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- And it is the less interesting one.
- But any feedback is welcome!
- You can leave if you want.
- See you at the soccer game.

Government Transparency and Campaign Proposals

November 18, 2022

Motivation I: Transparency

- Government transparency means more information to voters about what the government does.
- And it has consequences for those in policy roles...
  - Political Clientilismm (Bobonis, Gertler, Gonzalez-Navarro, & Nichter, 2019)
  - Information to firms (Colonnelli & Prem, 2020)
  - Corruption (Avis, Ferraz, & Finan, 2018)
  - Hiring employees (Gonzales, 2021; Lauletta, Rossi, & Ruzzier, 2020)

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Could more information about policymakers' actions affect politicians' campaign messages?

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Could more information about policymakers' actions affect politicians' campaign messages?

- Worldwide trend towards increasing the levels of governments' openness.
- There are concerns about supply of populist/polarizing/hateful messages (Gennaro et al., 2019)

Motivation II: Politicians' proposals

- We expect politicians to respond strategically to more information.
- This refers to the content of the message (the agenda), but also could be about the tone, the use of words, etc.
- This is not only for policymakers, it is also true in an electoral campaign for both the incumbent and the challenger.
- This paper tests the relationship between more information
  - agenda choice
  - word-choice in politician's proposal
- I focus on one election. Variations come from the variation on whether the information was provided and the content of it across municipalities,
- Brazil, 2012 municipal elections.

Motivation III: Relevance

- What politicians say and propose affects citizens
- A strategic supply by rational politicians of:
  - Populism
  - Sentimental content
  - Time references (which relate to retrospective and prospective voting decisions)

Research questions

Does more information about how the incumbent used public funds affected politicians'

1. agenda?
2. sentiment?
3. time focus?
4. populism supply?

Context I

Municipalities in Brazil in 2012 (Need references).

- Decrease in trust to the government
- Concerns about corruption
- Polarization/Populist politicians
- Brazil is very decentralized
- It is mandatory to submit a proposal

Summary

To do this,

- I compare cities audited by the Federal Government in Brazil
- They audited how municipalities used public funds
- I also use candidates' manifestos for the 2012 election
- I processed them to use them as the dependent variable
- I compare audited incumbents vs. non-audited incumbents.
- and repeat that comparison with their respective challengers.

Preview of the results

1. No difference in how an audited incumbent writes their proposal concerning a non-audited incumbent in terms of sentiment or time tense.
2. No difference in how the challenger to an audited mayor writes their proposal in terms of sentiment or time tense.
3. Incumbents with a high number of irregularities talk more about the present and future when they are exposed.
4. Those who challenge mayors that did a good job talk less about the past if the mayors were exposed as good than if they were not exposed at all.

Context II

- Proposals show variation across municipalities.
- There is an increase in the percentage of local party manifestos in Brazil that include populist term (I used Gennaro et al. (2019) dictionary).
- Left: Year 2012, Right: Year 2020.

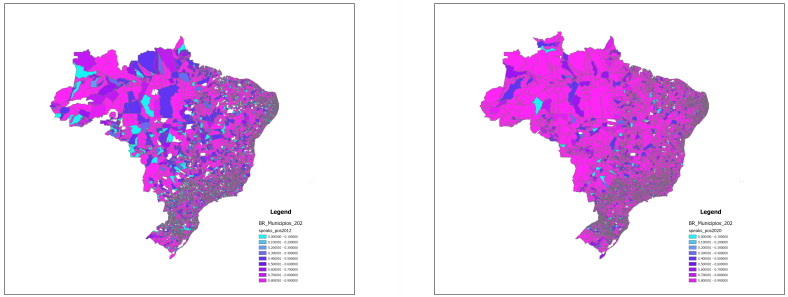

Figure: Percentage of local party manifestos in Brazil that include a populist word

Context III

- Proposals show variation across municipalities.
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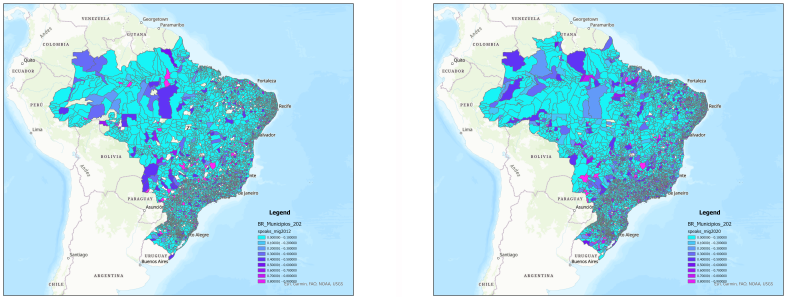

Figure: Percentage of local party manifestos in Brazil that include a word referring to immigration

Related work

- Information and choice of the agenda
- Politicians use different sentiments, and respond strategically to context (Crabtree, Golder, Gschwend, & Indriđason, 2020)
- Temporal dimension of campaign rhetoric (Müller, 2022)
- Effects of audits
  - Corruption (Avis et al., 2018)
  - Firms (Colonnelli & Prem, 2020)
  - Bureaucracy quality (Lauletta et al., 2020)
  - Audit Probability on Rent Extraction (no in Health Services) (Zamboni & Litschig, 2018)
  - Campaign Spending (Poblete-Cazenave, 2021)

Data: Party Manifestos

- Party manifestos at the local level in Brazil for the 2012 election.
  - Mandatory since 2009.
  - Scrapped 16,173 pdfs and 13,724 texts (out of 15,874 candidates that got votes)
  - After processing: 11,422 candidates from 5,140 municipalities
  - Number of words average: 2398 words
  - Median: 1650
  - p5: 219 ; p95: 6737

Data: Party Manifestos

- Party manifestos are usually structured around topics
- There is variation in how they frame them
- My first processing step is to classify lines into topics.
- Titles, Introduction, Health, Education, Economic Development, **Administrative and Government issues**, Infraestructure and Services, Agriculture, Transport, Environment, Security? and a residual category with Education, Sports, Culture, Tourism, Gender and other Social Policies.
- There are 3,445,957 lines. I manually codify approx 1% and use Naive Bayes method to predict the rest of it.

Measuring Outcomes

I use LIWC to compute Outcomes

Table: Dimentsion and most used words for each dimension in the English Language

Dimension	**Example words (in English)**
Positive emotion - Negative Emotion (difference of pos and neg)	+(good, love, happy, hope); -(bad, hate, hurt, tired, worry, fear, afraid, nervous, hate, mad, angry, frustr*, :(, sad, disappoint*, cry)
Past Focus	was, had, were, been
Present Focus	is, are, I'm, can
Future Focus	will, going to, have to, may
Populism	elite, absurd, corrupt, establishment

- TF-IDF. Steps:
  1. Compute a tf-idf matrix for incumbents and another one for challengers (freq of a word in a doc/how many docs that word is).
  2. Compute the Outcome for each document as the sum of the values of that matrix across words according to the dictionary.

- I compute a binary variable that represents whether the document shows a total value above or below the median.

$$Topic_{imst} = \mathbf{1}\{\text{Sum of total values of words in a specific dimension} > \\ > \text{Median sum of total values of words in a specific dimension}\}$$

Data: Audits

- Audits
  - State Comptroller (CGU) has performed a randomized audits program to control public funds' use.
  - The program started in 2003 and ended in 2015.
  - I consider as audited a municipality drawn to be audited by CGU about the use of public funds (2009-2015) ($Audited_{mst}$)
  - 478 audited municipalities (out of 5,568) in 2009-2012.
  - 299 audited municipalities in 2013-2015.
  - Data about corruption and irregularities is from Avis et al. (2018)

- Other data
  - Data about municipal characteristics come from the Pesquisa de Informações Básicas Municipais - MUNIC (2011)(IBGE).
  - 2012 election data.
    - 2,691 candidates ran for reelection (incumbents)
    - 5,049 candidates were challengers to incumbents (challengers)

Empirical Strategy: Effect of the Audit

- I want to compare incumbents (challengers) in audited to incumbents (challengers) in non-audited municipalities.
- I exploit the fact that municipalities were randomly drawn to be audited [HERE GOES BUTTON TO BALANCE].
- The universe is all municipalities where a mayor was allowed to run for re-election.
- The dependent variables are:
  - Total Count of Words
  - Share of words in each topic
  - Overall count of words that correspond to each dictionary
  - Count of words that correspond to each dictionary on each topic

Effect of the audit

- I estimate the following model for incumbents and challengers (different regressions)

$$Outcome_{mst} = \alpha + \beta Audited_{mst} + \gamma Controls_{mst} + \nu_s + \varepsilon_{mst} \quad (1)$$

  - $Outcome_{mst}$ is the outcome variable in municipality m in state s. In this presentation is a binary variable that represents 1 if the value for that candidate was above the median.
  - $Audited_{mst}$ is a binary variable
  - ν_s represents state fixed effects.
  - The vector $Controls_{mst}$ consists of a set of municipal and mayor characteristics

Empirical Strategy: Effect of the Audit condition on the result I

- I want to look at (non-)corrupt incumbents (challengers) in audited and non-audited municipalities to address research questions 1 and 2.
- I exploit the fact that municipalities were randomly drawn to be audited.
- I compare municipalities audited before 2012 election and their result was disclosed before the election to municipalities audited before the election (or shortly after the election) for which the result of it was disclosed after the election.

Empirical Strategy: Effect of the Audit condition on the result II

- I estimate the following model for incumbents and challengers (different regressions)

$$Outcome_{mst} = \alpha + \beta_0 Audited_{mst} + \beta_1 Audited_{mst} \times Corruption + \beta_2 Corruption + \\ + \gamma Controls_{mst} + \nu_s + \varepsilon_{mst}$$

- $Outcome_{mst}$ is the outcome variable in municipality m in state s. In this presentation is a binary variable that represents 1 if the value for that candidate was above the median.
- $Audited_{mst}$ is a binary variable that represents if a municipality was audited and the result was disclosed before the election.
- ν_s and $Controls_{mst}$ represents the same as in the previous slide
- $Corruption$ is a binary variable that represents whether the audit gave a number of acts of corruption higher than the median.
- $\beta_0 + \beta_1$ measures the effect of the scandal given the audit result was disclosed before the election and the acts of corruption were above the median.
- β_0 measures the effect of the scandal given the audit result was disclosed before the election, and the acts of corruption were below the median.

Results I: Effect of the Audit

Table: Differences in probabilities of being above the median

Panel A: Incumbents

VARIABLES	(1) Pos-Neg	(2) Past	(3) Present	(4) Future	(5) Count
Audited	-0.0362	-0.0196	-0.0130	0.0178	0.0517
	(0.0313)	(0.0355)	(0.0283)	(0.0348)	(0.0398)
Constant	-2.349***	-1.778***	-2.071***	-1.470***	0.504
	(0.221)	(0.271)	(0.259)	(0.211)	(0.461)
Observations	1,842	1,842	1,842	1,842	1,873
R-squared	0.333	0.381	0.485	0.359	0.087

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Panel B: Challengers

VARIABLES	(1) Pos-Neg	(2) Past	(3) Present	(4) Future	(5) Count
Audited	-0.000638	-0.0584	0.00797	0.00467	0.0146
	(0.0246)	(0.0370)	(0.0227)	(0.0367)	(0.0236)
Constant	0.0470	-1.385***	-1.318***	-0.807***	0.187
	(0.283)	(0.134)	(0.200)	(0.240)	(0.223)
Observations	3,360	3,360	3,360	3,360	3,361
R-squared	0.064	0.203	0.251	0.217	0.050

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

In all estimations,GDP, Gini, the share of Urban residents, the percentage of adults with college studies, the share of illiterate people, population, candidates' gender, whether the candidate has college studies, the number of words in the manifesto (logs), and party fixed effects. Standard errors are robust and clusterized at the state level. The dependent variable is binary and represents whether the share of words in the mentioned dimension is above the median for the whole set of documents.

Results II: Effect of the Audit according to the Results

Table: Differences in probabilities of being above the median

Panel A: Incumbents

	(1)	(2)	(3)	(4)	(5)
VARIABLES	Pos-Neg	Past	Present	Future	Count
Audited	-0.0124	-0.0434	-0.0446	0.0750	0.0420
	(0.0590)	(0.0681)	(0.0891)	(0.0963)	(0.123)
IrregularitiesxAudit	0.0948	0.112	0.187	0.0286	0.0699
	(0.115)	(0.104)	(0.128)	(0.129)	(0.218)
Irregularities	-0.239**	0.0119	-0.153	-0.125	-0.0806
	(0.114)	(0.0832)	(0.0932)	(0.0828)	(0.141)
Constant	-3.035***	-1.489	-1.306*	-0.560	-0.0127
	(0.485)	(0.965)	(0.747)	(0.811)	(0.691)
Observations	261	261	261	261	261
R-squared	0.397	0.508	0.568	0.440	0.162
Dep. Var.	Unweighted	Unweighted	Unweighted	Unweighted	Unweighted
$\beta_0 + \beta_1$	0.0824	0.0682	0.142	0.104	0.112
pval	0.334	0.379	0.0974	0.0933	0.342

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Panel B: Challengers

	(1)	(2)	(3)	(4)	(5)
VARIABLES	Pos-Neg	Past	Present	Future	Count
Audited	-0.0450	-0.101**	0.000653	-0.0693	0.0776
	(0.0650)	(0.0456)	(0.0501)	(0.0499)	(0.0701)
IrregularitiesxAudit	0.0574	0.137	0.0456	0.192**	-0.0556
	(0.110)	(0.0994)	(0.0903)	(0.0875)	(0.124)
Irregularities	0.0450	-0.0710	0.0514	-0.0900	0.0972
	(0.120)	(0.0866)	(0.0668)	(0.0687)	(0.114)
Constant	-0.345	-2.492***	-1.807**	0.452	-0.616
	(0.704)	(0.631)	(0.727)	(0.687)	(0.689)
Observations	490	490	490	490	490
R-squared	0.131	0.297	0.320	0.264	0.135
Dep. Var.	Unweighted	Unweighted	Unweighted	Unweighted	Unweighted
$\beta_0 + \beta_1$	0.0124	0.0368	0.0463	0.123	0.0220
pval	0.879	0.689	0.522	0.139	0.830

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

In all estimations,GDP, Gini, the share of Urban residents, the percentage of adults with college studies, the share of illiterate people, population, candidates' gender, whether the candidate has college studies, the number of words in the manifesto (logs), and party fixed effects. Standard errors are robust and clusterized at the state level. The dependent variable is binary and represents whether the share of words in the mentioned dimension is above the median for the whole set of documents.

Next Steps

Next:

- Incumbentship (Gentzkow, Shapiro, Taddy, et al., 2016)
- Populism (Gennaro et al., 2019)
- Topics

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