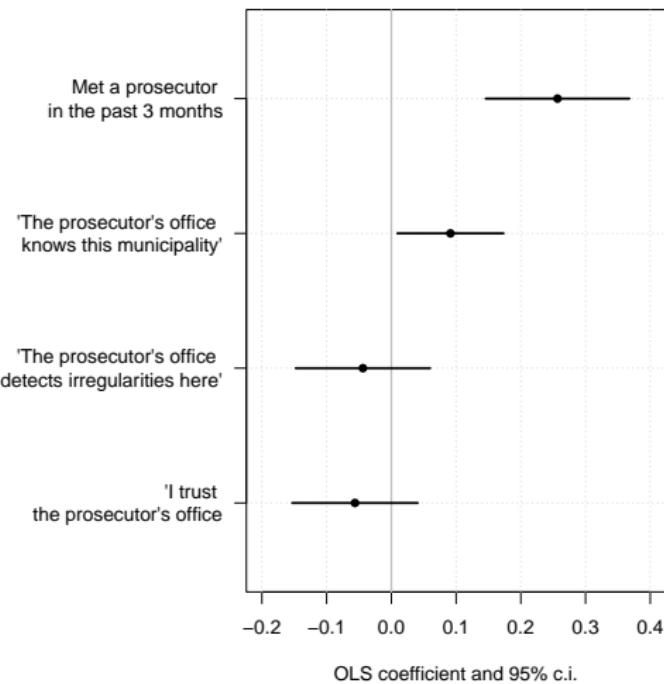
Carryover tests: Effects of prosecutor presence on hiring decisions by local government officials

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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 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."

Results: Effects of prosecutor presence on underspending of municipal budgets

Table: Average Treatment Effect Estimates of Prosecutor Presence on Underspending of the Municipal Budget

	Percent unspent	Underspending above median	Underspending above third quartile
\widehat{ATT}	0.002 (0.002)	0.007 (0.013)	0.009 (0.012)
Mean outcome under control	0.069	0.507	0.257

* p<0.10; * p<0.05; ** p<0.01; *** p<0.001. Municipality-clustered standard errors in brackets.

Results: Effects of prosecutor presence on underspending of municipal budgets

