

LocalView:

Scaling Up the Study of Local Politics & Policy-Making in the United States

Soubhik Barari

Research Methodologist, NORC at the University of Chicago
Adjunct Assistant Professor, Columbia University

Social Data Science Hub
University of Edinburgh
February 5th, 2024



sb4992@columbia.edu



soubhikbarari.com

About me

I'm a computational social scientist.

- I work on **data science**, **applied survey methodology**, and **public opinion** research at **NORC (National Opinion Research Center)** at the **University of Chicago**.
- I'm a **political scientist** by training, specializing in American Politics, political communication, and political methodology.



*like 🧑🏻‍🔬 show biz 🧑🏻‍🔬 but with a k.

American Politics happens in town hall

Maskless protesters upend Boston City Council meeting, sending councilors online instead

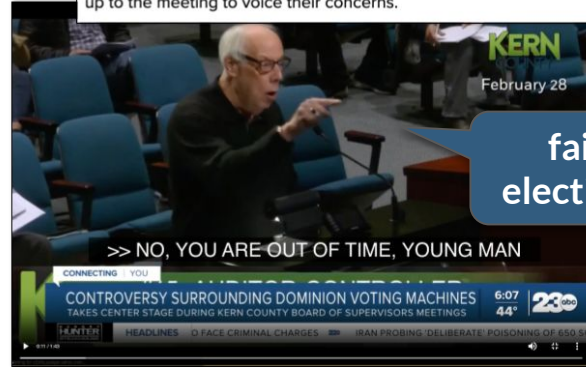
public health



Uproar at Board of Supervisors meeting over Dominion voting machines

A group of residents opposed to the renewal of a contract with Dominion showed up to the meeting to voice their concerns.

fair elections



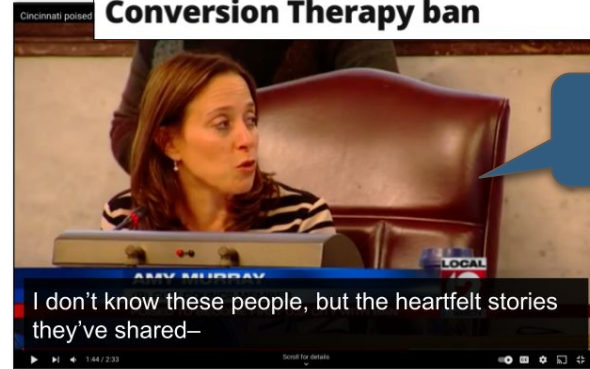
“Nobody’s giving us any answers”: Uvalde families demand details of shooting investigation at City Council meeting

gun violence



Cincinnati poised to become first US city with Conversion Therapy ban

LGBTQ rights



American Politics happens in town hall

Maskless protesters upend Boston City Council meeting, sending councilors online instead

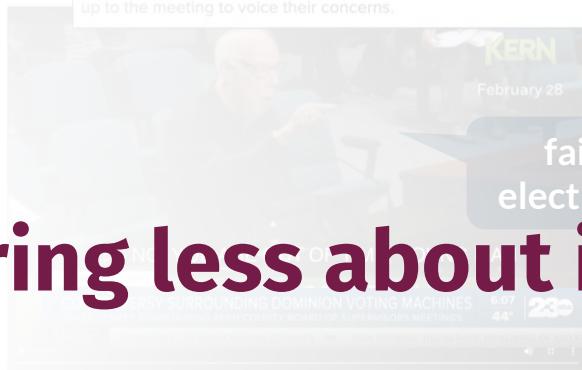
public health



Uproar at Board of Supervisors meeting over Dominion voting machines

A group of residents opposed to the renewal of a contract with Dominion showed up to the meeting to voice their concerns.

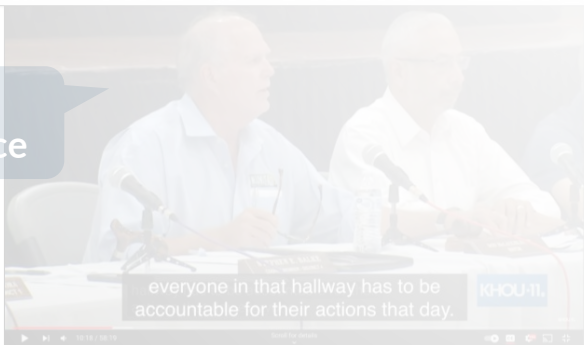
fair elections



... but voters are hearing less about it.

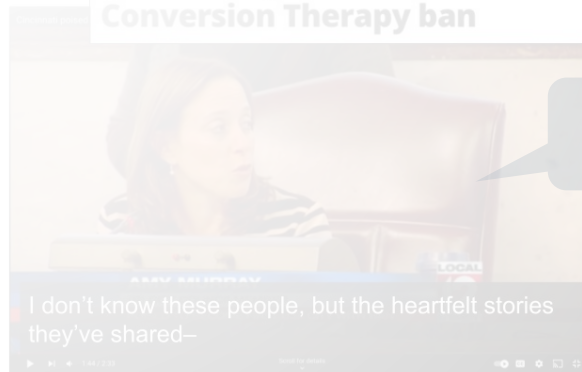
"Nobody's giving us any answers": Uvalde families demand details of shooting investigation at City Council meeting

gun violence



Cincinnati poised to become first US city with Conversion Therapy ban

LGBTQ rights

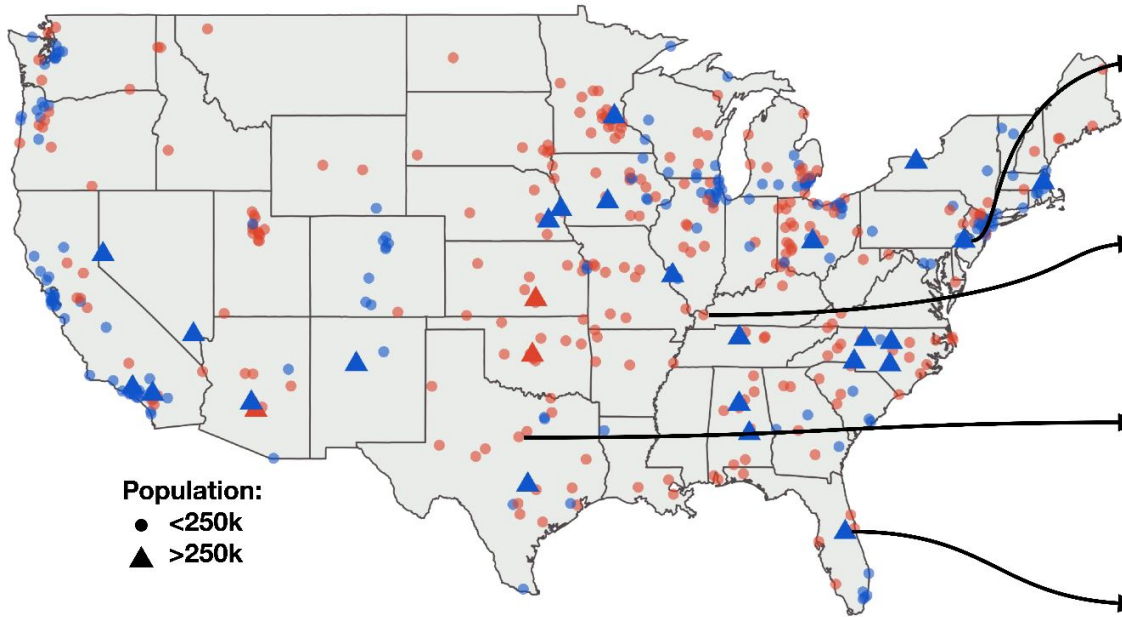


LocalView

LocalView: A Database of Public Meetings to Map Local Policy-making in the U.S.



LocalView: A Database of Public Meetings to Map Local Policy-making in the U.S.



Population:

● <250k

▲ >250k

Philadelphia, PA (2017):

[35:08] the central challenge [for] people ... around the globe now is **climate change** ... the costs of inaction are high

Paducah, KY (2018):

[2:03:28] **religious freedom** means to ... raise a **family** according to one's religious convictions ... it extends into the public arena as well

Granbury, TX (2018):

[24:26] it was discussed that ... it's beneficial for this **business owner** to have the sign on his own **property**

Orlando, FL (2016):

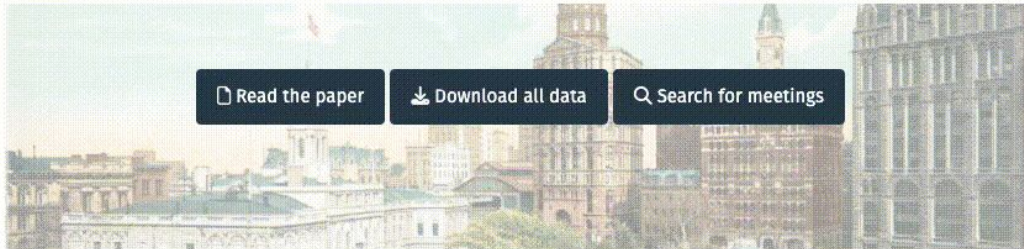
[27:53] in the **LGBTQ community** ... cannot be silent when it comes to this kind of **gun violence**



Data science tools to study local policy-making

LocalView is an open-source data portal built by [Soubhik Barari](#) and [Tyler Simko](#) to advance the study of local government in the United States.

It is the **largest database of local government public meetings** — the central policy-making process in American local government — as they are captured and uploaded to YouTube.



How* we** built LocalView

Creation

*Published in *Nature: Scientific Data*:
tinyurl.com/localview-paper

Usage

**Built with Tyler Simko.

How* we** built LocalView

Creation

*Published in *Nature: Scientific Data*:
tinyurl.com/localview-paper

Usage

**Built with Tyler Simko.

How* we** built LocalView

*Published in *Nature: Scientific Data*:
tinyurl.com/localview-paper

Creation

Usage

Step 1: Query for local government public meetings on YouTube API using all incorporated places from U.S. Census.



>2 million
video search results

Place	State	FIPS
Cambridge	MA	11000

19,502
incorporated places

**Built with Tyler Simko.

How* we** built LocalView

*Published in *Nature: Scientific Data*:
tinyurl.com/localview-paper

Creation

Step 1: Query for local government public meetings on YouTube API using all incorporated places from U.S. Census.



>2 million
video search results

Place	State	FIPS
Cambridge	MA	11000

19,502
incorporated places

Step 2: Download valid search results from manually verified governments.



139,616 videos

[15:16]
and make Mass Ave a
safe transportation
option all the way
from Harvard . . .

125,622 caption transcripts



139,616 metadata records

Usage

**Built with Tyler Simko.

How* we** built LocalView

*Published in *Nature: Scientific Data*:
tinyurl.com/localview-paper

Creation

Usage

Step 1: Query for local government public meetings on YouTube API using all incorporated places from U.S. Census.



>2 million
video search results

Place	State	FIPS
Cambridge	MA	11000

19,502

incorporated places

Step 2: Download valid search results from manually verified governments.



139,616 videos

[15:16]
and make Mass Ave a
safe transportation
option all the way
from Harvard . . .

125,622 caption transcripts



139,616 metadata records

Step 3: Parse meeting details and combine with metadata to create database.

LocalView

Text	Date	Type	...	FIPS
"...and make Mass Ave a safe transportation option all the way from Harvard..."	2019-04-08	City Council	...	11000

139,616 rows

**Built with Tyler Simko.

How* we** built LocalView

*Published in *Nature: Scientific Data*:
tinyurl.com/localview-paper

Creation

Step 1: Query for local government public meetings on YouTube API using all incorporated places from U.S. Census.



>2 million
video search results

Place	State	FIPS
Cambridge	MA	11000

19,502
incorporated places

Step 2: Download valid search results from manually verified governments.



139,616 videos

[15:16]
and make Mass Ave a
safe transportation
option all the way
from Harvard . . .

125,622 caption transcripts



139,616 metadata records

Step 3: Parse meeting details and combine with metadata to create database.

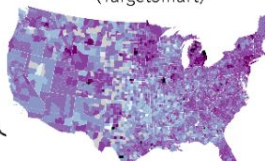
LocalView

Text	Date	Type	...	FIPS
"...and make Mass Ave a safe transportation option all the way from Harvard . . ."	2019-04-08	City Council	...	11000

139,616 rows

Usage

Step 4: Merge with other datasets.



**Built with Tyler Simko.

How* we** built LocalView

*Published in *Nature: Scientific Data*:
tinyurl.com/localview-paper

Creation

Usage

Step 1: Query for local government public meetings on YouTube API using all incorporated places from U.S. Census.

Place	State	FIPS
Cambridge	MA	11000

19,502 incorporated places



>2 million video search results

Step 2: Download valid search results from manually verified governments.



139,616 videos

[15:16] and make Mass Ave a safe transportation option all the way from Harvard . . .

125,622 caption transcripts



139,616 metadata records

Step 3: Parse meeting details and combine with metadata to create database.

LocalView

Text	Date	Type	...	FIPS
"...and make Mass Ave..."	2019-04-08	City Council	...	11000

139,616 rows

Step 4: Merge with other datasets.



Ex: **population density**
(American Community Survey)



Ex: **election outcomes**
(TargetSmart)



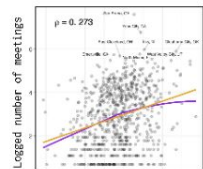
Ex: **COVID-19 outbreaks**
(Center for Disease Control)

Step 5: Analyze.



Phrases in Democratic places

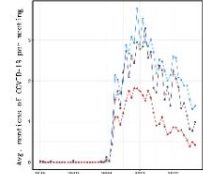
Ex: **descriptive**



Logged number of meetings

Logged population in 2018

Ex: **correlational**



Ex: **longitudinal**

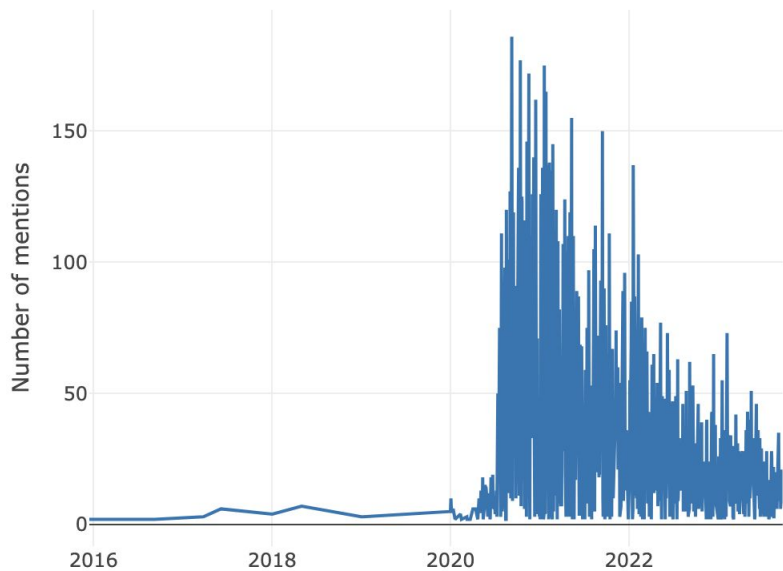
**Built with Tyler Simko.

**So what can LocalView tell
us about local politics?**

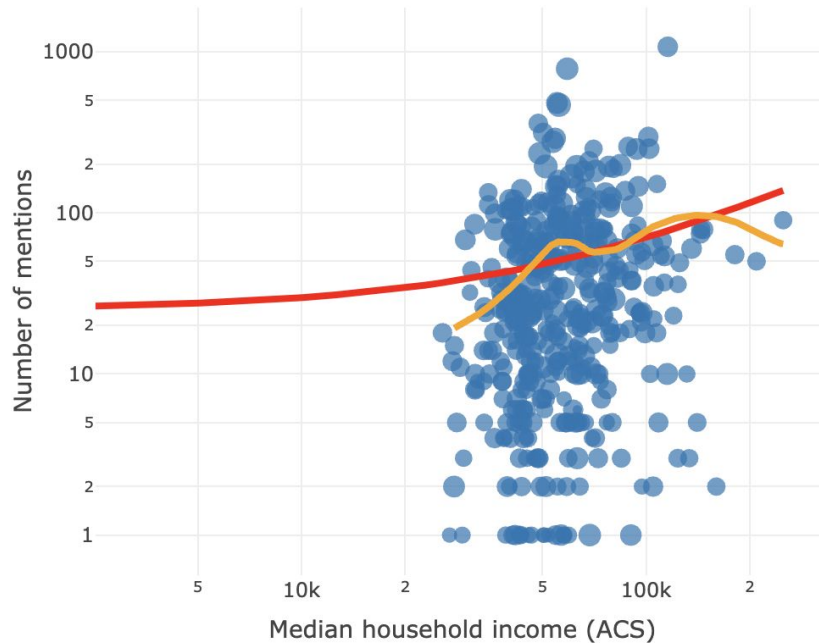
Issue attention changes over time and across context

Issue attention changes over time and across context

Mentions of 'covid' over time

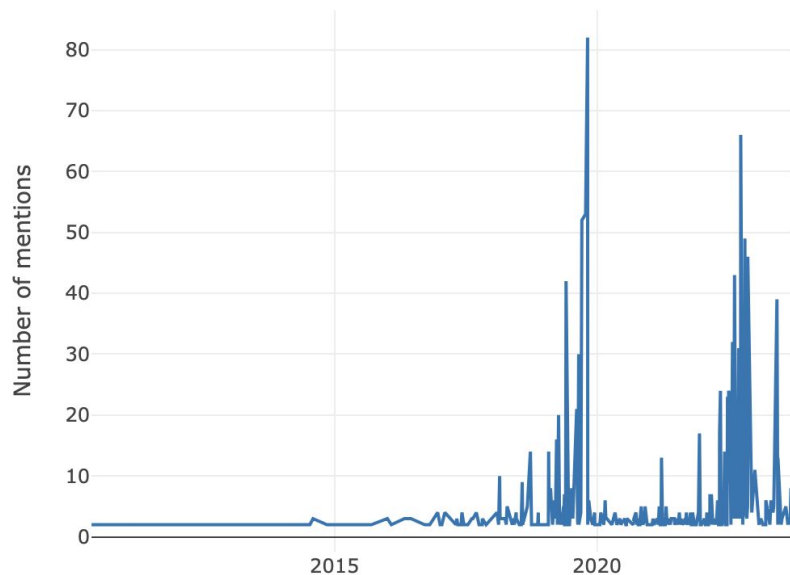


Correlations of 'covid' mentions with household income

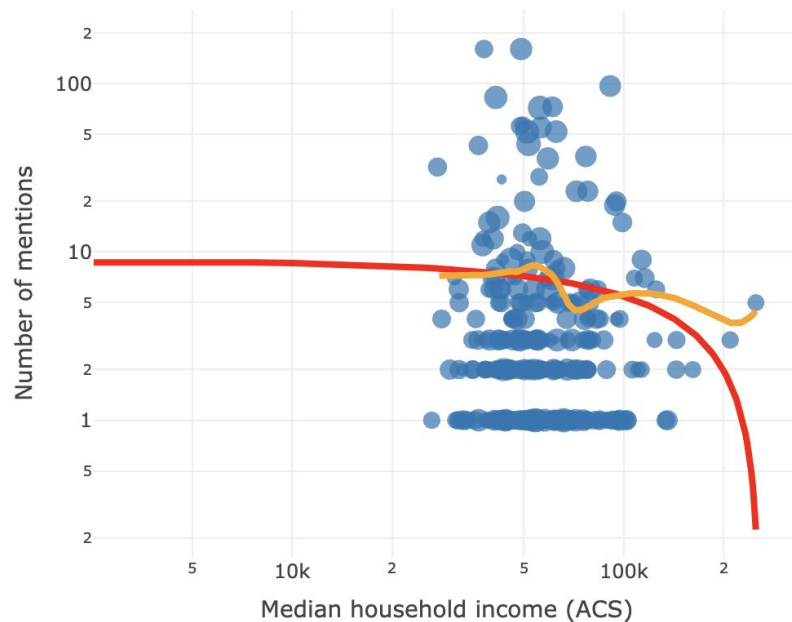


Issue attention changes over time and across context

Mentions of 'abortion' over time

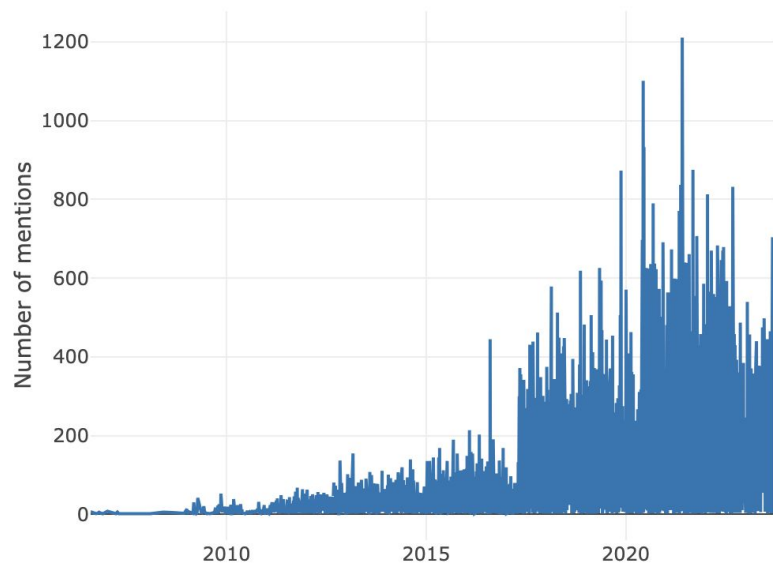


Correlations of 'abortion' mentions with household income

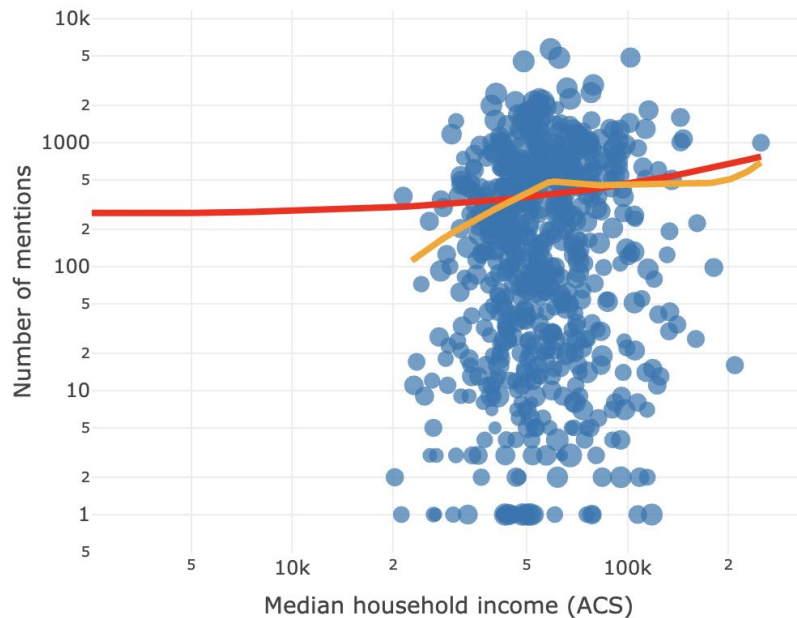


Issue attention changes over time and across context

Mentions of 'police' over time

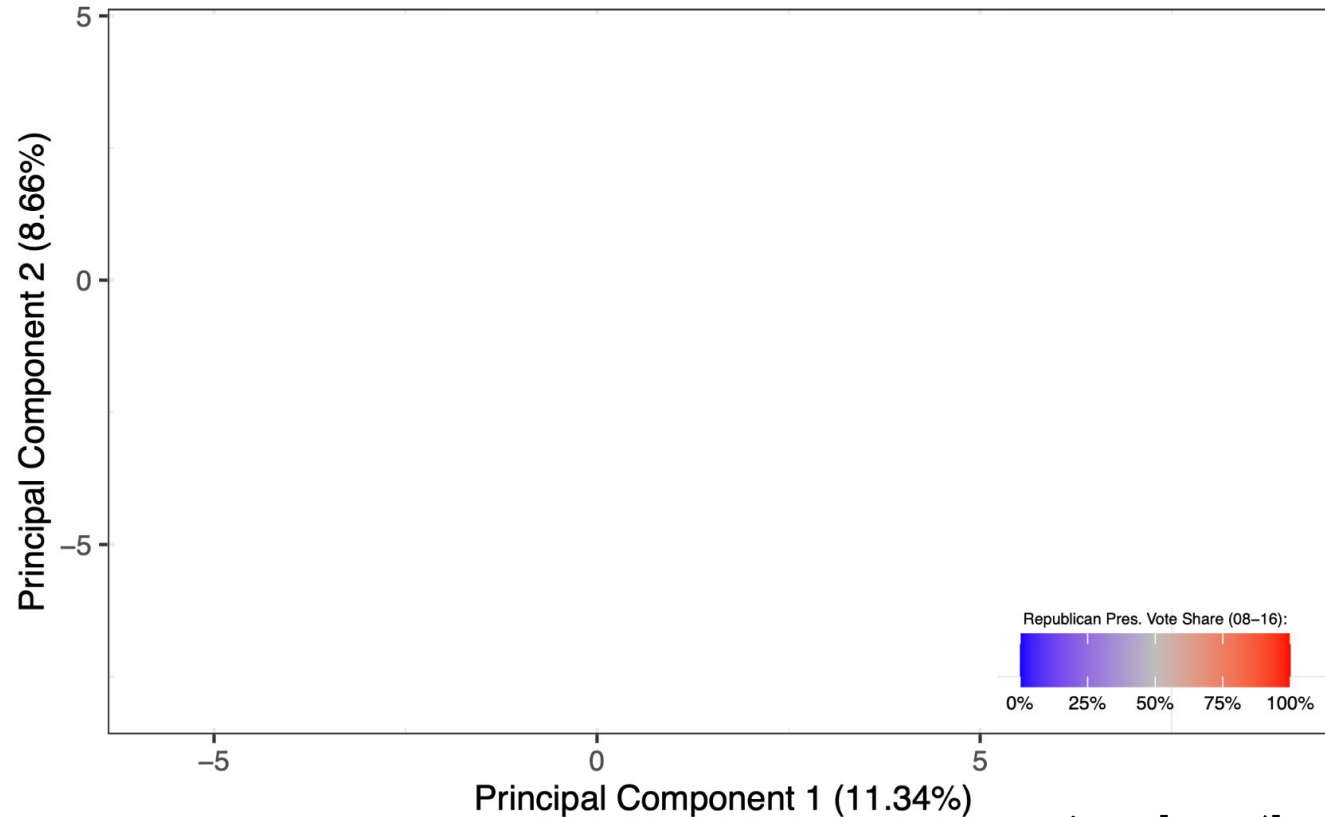


Correlations of 'police' mentions with household income



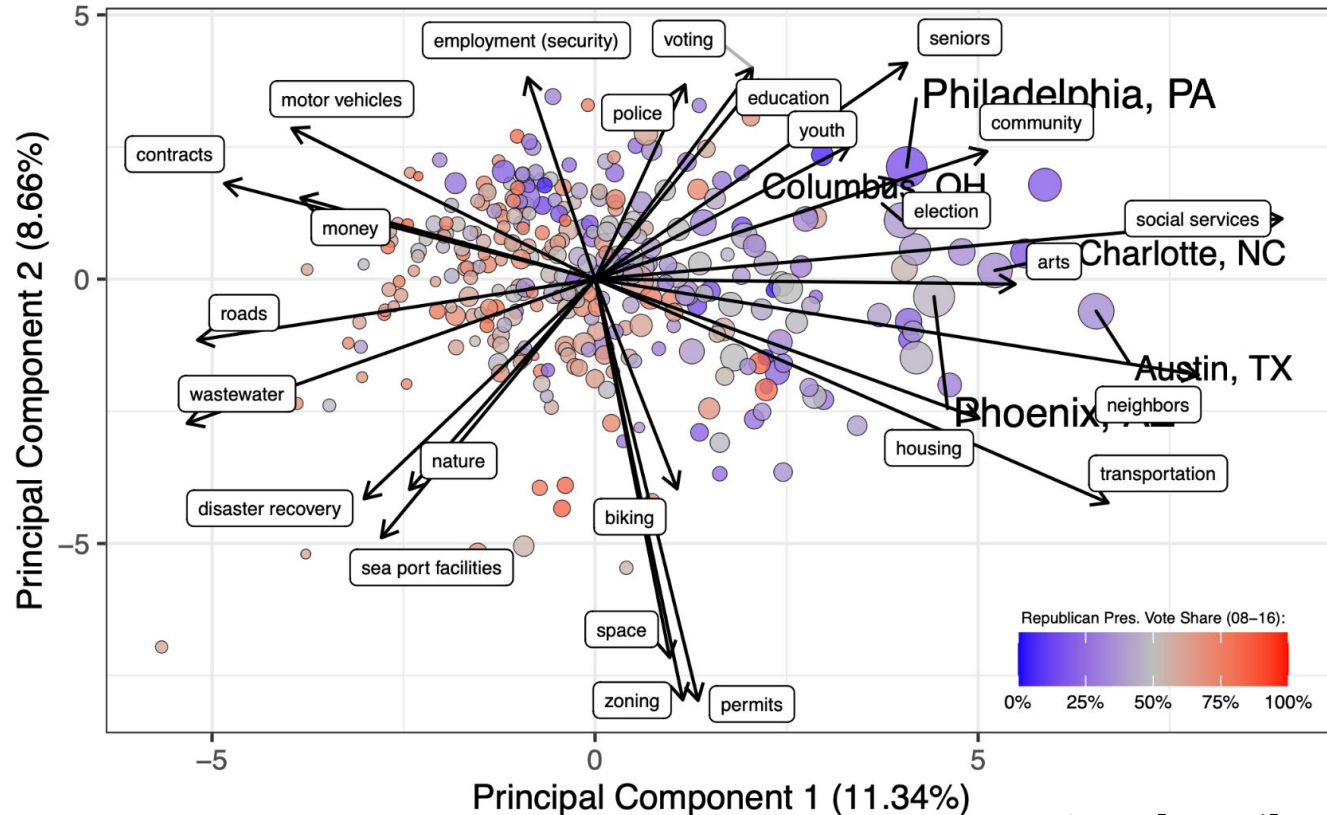
Democratic cities and Republican towns govern differently

Figure 2: Principal Components of Issue Attention in Public Meetings

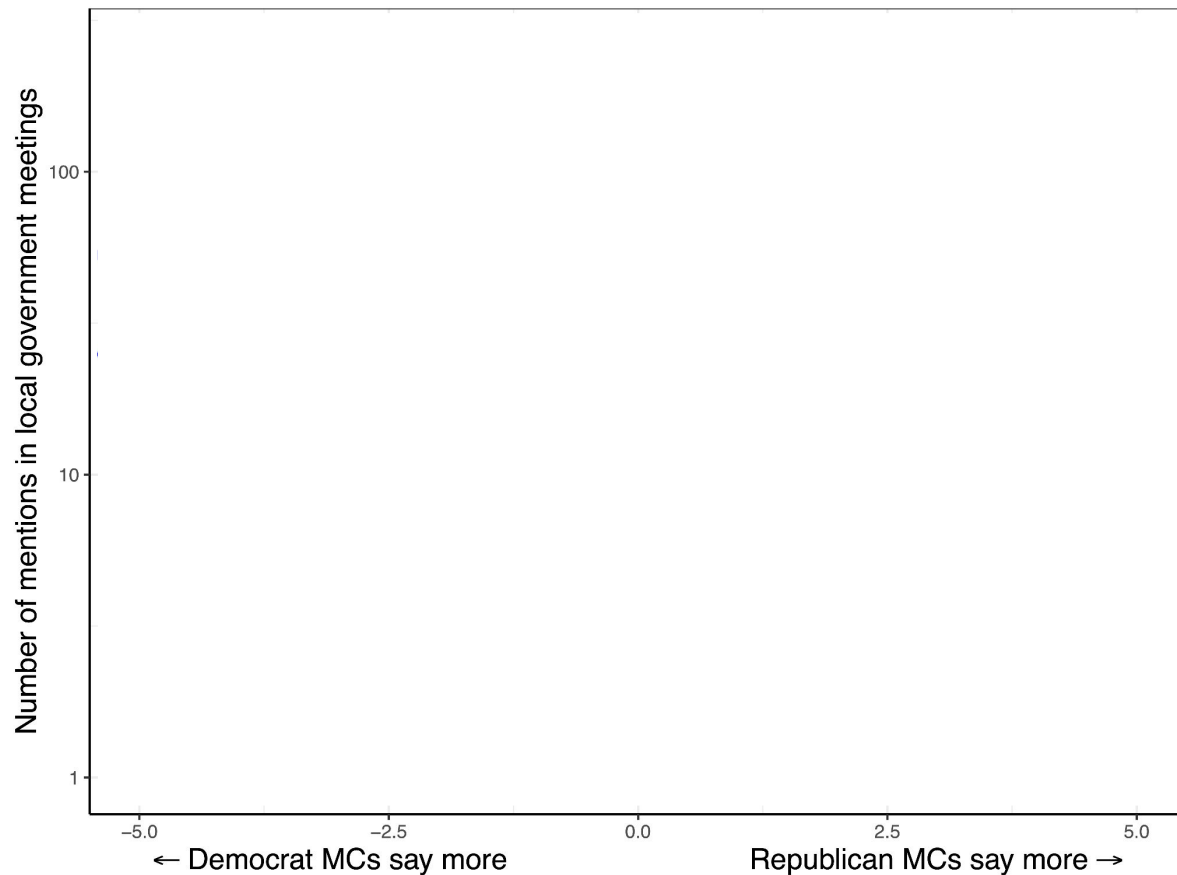


Democratic cities and Republican towns govern differently

Figure 2: Principal Components of Issue Attention in Public Meetings

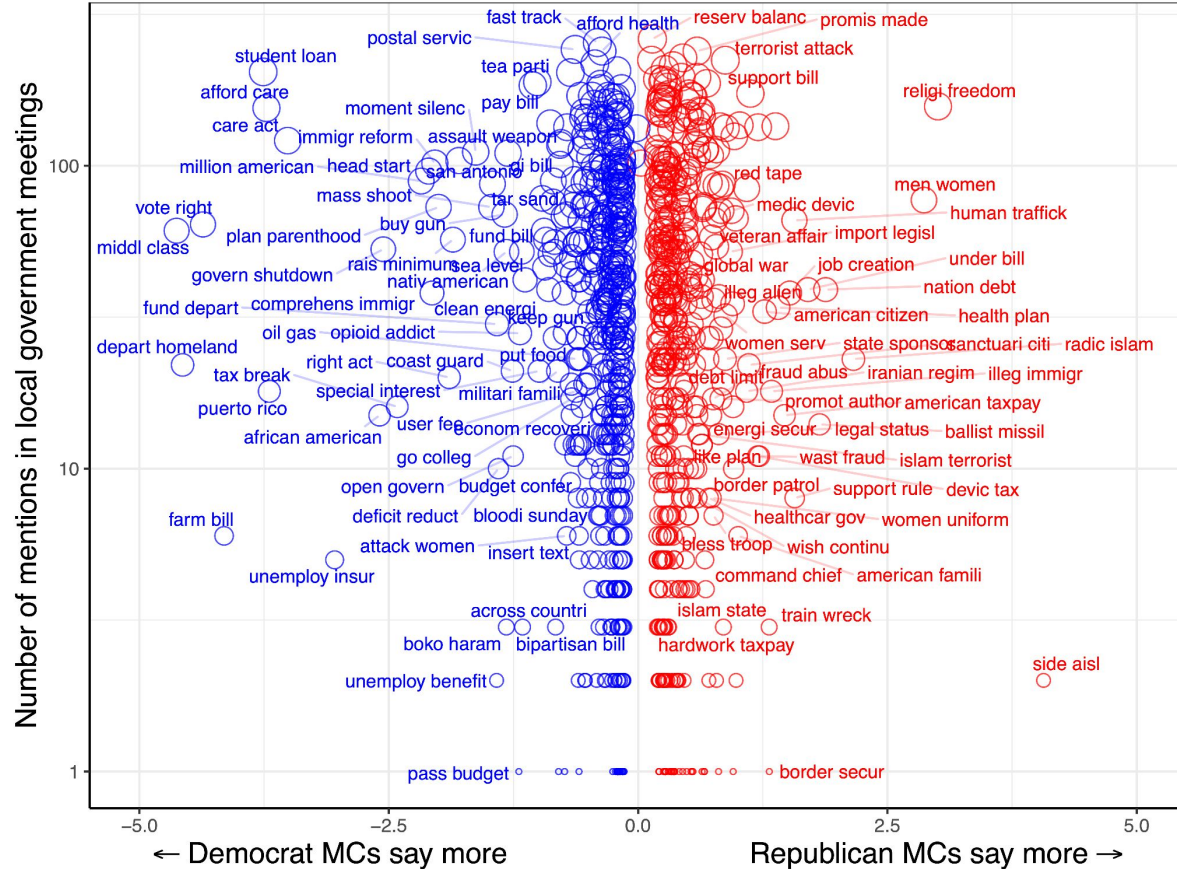


Democratic cities and Republican towns govern differently



Working paper:
tinyurl.com/local-polarization

Democratic cities and Republican towns govern differently



Using each observed count w_{ij} of each partisan phrase j in each municipality i , we wish to separately measure both its baseline *intensity* of partisan language, β_i , and the degree of its *slant*, ψ_i , in a Democrat or Republican direction. To accomplish this, we fit the following model:

Using each observed count w_{ij} of each partisan phrase j in each municipality i , we wish to separately measure both its baseline *intensity* of partisan language, β_i , and the degree of its *slant*, ψ_i , in a Democrat or Republican direction. To accomplish this, we fit the following model:

$$\begin{aligned}w_{ij} &\sim \text{Pois}(\lambda_{ij}), \\ \lambda_{ij} &= \exp(\alpha_j + \beta_i + \psi_i \gamma_j).\end{aligned}\tag{1}$$

Using each observed count w_{ij} of each partisan phrase j in each municipality i , we wish to separately measure both its baseline *intensity* of partisan language, β_i , and the degree of its *slant*, ψ_i , in a Democrat or Republican direction. To accomplish this, we fit the following model:

$$\begin{aligned}w_{ij} &\sim \text{Pois}(\lambda_{ij}), \\ \lambda_{ij} &= \exp(\alpha_j + \beta_i + \psi_i \gamma_j).\end{aligned}\tag{1}$$

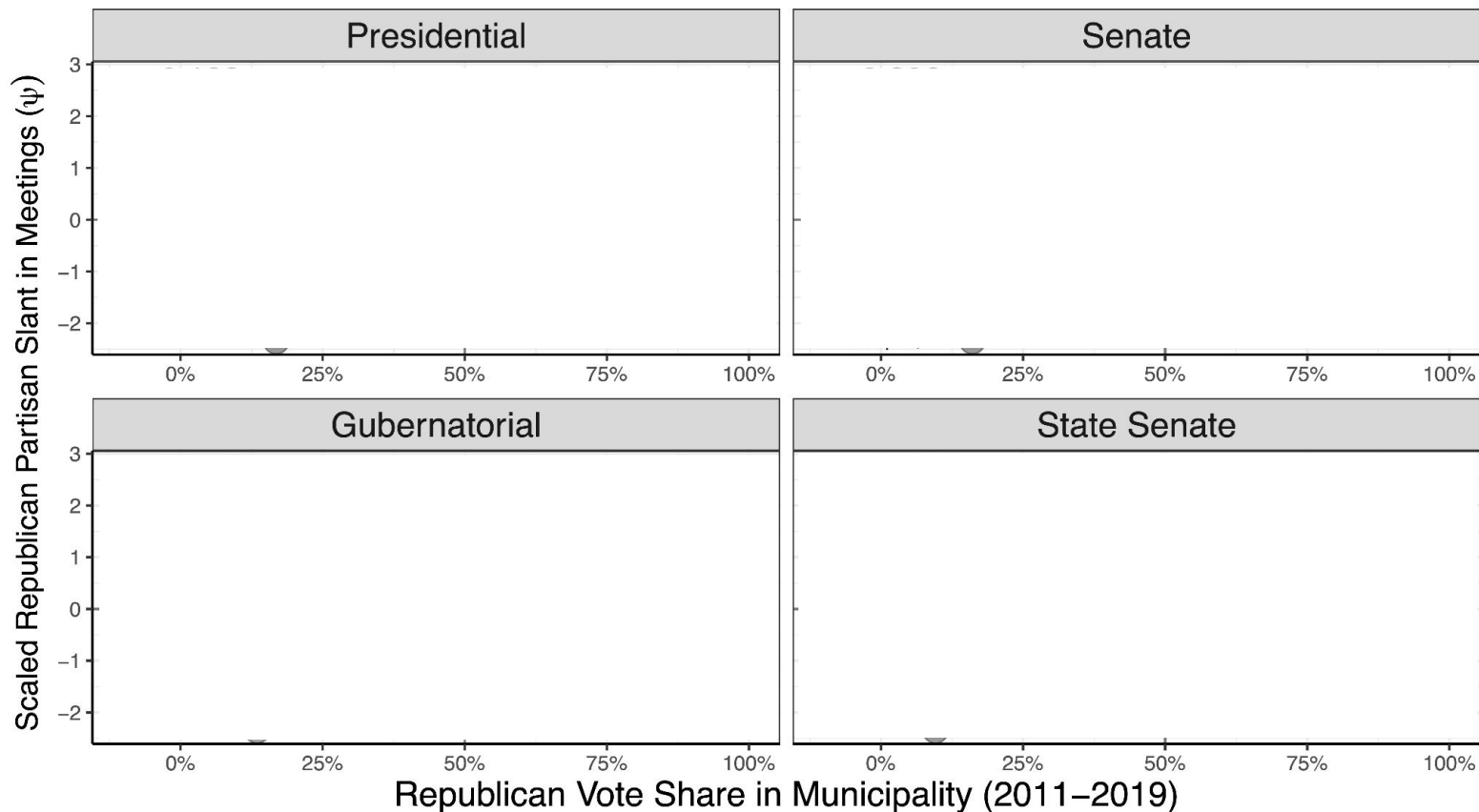
The quantities of interest estimated from this model are β_i and ψ_i . The fixed effect β_i can be interpreted as a place-level intercept of partisan expression which may capture factors like average meeting length and number of meetings,¹¹ while the ψ_i captures a slope for the partisan slant of the particular phrase in question j . We estimate the unknown parameters in our model with an Expectation Maximization (EM) algorithm (details in Appendix D).

Using each observed count w_{ij} of each partisan phrase j in each municipality i , we wish to separately measure both its baseline *intensity* of partisan language, β_i , and the degree of its *slant*, ψ_i , in a Democrat or Republican direction. To accomplish this, we fit the following model:

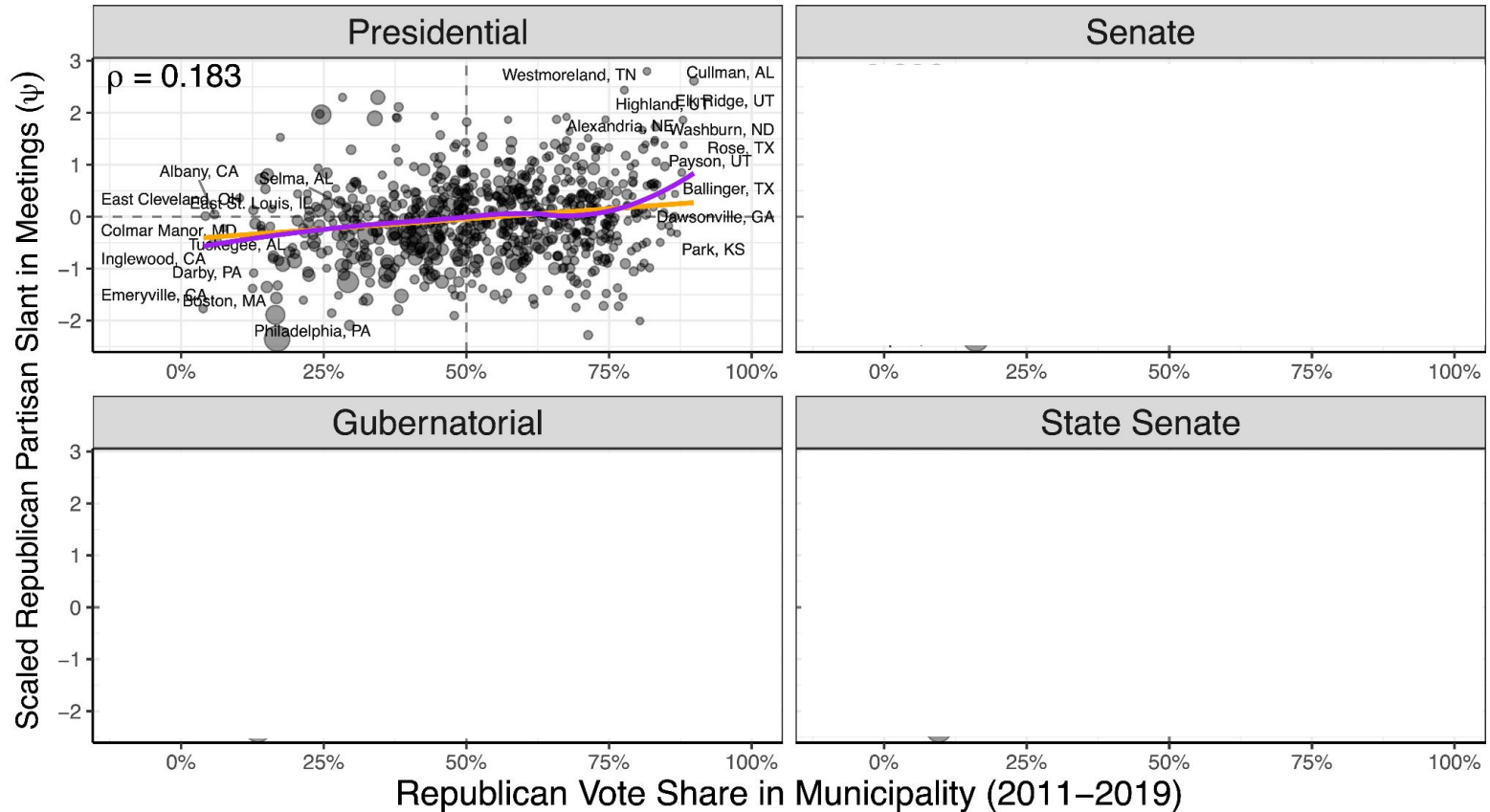
$$\begin{aligned}w_{ij} &\sim \text{Pois}(\lambda_{ij}), \\ \lambda_{ij} &= \exp(\alpha_j + \beta_i + \psi_i \gamma_j).\end{aligned}\tag{1}$$

The quantities of interest estimated from this model are β_i and ψ_i . The fixed effect β_i can be interpreted as a place-level intercept of partisan expression which may capture factors like average meeting length and number of meetings,¹¹ while the ψ_i captures a slope for the partisan slant of the particular phrase in question j . We estimate the unknown parameters in our model with an Expectation Maximization (EM) algorithm (details in Appendix D).

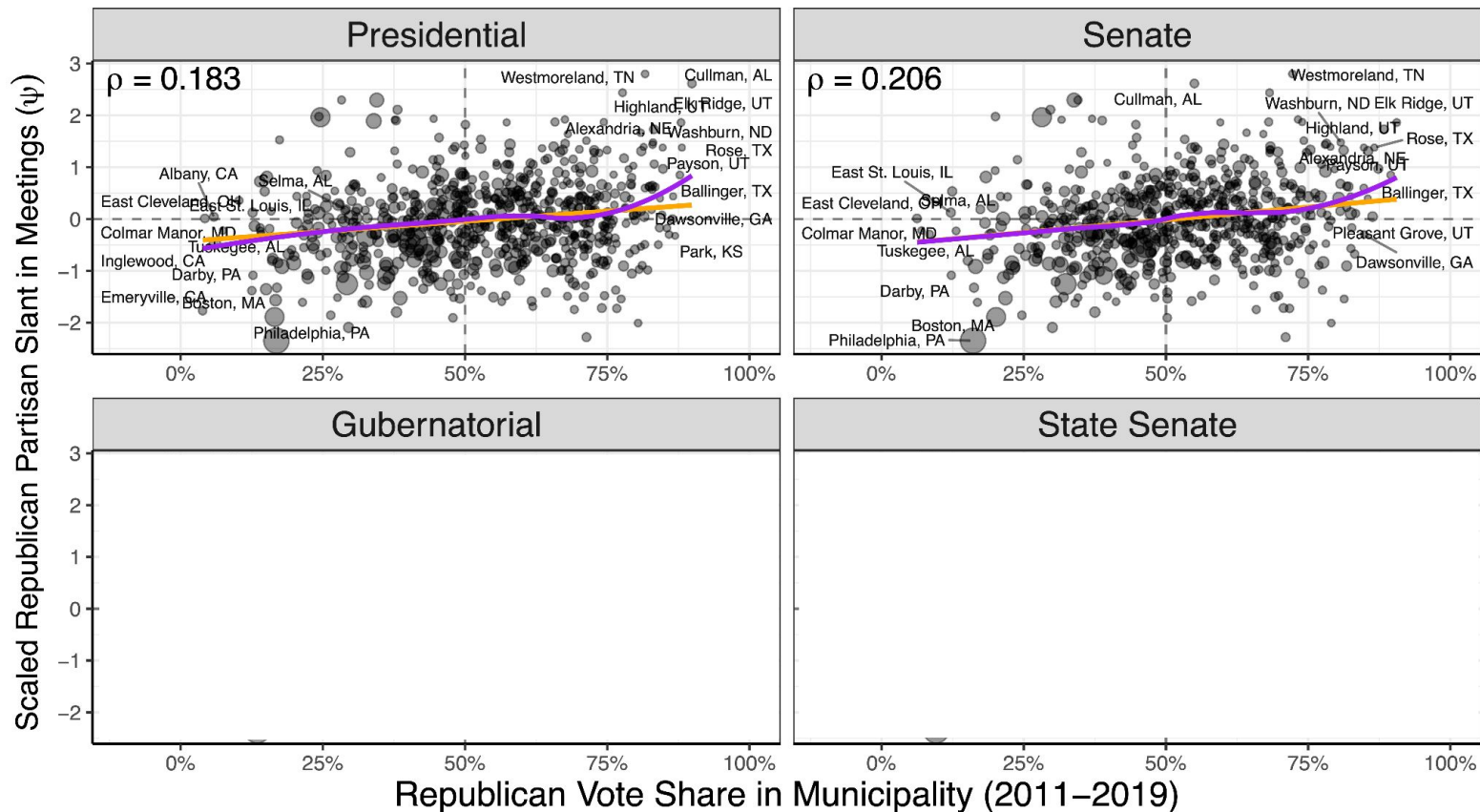
Democratic cities and Republican towns govern differently



Democratic cities and Republican towns govern differently



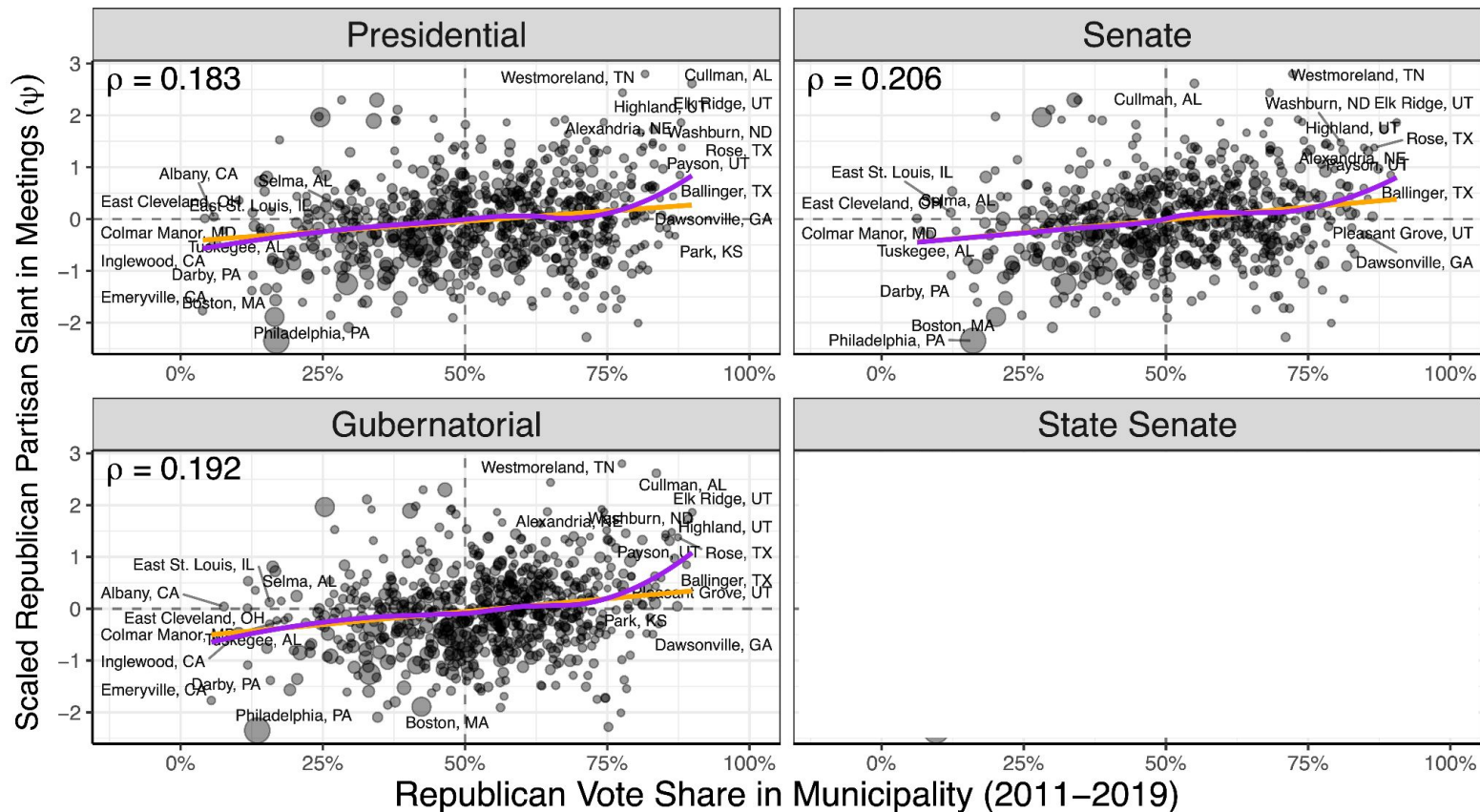
Democratic cities and Republican towns govern differently



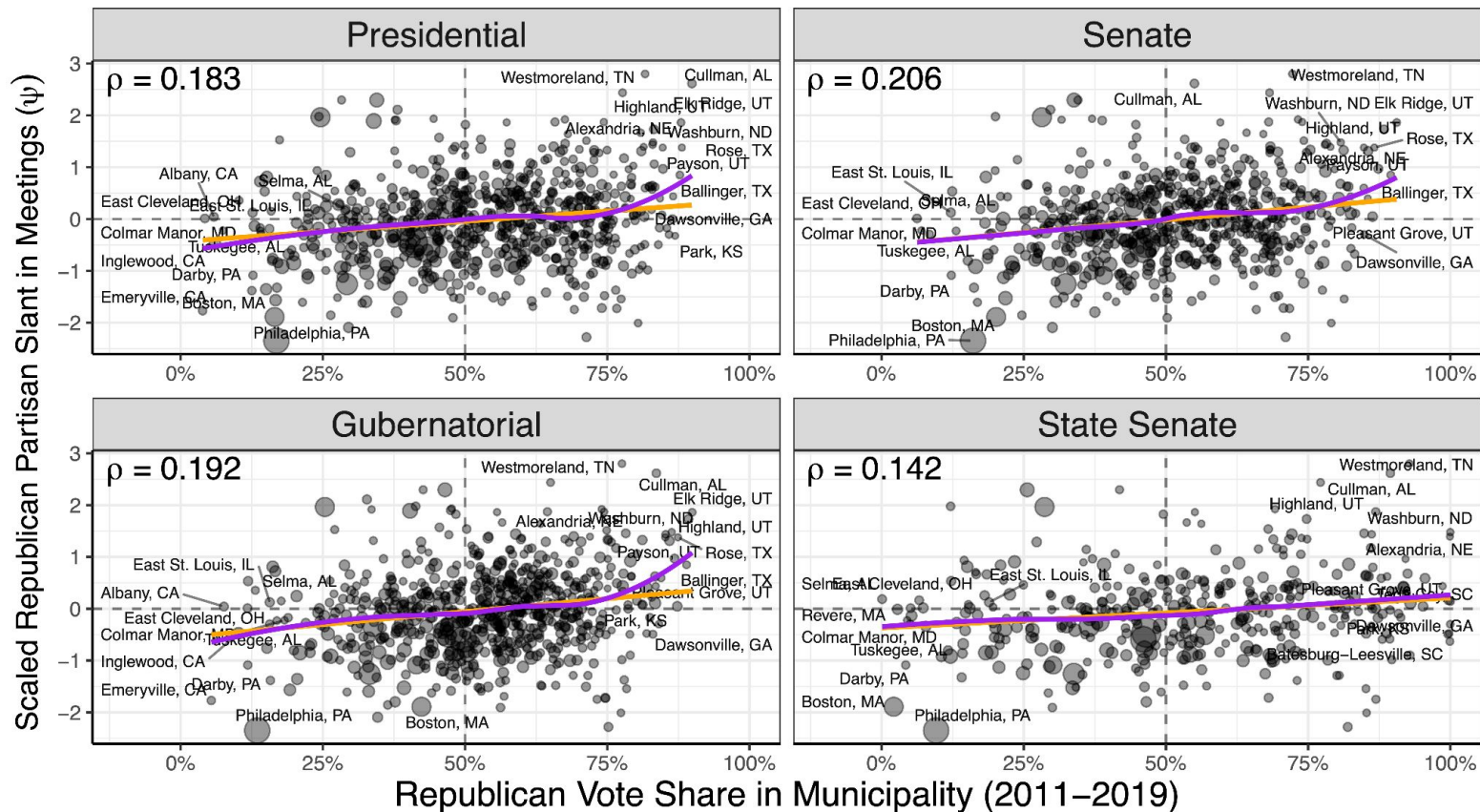
Working paper:

tinyurl.com/local-polarization

Democratic cities and Republican towns govern differently



Democratic cities and Republican towns govern differently



Working paper:

tinyurl.com/local-polarization

Takeaways

- We built one of the world's largest central databases of local public meetings (tinyurl.com/localview-paper).
- We built a public dashboard currently in use by academics, journalists, and data scientists all over the world (localview.net).
- We illustrate the continued nationalization of local politics *beyond* elections (tinyurl.com/local-polarization).



sb4992@columbia.edu



soubhikbarari.com