# The Asymmetric Nationalization of Local Politics: Partisanship Aligns with Politics in Democratic Cities More Than Anywhere Else*

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**Abstract**

Recent scholarship debates the extent to which national partisan platforms shape the policies enacted by local governments. Yet, little is known about how they shape the process of local government – how constituents and officials decide what's on (or off) the policy agenda. Using a novel dataset of more than 30,000 public meeting videos across 720 municipal governments, we discover partisan and geographic asymmetries in the nationalization of local politics. We find that local public deliberations align with the partisan preferences of residents in Democratic big cities to a greater extent than in Republican small-town governments. Conversely, Republican rhetorical frames (e.g., "tax relief", "economic growth") are heard across many issues in liberal and conservative geographies alike. Our findings have important implications for theories of nationalization, suggesting that a cohesive policy script appears across all levels of government for Democrats, while the Republican party brand is more diffuse and less geographically aligned.

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# 1 Introduction

The policies of local governments affect the everyday lives of constituents in domains ranging from policing to housing. Recent studies conclude that local politics in the United States is becoming nationalized – that is, increasingly subsumed by the issues, conflicts, and rhetoric of national partisan politics (e.g. Hopkins 2018; Moskowitz 2018).

Yet, investigations of whether there is partisan alignment between local and national politics disproportionately focus on the *policies* enacted by local governments – and the findings are mixed (Gerber and Hopkins 2011; Macartney and Singleton 2018; Fowler and Witt 2019; Benedictis-Kessner and Warshaw 2020). Given the sizable legal and economic constraints on what local elected officials can unilaterally do, this is perhaps unsurprising. However, thanks to open meeting laws which require the bulk of local policy-making process to be completed in public meetings, local officials and their constituents have notably more freedom to shape the *process* of local government: how government time is spent, which issues are deliberated (and which are ignored), and how those issues are discussed. These inputs are worth studying since they can constrain or expand the local policy *agenda* – the universe of possible policies that can or cannot be enacted – in any given place. Decades of research on the local policy-making process have clarified who has agenda-setting power (e.g., Dahl 1961; Stone 1989; Einstein, Palmer, and Glick 2018), but data limitations make it difficult to scalably investigate the actual contents of local agendas. Despite American politics becoming increasingly defined by a single dimension of national partisan conflict (e.g. McCarty, Poole, and Rosenthal 2016), we know little about whether and how partisanship sets the policy agenda at the local level.

In this paper, we investigate whether, how, and where cross-level partisan alignment occurs by measuring local policy *agendas* – the universe of policy ideas that are given serious attention at any given time in a particular locality [1] across more than 700 municipalities from more than 30,000 videos of local government meetings. We find that – as a classic theory predicts (Peterson 1981) – the partisanship of local constituents predicts moderate, but robust, differences in how much policy-making time local governments spend on redistributive local issues to begin with, as opposed to allocational or developmental policies. We also show that, on average, differences in issue attention between the national parties are also present at the local level. However, both of these agenda alignments are strongest in populous, Democrat-voting cities, providing clear evidence of a consistent Democratic political "brand"

[1] Local government bodies often circulate official "meeting agendas" or stated plans for individual meeting sessions, however we use "policy agenda" distinctly to mean the actual content of meeting deliberations across time which may differ from planned agendas (see Section 3 and Appendix A).

across both national and local levels of government. In contrast, the Republican political brand is less prevalent in small-town Republican-voting municipalities, but rather diffusely heard in deliberation across municipalities. Finally, we show that these results hold for the deliberative behaviors of both the public (politically active meeting-going residents, to be specific) and officials, and are not explained by the usage of formally partisan ballots to elect officials. We also show that the alignment of residents' partisanship with local agendas hold after accounting for contextual factors like population size, household income, and racial composition. Overall, our paper demonstrates a important *asymmetry* missing in the current nationalization debate: a moderately strong alignment between national politics and local politics (and not just policy) exists, is likely not driven by partisan elections, and reveals a consistent brand of Democratic language across local and national government that is comparatively absent for Republicans.

To the best of our knowledge, this article is also the first to compile a large-scale dataset on local policy agendas via public meetings (available at `www.localview.org`). Classic works on local politics and policy-making are generally case studies of individual localities (e.g. Dahl 1961; Rae 2008). Yet, the umbrella of local politics contains places with politics as distinct as in Atlanta, GA (2019 population: 488,000) and Atlanta, IN (2019 population: 954). Generalized claims across such localities are limited by data availability (Sumner, Farris, and Holman 2020). Thus, researchers have largely looked to outputs of the local policy process like spending, for which structured data can be found via sources like the Census of Governments. Researchers studying the political practices of local governments that we focus on here have turned to surveys (e.g. Oliver, Ha, and Callen 2012; Collins 2021), meeting minutes (Einstein, Palmer, and Glick 2018; Yoder 2020), or press releases (Benedictis-Kessner 2020; Boussalis, Coan, and Holman 2018) all of which have logistical and substantive downsides – surveys are expensive and often misreport real-world behavior, while minutes and press releases are difficult to collect and only summarise government proceedings, sometimes incompletely or misleadingly (see Section 4 and Appendix A for a detailed example).

The rest of this article is organized as follows. First, Section 2 clarifies the central question of the article and our hypotheses about asymmetries across subgroups and contexts. Section 3 explains what we can uniquely learn about municipal politics from public meetings, enumerates four observable implications of nationalization, and describes what to expect if there are asymmetries in these implications across the subgroups and contexts laid out in Section 2. We test these implications using data described in Section 4 and measurement strategies laid out in Section 5. Section 6 explains our findings in greater detail and Section 7 discusses their broader relevance and concludes.

## 2 Is Local Politics Uniformly Nationalized?

Recent research suggests that national partisan attachments – of both residents and officials – may influence and polarize how American cities and towns are governed. For a variety of possible reasons, voters' views on some local issues are now often better explained by party identification than by local contextual factors (Hopkins 2018). Consequently, voters' partisan preferences are highly predictive of the left-right ideological characterization of their municipal governments' preferences and policies (Tausanovitch and Warshaw 2014). While this correlation between preferences and policies is promising, it does not shed light on whether and how the political *process* – the conflicts that occur before policy is passed – of local government are partisan. Moreover, since most scholarship focuses on either case studies or cities with large populations, it is unclear whether nationalization is a universal phenomenon across America.

We argue that the link between local and national politics is uniquely strong in *cities* – municipalities with larger populations that tend to also have larger racial minority constituencies and more diverse socioeconomic compositions – than suburbs or rural areas. This could be true for a number of possible reasons. First, since the New Deal era of the 1930's, Democrats have increasingly consolidated into cities (Bishop 2009; Brown and Enos 2021). Whether explained solely by this re-orientation in residential preferences, the re-alignment of party platforms starting in the 1970's, or both, national Democrats now disproportionately represent urban municipalities (Rodden 2019). Second, a liberal issue agenda is better suited for cities for valence, rather than purely ideological reasons. Racially diverse and poor constituencies historically demand more attention to social services and housing policies. Third, larger populations also generally increase the scope of local political conflict (Schattschneider 1960) by allowing for more diverse perspectives and greater participation, including from networks of nonprofits, interest groups, business elites, and community based organizations (Dahl 1961; Oliver 2000; Berry et al. 2006). For these reasons, the issue agendas of Democrat-voting cities are likely to be more partisan overall and slanted in a Democratic direction.

Conversely, it is unclear whether and how this cross-level alignment occurs in the rest of America's municipalities. On one hand, there are increasingly high-profile instances of activist Republican town officials taking ideological stances in domains like immigration enforcement.[2] This may suggest that the politics of small-town and suburban America are

[2]For example, in 2010, the mayor of Hazleton, PA passed a series of ordinances banning illegal immigrants from renting housing or being employed there which were overturned by a federal appeals court (https://www.nytimes.com/2010/09/10/us/10immig.html).

also linked to national politics. Yet, case studies of local immigrant incorporation show that medium-sized cities and suburbs are less likely to take activist stances on immigration enforcement and more likely to ignore issues altogether until policy windows or legal challenges arise (Williamson 2018). Moreover, residents and officials in smaller suburbs or rural communities with fewer resources are likely to uphold a "managerial" agenda that focuses on the maintenance of public services and avoids controversial tax increases for redistributive projects (Oliver 2001; Oliver, Ha, and Callen 2012). Factors like low election turnout (Oliver, Ha, and Callen 2012), unusual election times (Anzia 2013), and fewer slack resources to distribute may generally provide less opportunity for partisan politics altogether (Oliver 2000) in many suburban and rural areas. Finally, although most city voters vote for Democrats and rural voters vote for Republicans, the suburbs of many major U.S. metro areas remain a battleground with only a very recent (observed only as recently as the 2018 midterm elections) surge of Democratic support from educated voters (Thompson 2017; Damore, Lang, and Danielsen 2020). Therefore, non-urban, Republican constituencies are likely to be represented by municipal governments that are less partisan altogether and minimally Republican. Together, our central hypothesis about the asymmetric nationalization is expressed in two parts as follows:

**H**$_{1a}$: The politics of cities are more nationalized than the politics of towns, suburbs, or rural areas.

**H**$_{1b}$: The politics of Democrat-voting municipalities are more nationalized than the local politics of Republican-voting municipalities.

Other factors in the policy-making process may explain where and when local governments' agendas are aligned with partisan preferences. We focus on two: who is speaking (officials or the public) and how municipal government is politically structured (partisan or non-partisan offices).

## 2.1 Officials vs. Members of the Public

If local politics is indeed nationalized, whose behavior reflects national partisanship – the governing or the governed? Existing scholarship offers three possible, conflicting answers.

According to the traditional view, there are considerable resource constraints that prevent either the local public or their elected officials from endorsing ideological policies. Although members of the public may increasingly organize their political beliefs around national party cues, a growing body of work shows that self-interest, particularly around home ownership, may limit even liberal constituents' support for local redistribution (Fischel 2009; Mummolo and Nall 2017; Einstein, Glick, and Palmer 2019; Nall and Marble 2020). As a result,

Democrats and Republicans appear to turn out in public meetings at roughly equal numbers (though participants are quite unrepresentative of the general public – see Einstein, Palmer, and Glick (2018)). Similarly, competition for taxpayers is theorized to constrain local officials from taking ideological stances that may alienate current residents or deter prospective residents (Tiebout 1956; Peterson 1981). Partisans who hold local office may also systematically hold other beliefs that constrain expressions of partisanship on the job. For instance, even though enforcement officers are a major constituency of the Republican party (Zoorob 2019), the immigration enforcement behaviors of Democratic sheriffs are typically no different from Republican sheriffs (Thompson 2020).

Yet, current levels of partisan segregation suggest that officials are very likely to share the ideological beliefs of their constituencies (Brown and Enos 2021). Thus, partisan speech – if not policy actions – from officials may actually gain constituents' approval rather than induce flight. Moreover, although the overall evidence is mixed, a large body of research concludes that officials' partisan identities consistently predict their legislative behavior (Gerber and Hopkins 2011; Tausanovitch and Warshaw 2014; Benedictis-Kessner and Warshaw 2016, 2020): for example, Democratic mayors and legislators accrue larger budgetary deficits and divert spending from public safety agencies.

However, it is also possible that residents – particularly, politically active residents – are equally or more expressive partisans than their local representatives. Although local governments have the most power over land usage, their jurisdictions cover many other issues that have growing national salience in the public such as police brutality, gun violence, and climate change. Thus, it remains plausible that town hall – where the loudest, most opinionated members of the public are more likely to participate (Skocpol and Fiorina 2004; Schlozman, Verba, and Brady 2013; Einstein, Palmer, and Glick 2018) – echoes the rhetoric of co-partisan national elites on these issues.

Given the abundance of evidence on both sides, we remain agnostic about *whose* voice – elites or the mass public – is more nationalized in local politics.

**$H_2$**: There is little difference in the levels of nationalization of local officials' and politically active residents' political speech.

## 2.2 Partisan vs. Non-Partisan Governments

Although partisan local elections do not seem to impact downstream policy outputs (Tausanovitch and Warshaw 2014), they may influence the upstream political process. A major goal of the Progressive Moment in the early 20th century was to remove party politics from local government in the United States (Schaffner, Streb, and Wright 2001; Ostrom, Bish,

and Ostrom 1988). Institutionally, these reforms were quite successful – more than 75% of municipal elections in the United States are still non-partisan (Wood 2002; Schleicher 2007). However, if these reforms are to work as intended, we should expect that non-partisan ballots reduce the alignment between local agendas and national politics. Therefore, we hypothesize a secondary asymmetry in the nationalization of local politics as follows.

**$H_3$**: The politics of partisan local governments are more nationalized than the politics of non-partisan local governments.

The next section describe why a place's public meetings are a useful way to characterize its politics and test for the existence of these hypothesized asymmetries.

# 3 Why Public Meetings Best Describe Local Politics

In many federalist democracies, open meetings are the primary venue for local government officials to enact policies with input from the public (Bryan 2010; Parthasarathy, Rao, and Palaniswamy 2019), offering the best observable measures of local governments' agendas. While exact procedural practices differ between states and municipalities in the United States, public meetings serve as a deliberative forum for local legislation which many theorists agree is crucial for democratic representation (Gutmann and Thompson 2009; Fishkin 2011; Neblo, Esterling, and Lazer 2018).

Scholars have acknowledged the importance of studying public meetings, but logistical challenges have stood in their way. Peterson makes this clear in his classic book on local politics, *City Limits*: "[T]he meetings of public agencies are seldom transcribed, and when they are, the transcripts are generally not available to the public [...] there is nothing like the Congressional Record or the official volume of testimony presented before Congressional committees" (Peterson 1981, pg. 123). Our dataset of meeting recordings, the first of its scale to our knowledge, helps fill this gap.

All fifty states have open public meetings acts, often called Sunshine Laws, which require that local governments provide advance notice of open meetings, permit any member of the community to attend, allot both open and closed for citizens' comments, and make records of the meeting publicly available. Thus, even if local governments face legal and economic constraints in the policies they can enact, officials and the meeting-going public have a great deal of discretion in what they say and how they say it (Jones and Baumgartner 2005).

## 3.1 Observable Implications of Hypotheses

If local politics is *asymmetrically* nationalized according to $\mathbf{H}_{1-3}$, we should expect that constituents' national partisan preferences should differentially correlate with how often particular local issues are mentioned and how closely meeting language aligns with national co-partisan language. Put differently, local politics should be responsive to national partisan preferences, but only in certain places. We describe these expectations more concretely as three observable implications.[3]

First, larger, Democratic, and partisan municipalities should focus more overall attention on redistributive local issues including housing and other social services; on the other hand, smaller, Republican, and non-partisan municipalities should instead spend more time on non-redistributive issues such as utilities provision or developmental issues like tourism (Peterson 1981).

Second, larger, Democratic, and partisan municipalities should use more partisan rhetoric in meetings overall than smaller, Republican, and non-partisan municipalities.

Third, in addition to more partisan rhetoric, the alignment of partisan rhetoric with constituents' partisan preferences should be stronger in places that reliably vote more Democratic, cities, and partisan governments.

To test for *asymmetric* nationalization, we compare the strength of the three implications across Democrat- and Republican-leaning places ($\mathbf{H}_{1a}$), cities and various categories of non-cities ($\mathbf{H}_{1b}$), the deliberations of officials vs. the public ($\mathbf{H}_2$), and meetings in partisan and non-partisan governments ($\mathbf{H}_3$). Crucially, we test whether these four relationships are demonstrable even after holding local context constant. For example, a place's partisanship should predict its government's focus on redistribution and partisan slant of its rhetoric even after accounting for population size and constituent "demand factors" like racial composition and median household income. Although such factors of local context will have some relationship with how much partisan language is used (for example, public transportation mentions are likely to be more frequent in larger cities where there is larger, more complex transportation infrastructure), they should not explain away the influence of local partisan preferences.

In the next section, we describe how we collect and assemble a dataset to test these implications.

[3]We describe and test two additional observable implications in Appendix F.

# 4 Public Meeting Data

To study the influence of national partisanship on local politics, we need a representative dataset of how politics is conducted. Scholars in recent years have turned to meeting minutes as a data source on local policymaking (Einstein, Palmer, and Glick 2018; Holman 2014; Yoder 2020; Collins 2021). However, minutes are generally summarized accounts of action taken during meetings and not exact transcripts of discussions.[4] The summarized nature of minutes makes them an invaluable data source for studying discrete phenomenon like public comment participation, yet minutes are less useful for studying the exact language used by officials and members of the public.

Instead, we turn to complete video recordings of local government meetings, which present procedures exactly as they happened. In recent years, many local governments across the country have turned to posting videos of their meetings for transparency. Table 1 compares the minutes and the video transcript for a section of the Clarksburg, WV city council meeting on September 21st, 2017.[5] In the excerpt, council member Ryan Kennedy describes his sole dissenting vote during a debate on whether to support a bond agreement for road construction under the state legislature's proposed "Roads for Prosperity" plan. Despite these minutes being unusually detailed in that they briefly describe Kennedy's position, the video transcript offers considerably more context around his decision. Kennedy explains his vote on the basis of perceived dishonesty by the state legislature and a fear of unforeseen maintenance costs in the future, neither of which are mentioned in the minutes. Thus, meeting transcripts can demonstrate how and why policy stances are taken during deliberation, a crucial step in the policy-making process that is often obscured in meeting minutes.

## 4.1 Sample

We assembled a novel data set of more than 30,000 videos of local government meetings in 720 municipalities between 2005 and 2019. We relied on YouTube, the world's largest video-sharing social media site, because it allowed us to automatically retrieve thousands of public meetings from one centralized, continually updating source, rather than have to download from hundreds of individual websites or request records from hundreds of governments. Additionally, using YouTube allowed us to collect real-time transcripts of meeting audio rather

[4]Robert's Rules of Order, the most commonly adopted set of parliamentary procedures among local governments in the United States, describes this point: "Not only is it not necessary to summarize matters discussed at a meeting in the minutes of that meeting, it is improper to do so. Minutes are a record of what was done at a meeting, not a record of what was said."

[5]See: https://www.youtube.com/watch?v=XiJUnzQqymo&t=1688s&ab_channel=ClarksburgWV.

Table 1: **Comparison of Minutes and Transcript of a Public Meeting**

| Minutes | Transcript |
|---|---|
| Under discussion, Councilmember Kennedy commented that he could not support a **tax increase** which he believes there to be should the bond amendment pass. | Councilmember Kennedy: "Now I know we have some propaganda here that says that there are will be no **tax increase**. Well, this language says the exact opposite. In fact, it mandates the legislature by the state constitution must impose tax rates and therefore I cannot support this ... I don't believe that some people, especially I think the people that designed this, are acting honestly toward the taxpayers. Further, ... if this bond happens and we borrow $1.6 billion and we spend it according to the plan thats been released, ... we're still going to be stuck in the same place where we were before in that we still will not have the money to maintain what we have ... We'll find ourselves in the same hole again but we'll be $1.6 billion further in debt." |

*Notes*: The table compares the minutes and the video transcript for a councilmember's comment in the Clarksburg, WV city council meeting on September 21st, 2017. Clarksburg posts detailed minutes which briefly summarize discussions that happened. Even so, the video transcript reveals important political context for the reasoning behind Kennedy's vote that the minutes lack.

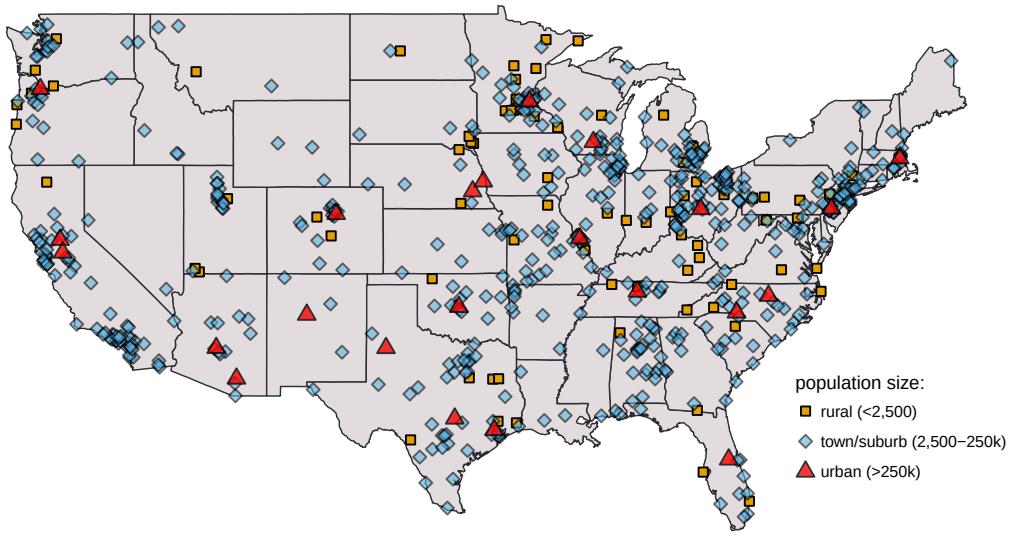
than rely on post-hoc meeting minutes, which are often summarized accounts of the meeting instead of exact transcripts. Appendix Section B.1 provides details on our data collection procedure and its outputs along with a graphical overview (Appendix Figure B10).

Figure 1 shows the geographic distribution of the resulting sample. Our sample features a wide range of distinct municipalities across 47 states, including large cities like Philadelphia, PA and Boston, MA alongside smaller towns like Duck Town, NC and Alburnett, IA. However, Appendix B demonstrates that our sample over-represents larger municipalities and slightly over-represents medium-sized towns and suburbs. To account for this potential bias (which does not change our findings), we adjust all our analyses with population weights for binned municipal population size (methodological details and comments in Appendix B).

## 4.2 Meeting Structure

To distinguish members of the public speaking from members of the government speaking, we compiled a list of formal phrases announcing the start (e.g. "the floor is now open to the public") and close of public comments (e.g., "seeing none else, the public comment period is closed") as well as the introduction and conclusion of each speaker's comment. Most of these phrases originate from Robert's Rules of Order, a system of procedural guidelines

Figure 1: **Geographic Distribution of Municipal Governments in Sample**




*Notes*: This map show the 720 municipalities across 47 states with complete transcribed video uploads of city council (or equivalent) meeting in our dataset. Of these, 82 (11%) have municipal populations of <2,500 (roughly the U.S. Census classification for rural), 606 (85%) between 2,500–250,000 (roughly the classification for town or suburb), and the remaining 23 (3%) with populations >250,000 (classified as urban).

that officials administering government deliberations, including public meetings, abide by. Appendix Table B2 lists all the phrases used. Where we were unable to distinguish when a speaker ended their comment, we leveraged the timestamps in the transcript to cut off their statement according to municipality's public comment time limit (which we were able to find for 124 places) or after four minutes (the average of all time limits we found) if the particular place's time limit was unknown.[6]

## 4.3 Additional Covariates

We collected additional covariates on our municipalities, namely population size, racial composition, median household income, and electoral results. We measured population size, racial characteristics (e.g., % of black residents), and median household income using the tabulations from the 2018 American Community Survey. Although many possible (but highly correlated) definitions exist, our classification of urban vs. suburban/town vs. rural municipalities relies on population cut-offs specified by the 2020 Census Bureau. We measure constituents' national partisan preferences by computing Republican presidential vote

[6]Appendix B.3 details the exact procedure for extracting and bounding individual public comment and public comment period text strings. In an audit of 200 public comments, we found that all extracted strings correctly identified the start of the speaker's comment, and only 29 failed to exactly bound the conclusion of their comment and were off by no more than a minute.

share for each municipality via voter records aggregated at the Census block level from 2008 to 2016. Relying on the voter file, rather than collecting individual returns from each municipalities is both less time-intensive and grants greater coverage of municipalities (nearly 90% of places in our sample).[7]

# 5 Measurement

To test our hypotheses, we measure two distinct things in each of our municipal meetings: (1) attention to latent issues in local politics (Section 5.1), and (2) usage of rhetoric specifically associated with national Democrats or Republicans (Section 5.2). We now describe these concepts and their measurement strategies in further detail.

## 5.1 Measuring Overall Issue Attention

To measure the content of local political discussion captured by our meeting transcripts we turn to the correlated topic model (CTM), a statistical model designed to discover and estimate latent topics of text in a document corpus (Blei, Lafferty, et al. 2007). Details about the specification, model selection, and validation of the CTM can be found in Appendix C.

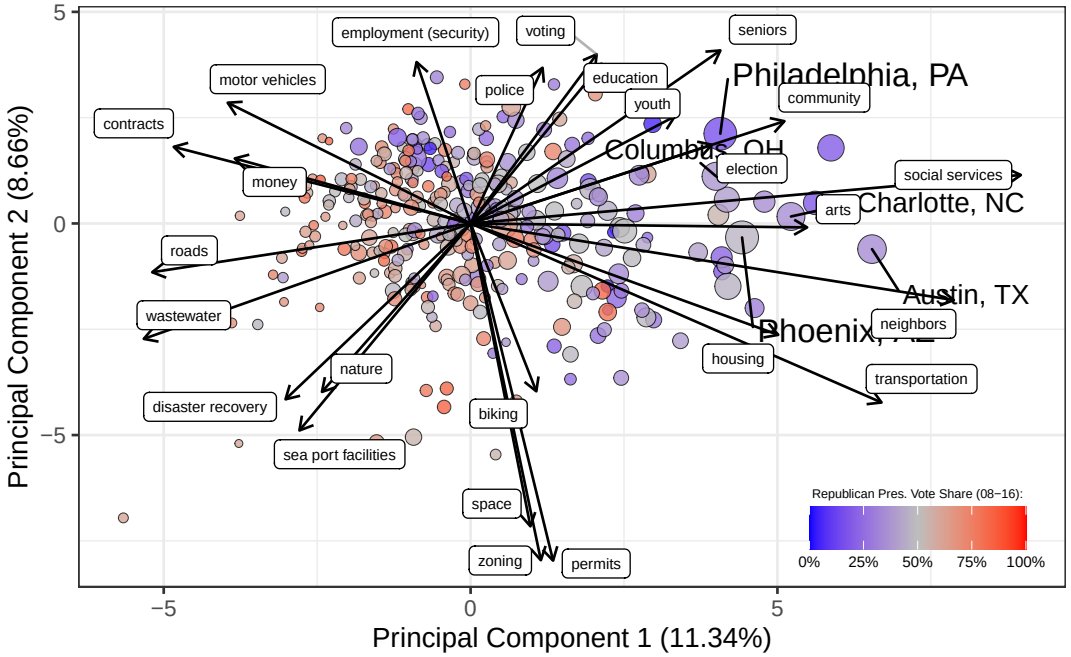
We link each identifiable issue topic in our model to a common classification scheme adopted in the study of local politics to investigate long-standing research questions about the frequency of local political issue attention. Peterson (1981) defines three policy arenas: developmental, allocational, and redistributive policies. *Developmental* policies explicitly focus on enhancing the economic position of the city (e.g. property development, tourism), *redistributive* policies primarily benefit low-income residents at the expense of the median resident (e.g. increased taxes, public housing, education), and *allocational* policies are largely neutral in their economic effects (e.g. waste management, fire departments).

To better visualise the correlation between issues within these policy arenas and how they describe different kinds of places, we perform a principal component analysis (PCA) on the matrix of topic occurrences (columns) in each place (row). PCA is a procedure for reducing a dataset consisting of many potentially correlated variables down to a set of principal components. Principal components are linear combinations of the original variables, which explain the largest amount of variance in the data with the fewest number of principal components.

[7] Appendix Figure G38 validates this measure against all available official municipal returns from a single year.

To preview how size and partisanship align with local issue attention, Figure 2 displays each municipality along the first two principal components of our measured topic model, scaled by population size and colored by constituents' partisan preferences. The first and most informative principal component of topics appears to arrange large, liberal municipalities on one end and smaller, conservative municipalities on the other end. Figure 2 additionally shows the joint variation of the 25 topics that explain the most variance of the first two components. Allocational topics such as Utilities and Wastewater are directionally associated with smaller conservative places. On the other hand, redistributive issues such as Social Services, Housing and Transportation point in the opposite direction of small towns and are discussed at higher rates in large cities like Phoenix, AZ and Nashville, TN. While a "managerial" agenda pertaining to Money and Contracts is most associated with small conservative places, social and cultural topics such as Family, Youth, Community, and Arts are more associated with big cities like Boston, MA and Philadelphia, PA. We formally test whether this correlation is differential by size and partisanship – one implication of $\mathbf{H}_1$ – in Section 6.

Figure 2: **Principal Components of Issue Attention in Public Meetings**




*Notes*: This figure shows illustrates that our measure of issue attention correlates with place characteristics such as size and partisanship. Shown are places visualized in a two-dimensional space generated by the first two components from principal components analysis (PCA) conducted on the $N \times k$ matrix of $N = 720$ places and $k = 57$ substantive topics. The proportion of variance explained by each component is shown in parentheses. For visual interpretability, only the 25 topics with the largest joint loading ($\sqrt{\text{PC1}^2 + \text{PC2}^2}$) on the first two components PC1, PC2 are visualized. Each place is sized proportionate to its logged population size according to the 2018 ACS.

Appendix Section C validates our measurement of local issue attention against alterna-

tive specifications including: a model with inverse sampling weights at the place-level, an alternative categorization of issues into arenas[8], an alternative choice of the $K$ parameter, and an alternative method for topic labelling altogether. Additionally, we replicate most of our substantive findings across these models (Section 6.4).

## 5.2 Measuring National Partisan Rhetoric

We turn now to measuring how and where national partisan language is used in local politics. For each locality, we break down this measurement into two components: how often do its' political actors adopt the language of national partisans (*intensity*) and is this language more Democrat- or Republican-leaning (*slant*)? We distinguish between these two parameters to better understand how patterns of cross-level partisan alignment differs across municipalities. For example, a city could feature a large amount of partisan debate that is equally balanced between Democratic and Republican language (i.e. high intensity, low slant), rare but exclusively one-sided partisan language (i.e. low intensity, high slant), or anywhere in between on either dimension.

It is widely acknowledged that Democrats and Republicans use different language when discussing and deliberating over political issues (Gentzkow, Shapiro, and Taddy 2019; Diermeier et al. 2012). One reason is because certain issues themselves are disproportionately associated with either party (e.g., civil rights with the Democratic party, business growth with the Republican party) and elite cues steer voters to pay attention to and, thus, discuss some issues more than others (Egan 2013). Another reason is that Democrat and Republican elites adopt different linguistic frames for the same issue (e.g., gun ownership) denoting support ("gun rights") or opposition ("gun control") which co-partisans in the public mimic (Druckman 2001; Chong and Druckman 2007). In either case, language that is identifiably Democratic or Republican on the Congressional floor can be used to identify Democrats or Republicans in a variety of other contexts.

For example, consider a public comment period in a 2014 public meeting in Philadelphia, PA, where a community member voiced concern about whether the recently created Land Bank – an agency mandated to manage, re-develop, lease, and sell vacant municipal properties – would prioritize racial equity in the projects it would pursue:[9]

> "Some of the concern is in the 1800's, we may not have known who was lynched for their land, but in 2014 I know that the house down the street land belonged

[8]Many local issues such as zoning or education have characteristics of all three policy arenas. For example, changes to the zoning code can have redistributive or developmental consequences depending on whether they permit the production of affordable housing or prioritize commercial developments.

[9]See: https://youtu.be/-0Z01XMXuIQ?t=854.

> to Miss Mary. [So] if we're going to be sustainable ... we need to make sure the African American people are receiving those dollars which is not necessarily as fair and equitable right now ... so I just wanted to see if those things could come together ... thank you."

In communicating her position to officials, this resident expressed concerns about equality and named the marginalized group in question, African Americans, citing the historical legacy of racist violence around land ownership in the United States. The highlighted terms in this excerpt are, on average, used almost twice as frequently by Democratic Congressmen than Republican Congressmen in floor deliberations between 2005 and 2017. In contrast, consider an elected councilman's remark during discussion period in Fairhope, AL deliberating an ordinance to establish an entertainment district which would permit the open carry of alcoholic beverages downtown:[10]

> "Beach communities attract swarms of drinkers, you know, adult and underage they don't care to promote economic growth in their towns ... Fairhope is not a beach community. Fairhope prides itself as being a family-friendly town. It's difficult for me to understand how allowing alcohol to be openly consumed on the city streets 24/7 would contribute to a family-friendly environment."

This councilmember (elected on a non-partisan ballot) opposes the ordinance, further citing the need to preserve the "character of our charming town" and defend family and economic growth values. These particular phrases, similarly, have been uttered by Republican MCs more than Democrat MCs in Congress for more a decade (though with less of a gap than in the prior case) and encapsulate core values espoused by mainstream Republican elites and voters (Ellis and Stimson 2012).

To systematically measure partisan slant for meeting-going publics and officials, we draw on Gentzkow, Shapiro, and Taddy (2019)'s collection of the 2,000 bigrams from the Congressional Record that are most differentially used between Democrats and Republicans in each Congress between the 109th and 114th Congress (2005-2017). Associated with each bigram $j$ is an estimate of its differential usage or partisan valence, $\gamma_j$, where a more positive value indicates a greater differential usage by Democrats while a more negative value indicates more disproportionate usage by Republicans. Compiling these bigrams, we obtain a list of 3,293 most-used phrases in Congress from this period – excluding phrases referring to foreign policy (e.g., Al Qaeda) – in each of our municipalities.

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, $\beta_i$, and the degree of

[10] See: https://youtu.be/w-aj6Hr_ElQ?t=2968.

its *slant*, $\psi_i$, in a Democrat or Republican direction. To accomplish this, we fit the following model:

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

The quantities of interest estimated from this model are $\beta_i$ and $\psi_i$. The fixed effect $\beta_i$ 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 $\psi_i$ 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).

Additionally, for each place, our quantities of interest include separate slant and intensity parameters for the officials and the public, respectively. For these, we estimate Eq. 1 separately for the public-only and the officials-only portions of all meetings respectively, herein referencing estimates from those models as $\psi_i^{\text{public}}$, $\beta_i^{\text{public}}$ and $\psi_i^{\text{officials}}$, $\beta_i^{\text{officials}}$ respectively.

# 6 Results

Our results support hypotheses $\mathbf{H}_{1a}$ and $\mathbf{H}_{1b}$ (deliberation in Democratic and urban municipalities align with constituent partisan preferences), weakly reject hypothesis $\mathbf{H}_2$ (officials' speech more strongly aligns with constituents' partisanship than does public commenters') and strongly reject $\mathbf{H}_3$ (meetings are not more aligned with constituent partisan preferences under partisan governments).

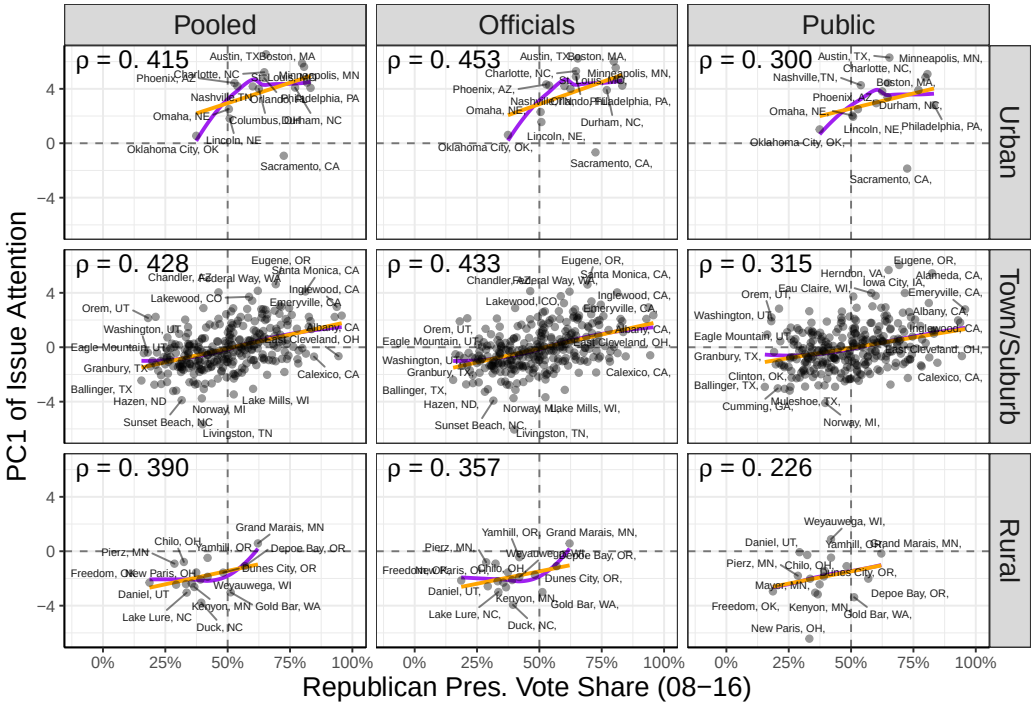
We explain our findings in the order of the observable implications listed in Section 3.1, using simple univariate regressions of our meeting outcomes on municipal covariates as measured in Section 3. Section 6.4 then explains how strongly our findings hold after adjusting for observable confounders between constituent partisan preferences and each outcome, as well as accounting for the sparsity of rural municipalities. We stress that our findings are descriptive (not causal), though we discuss possible causal interpretations and mechanisms for the observed asymmetric nationalization in Section 7.[12]

[11] These and other characteristics that predict partisan intensity $\beta_i$ are observable. Hence, in subsequent regression analyses, we include variables such as municipal meeting length and number of meetings as controls when making inferences about $\beta_i$ or $\alpha_j$.

[12] See Appendix F for tests of two additional observable implications which support our main findings.

## 6.1 Issue Attention in Democratic Cities Aligns Most with Partisan Preferences

Figure 3: **Alignment Between Issue Attention (Principal Component 1) and Constituents' Partisanship is Highest in Democratic Cities**



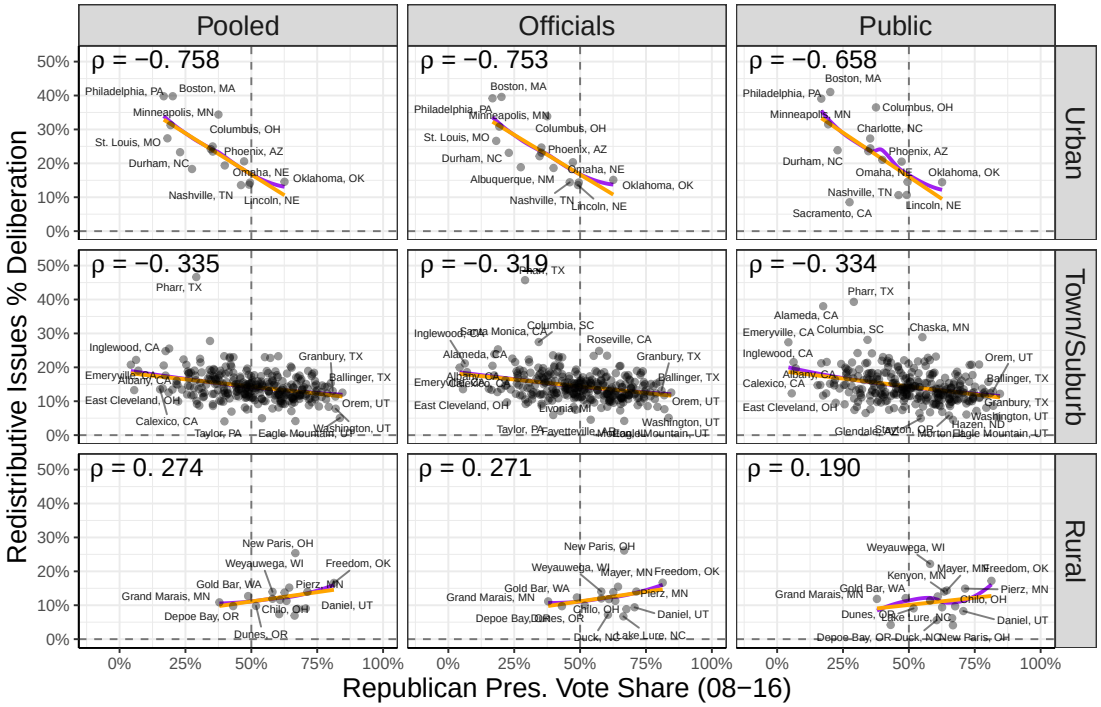

*Notes*: Shown on the vertical axis is the second principal component of the $N \times k$ matrix of $N = 720$ and $k = 57$ substantive topics measured from our main topic model (Section 5.1). Labelled are the top 5 and bottom 5 municipalities on each axis in each panel. Estimates of the slant parameter $\psi$ (from Eq. 1) are standardized. Lines of best fit estimated via both **OLS** and **LOESS**. Omitted from this plot are municipalities with statistically zero mentions of the substantive topics identified by our model.

We begin by examining whether overall issue attention is differentially aligned with partisanship across localities. Figure 3 and Figure 4 demonstrate a relatively superior alignment for urban (largely Democratic-voting) municipalities across two measures of issue attention: the first (and most informative) principal component of issue attention, and the % of mentions of redistributive issues (both defined in Section 5.1).

This differential alignment between issue attention and Republican partisan preferences is most apparent in the speech of local officials. In Figure 3, issue priorities (e.g., attention paid to Social Services vs. Wastewater) pooled across all meeting attendees and summarised by the first principal component appear to correlate evenly with partisanship everywhere ($\rho = 0.415 - -0.390$). Rather, we find alignment differences primarily in officials' attention: in urban municipalities the alignment is $\rho = 0.453$, which drops to $\rho = 0.433$ in town/suburban governments to $\rho = 0.357$ in rural places. These are relatively small differ-

ences, however alignment declines steeply when examining attention paid to redistributive issues, particularly by officials. Figure 4 shows that this alignment substantially drops in magnitude and even reverses from $\rho = -0.753$ (urban) to $\rho = -0.319$ (town/suburb) to $\rho = 0.271$ (rural). A similar urban-rural divide in attention alignment is seen when examining the second principal component of issue attention (Appendix Figure E23), attention to the allocational policy arena (Appendix Figure E24), and attention to the developmental policy arena (Appendix Figure E25).

Figure 4: **Alignment Between Redistributive Issue Attention and Constituents' Partisanship is Highest in Democratic Cities**




*Notes*: Shown on the vertical axis is, for each municipality, the % of substantive speech (that is, transcribed phrases belonging to an identifiable local issue topic in the topic model as measured in Section 5.1) referring to redistributive issues (e.g., Schools, Housing, Taxes; see Appendix C14 for the exact categorization). Labelled are the top 5 and bottom 5 municipalities on each axis in each panel.

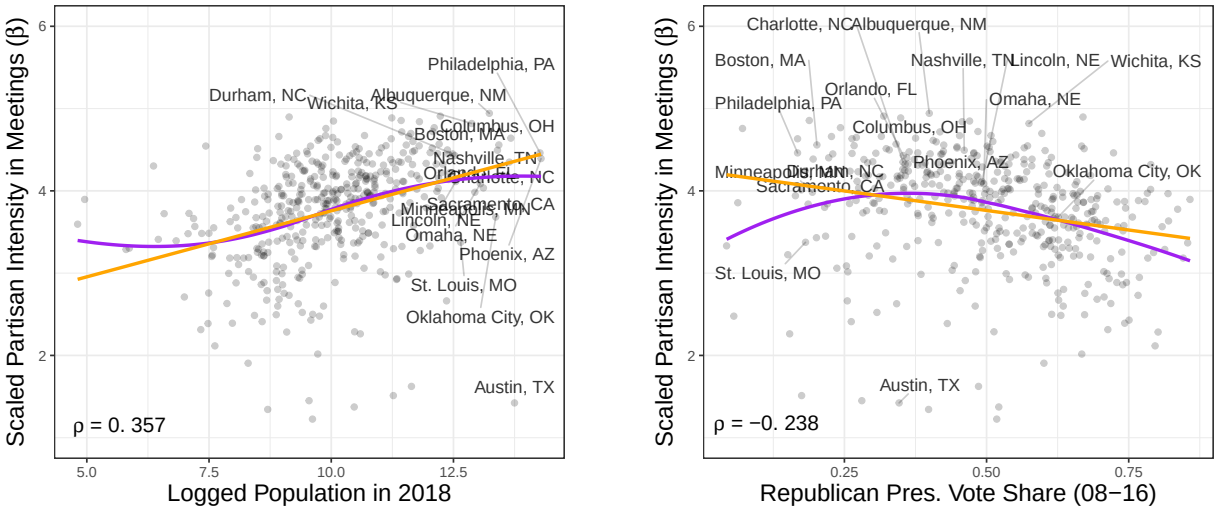
## 6.2 More National Partisan Rhetoric Occurs in Democratic Cities

We initially find support for the second observable implication: both Democratic voting ($\mathbf{H}_{1a}$) and population size ($\mathbf{H}_{1b}$) correlate with greater partisan intensity – or more partisan rhetoric – in public deliberation (estimates of $\beta_i$ in Eq. 1). In particular, Figure 5 shows a correlation of $\rho = 0.357$ between population size and intensity and a slightly weaker correlation of $\rho = -0.238$ between vote-share and intensity. For a concrete comparison, in

Philadelphia, PA – the city with the highest estimated intensity – 1,240 of the 2,000 most partisan phrases were heard a grand total of 5,354 times in our period, while during the same period, Bemidji, MN – the non-urban municipality with the lowest estimated intensity – heard only 16 of these bigrams appeared a total of 21 times. There did not appear to be any discernible difference in this bivariate correlation between the public and officials (supporting $\mathbf{H}_2$), nor partisan and non-partisan municipalities (rejecting $\mathbf{H}_3$).

An intuitive explanation for this finding is that city governments, which must cater to larger and more diverse constituencies, host longer and more frequent meetings. Indeed, adjusting for meeting frequency and average meeting length (Figure 9), there is little left-over variation in partisan intensity independently associated with either population size or constituents' presidential voting behavior. In other words, more partisan speech heard in Democratic cities may be a by-product of more opportunities for speech of *any* kind. We return to this point in the discussion of our model-adjusted estimates (Section 6.4).

Figure 5: **Partisan Rhetoric Occurs More in Democratic Cities**



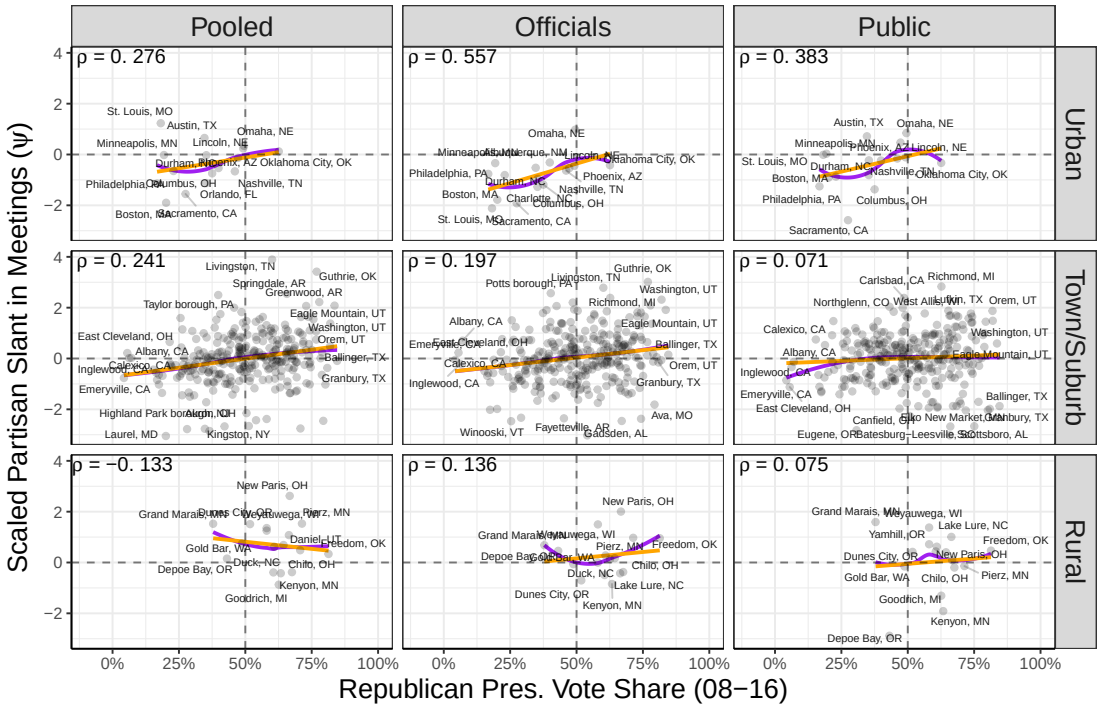

*Notes*: Labelled are all urban municipalities (populations of over 250,000). Estimates of the intensity parameter $\beta$ (from Eq. 1) are standardized.

## 6.3 Partisan Rhetoric Aligns the Most with Constituents in Cities

We turn to the third observable implication – cross-level alignment in partisan slant. Here, we compare one of our main quantities of interest, the partisan slant of meetings (estimates of $\psi_i$ in Eq. 1), with a measure of partisan electoral preferences (average Republican vote-share). If the local political process represents constituents on their national partisan interests, we should expect a positive correlation between the two. Overall, there is a positive correlation

($\rho = 0.25$ to $\rho = 0.28$), but the degree of alignment varies by population size and between politicians and the members of the public. The alignment between partisan behavior and partisan speech in cities (that largely lean Democratic) is not perfect, but directionally consistent with our hypotheses ($\mathbf{H}_{1b}$) and sizable compared to other contexts. For example, the correlation between the roll call votes of Congressmen and the partisan slant of their speech is approximately $\rho \approx 0.6$ (Taddy 2013). To take another comparison point, the correlation between the local policy preferences and federal policy preferences of municipal residents is significantly higher at $\rho \approx 0.8$ (Tausanovitch and Warshaw 2014).

Figure 6: **Partisan Alignment is Highest for Officials in Democratic Cities**

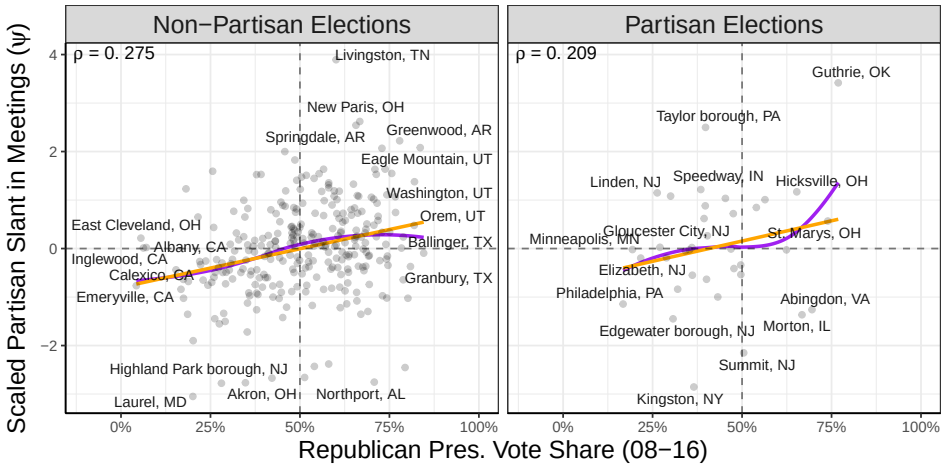



*Notes*: Labelled are the top 5 and bottom 5 municipalities on each axis in each panel. Estimates of the slant parameter $\psi$ (from Eq. 1) are standardized.

The partisan alignment is highest for officials in cities ($\rho = 0.557$), and is small and generally statistically indistinguishable from zero for the public everywhere. This rejects our hypothesis of no difference between officials and public participants ($\mathbf{H}_2$). Figure 7 then shows that there is little difference in whether constituents' partisan preferences are expressed in town hall between formally partisan and non-partisan governments (rejecting $\mathbf{H}_3$). In other words, there are asymmetries in partisan alignment by geographic context, but not electoral context.

To understand the particular language that drives this asymmetry, Figure 8 jointly illustrates the local and national associations of individual partisan phrases. If local politics

Figure 7: **Partisan Alignment is Not Higher Under Partisan Governments**



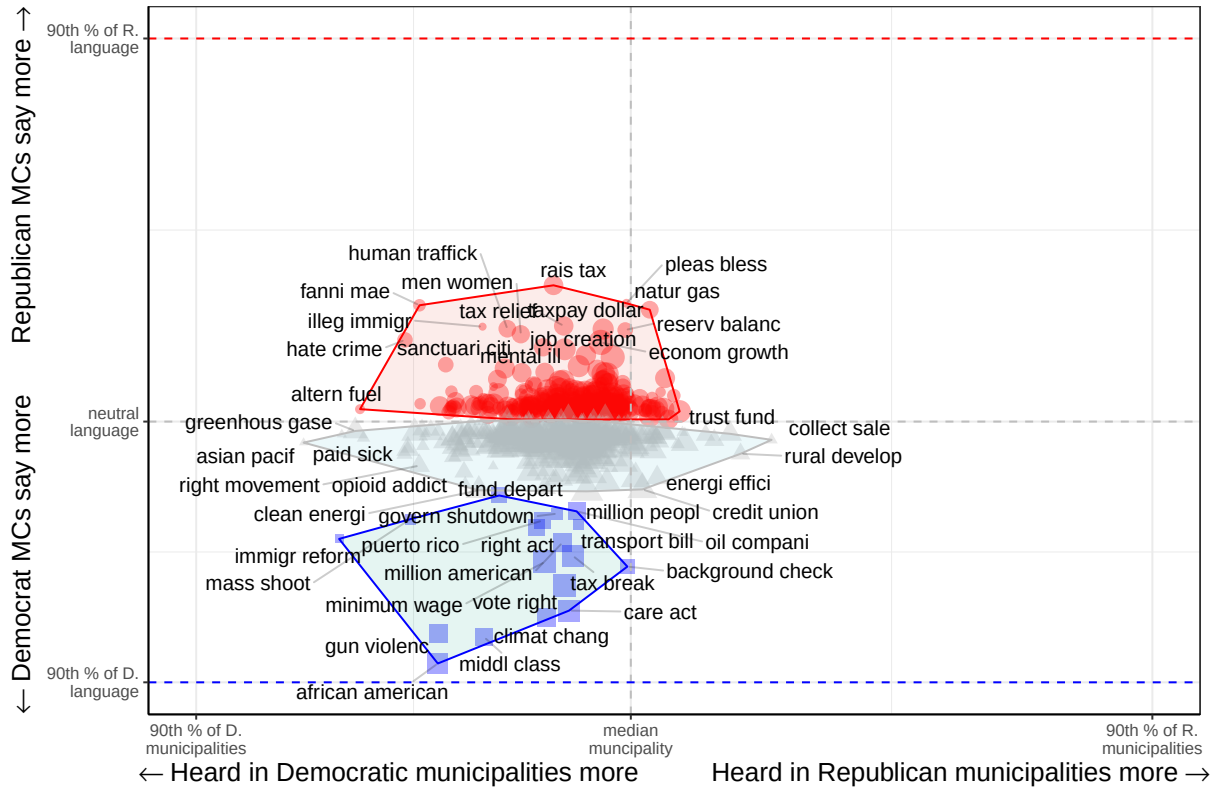

*Notes*: Shown are the pooled standardized estimates of the slant parameter $\psi_i$ (from Eq. 1) on the vertical axis. Lines of best fit estimated via both **OLS** and **LOESS**. Omitted from this plot are municipalities with statistically zero mentions of partisan phrases.

were uniformly nationalized in the United States, we would expect that, on average, the language of the Democratic party would be heard more often in Democratic municipalities and vice versa for the Republican party. In Figure 8, this would mean that phrases would be perfectly correlated on the horizontal and vertical axes. Instead, there is an asymmetry in the national and local associations of partisan language that can be described in two ways.

First, co-partisan rhetoric is more often heard in Democratic places, but not Republican places. In Figure 8, there is a clearly separable cluster (according to a $k$-means clustering algorithm) of highly Democratic meeting language (in blue) that is correlated with Democratic vote-share. Phrases like African American, climate change, and gun violence are strongly associated with both Democratic municipalities and Democratic Congressmen. Conversely, phrases like economic growth, natural gas, and please bless are branded as nationally Republican, but they do not disproportionately appear in Republican municipalities. In other words, highly liberal language (e.g. African American, gun violence) appears as a left tail in many Democrat-leaning places without a corresponding right tail for Republican-leaning places. Appendix Figure E26 precisely illustrates this left tail for a few example Democratic-leaning cities and Republican-leaning towns.

Second, partisan rhetoric – from both national Democrats and Republicans – can be heard frequently in Democratic places, but is relatively absent in Republican places. Figure 8 shows that on average, permutations of the phrases illegal immigration and raise taxes – both, according to the horizontal axis, moderately associated with Republicans in our time period – are heard in places left of the median Republican vote-share. A related asymmetry exists

Figure 8: **Where National Partisan Rhetoric is Heard in Public Meetings**




*Notes*: Each stemmed phrase shown here is amongst the top 2,000 most partisan phrases, according to Gentzkow, Shapiro, and Taddy (2019) and used at least 100 times ($\approx$ 75% percentile of frequency counts) cumulatively across meetings in our sample. The horizontal axis captures, for each phrase, the average Republican Presidential vote share (2008-2016) of the places where it is uttered (weighted by number of utterances). The vertical axis captures each phrase $j$'s estimated differential usage by Republican Congressmen ($\gamma_j$ in Eq. 1). Each phrase is organized into best-fitting clusters by using $k$-means clustering, where $k = 3$ clusters is the optimal "elbow" of clusters a scree plot of within-cluster sum of squares.

between cities and non-cities: both Democratic and Republican rhetoric are more often heard in larger (Appendix Figure E28) and more black municipalities (Appendix Figure E29). As before, there appears to be no difference in this linguistic alignment between partisan and non-partisan governments (Appendix Figure E30).

## 6.4 Model-Adjusted Estimates

We now discuss a series of model-based estimates for the correlations described in 6.1–6.3 that account for the sparsity of rural municipalities, adjust for contextual factors as well as explore the possibility of interaction effects driving the alignments we have demonstrated. To summarise, attention to redistribution, partisan intensity, and partisan slant are generally aligned with constituent partisanship when examining all municipalities. However, consistent with the previous sections, most of these alignments *disappear* when subsetting

to small, medium-sized, swing, or Republican municipalities. Instead, these alignments are typically only found in large and Democrat-voting municipalities, supporting our findings of asymmetric nationalization. Additionally, the link between constituent partisanship and partisan intensity is less robust than the other links, and each relationship is strongest for non-partisan governments and officials' speech.

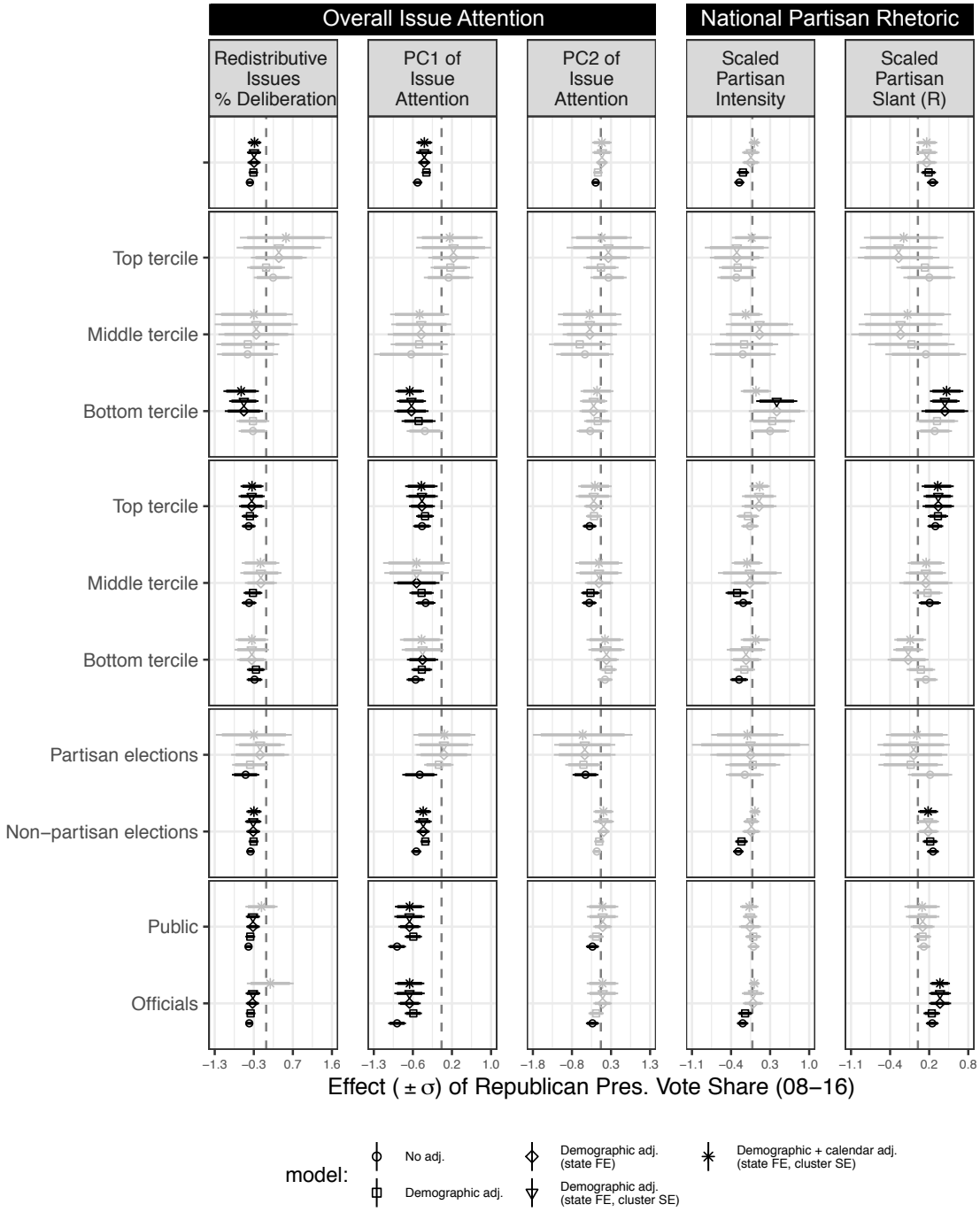
To ensure that our asymmetry findings are not noisy inferences due to a sparsity of rural municipalities, we depart from Census classifications of urbanicity and instead coarsen population size into terciles. To additionally account for the relative underrepresentation of rural and urban municipalities, we replicate our estimates using weighted least squares with sampling weights based on population size (Appendix Figure G40). Furthermore, to ensure that our results aren't disproportionately driven by muncipalities with fewer meetings (and therefore less precise estimates of issue attention and partisan rhetoric), we replicate our estimates using weighted least squares with precision weights based on number of meetings in our sample (Appendix Figure G41).

Our model-based estimates account for several observable factors that may explain away the bivariate correlation between Presidential vote-share and each of aforementioned outcomes (principal components of issue attention, policy arena attention, partisan intensity, and partisan slant). For example, it may be the case that the relationship between the partisan preferences of a municipality and redistributive policy attention or the partisan slant of its government deliberations is entirely due to demand characteristics. That is, references to "social services" and "African Americans" in meetings in Democratic municipalities may be entirely explained by material demands of a large and diverse constituency – both of which correlate with Democratic vote-share. However, adjusting for log population size, municipal demographics (% black and % white), and median household income in an OLS model of each outcome (corresponding to the demographic adjusted models or the $\square$'s in Figure 9) does not meaningfully alter most of the estimates.

Similarly, state context may attenuate or heighten the nationalization of cities, since partisan incongruence with state legislatures may increase or further slant national partisan rhetoric in public deliberation; disagreements with or preemption from state authority may similarly occur along constituents' partisan preferences (see the example in Table 1). However, when adjusting for state fixed effects along with demographics ($\diamond$) and clustering at the state level ($\triangledown$), the main effect of constituent partisanship is only slightly dampened overall and actually increases the link for redistribution attention and slant amongst Democratic municipalities.

Finally, adjusting for municipalities' "calendars" – their average meeting lengths and total number of meetings in our period – completely attenuates the link between partisan

Figure 9: **Model-Adjusted Estimates of Subgroup Nationalization**




*Notes*: Shown are standardized OLS coefficient estimates of a municipality's Presidential vote-share on % mentions of redistributive topics (left), the estimated intensity ($\beta_i$ in Eq. 1) of partisan rhetoric (center), and the estimated slant ($\psi_i$ in Eq. 1) of partisan rhetoric. Bold coefficient estimates are statistically significant at $\alpha = 0.05$.

preferences and partisan intensity ($*$) in the bottom tercile of Republican-voting places, as we noted in Section 6.2. However few other alignments are explained away or reduced to a statistical zero from this calendar adjustment. Thus meeting length and frequency seem not

to change the content of local issues after holding other place characteristics fixed.

# 7 Conclusion

In this study, we leverage automated transcriptions of video data to scalably study the practice of local politics across the United States – the first of its kind that we are aware of. We find that local politics is neither all idiosyncratic nor defined solely by national partisan conflict. Instead, certain characteristics of local agendas differ predictably by national partisan preferences, and *asymmetrically* so for Democratic cities. Larger cities not only experience more civic engagement (Oliver 2000), they also invite more diverse perspectives: both Democratic, socially liberal language and Republican, pro-business rhetoric. However, on net, meeting deliberations in cities sound more Democratic, and in proportion with constituents' partisanship. Republican, small towns spend more time on allocational, more idiosyncratic issues both at the unit of topics (see Appendix Figure C13) and individual phrases (see Appendix Figure E22). During policy deliberation, officials appear to more coherently use language mirroring their constituents' co-partisans in Congress than members of the public. Surprisingly, electoral institutions do not tell us how what is heard in town hall: meetings in partisan local governments, if anything, are less reflective of constituents' partisanship, echoing recent studies (Tausanovitch and Warshaw 2014).

Our central conclusion is that, from the perspective of local politics on the ground, national Democrats represent cities, while national Republicans do not strongly represent any geography in particular. Although this article does not test this, one possible cause for this differential alignment, given that it is concentrated in officials' speech, may be the characteristics of politicians who represent cities. Urban leaders are more liberal than suburban or rural leaders, yet they are disproportionately responsive to business elites (Logan, Molotch, and Molotch 2007) and wealthy residents (Schaffner, Rhodes, and La Raja 2020), and often have executive or entrepreneurial backgrounds in the private sector (Kirkland et al. 2020; Kirkland 2021). Thus, despite representing largely liberal constituencies, local leaders in big cities may also be more likely to pursue a business-friendly, growth-oriented agenda than their counterparts in the suburbs.

Normatively, this asymmetric nationalization may be undesirable. In cities, it may incentivize local governments – the officials and meeting-goers who, together, shape local policy – to spend valuable time deliberating narrow partisan issues that are unattractive or irrelevant to residents (e.g. passing symbolic climate change resolutions at the expense of substantive immigrant inclusion measures). Similarly, in suburban and small town politics, the *absence* of strong geographic or racial equity appeals may alienate current or future minority residents.

Consequently, the asymmetric nationalization of local politics may maintain or accelerate current levels of partisan and racial segregation in the United States. On the other hand, the absence of partisan politics or proposals for redistributive projects may exactly align with suburban and rural residents' preferences for small government (Oliver 2001), thus providing ideal representation.

While our findings demonstrate a recognizable Democratic and urban policy brand at both federal and local levels, readers should not interpret them to suggest that local governments of small, suburban, and Republican places are "apolitical". For example, school districts outside of city limits have long been sources of partisan battles over issues like communism (McGirr 2015). However, these and other moral panics – such as contemporary debates over critical race theory – may characterize short bursts of interest group activism at the fringes of national policy debates, rather than represent the sustained efforts of the Republican legislative agenda (i.e., "tax relief" and "economic growth"). Thus, they would likely not be picked up through the methods in this article. Future studies should test whether there are other, possibly reversed asymmetries using other dimensions of speech (e.g., interest group language, partisan media frames).

Our findings clarify opportunities for future work. First, we hope that our dataset and analyses spur more interest the local policy-making process itself as an outcome. Using videos instead of manually reading minutes considerably lowers the opportunity cost of asking a wide range of substantive questions. Second, our findings are a current snapshot of local politics and do not investigate developments over time. While videos are a rich way of studying local politics, the practice of publicly posting meeting videos is a relatively recent phenomenon driven by technical convenience. This is an important gap to fill, given that factors like declining interest in local politics and the loss of local news have natural implications for how nationalization might develop over time. Third, future work can further develop the connection between the dynamics of local policy-making in public meetings and policy outcomes. There are likely patterns of inequality found in whose voices are taken seriously in the deliberative process and ultimately turned into policy. For members of the public, such inequalities could be both a cause and an effect of the highly skewed participation along racial and socioeconomic lines in local politics.

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# The Asymmetric Nationalization of Local Politics:
## Partisanship Aligns with Politics in Democratic Cities More Than Anywhere Else

## Online Appendix

## Contents

# Appendix A Case Study: Greensboro, NC

As an example of the advantages of videos over minutes, consider the April 3rd, 2018 meeting of the Greensboro, NC city council.[13] After seeing her daughter's reaction to the Marjory Stoneman Douglas High School in Parkland, Florida, (non-partisan) Mayor Nancy Vaughan of Greensboro wrote on her Facebook page that "we must DO SOMETHING."[14] However, although she personally supported passing increased gun control measures, as mayor she was intimately familiar with the constraints placed on her local office, saying "there's not a lot we can do." Instead, a largely symbolic resolution was introduced at the April city council meeting that would ban gun shows in city-owned buildings. This proposal led to a great deal of public discussion, with over a dozen public comments at this meeting specifically addressing gun violence and the resolution. The final public comment on the issue was given by Mark Robinson, a 50 year old furniture factory employee and lifelong Greensboro resident.[15] Throughout Mr. Robinson's 4 minute long public comment against the proposed resolution limiting gun shows in city-owned buildings, he noted that he would continue attending city council meetings to "raise hell just like these loonies from the left do." Despite the Greensboro meeting minutes being unusually detailed by listing summarized views of the content of public comments, the minutes make no mention of Mr. Robinson's statements on topics like mass shootings, AR-15s, the National Rifle Association (NRA), gang violence, and the vilification of police departments. After hearing public response at the meeting and receiving advice from the city attorney, Mayor Vaughan ultimately backed down from the proposal.[16]

Despite being a failed hyper-local proposal to cancel a single gun show, the clear connection to national partisan debates on gun control was not lost on the NRA. The NRA featured Mr. Robinson's public comment in a nationally televised prime time commercial, and invited Mr. Robinson to speak at their 2018 convention alongside then President Donald Trump and Vice-President Mike Pence[17]. Mr. Robinson's comments as a private citizen clearly resonated with North Carolina voters - in 2020, Mr. Robinson was elected as North Carolina's lieutenant governor, the first African American to hold the position.[18]

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[13] See: https://greensboro.legistar.com/Calendar.aspx.

[14] See: https://www.wfmynews2.com/article/news/local/greensboro-city-council-considers-canceling-gun-and-knife-show/83-526624670.

[15] See: https://www.rhinotimes.com/news/mark-robinson-announces-run-for-lt-governor/.

[16] See: https://www.wfmynews2.com/article/news/local/greensboro-city-council-does-not-have-authority-to-cancel-gun-show-city-attorney/83-529815746.

[17] See: https://twitter.com/markrobinsonNC/status/996514154189066240 and https://www.13newsnow.com/article/news/local/north-carolina/nc-man-who-doesnt-own-gun-featured-in-nra-ad-speaks-at-convention/291-552999909.

[18] See: https://nsjonline.com/article/2020/11/mark-robinson-becomes-n-c-s-first-african-american-lieutenant-governor/.

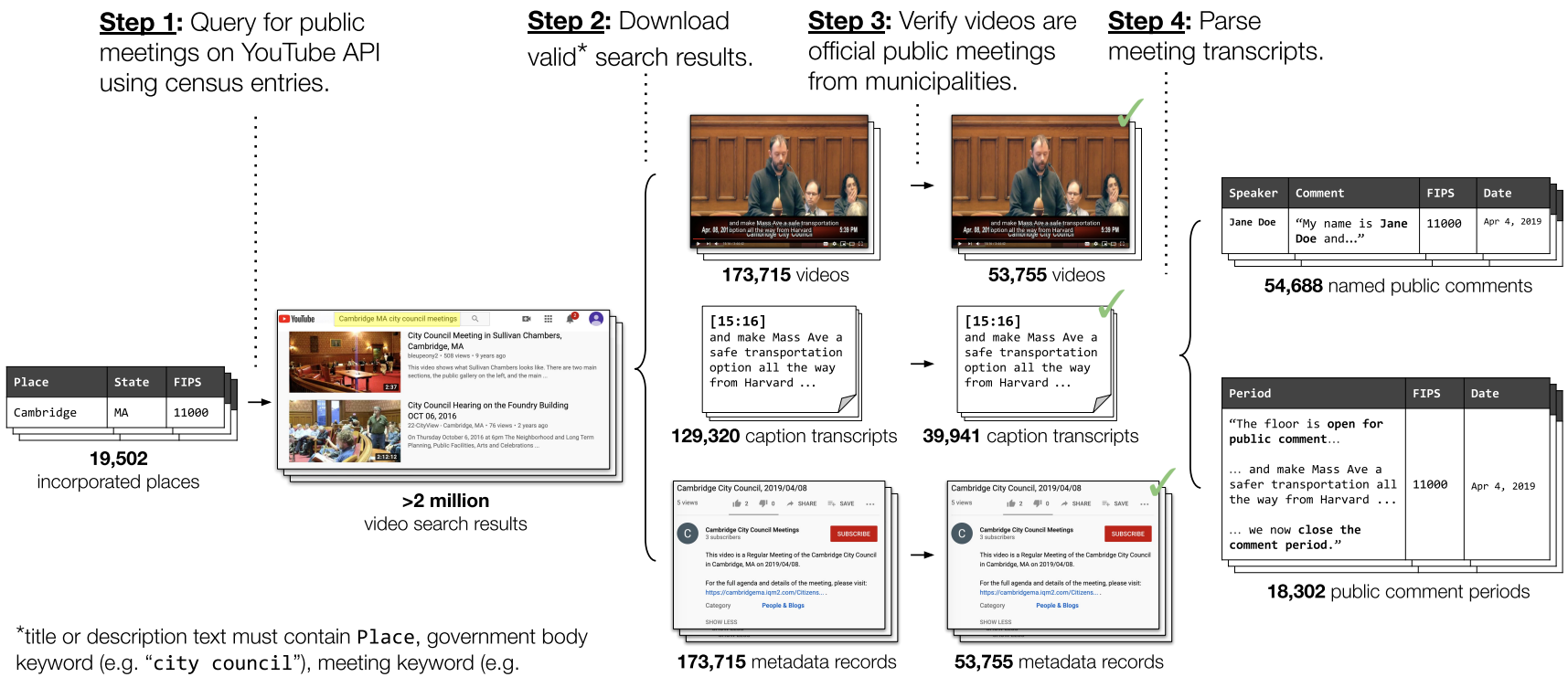
# Appendix B Sample Collection & Description

## B.1 Data Collection Details

We began our data collection by individually querying YouTube for meetings in all 19,502 incorporated places in the United States. We appended each place name to several keywords referring to all types of municipal government bodies that exist in the United States (e.g., "city council", "board of selectmen") according to Wikipedia followed by "meeting". From this initial step, we acquired more than 2 million video results in the form of a video title, description, and the name of the corresponding YouTube channel. We discarded all results that did not indicate the name of a census place, a date, or a government body in either the title or description. Next, in the resulting set of unique YouTube channels, we manually verified that each channel was matched to the correct census place, and corrected it if not. At this stage, we only retained channels that were active (had at least one meeting uploaded in the prior month at the time of collection) and appeared to be officially maintained by municipal officials or local media (rather than private citizens, who often upload select clips from meetings). We downloaded the full audio, video, and closed caption transcripts (where available) from these verified source channels. Altogether, we assembled 39,941 meeting transcripts across 720 municipalities (80 per municipality, on average) that were algorithmically generated or manually added by each channel for meetings dated between June 16, 2005 and December 19, 2019.[19]

[19]Recent work examining the validity of automated transcripts of audio recordings shows that YouTube's back-end algorithm generates more accurate transcripts than comparable technologies such as the Google API and, often, human transcribers (Proksch, Wratil, and Wäckerle 2019). Although YouTube does not identify who created each transcription, in an audit of 1,000 meeting transcripts, we found that only 9 transcripts omitted or mis-transcribed some portion of the corresponding meetings.

Figure B10: **Graphical Overview of Meeting Data Collection**




*title or description text must contain `Place`, government body keyword (e.g. "`city council`"), meeting keyword (e.g. "`meeting`"), and `Date`

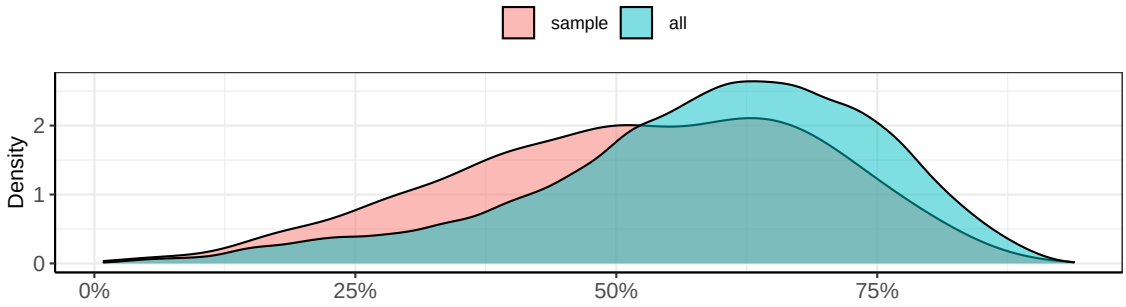
## B.2 Representativeness of Sample

Our dataset covers 720 municipal governments across 47 states with complete and transcribeable video uploads of city council (or equivalent) meeting in our dataset. Of these, 82 (11%) have municipal populations of <2,500 (roughly the U.S. Census classification for rural), 23 (3%) with populations >250,000 (classified as urban), and the remaining 606 (85%) in between.

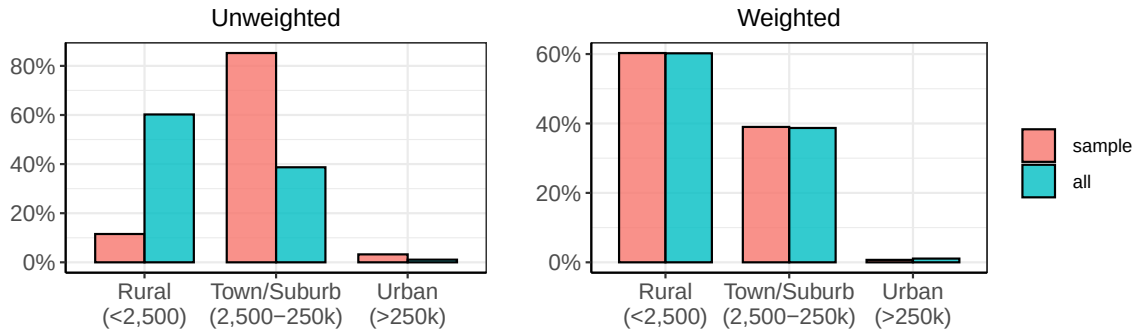
To account for the under-representation of the largest and smallest municipalities, we weight each municipality with $\widehat{w}$: the inversed binned population size proportion in the sample multiplied by the bin's proportion in the census of all incorporated U.S. municipalities. All of our results in the main text and appendices are invariant to the bin thresholds and do not change with parametric procedures that adjust for additional characteristics like municipal revenue, state, or vote-share. Figure B11 shows (a) the distribution of Presidential vote-share in our unweighted sample, which does not change substantially after weighting and (b) the unweighted and weighted distributions of binned population size.

Figure B11: **Representativeness of Municipalities**

(a) **Republican Presidential Vote Share (08-16)**




(b) **Population Size**




*Notes*: Presidential vote share averaged between 2008 and 2016 and measured at the municipal level using voter database provided by `TargetSmart`; municipal population measured using the 2018 American Community Survey.

Figure B10 illustrates the end-to-end data collection process with the number of intermediate results at each step.

Table B2: **Phrases for Identifying Public Comments**

| Phrase Category | Phrases |
|---|---|
| Period announcement | anybody in the audience, anyone in the audience, anybody in the public, anyone in the public, anybody from the public, anyone from the public, comments from the public, members of the public, will now take comment, will now accept comment, now open for comment, now open for public comment, open it up for comment, who wishes to comment, who would like to comment, who wants to comment, who wishes to testify, who would like to testify, who wants to testify, who wishes to address, who would like to address, who wants to address, state your name, state your address, name and address, name and location, name address, come to the microphone, come to the podium, next signed up, would you come up please |
| Period closure | end of the comment period, close comment period, conclude comment period, closing comment period, end of public comment, close public comment, seeing none, no one else, don't see anyone, no one from the public, public hearing is closed, ends the public hearing, go to the council, go to the board, comments from the council, comments from the board, take the vote, take it to vote, take it to the vote, moving, move to adopt the resolution, make the motion, those in favor, all in favor, those opposed, all opposed, next item, next agenda item, next resolution |
| Speaker introduction | my name is, my name's, hello I'm, hello I am, my address is, my home address is, I'm here to, come to the microphone, come to the podium |
| Speaker conclusion | thank you, thanks so much, thanks very much, that's all, next we have, next up we have, time is up, time's up, minutes are up, reached time limit, anyone else |

*Notes*: Some permutations of phrases, such as those paired with municipal government bodies, omitted for brevity.

## B.3 Identifying Public Comments

Table B2 shows various groups of phrases used to extract public comment periods as well as individual public comments from each meeting.

To distinguish members of the public speaking from members of the government speaking, we first compiled a list of formal phrases, shown in Table B2, announcing the start and close of public comments as well as the introduction and conclusion of each speaker's comment. We compiled many of these phrases directly from Robert's Rules of Order, a system of procedural guidelines that most government proceedings abide by.

Our extraction algorithm proceeded as follows. First, we sequentially searched all our meetings for instances of each period announcement and speaker introduction phrase and for each result, removed all text prior to the phrase in the transcript. For each candidate *period*

in our results, we attempted to find an instance of a candidate period closure anytime until the end of the meeting transcript. For each candidate *comment* in our results, we attempted to find a speaker conclusion phrase anytime in following $x$ minutes where $x$ is either that municipality's public comment time limit or, if unavailable, four minutes (the average of all comment time limits). If a speaker conclusion phrase could not be found, we sequentially searched for the following as cut-offs instead:

1. Another speaker introduction phrase indicating the start of a new comment.
2. A period closure phrase that occurred no later than four minutes after the speaker introduction phrase.
3. The last word uttered $x$ minutes after the speaker introduction phrase $x$ is either that municipality's public comment time limit or, if unavailable, four minutes.

After identifying each comment, we redacted its text from the transcript, so it would not overlap with any other comment or be double-counted in a comment period. We shuffled the order of our comments and found that the number and lengths of periods and comments were statistically invariant to the order of our iteration.

Local governments often invite specialists to provide expert testimony or present information relevant to a particular legislative ordinance or resolution. We exclude such testimonials from our collections of public comment by removing any comments containing references to "presentations" or "presenting" or that begin with "I'm from the" followed by an exhaustive list of local and state government agencies.

For all analyses involving "public" speech, we pooled together all public comments and public comment periods for each municipality and we considered all other text excluding this pooled text to be "elite" speech.

# Appendix C Topic Measurement

We used the correlated topic model (CTM) to discover and estimate latent topics of text in our corpus of meetings (Blei, Lafferty, et al. 2007).

First, prior to fitting any models, we stripped our transcripts of non-informative language: we removed all common English-language stop-words, as well as references to any of municipalities, states, officials, or government bodies. We excluded punctuation, numbers, and any extremely rare unigrams (occurring in less than 5% of meetings) and extremely popular unigrams (occurring in more than 95% of meetings).

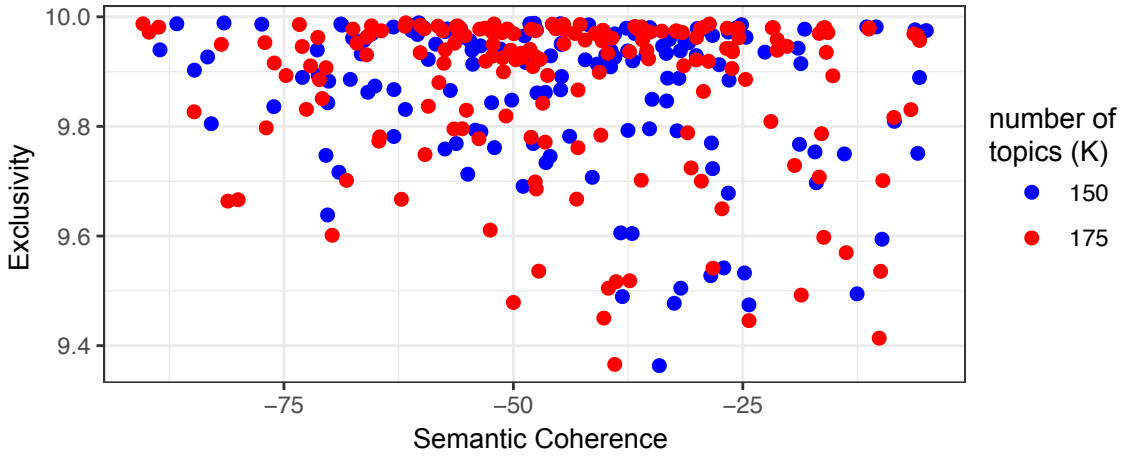
Next, we fit a topic model for each hyperparameter value $K$ (number of topics) in the range {100, 125, 150, 175, 200}, an appropriate range given that our corpus involved more than 10,000 documents, and the average meeting containing an hour's worth of text (Roberts, Stewart, and Tingley 2019). In the estimation stage, we excluded covariates such as population estimates and presidential vote share since there are some missing values for the latter. We estimated each model using several runs of a variational Expectation-Maximization algorithm (Roberts, Stewart, and Tingley 2019) to ensure that the topic distributions they produced were not contaminated by artifacts of any particular run, and picked a representative output for each $K$. Then, replicating best practices (Grimmer and Stewart 2013),

for each topic distribution output, we asked two coders familiar with local politics to name the topics (including "procedural" or non-interpretable "junk" topics) by examining the top 20 most common keywords associated with each topic. Topics with common labels were aggregated and the topic frequencies of each meeting transcript were consequently updated.

In the final stage, we selected $K = 175$ as our best-fitting CTM on two grounds: it was no less coherent than the $K = 150$ (Figure C12) model and yet produced more disaggregated substantive topics than the former (59 as opposed to 47). This section additionally shows that our inferences in the main text are robust to re-weighting using inverse sampling weights (Figure C16), an alternative categorization into arenas (Figure C14), an alternative choice of topic model (Figure C17), and a keyword-based method for topic annotation (Figure C18).

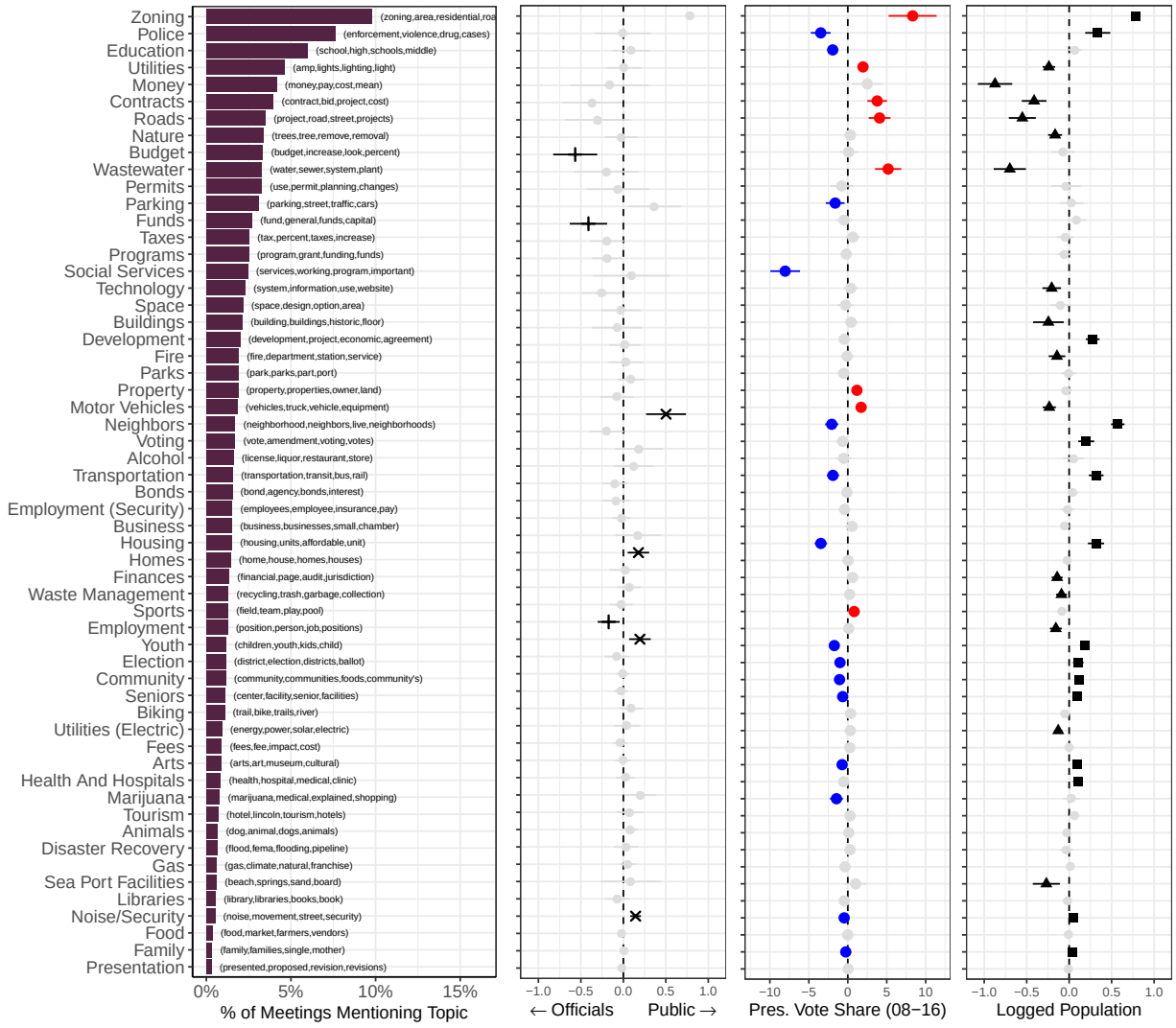
Note that all %'s presented in the following figures use counts of words in topics across the three canonical policy arenas (Peterson 1981), assuming that all other language is procedural, place-specific, or other uninformative in generalizing about local political deliberation in the United States.

Figure C12: **Topic Model Diagnostics**



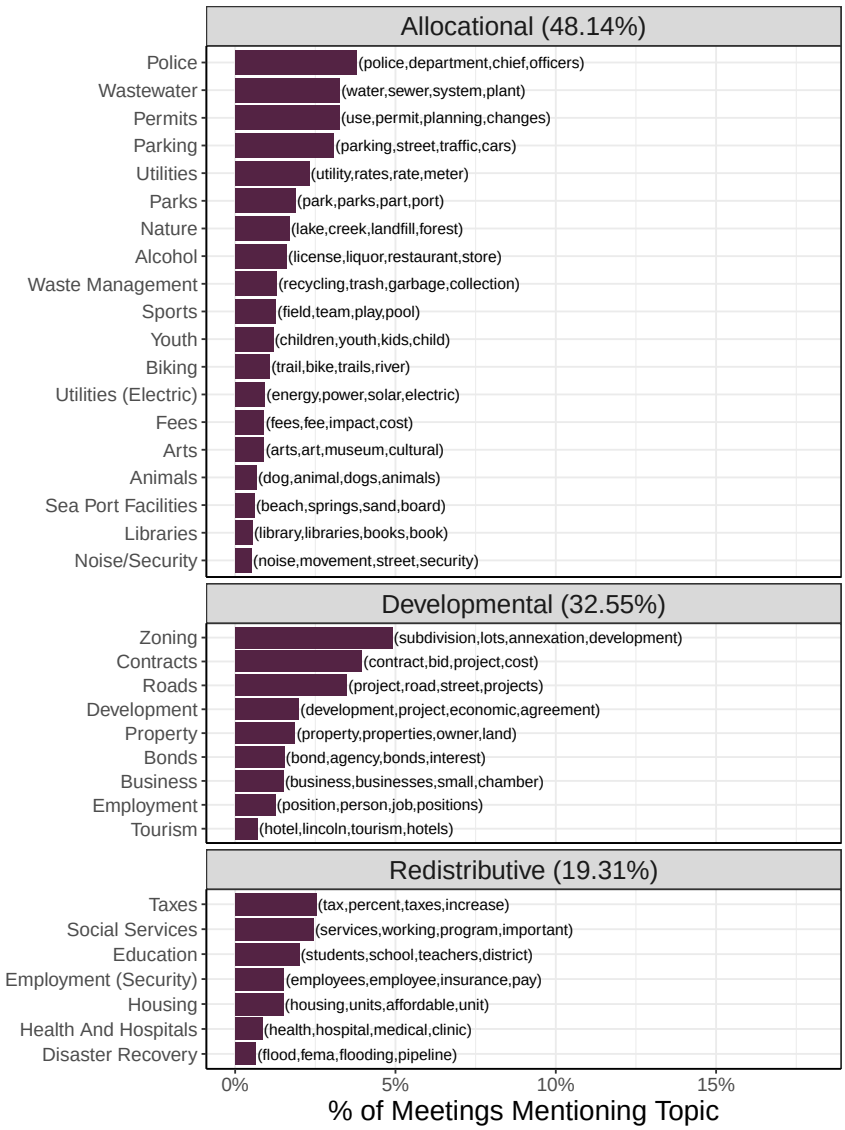

*Notes*: Shown here is a comparison of the semantic coherence (document co-occurrence of probable words in the same topic) and exclusivity (how exclusive words are to a particular topic) across two choices of $K$, illustrating that our chosen model ($K = 175$) is comparably coherent to a more parsimonious model ($K = 150$) (Mimno et al. 2011).

Figure C13: **Baseline and Marginal Mentions of Individual Issues from Main Topic Model ($K$=175)**



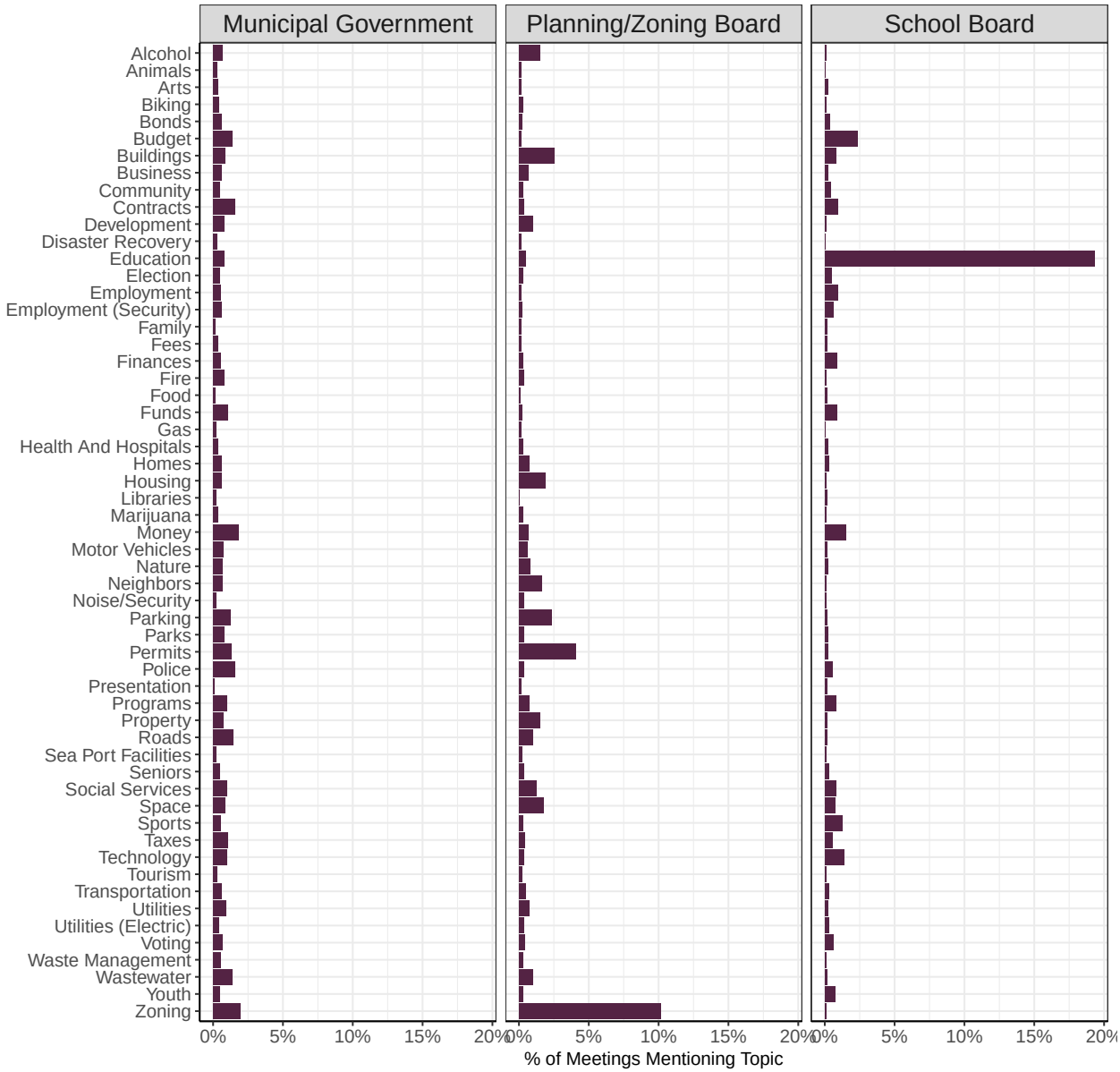

*Notes*: Shown in parentheses are top most four keywords frequent keywords associated with each topic. Topic occurrences estimated from an CTM fitted to $K = 175$ raw topics. Topics shown in the left panel are re-normalized after removing junk topics and procedural topics which make up about 38% of the raw meeting transcripts.

Figure C14: **Organization of Estimated Issues into Arenas from Main Topic Model ($K$=175)**



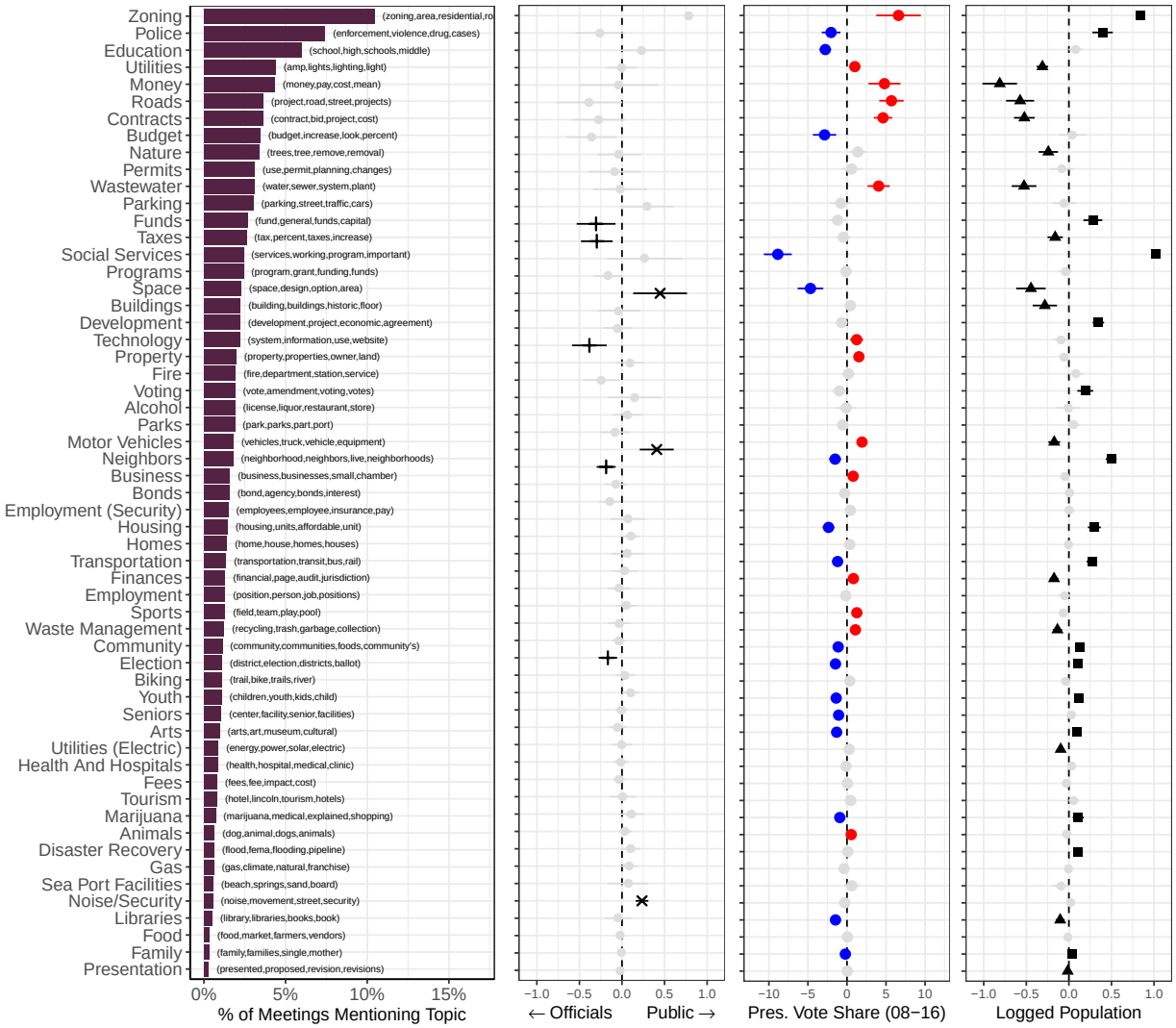

*Notes*: Shown here is the organization of our main model's ($K$=175) topics into Peterson (1981)'s three canonical policy arenas and their occurrence across our 34,327 meetings. According to a $t$-test at the $\alpha = 0.05$ level, the proportion of allocational issue topics is statistically larger than both developmental and redistributive topics. This is robust to the alternative classifications of: (1) Zoning as an allocational issue, (2) Parking as a developmental issue, (3) Parks as a developmental issue, (4) Contracts as a redistributive issue, (5) Bonds as a redistributive issue, and (1–5) altogether.

Figure C15: **Predicted Issue Mentions in Other Local Governments from Main Topic Model ($K$=175)**



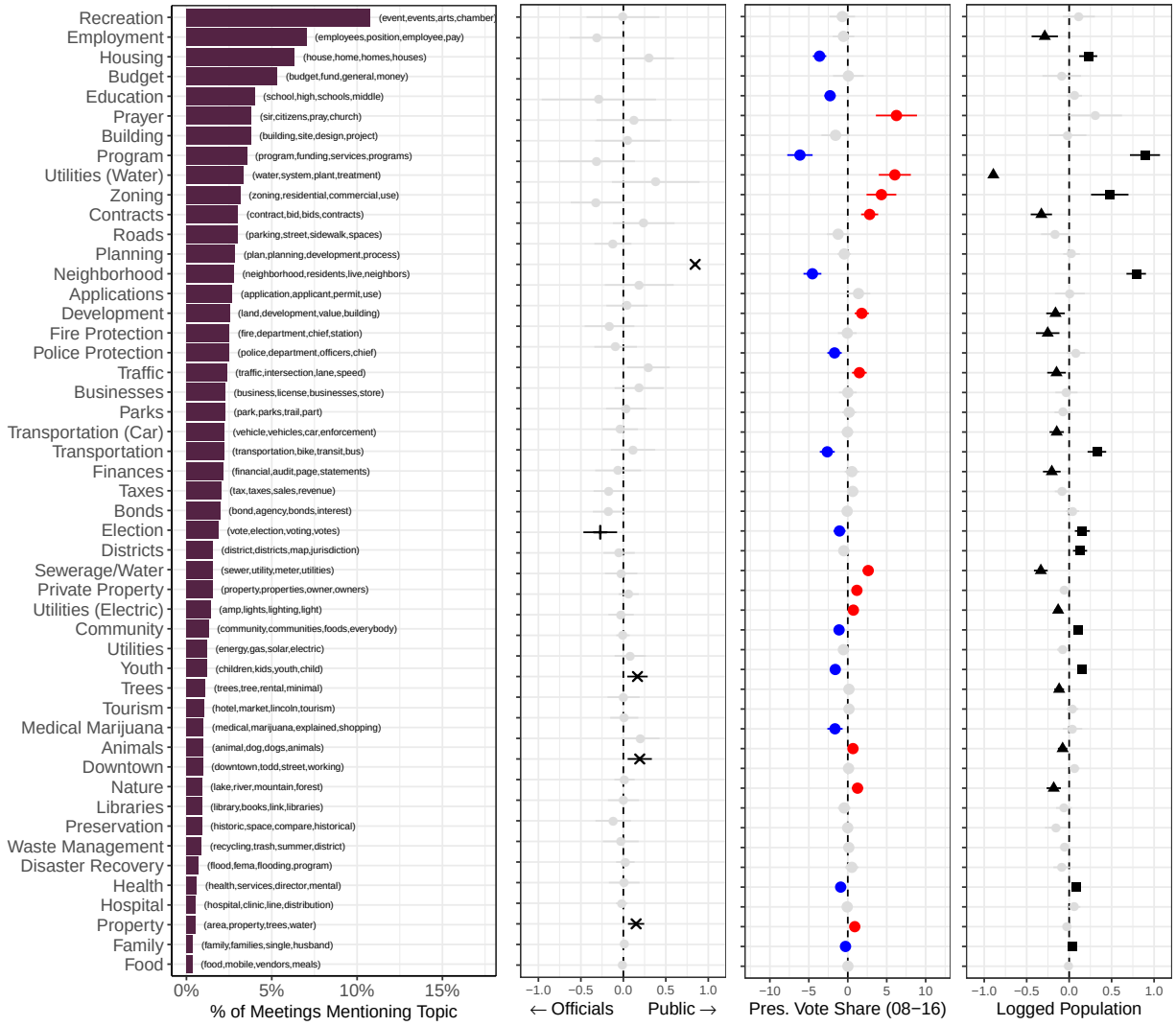

*Notes*: Shown here is a validation of estimated topic occurrences in municipal governments using our main topic model ($K$=175) with occurrences in other local governments for a small supplementary sample of planning boards ($n$=89) and school boards ($n$=52) downloaded using the same process as illustrated in Figure B10. As expected, the topic Zoning is the primary topic of deliberation in most zoning board meetings and Education is the primary topic in school board meetings.

Figure C16: **Sample-Weighted Baseline and Marginal Mentions of Issues from Main Topic Model ($K$=175)**



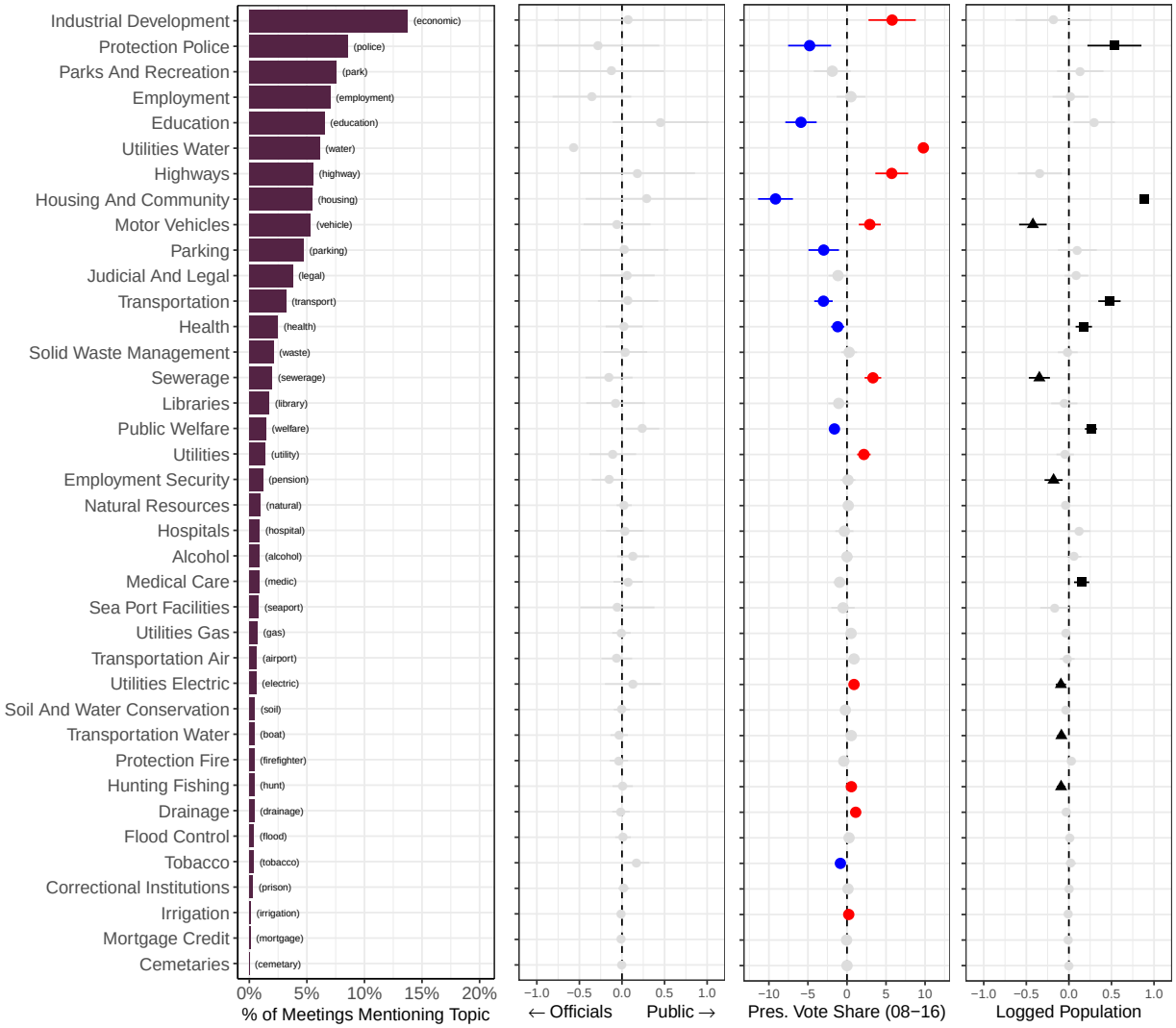

*Notes*: Topic occurrences estimated from an CTM fitted to $K = 175$ raw topics. On the left-most panel, the occurrence of each topic $k$ in the sample is measured as $\frac{\sum_i \sum_{n \in \mathcal{N}_i} \pi_n^k \widehat{w}_i}{\sum_{k'} \sum_i \sum_{n \in \mathcal{N}_i} \pi_n^{k'} \widehat{w}_i}$ where $\pi_n^k$ is the proportion that topic $k$ takes up of topic-words in meeting $n$, $\mathcal{N}_i$ is the set of meeting indices pertaining to place $i$, and $\widehat{w}_i$ is the sample propensity weight estimated in Section B. In each of the four other panels, results are from weighted least squares (WLS) coefficient estimates of a particular independent variable on one topic's rate across municipalities with weights $\widehat{w}_i$. In all cases, to prevent extreme weights from allowing outlier places from becoming overly-influential, weights below the 0.1% quantile ($\approx 0.003$) are trimmed.

Figure C17: **Baseline and Marginal Mentions of Individual Issues from Alternative Topic Model ($K$=150)**




*Notes*: Shown here is a (a) a rough replication of the baseline rates of topics and (b) a replication of the marginal effects of three covariates of interest using an alternative topic model (i.e. a different specification of the $K$ parameter as described in C). Note the differences in baselines from the main model in Figure C13 which arise from coarsened versions of the $K = 175$ topics: for example, Recreation in this model contains significant components of Community, Youth, Sports, and others from $K = 175$; Employment contains contains components of Money and Contracts from $K = 175$.

Figure C18: **Baseline and Marginal Mentions of Individual Issues in Public Meetings Estimated by Keyword Dictionary ($K$=150)**




*Notes*: Shown here are the results of an alternative approach to unsupervised topic modelling via pre-specifying topics and their keywords and measuring their occurences with keyword counts (Benoit et al. 2018). Unlike the correlated topic model where each word in the corpus's vocabulary has some probability (however small) of occurring under each topic, keyword dictionaries conservatively only allow a few keywords to semantically define a topic. We built a keyword dictionary where each topic was pre-specified as a local expenditures category identified by the Census of Governments and the keywords in each named category (e.g., Industrial Development) consisted of the name itself, close synonyms (e.g., "economic development") and constituent words (e.g. "industry"). In a world where all meeting language exactly maps onto budget items, we replicate our descriptive findings: deliberations in the allocational arena matters outnumbers the developmental and redistributive arenas (to a smaller degree) and geographic divergences between topics hold (to a stronger degree).

# Appendix D Partisan Slant and Intensity Measurement

Consider $J$=3,293 most used phrases in Congress, on average, between 2005 and 2017 each with parameter $\gamma_j$ that signals its differential usage (slant) by Democrats (positive) or Republicans (negative). Here $\gamma_j$ is a measure from a probabilistic model-based estimate from (Gentzkow, Shapiro, and Taddy 2019) that is normalized as a $z$-score.

One naive measure of a municipality's partisan character is the product of each partisan phrase's partisanship $\gamma_j$ and its frequency in that municipality's meetings. However, as we write in the main text, our measurement goal is to parse out how much municipal meetings hear partisan language across the spectrum (*intensity*) from that partisan direction that this language slants towards (*slant*).

## D.1 EM Algorithm Details

Consider a place-phrase count matrix $\boldsymbol{W}$ composed element-wise of observed counts $w_{ij}$ of each partisan phrase $j \in \{1, \ldots, J\}$ in each municipality $i \in \{1, \ldots, N\}$. Denoting $\beta_i$ the partisan intensity in each place, $\psi_i$ the degree of slant in each place and $n_i$ the meetings accounted for in each place, we fit the following model:

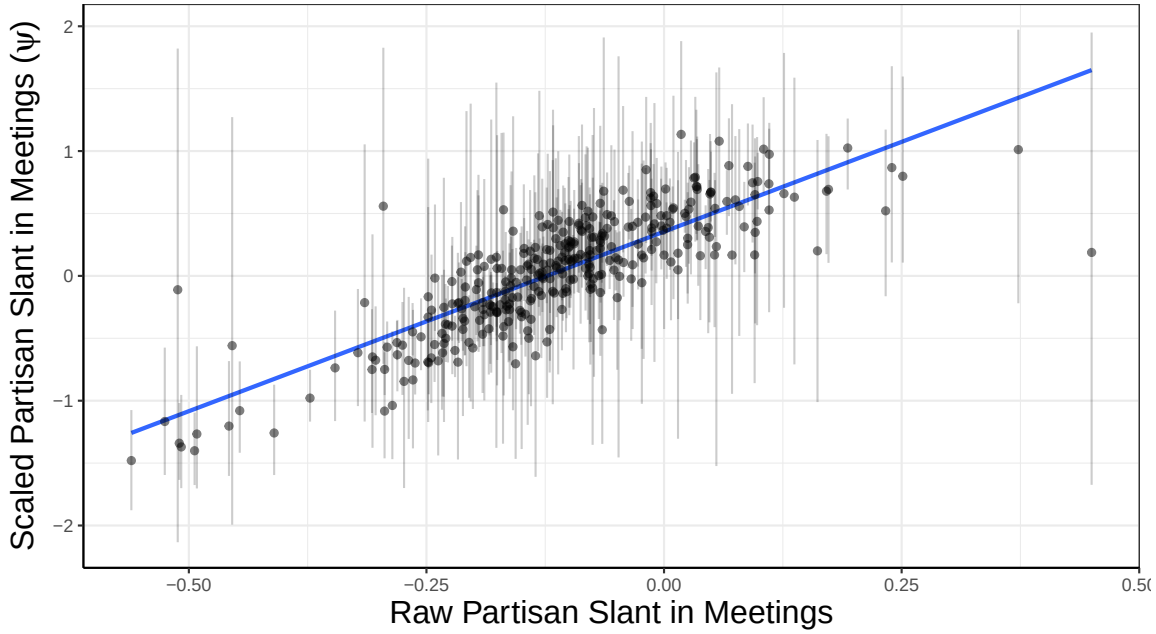
$$\begin{aligned} w_{ij} &\sim \text{Pois}\big(\lambda_{ij}\big), \\ \lambda_{ij} &= \exp\big(\alpha_j + \beta_i + \psi_i \gamma_j\big). \end{aligned} \tag{2}$$

This model is similar to the Wordfish model (Slapin and Proksch 2008), a key difference being that $\psi$ is an observed measure, estimated and transferred from the Congressional Record. Although models like Wordfish and Multinomial Inverse Regression (Taddy 2013) are attractive candidates for estimating a low-dimensional scale for our corpus of meetings, in practice they are difficult to apply to our case since they involve heavy pre-processing to purge the transcript documents of place-specific stop-words, geographic references, and other uninformative linguistic differences between places. We estimate the unknown parameters by using an Expectation Maximization (EM) algorithm. EM is an iterative procedure to compute maximum likelihood estimates for latent variables. In the E-step, we calculate the expectation of the unobserved variables – $\alpha_j$, $\beta_i$, $\psi_i$ – as if they were observed. The M-step then maximizes the log-likelihood conditional on the expectation.

We estimate the unknown parameters in our model with an Expectation Maximization (EM) algorithm. EM is an iterative procedure to compute maximum likelihood estimates for latent variables (Dempster, Laird, and Rubin 1977). In the E-step, we calculate the expectation of the unobserved variables – $\alpha_j$, $\beta_i$, $\psi_i$ – as if they were observed. The M-step then maximizes the log-likelihood conditional on the expectation.
Each estimation step $t$ proceeds by selecting maximum likelihood estimates for each parameter vector $\boldsymbol{\alpha} = \big[\alpha_1, \ldots, \alpha_N\big]$, $\boldsymbol{\psi} = \big[\psi_1, \ldots, \psi_N\big]$, $\boldsymbol{\beta} = \big[\beta_1, \ldots, \beta_J\big]$ one at a time, conditional on expected ("best-guess") values of the other vectors so far, $\boldsymbol{\alpha}^{(t-1)}, \boldsymbol{\psi}^{(t-1)}, \boldsymbol{\beta}^{(t-1)}$.

**Initialization.** To obtain starting values for the first E-step (corresponding to $t = 0$) for each place's intensity fixed effect parameter ($\beta_i$) we plug in the logged count of partisan phrases in each meeting, for the phrase fixed effects ($\alpha_j$) we use the logged count of each

Figure D19: **Summary of Scaled Slant Estimates**




*Notes*: Shown on the vertical axis is the 90% credible interval for each place's slant parameter ($\psi_i$ in Eq. 1) approximated through a parametric bootstrap after fitting point estimates using EM. The comparison of each place's scaled slant $\psi_i$ with the naive sample average of each place's partisan slant $\sum_{j=1}^{1000} w_{ij}\gamma_j$ demonstrates the effect that scaling has, namely of isolating each place's alignment with each phrase's slant $\gamma_j$ rather than its baseline intensity of partisan language ($\beta_i$), its frequency of meetings ($n_i$), or the baseline popularity of certain words independent of their slant ($\alpha_j$).

phrase across all meetings, and for each place's slant parameter ($\psi$) we draw from a standard normal.

**E-step.** This step consists of evaluating the following $Q_t$ function, or the expected posterior of the unknown parameters given our current best estimates at time $t$. Since we place flat independent priors on each parameter vector, $Q_t$ is simply the log likelihood of our model:

$$\begin{aligned} Q_t(\boldsymbol{\alpha}, \boldsymbol{\psi}, \boldsymbol{\beta}) &= \mathbb{E}\big[\log p(\boldsymbol{\alpha}, \boldsymbol{\psi}, \boldsymbol{\beta} \mid \boldsymbol{W}) \mid \boldsymbol{\alpha}^{(t-1)}, \boldsymbol{\psi}^{(t-1)}, \boldsymbol{\beta}^{(t-1)}\big] \\ &= \mathcal{L}(\boldsymbol{\alpha}, \boldsymbol{\psi}, \boldsymbol{\beta} \mid \boldsymbol{W}) \\ &\propto \sum_{i=1}^{N}\sum_{j=1}^{J} -\lambda_{ij} + w_{ij}\log(\lambda_{ij}) \\ &\propto \sum_{i=1}^{N}\sum_{j=1}^{J} -\exp\big(\alpha_j + \beta_i + \psi_i\gamma_j\big) + w_{ij}\big(\alpha_j + \beta_i + \psi_i\gamma_j\big) \end{aligned}$$

**M-step.** In this step, we iterate through each of our parameter vectors, determining the maximizing values of the above log likelihood via the BroydenFletcherGoldfarbShanno algorithm (Fletcher 2013):

$$\boldsymbol{\alpha}^{(t)} \leftarrow \arg\max_{(\alpha_1,\ldots,\alpha_J)^\top} \sum_{i=1}^{N}\sum_{j=1}^{J} -\exp\left(\alpha_j + \beta_i^{(t-1)} + \psi_i^{(t-1)}\gamma_j\right) + w_{ij}\left(\alpha_j + \beta_i + \psi_i\gamma_j\right)$$

$$\boldsymbol{\psi}^{(t)} \leftarrow \arg\max_{(\psi_1,\ldots,\psi_N)^\top} \sum_{i=1}^{N}\sum_{j=1}^{J} -\exp\left(\alpha_j^{(t)} + \beta_i^{(t-1)} + \psi_i\gamma_j\right) + w_{ij}\left(\alpha_j^{(t)} + \beta_i^{(t-1)} + \psi_i\gamma_j\right)$$

$$\boldsymbol{\beta}^{(t)} \leftarrow \arg\max_{(\beta_1,\ldots,\beta_N)^\top} \sum_{i=1}^{N}\sum_{j=1}^{J} -\exp\left(\alpha_j^{(t)} + \beta_i + \psi_i^{(t)}\gamma_j\right) + w_{ij}\left(\alpha_j^{(t)} + \beta_i + \psi_i^{(t)}\gamma_j\right)$$

These steps are repeated until time step $T$ where $Q_T\big(\boldsymbol{\alpha},\boldsymbol{\psi},\boldsymbol{\beta}\big) - Q_{T-1}\big(\boldsymbol{\alpha},\boldsymbol{\psi},\boldsymbol{\beta}\big) < 10^{-6}$. Following Imai, Lo, Olmsted, et al. (2016), we conduct this algorithm using four runs at different initialization values.

We obtained confidence intervals for our estimates using a parametric bootstrap (Imai, Lo, Olmsted, et al. 2016), conducted as follows. First, we estimated all parameters via EM. We sampled 1,000 new place-phrase count matrices $\boldsymbol{W}$ from the Poisson distribution corresponding to these parameter estimates. Using our initial maximum likelihood estimates as starting values, we re-ran the algorithm on each dataset and estimated 1,000 new intensity and slant fixed effects.

Figure D19 summarises our estimates of $\psi$ compared to naive unscaled estimates of partisanship using averages of partisan language slant weighted by count in each municipality.

## D.2 Alternative Zero-Inflated Poisson Count Model

One concern with the model used in the main text and detailed in the previous section might be that zero counts of certain phrases in municipal meetings might be reflective of both systematic omissions due to irrelevance and deliberate omissions due to the data-generating process described previously. To account for the fact that both of these separate models might be generating zeros, we additionally fit a zero-inflated Poisson model (Lambert 1992) that allows for both types of zeroes, by incorporating a logistic regression component ($\pi_{ij}$). The logistic regression model flips a coin to determine if the observed counts of $w_{ij}$ will be zero or not; if not, then the count is drawn from the usual Poisson model. Re-normalized, the mass function of this model is given below:

$$\begin{aligned}
\Pr(w_{ij} = c) &= \begin{cases} \pi_{ij} + (1-\pi_{ij})\exp(-\lambda_{ij}) & \text{if } c = 0 \\ (1-\pi_{ij})\lambda_{ij}^c \exp(-\lambda_{ij})(c!)^{-1} & \text{if } c > 0 \end{cases}, \\
\pi_{ij} &= \text{logit}^{-1}(\alpha_j^z + \beta_i^z), \\
\lambda_{ij} &= \exp\left(\alpha_j + \beta_i + \psi_i\gamma_j\right).
\end{aligned} \tag{3}$$

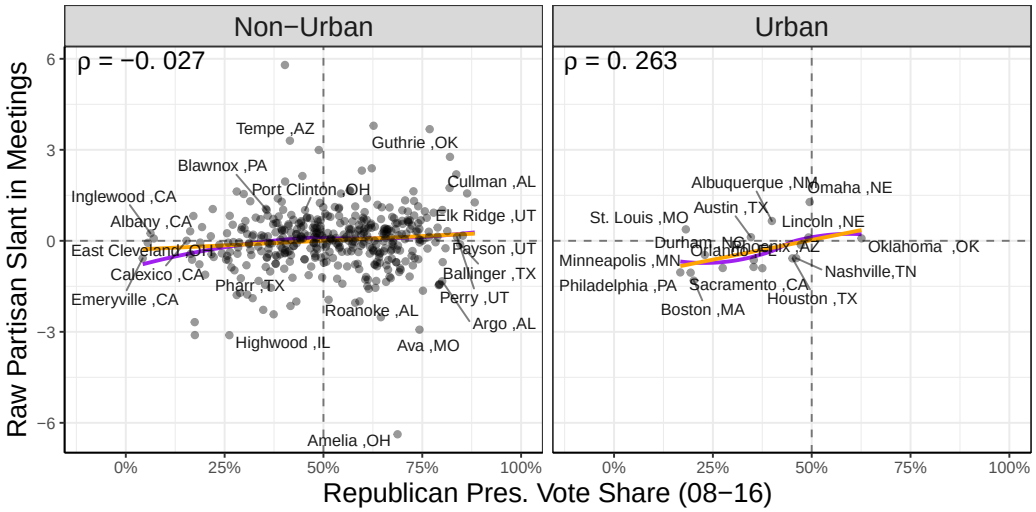
Unlike in the Poisson model where each phrase-count has equal expectation and variances, here $\mathbb{E}[w_{ij}] = (1-\pi_{ij})\lambda_{ij}$ and $\mathbb{V}[w_{ij}] = \lambda_{ij} + \frac{\pi_{ij}}{1-\pi_{ij}}\lambda_{ij}^2$. Thus, the key difference with this model is the inflated variance for phrase counts of zero. Note that the logistic regression

model is fit assuming a linear combination of place- and phrase- fixed effects, but no slant component. The joint log-likelihood for this model is given here:

$$\mathcal{L}(\boldsymbol{\alpha}, \boldsymbol{\psi}, \boldsymbol{\beta}, \boldsymbol{\alpha^z}, \boldsymbol{\beta^z}) \propto \sum_{i=1}^{N} \sum_{j:w_{ij}=0} \log\{\pi_{ij} + \exp(-\lambda_{ij}) - \pi_{ij}\exp(-\lambda_{ij})\}$$
$$+ \sum_{i=1}^{N} \sum_{j:w_{ij}>0} \log\{1-\pi_{ij}\} + w_{ij}\log\{\lambda_{ij}\} - \lambda_{ij}$$

We estimate this model using the same EM algorithm described in the previous section. For brevity, we present a replication of just the core alignment correlation in Figure D20: alignment holds in the expected direction, but smaller municipalities are less aligned in presidential electoral patterns and meeting expression according to the zero-inflated model than the usual model.

Figure D20: **Alignment in Partisan Slant (Estimated from Zero-Inflated Model) with Constituents' Partisan Preferences**

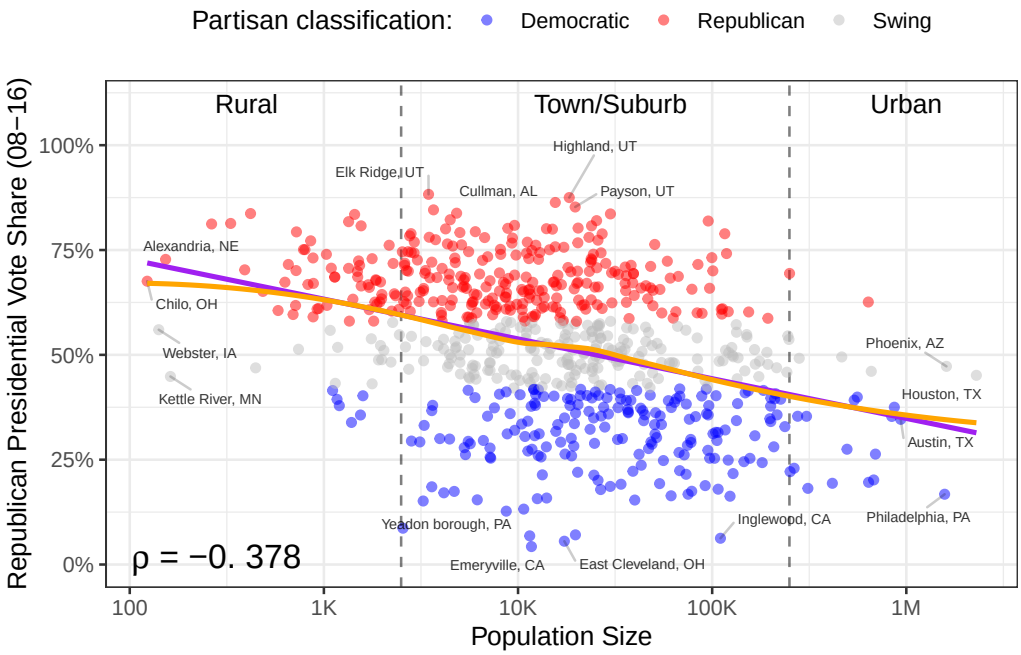



*Notes*: This figure demonstrates (with brevity) a robustness of one of our core main results (Figure 6) to the distributional assumption of partisan word counts; here we make the zero-inflated count assumption described in Eq. 3.

# Appendix E Additional Descriptive Results

Note that all parameter estimates from Eq. 1 used in the following results are standardized.

Figure E21: **Correlation Between Population Size and Partisanship for Municipalities in Sample**

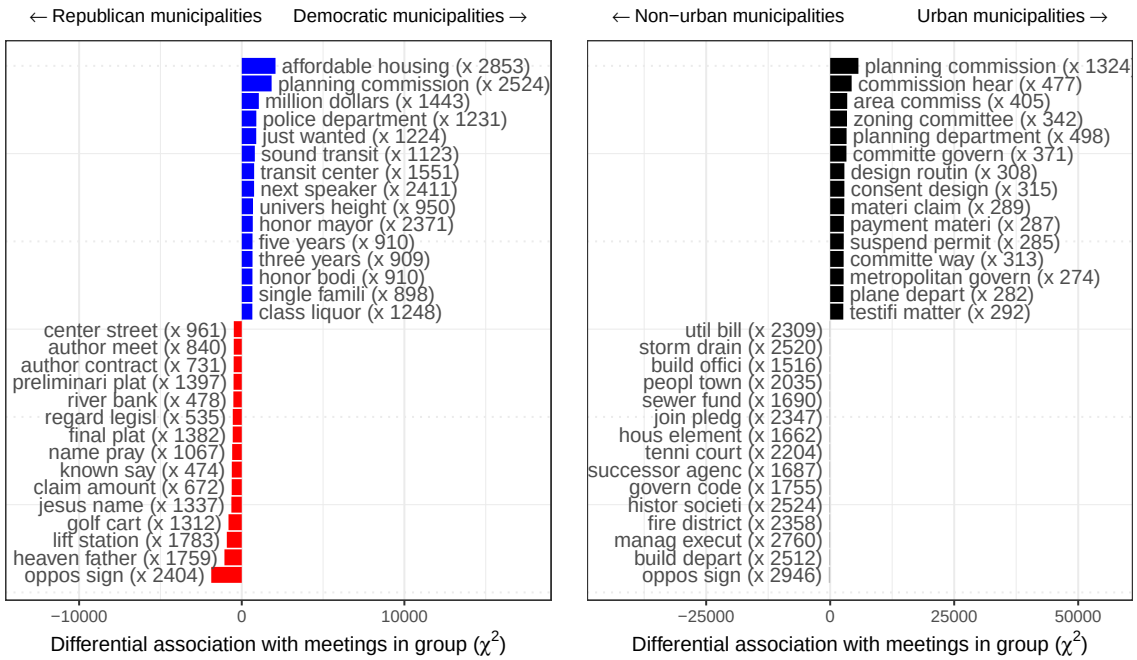



*Notes*: This figure illustrates that variance in logged population size accounts for slightly less than half the variance ($\rho = -0.378$) in our measure of partisanship (average Republican presidential voteshare). Consequently, it shows that most, though not all cities are Democratic and most, though not all rural municipalities are Republican. Places classified as Democratic are those with average Republican vote-shares of less than 42%; Republican as those with greater than 58%; swing as those in between these thresholds. Population size (urban vs. non-urban) is measured as in the rest of the article – population size greater than 250,000 as reported by the 2018 American Community Survey.

Figure E22: **Top Phrases Differentially Associated with Democratic Cities**

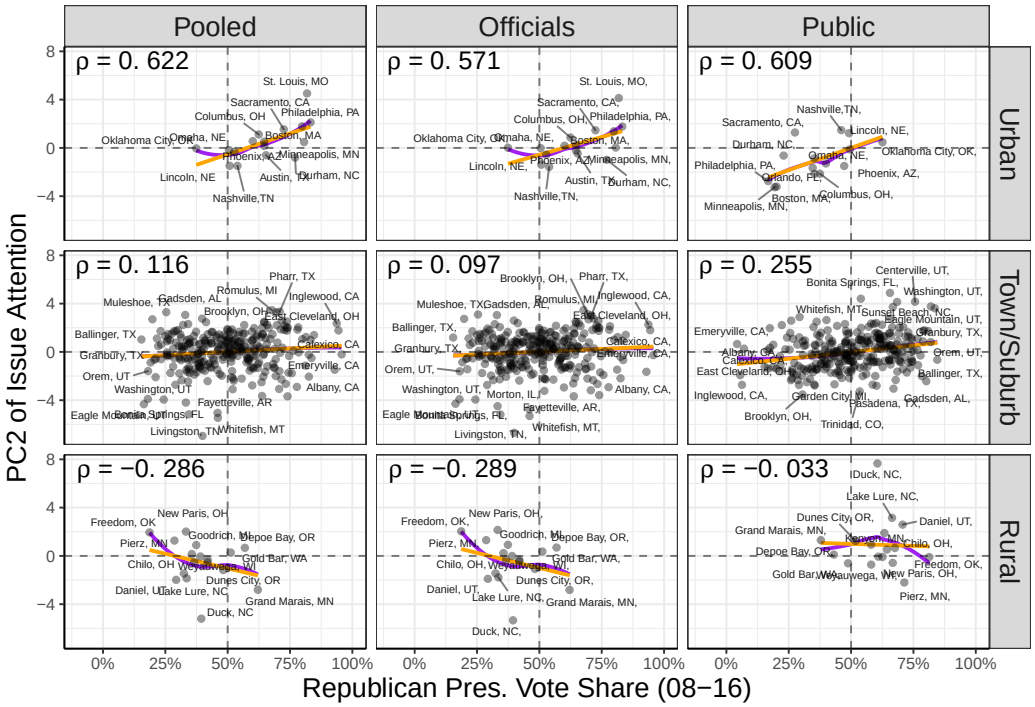
(a) **By Presidential Vote Share**

(b) **By Population Size**



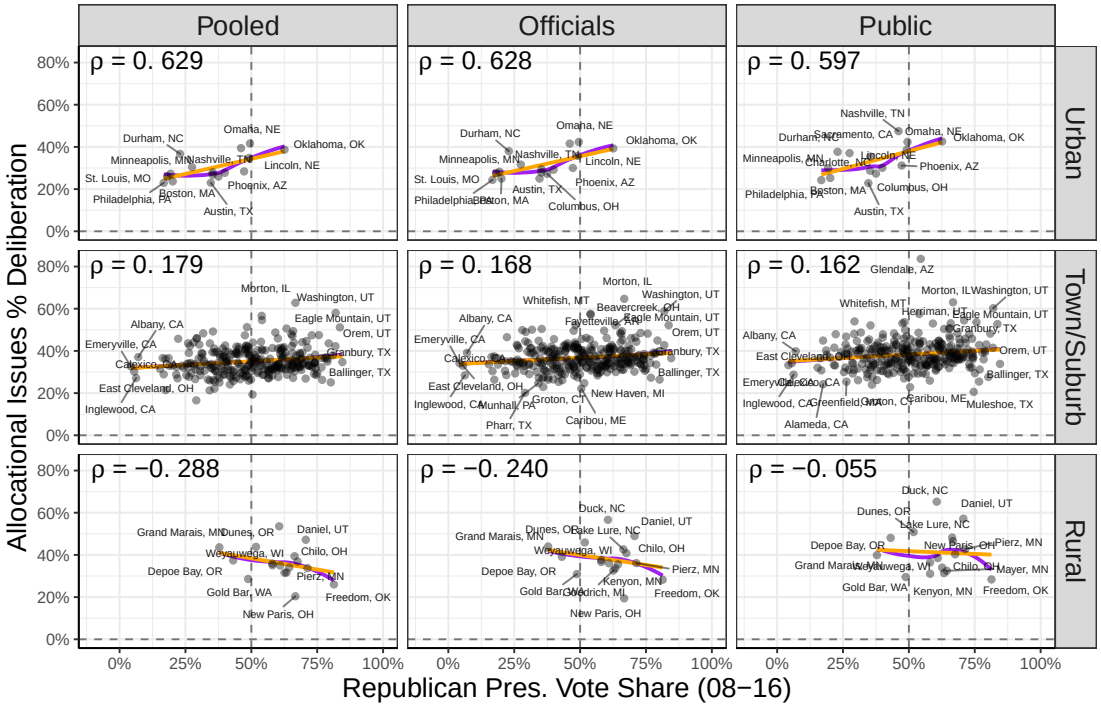

*Notes*: Partisanship of municipalities measured as in the rest of the article – average Republican presidential voteshare (2008–2016). Population size (urban vs. non-urban) is measured as in the rest of the article – population size greater than 250,000 as reported by the 2018 American Community Survey.

Figure E23: **Alignment Between Issue Attention (Principal Component 2) and Constituents' Partisanship**



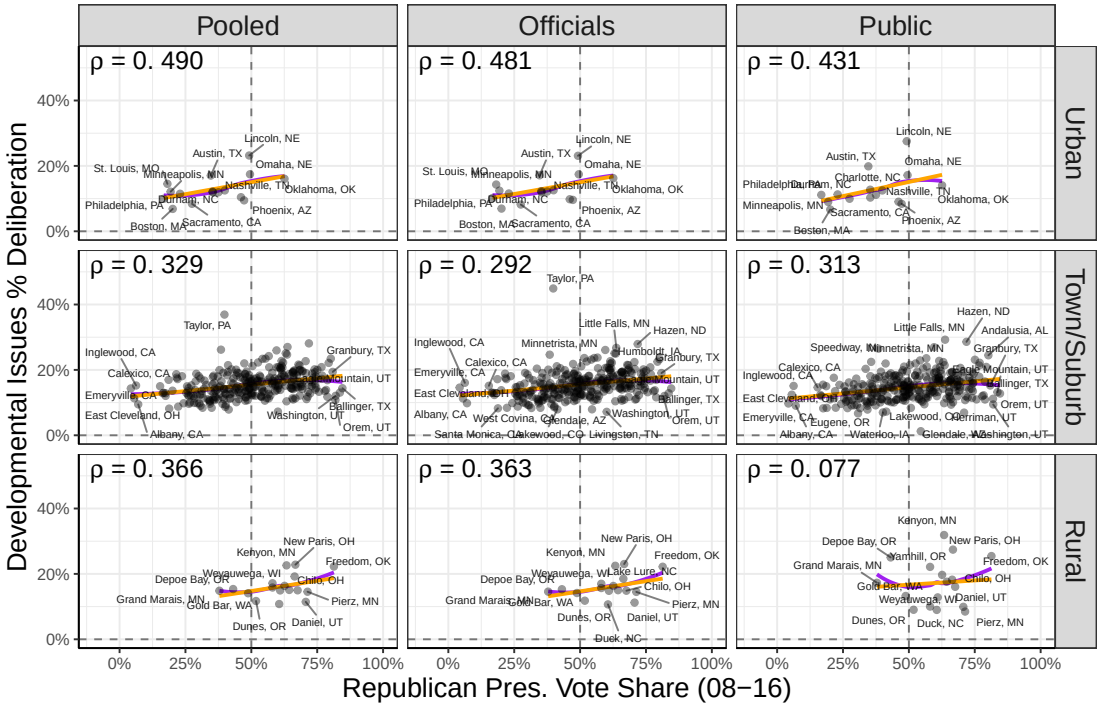

*Notes*: Shown on the vertical axis is the second principal component of the $N \times k$ matrix of $N = 720$ and $k = 57$ substantive topics measured from our main topic model (Section 5.1). Labelled are the top 5 and bottom 5 municipalities on each axis in each panel. Estimates of the slant parameter $\psi$ (from Eq. 1) are standardized. Lines of best fit estimated via both **OLS** and **LOESS**.

Figure E24: **Alignment Between Allocational Issue Attention and Constituents' Partisanship**



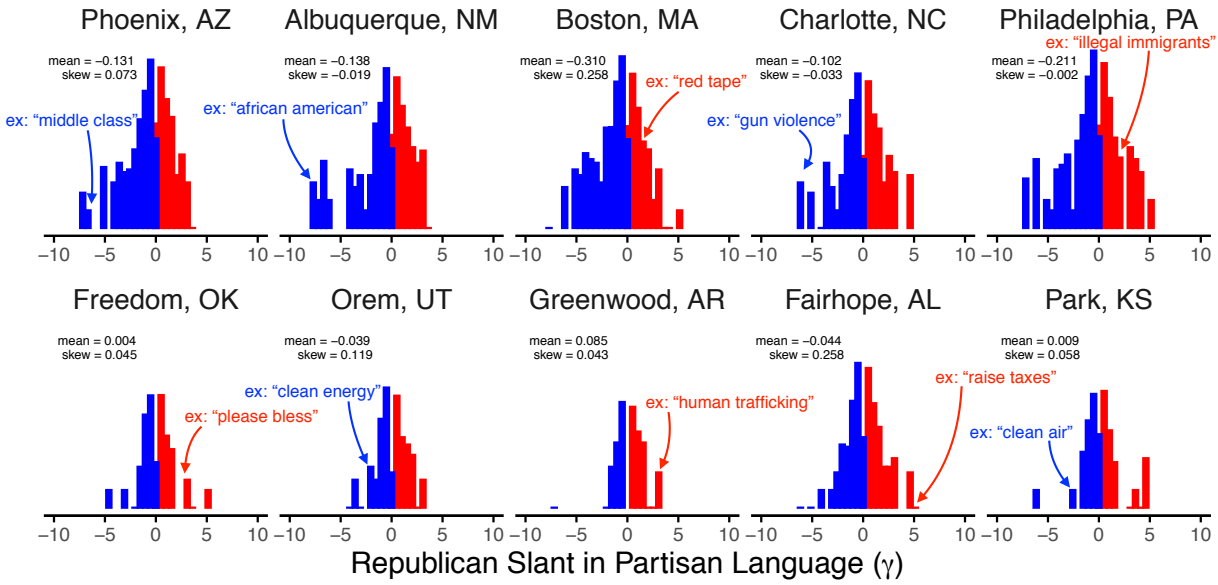

*Notes*: Shown on the vertical axis is, for each municipality, the % of substantive speech (that is, transcribed phrases belonging to an identifiable local issue topic in the topic model as measured in Section 5.1) referring to *allocational* issues (e.g., Wastewater, Utilities, Alcohol; see Appendix C14 for the exact categorization). Labelled are the top 5 and bottom 5 municipalities on each axis in each panel. Estimates of the slant parameter $\psi$ (from Eq. 1) are standardized. Lines of best fit estimated via both **OLS** and **LOESS**.

Figure E25: **Alignment Between Developmental Issue Attention and Constituents' Partisanship**



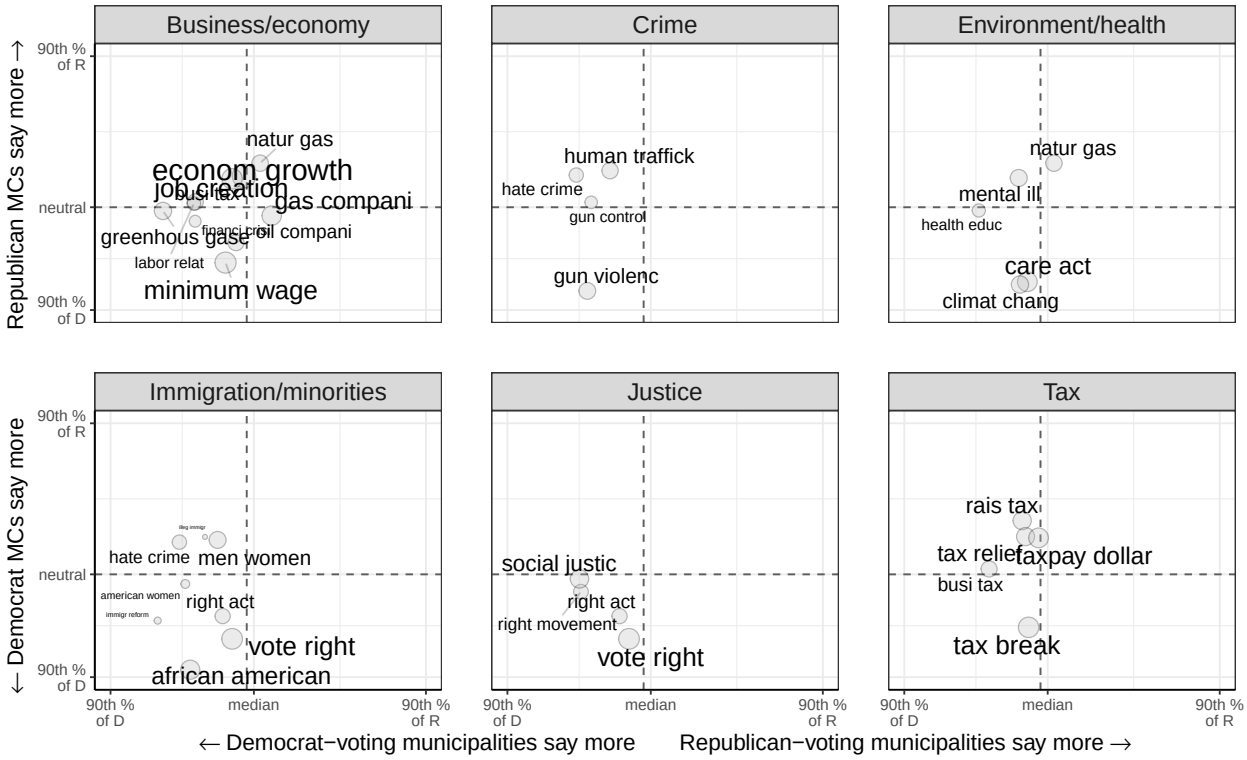

*Notes*: Shown on the vertical axis is, for each municipality, the % of substantive speech (that is, transcribed phrases belonging to an identifiable local issue topic in the topic model as measured in Section 5.1) referring to *developmental* issues (e.g., Roads, Business, Tourism; see Appendix C14 for the exact categorization). Labelled are the top 5 and bottom 5 municipalities on each axis in each panel. Estimates of the slant parameter $\psi$ (from Eq. 1) are standardized. Lines of best fit estimated via both **OLS** and **LOESS**.

Figure E26: **The Left-Tailed Distribution of Partisan Slant in Democratic Cities**



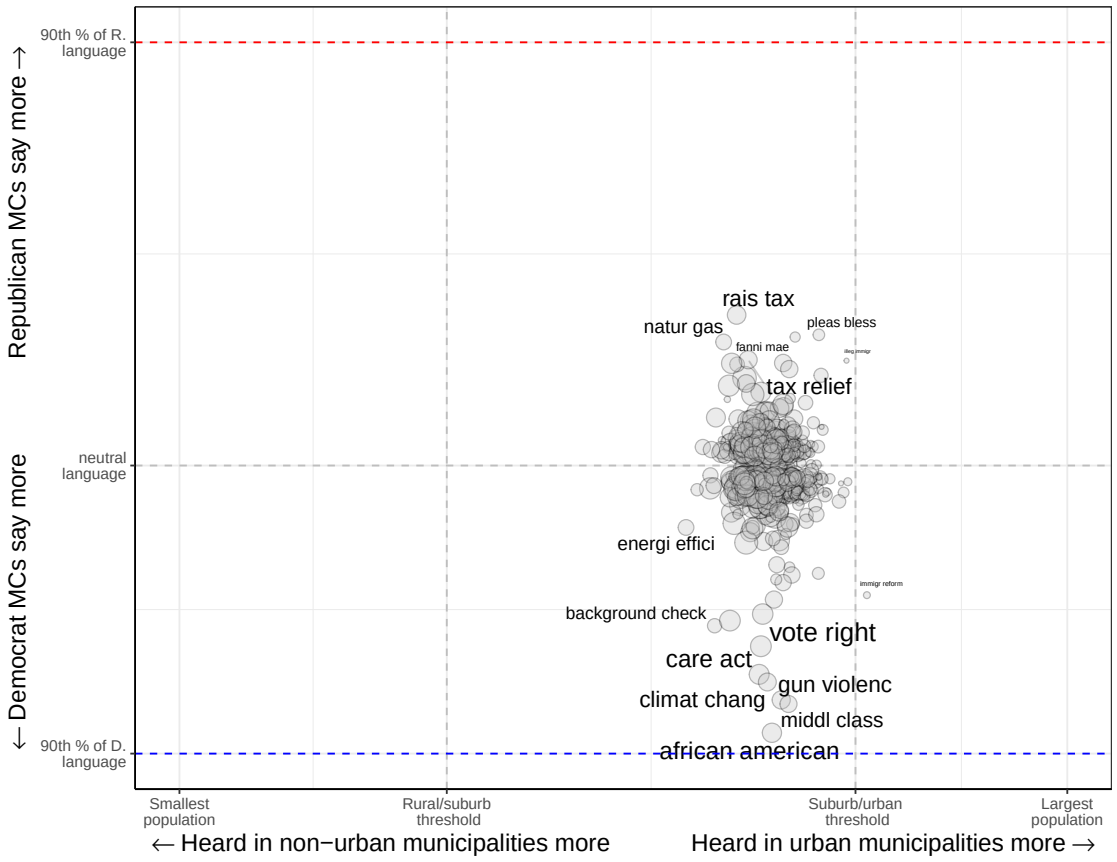

*Notes*: Shown on the top row are five muncipalities in the top 90% quantile of Democratic-voting in the sample; in the bottom, five municipalities in the top 90% quantile of Republican-voting. This figure shows that the distribution of partisan slant is "asymmetric", meaning that Democratic-voting places observe a tail of highly left-leaning language in meetings, but Republican-voting places do not symmetrically observe a tail of highly right-leaning language. This figure also shows that the distribution is "not polarized", meaning that there is not a bimodality of partisan language either within or between places.

Figure E27: **Where Partisan Rhetoric is Heard in Public Meetings By Congressional Issue Area**



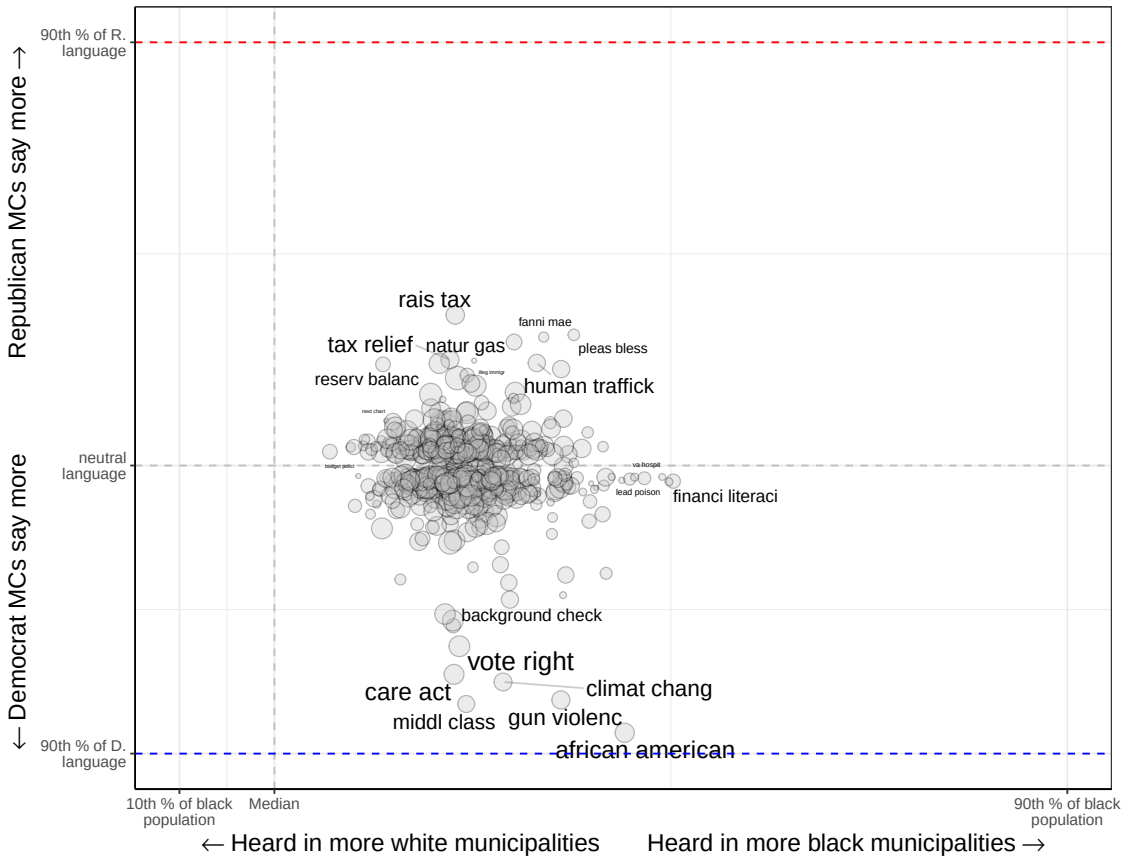

*Notes*: Categorization of phrases into topics from Gentzkow, Shapiro, and Taddy (2019)'s in-depth qualitative interpretation of Congresssional issue areas. Shown are partisan phrases used at least 100 times ($\approx$ 75% percentile of frequency counts) across all meetings in our dataset.

Figure E28: **Where National Partisan Rhetoric is Heard in Public Meetings By Population Size**




*Notes*: Each stemmed phrase shown here is amongst the top 2,000 most partisan phrases, according to Gentzkow, Shapiro, and Taddy (2019)'s measure from the Congressional Record averaged between 2005 and 2017, and used at least 90 times ($\approx$ 75% percentile of frequency counts) cumulatively across all local meetings in our sample. The horizontal axis captures, for each phrase, the average population size of the places where it is uttered (weighted by number of utterances). The vertical axis captures each phrase $j$'s estimated differential usage by Republican Congressmen $\gamma_j$. Clustering of phrases is omitted for visual clarity, however applying the same clustering procedure described in Figure 8 yields a similar clustering of phrases.

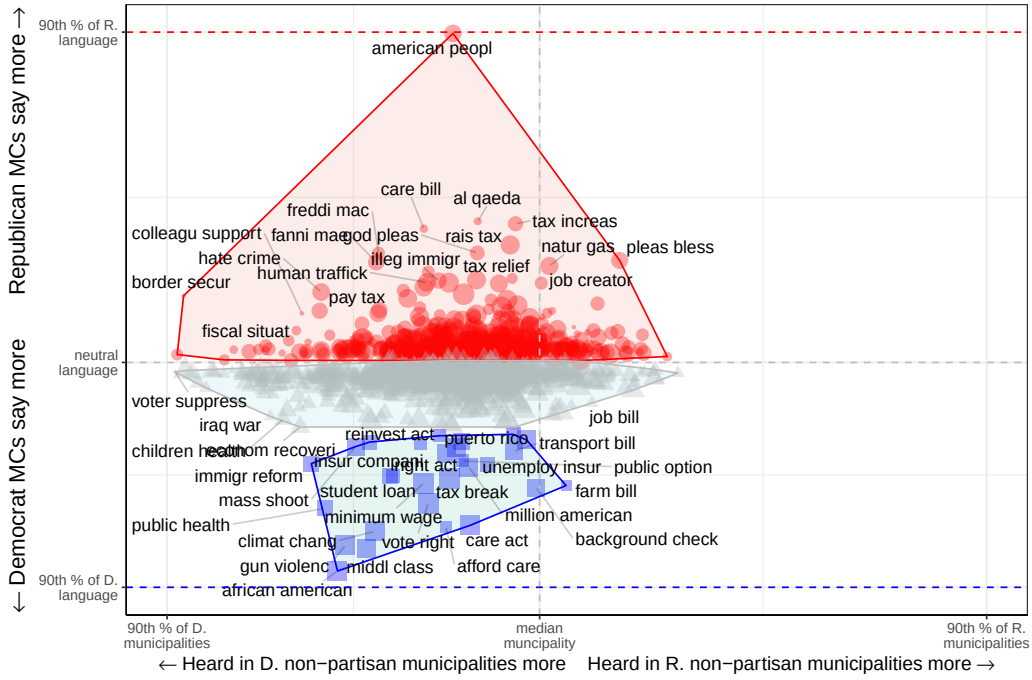
Figure E29: **Where National Partisan Rhetoric is Heard in Public Meetings By % Black Population**



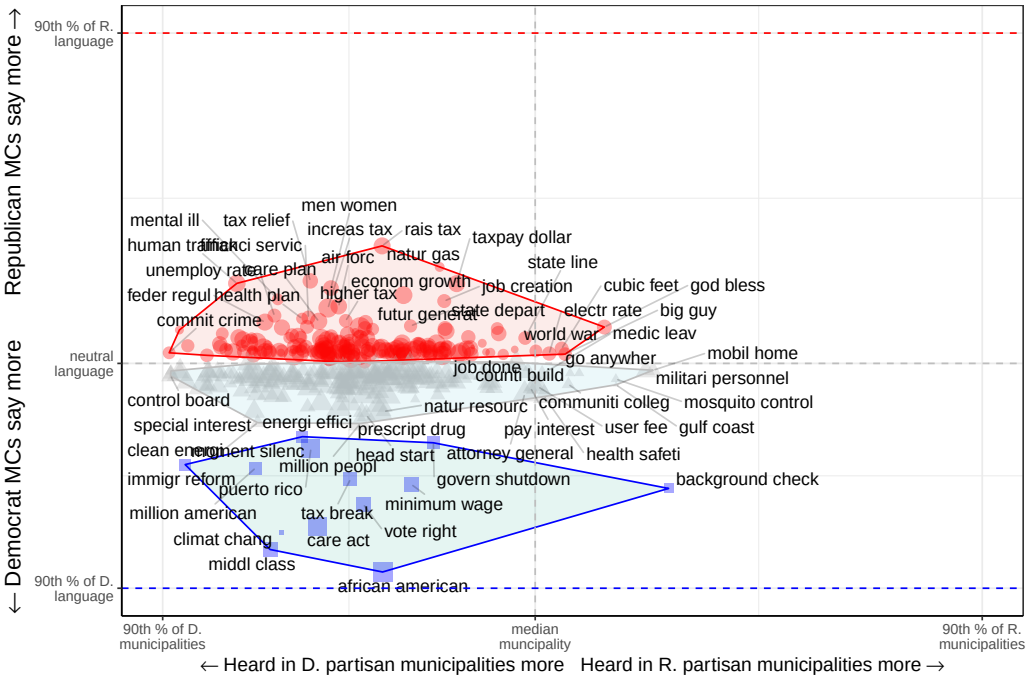

*Notes*: Each stemmed phrase shown here is amongst the top 2,000 most partisan phrases, according to Gentzkow, Shapiro, and Taddy (2019)'s measure from the Congressional Record averaged between 2005 and 2017, and used at least 90 times ($\approx 75\%$ percentile of frequency counts) cumulatively across all local meetings in our sample. The horizontal axis captures, for each phrase, the average % of non-hispanic blacks in the places where it is uttered (weighted by number of utterances). The vertical axis captures each phrase $j$'s estimated differential usage by Republican Congressmen $\gamma_j$. Clustering of phrases is omitted for visual clarity, however applying the same clustering procedure described in Figure 8 yields a similar clustering of phrases.

Figure E30: **Where National Partisan Rhetoric is Heard By Government**

(a) **Non-Partisan**



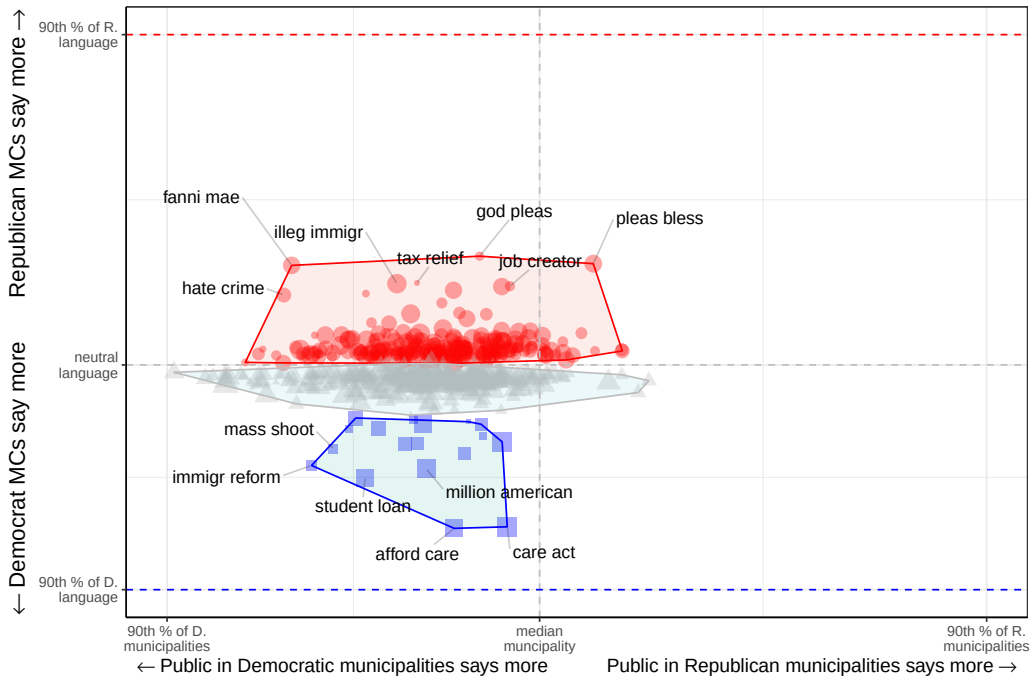

(b) **Partisan**



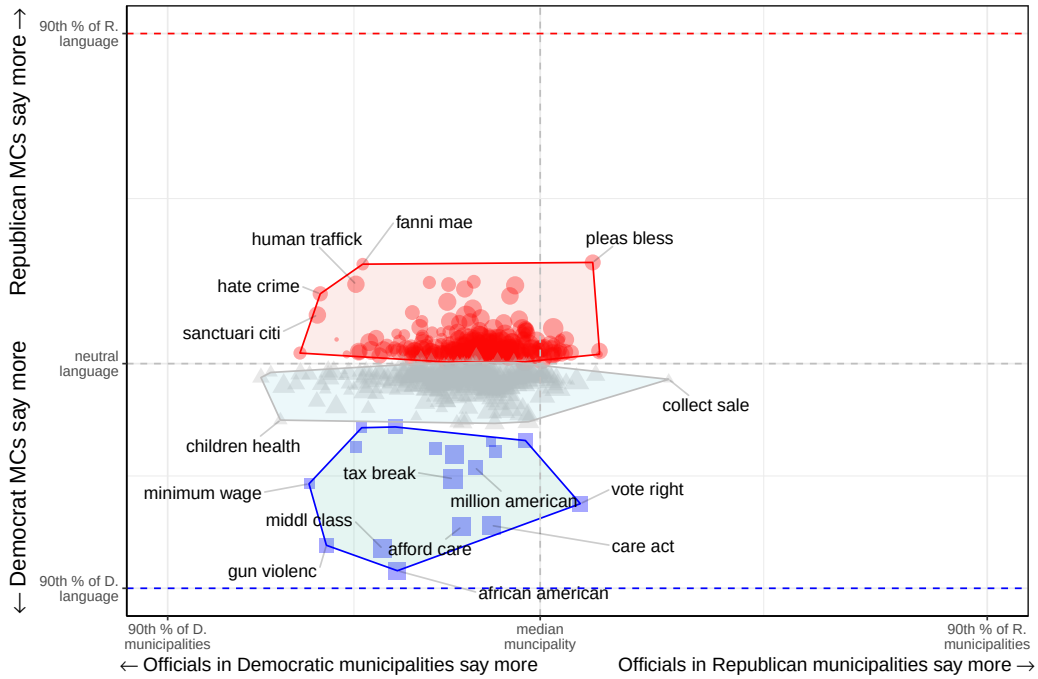

*Notes*: As in the main text, each stemmed phrase shown here is amongst the top 2,000 most partisan phrases, according to Gentzkow, Shapiro, and Taddy (2019)'s measure from the Congressional Record averaged between 2005 and 2017, and used at or above the $\approx 75\%$ percentile of frequency counts cumulatively across all local meetings in our sample. Each phrase is organized into best-fitting clusters by using the standard $k$-means clustering algorithm, where $k = 3$ clusters was the optimal "elbow" of clusters on inspection of a scree plot of the within-cluster sum of squares. Some phrase labels are omitted for visual clarity.

Figure E31: **Where National Partisan Rhetoric is Heard from the Public and Officials**

(a) **Public**

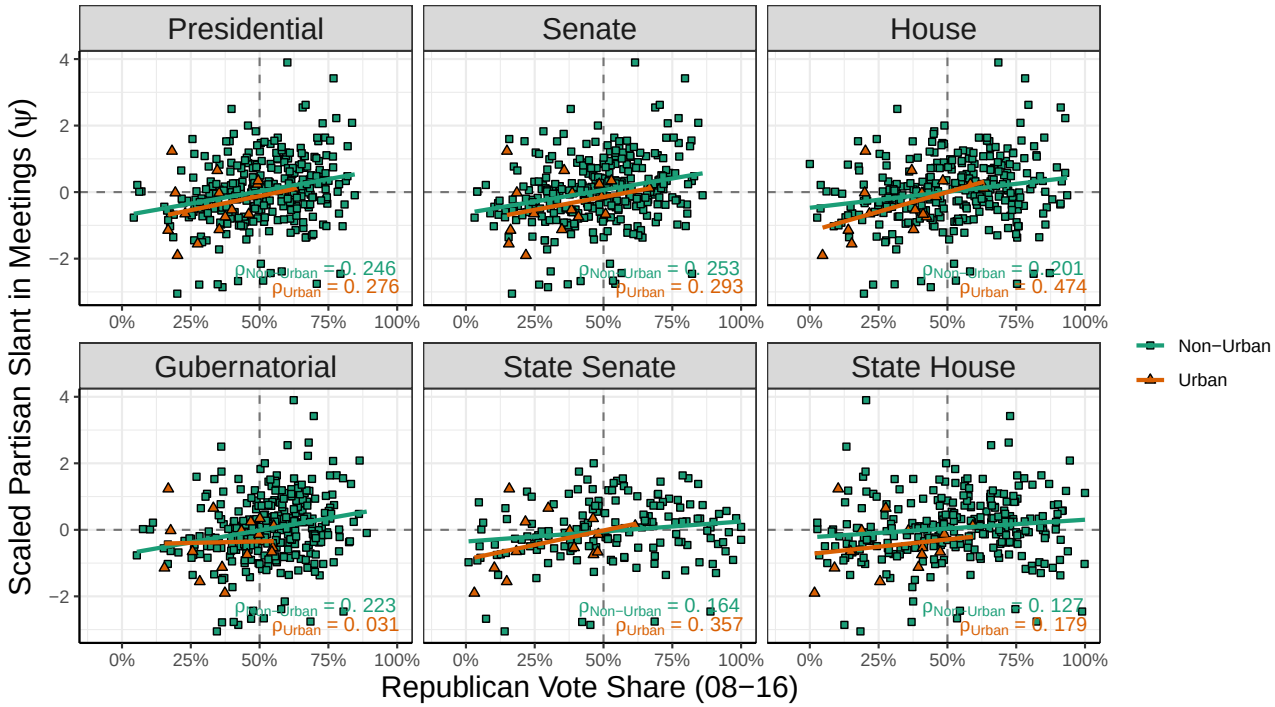



(b) **Officials**




*Notes*: As in the main text, each stemmed phrase shown here is amongst the top 2,000 most partisan phrases, according to Gentzkow, Shapiro, and Taddy (2019)'s measure from the Congressional Record averaged between 2005 and 2017, and used at or above the $\approx 75\%$ percentile of frequency counts cumulatively across all local meetings in our sample. Each phrase is organized into best-fitting clusters by using the standard $k$-means clustering algorithm, where $k = 3$ clusters was the optimal "elbow" of clusters on inspection of a scree plot of the within-cluster sum of squares. Some phrase labels are omitted for visual clarity.

Figure E32: **Alignment of Partisan Slant in Downballot Races**




*Notes*: Republican vote share at the FIPS place level averaged from 2008-2016 and counted by aggregating block-level records collected by `TargetSmart`.

# Appendix F Additional Observable Implications

Due to space considerations, this section describes and tests two additional observable implications omitted from the ones described in Section 3.1. In summary, they involve: (1) usage of partisan-slanted frames around local policy issues and (2) mentions of national political entities and events.

## F.1 Democratic, But Not Republican, Issue Frames are Geographically Concentrated

Our first supplementary observable implication of local politics reflecting national partisanship is the adoption of frames used by national partisans for expressly local issues. In essence, this is the intersection of the first (attention to issues) and third observable implications (slant of national partisan rhetoric) in the main text. In particular, we test whether different partisan-slanted frames are used (or not used) in Democrat-voting or Republican-voting places to describe the same local issues. If Democratic and urban municipalities are asymmetrically nationalized, we should expect that they more frequently hear Democratic partisan frames for local policy, whereas the reverse is not true for Republican frames in Republican municipalities.

To test for this, we consider four broad frames associated with the two major national parties: economic growth and tax relief (Republicans), and racial equity and climate change (Democrats). We selected these frames for two reasons. First, our data itself reveals that this exact language occurs frequently in both local and national deliberation. As the non-parametric plots in Figure 8 revealed, climate change and African American have distinctly Democratic brands at the local and national levels while economic growth and tax relief are at least associated with national Republican rhetoric.[20] Second, these particular frames have been substantively underscored as key components of the national party platforms by political observers and scholars alike. English and Kalla (2021) and others note that in recent decades (including the period of our study) Democratic party elites have centered racial equity in their messaging, even on issue areas traditionally unrelated to race. In recent years, a similar pattern has emerged around climate change, particularly in the legislative agenda of Green New Deal proposal which connects racial equity and climate justice considerations in a number of policy areas (Friedman 2021). On the other side of the aisle, "tax relief" is a political frame developed, popularized, and broadly applied by Republican strategists under the Bush administration (Lakoff 2010). Economic growth, has historically been an issue under the ownership of the Republican party and is similarly broadly applicable as a frame for many different policy positions (Egan 2013).

We conservatively count usages of these frames in our meeting transcripts by searching for stemmed keyword sets that unambiguously and clearly describe each concept (see Table F3). Using OLS, we then estimate the marginal increase in (logged) counts of each frame's keywords within a bandwidth of 50 transcript characters of each issue topic across

[20] Of course, many other deliberative frames are used by Republican Congressmen – e.g. liberty, safety or protection, tradition. However during our period of study, they do not consistently appear in local political deliberation, even though they do appear in national political deliberation.

Democratic, Republican, and swing municipalities. We show model-based results here to account for the fact that word counts are skewed in distribution and to control for other confounders such as meeting length and baseline topic counts.

Table F3: **Phrases for Identifying Partisan Frames**

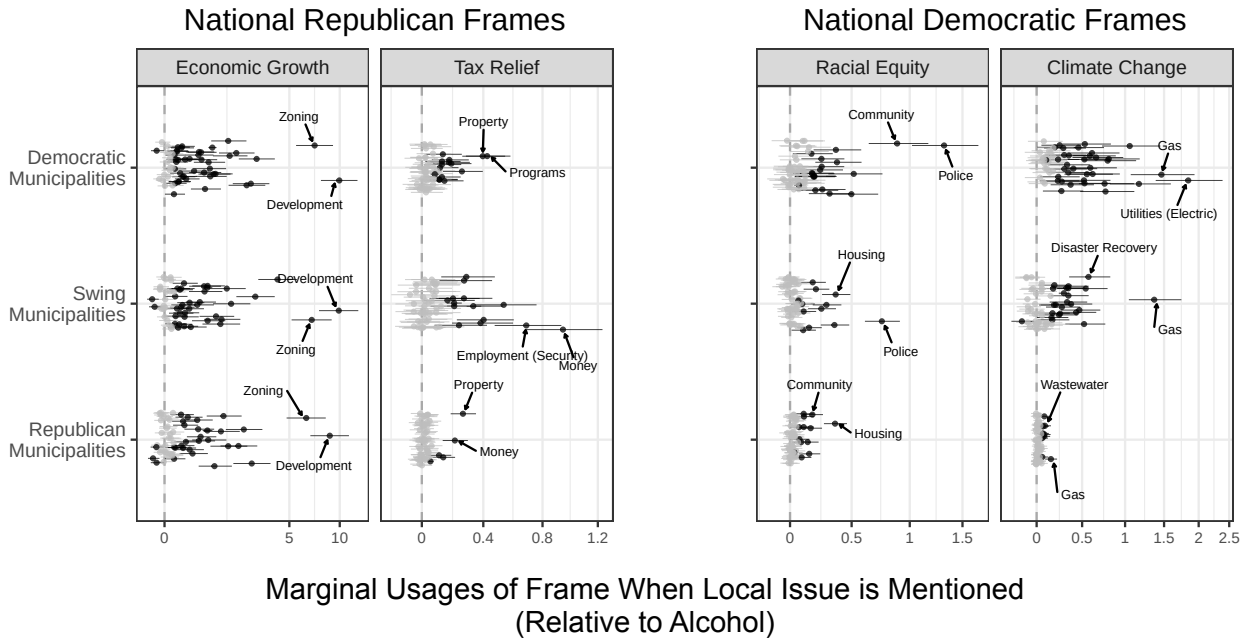
| Partisan Frame | Phrases |
|---|---|
| Racial Equity | civil rights, racial justice, racial equity, racist, racism, racial equality, black lives, asian lives, hispanic lives, latinx, racial diversity, racially diverse |
| Economic Growth | economic growth, economic development, business growth, business expansion |
| Tax Relief | tax relief, tax burden |
| Climate Change | climate change, climate crisis, climate catastrophe, climate refugee, greenhouse gas, global warming, save the planet |

*Notes*: Each keyword phrase in used to identify each partisan frame were selected using the human-in-the-loop keyword discovery method detailed in (King, Lam, and Roberts 2017). In brief, the keywords were selected across several rounds of keyword inclusion from substantive knowledge, evaluation of false positives vs. true positive detections of the corresponding frame, and discovery of related omitted phrases. The result is a set of clear and unambiguous phrases that are unlikely, when invoked when mentioning a local policy issue, to describe unrelated concepts. For example, our process dropped out highly general terms like "race" which is frequently used to describe marathons, and highly specific phrases like "taxes are too high" which never appear in our corpus.

Our results mirrors the finding of Section 6.3 about the usage of broader partisan rhetoric: there is a Democratic asymmetry in issue framing. In particular, Figure F33 shows that the pattern of marginal issue-specific mentions (relative to a placebo issue) of Republican frames is very similar across different types of partisan municipalities: nearly everywhere, deliberation over zoning and development invokes roughly ten more mentions of the economic growth frame than the placebo issue. By contrast, usage of Democratic frames for different local issues are distinct from the placebo issue *only* in Democratic municipalities. This is particularly stark for climate change framing, which is predicted to be mentioned 1-2 more times in the average Democratic municipality in this period for germane topics such as Electric Utilities, Gas, Wastewater relative to the placebo. Compare this with the same estimates in Republican municipalities (lower right of Figure F33) which shows much weaker and largely indistinguishable marginal mentions of climate change for the same topics. Similarly, racial equity frames are distinctly invoked in deliberations of Police for Democratic and swing municipalities alike – more than any other issue – but are roughly indiscriminately mentioned across all issues in Republican municipalities. To summarise, policy deliberators in Democrat-voting municipalities draw on the language of their co-partisans, while policy deliberators across municipalities universally invoke Republican frames, most frequently around land usage (i.e., Zoning, Development).

Several characteristics of this asymmetry not captured in Figure F33 are worth elaboration. First, as with the main text's finding about partisan rhetoric, this asymmetry holds for urban/non-urban municipalities just as it does for Democratic/non-Democratic municipalities, but with a caveat: Democratic frames are concentrated in cities' municipal meetings, but

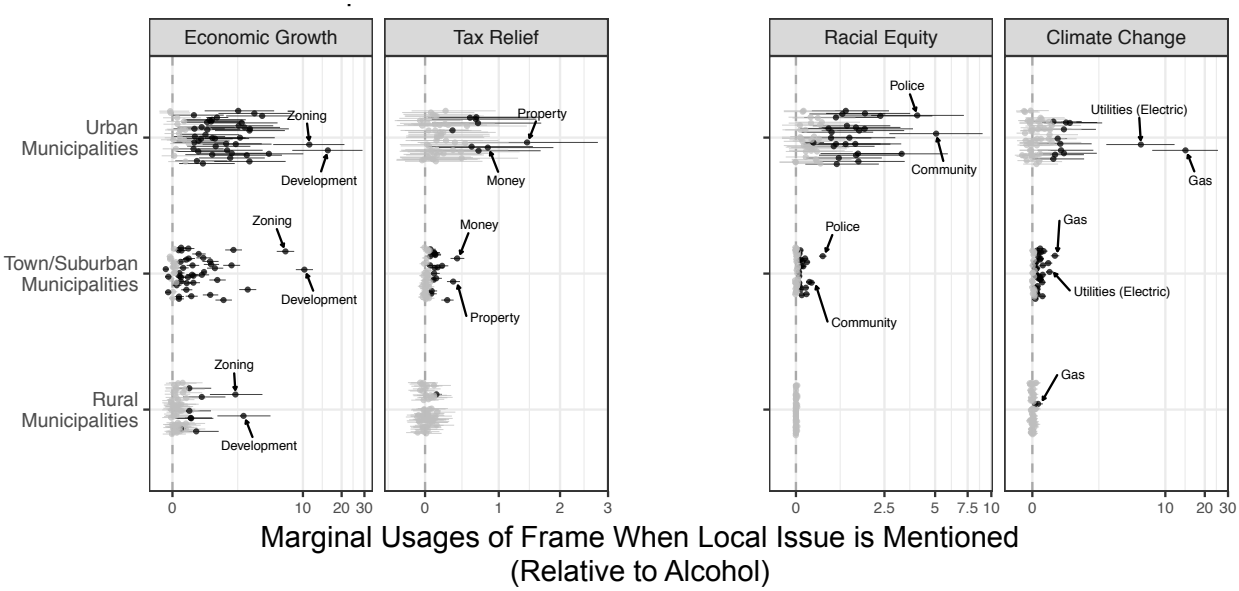
Figure F33: **Democratic Issue Frames are Concentrated in Democratic Places, Republican Issue Frames are More Universal**




*Notes*: Estimates shown by fitting a linear regression model – for Democratic (<42% 2008-2016 average Republican Presidential voteshare), Republican (>58% average voteshare), and swing municipalities – of the logged mentions of each frame in a window (± 50 characters) before and after a mention of each topic in each municipality. Reference category is the placebo topic (i.e., an issue arguably less related to each of the four frames than others) of Alcohol. We identify mentions of topics using only its top 3-4 keywords from our main topic model, excluding keywords with low posterior probabilities for each topic to reduce false positives of topic mentions. Each model controls for average municipal meeting length, number of municipal meetings, baseline topic counts, municipal racial composition, and average household income. Bold coefficient estimates are statistically significant at $\alpha = 0.05$.

partisan frames are very sparsely heard in rural meetings (Appendix Figure F34). Second, Figure F33 elides any information about the baseline counts of frames, which theoretically could be the same, on average, across Republican- and Democrat-leaning places, even if marginal counts relative to a placebo issue are not. Appendix Figure F35 confirms, however, that the baseline rate of Republican frame mentions (especially of economic growth) is also roughly even across municipalities, while the rate of Democratic frame mentions is concentrated in Democratic and urban municipalities. Of the four frames, economic growth is the most invoked frame for every issue amongst Republican municipalities as whole and nearly every issue amongst Democratic and urban municipalities as a whole – with some notable and predictable exceptions (e.g., climate change for Waste Management, racial equity for Police).

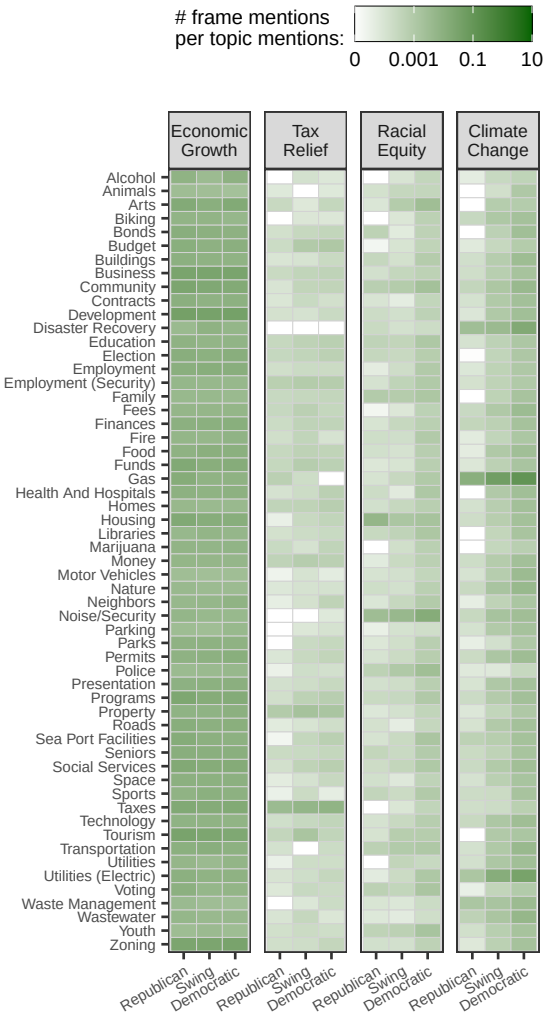
Figure F34: **Democratic Issue Frames are Concentrated in Urban Places, Republican Issue Frames are More Universal**




*Notes*: The same methodology as described in Figure F33 is used to calculate the estimates shown here.

Figure F35: **Baseline Co-Occurrence Rates of Partisan Frames with Local Issues**

(a) **By Presidential Vote Share**



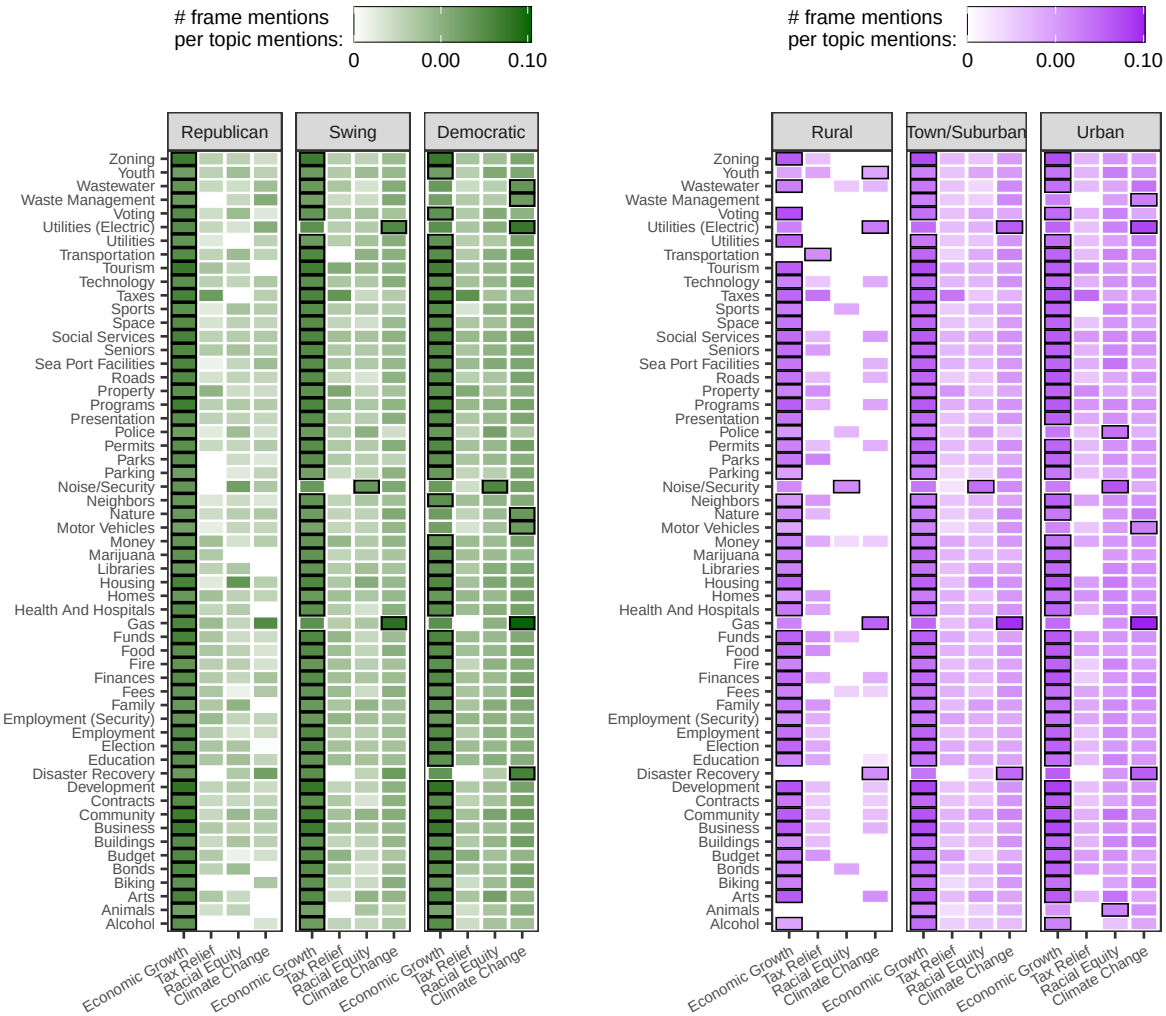

(b) **By Population Size**


*Notes*: The two above figures show the rate of frame mentions (each panel) per each topic's mention (vertical axis) for different sets of municipalities – by constituent partisan preferences on the left and population size on the right.

Figure F36: **Most Co-Occurring Partisan Frame with Local Issues in Each Municipal Subgroup**

(a) **By Presidential Vote Share**

(b) **By Population Size**




*Notes*: The two above figures show, for different sets of municipalities (each panel), the rate of frame mentions (horizontal axis) per each topic's mention (vertical axis) – by partisan preference on the left and population size on the right. The frame with the largest rate of mentions per topic for each topic and municipality group is outlined in bold and is statistically significant at $\alpha = 0.01$ level according to a $\chi^2$ test of the raw counts of frames per topic category (in most cases, the $p$-value from each test is less than 0.0001, barring the need for multiple comparisons adjustment).

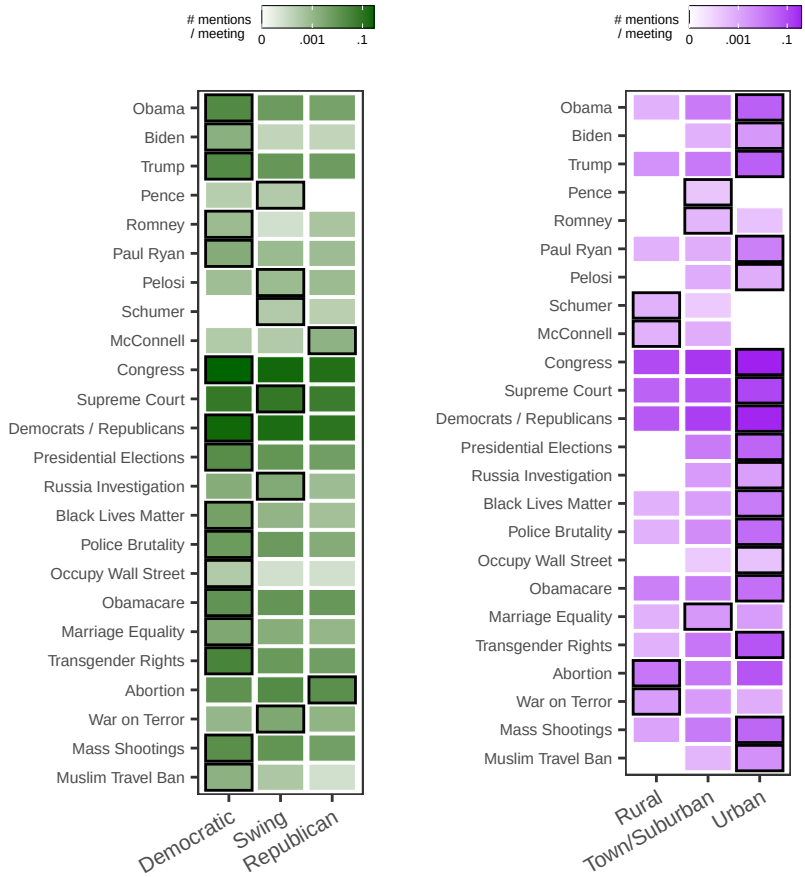
## F.2 National Political Events and Entities are Mentioned More Often in Democratic Cities

One limitation of the observable implications we have specified in the main text – in particular, our implication that there should be *more* national partisan rhetoric in Democratic cities – is that nationalization is defined according to Congressional deliberation. Despite the partisan polarization of the time period in our study, the content of national politics is arguably more than just national *partisan* politics. As such, we examine where and how frequently national political events and entities are heard in local deliberations. In theory, we should expect to see the same asymmetry of heightened mentions in Democratic and urban municipalities as we have seen for the previous outcomes.

For brevity, we present only a comparison of the baseline rates of mentions (per meetings) from events and entities compiled from Wikipedia in Figure F37. Although mentions of all but a few categories referencing core American institutions (e.g., Congress, Democrats/Republicans, Supreme Court) are highly rare occurrences, we see that national political news events of the day do take up time and space in the local agenda and disproportionately so in urban municipalities (even more so than Democratic municipalities).

Figure F37: **Baseline Occurrence Rates of Salient Political Events and Entities in American Politics**

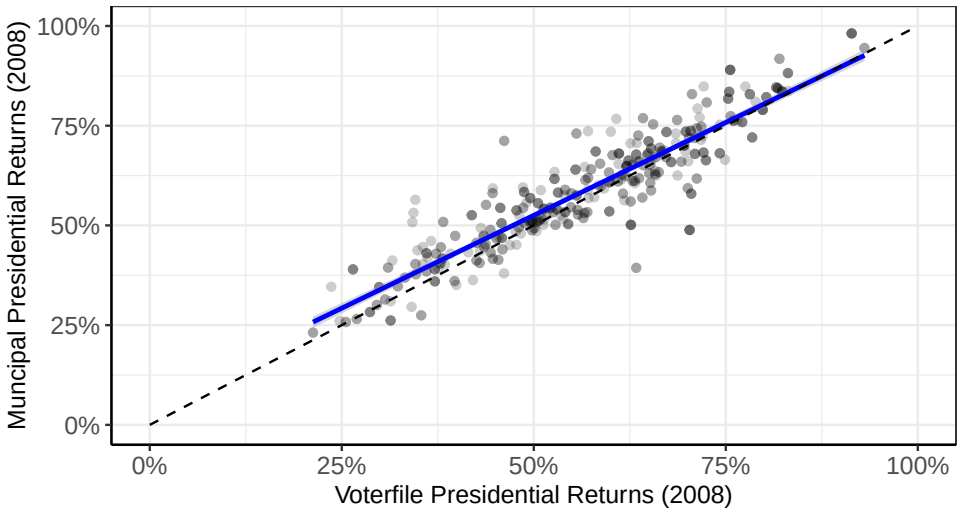
(a) **By Presidential Vote Share** (b) **By Population Size**




*Notes*: Mentions are defined as keyword matches written for each phrase which are available in the replication materials. The frame with the largest rate of mentions per topic for each topic and municipality group is outlined in bold. Events and people were chosen in part by consulting a list of the most Prominent Political Events of the 2010s in the Americas as defined by Wikipedia (https://en.wikipedia.org/wiki/2010s#Americas).

# Appendix G Additional Validation & Robustness Checks

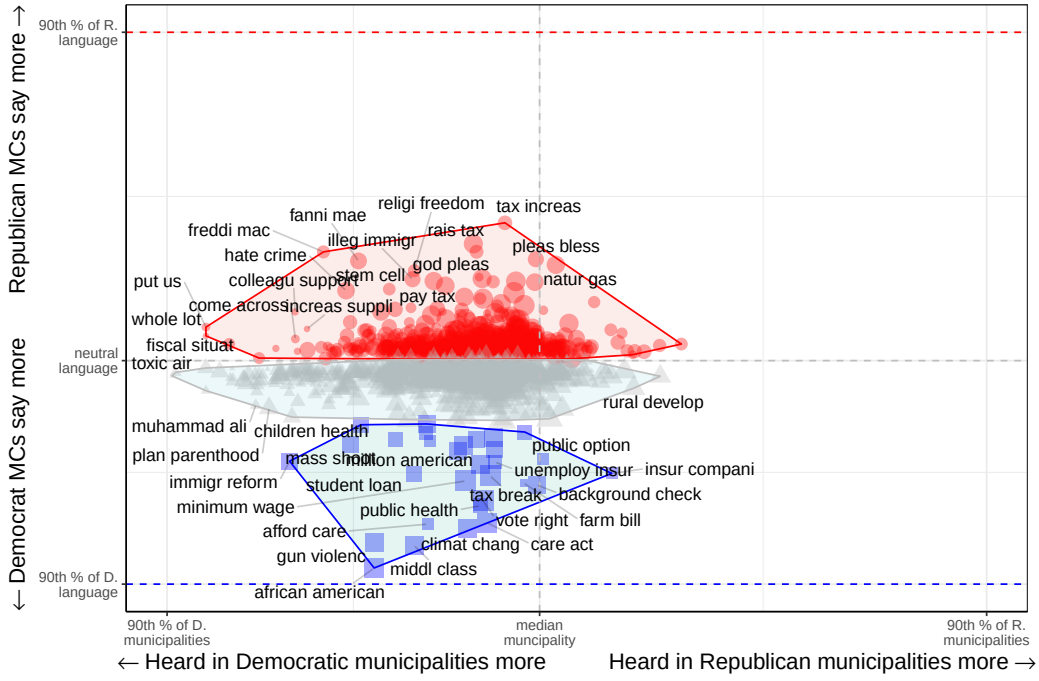
Figure G38: **Validation of Voterfile Measure with Official Election Returns**



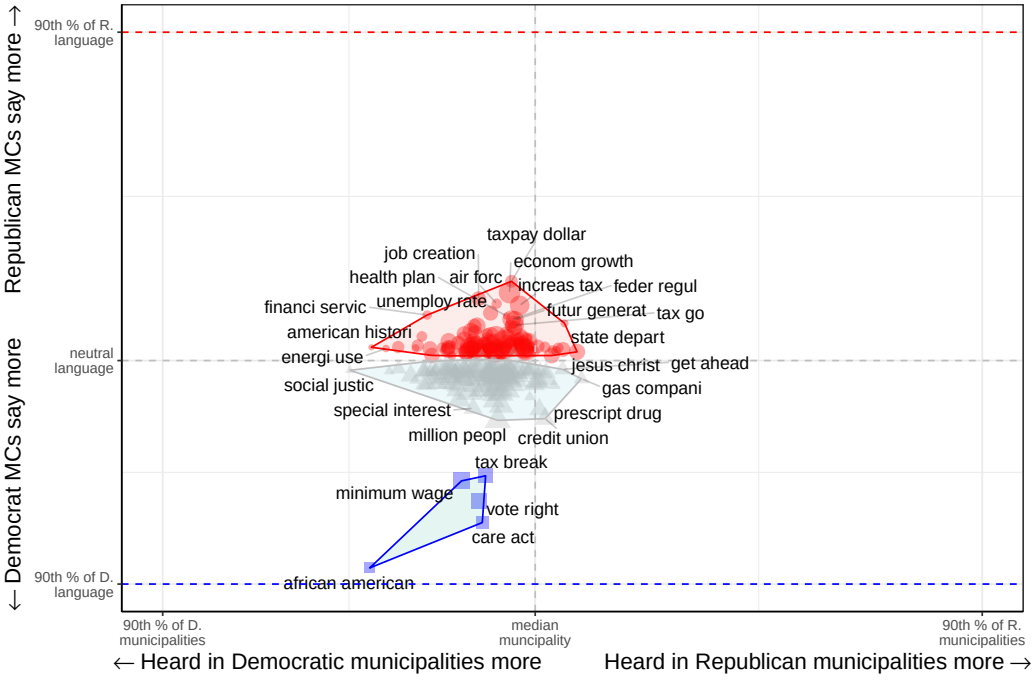

*Notes*: Shown are aggregated Republican presidential vote share for each municipality in our sample (horizontal axis) from block-level voter records in 2008 provided by TargetSmart against official 2008 returns from municipalities (vertical axis) collected by Tausanovitch and Warshaw (2014). Shown are points for 34% of municipalities in our sample that are both in the TargetSmart voter file and collected by Tausanovitch and Warshaw (2014).

Figure G39: **Alternative Frequency Thresholds for Rhetoric Alignment Figure**

(a) **50% quantile**

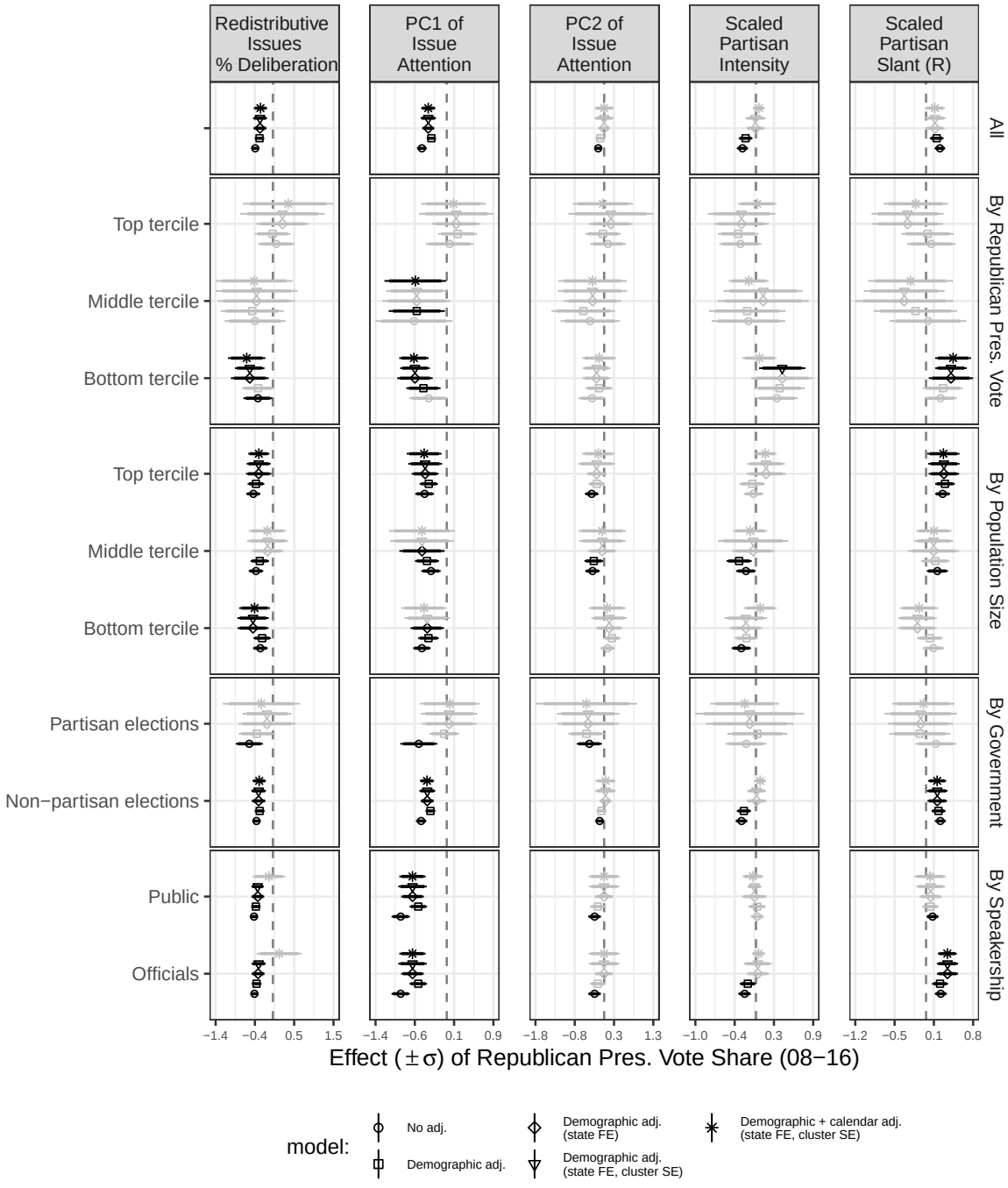



(b) **90% quantile**



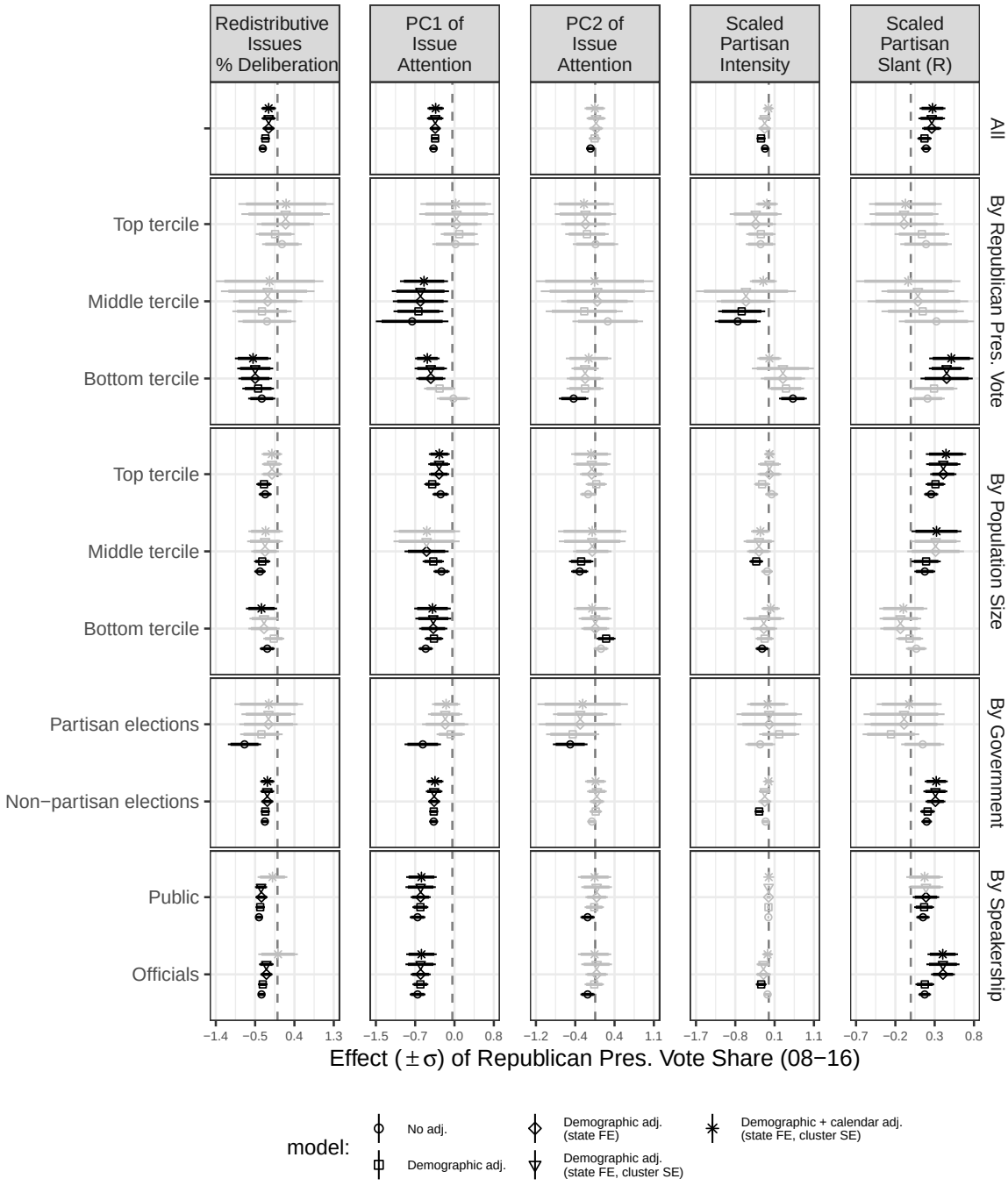

*Notes*: This figure shows that the asymmetry inference drawn by Figure 8 is not dependent on the frequency cut-off for partisan phrases in our corpus of meetings (originally 75th %). Shown above are partisan phrases with frequencies above the 50th % (23 times) and 90th % (122 times) respectively. We do not replicate this figure at percentiles below 50% because the corresponding phrase counts quickly floor at 1.

Figure G40: **Model-Adjusted Estimates of Subgroup Nationalization (Sample-Weighted)**



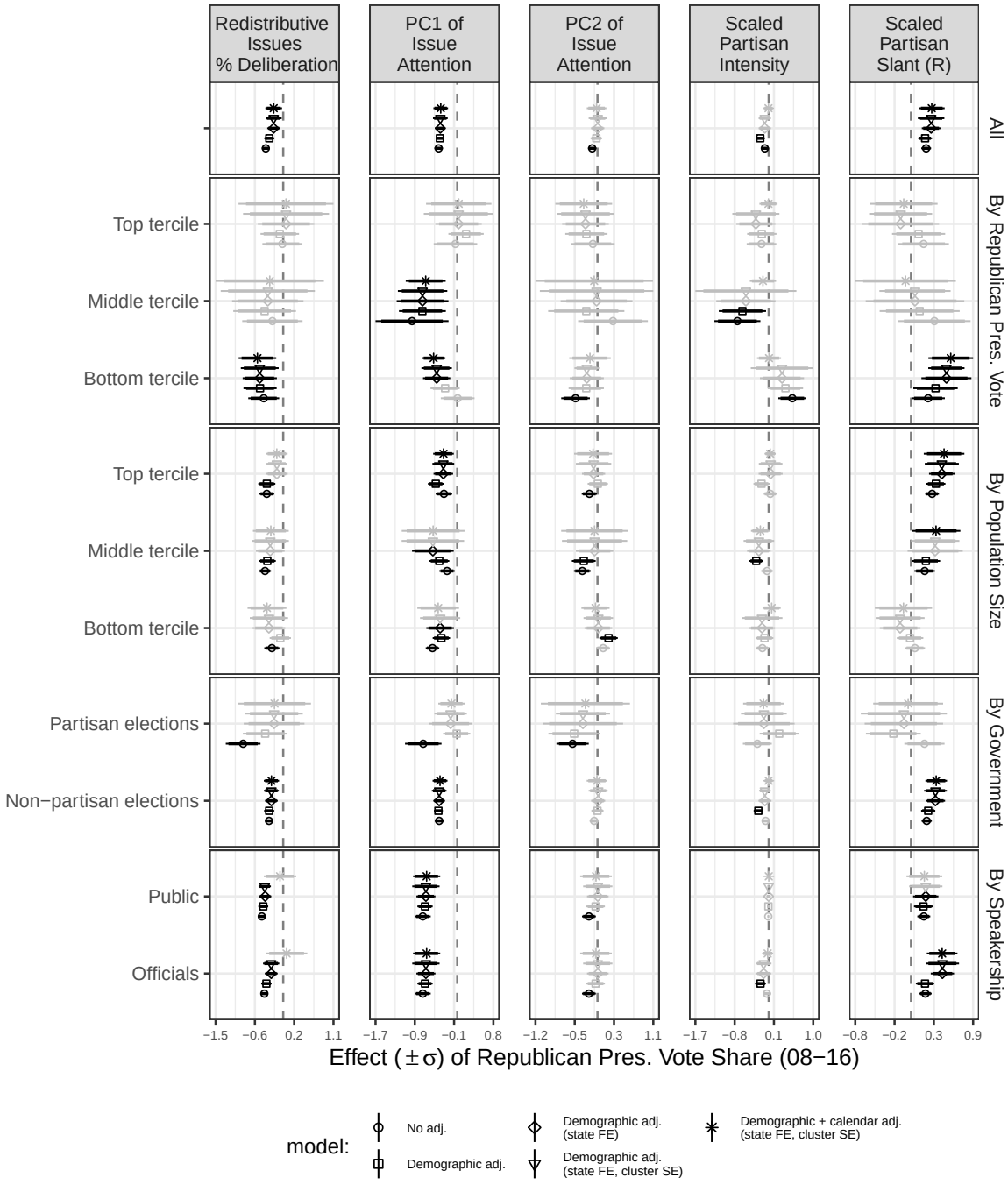

*Notes*: Shown are standardized WLS coefficient estimates of a municipality's Presidential vote-share on % mentions of redistributive topics (left), the estimated intensity ($\beta_i$ in Eq. 1) of partisan rhetoric (center), and the estimated slant ($\psi_i$ in Eq. 1) of partisan rhetoric. The weights used in WLS for each municipality are the sample weights $\widehat{w}_i$ as described in Section B – thus, mitigating the influence of municipalities that are unrepresentative of the population distribution of municipalities in the United States. Thicker lines correspond to 90% confidence intervals while the thinner lines correspond to 95% confidence intervals.

Figure G41: **Model-Adjusted Estimates of Subgroup Nationalization (Meeting-Weighted)**



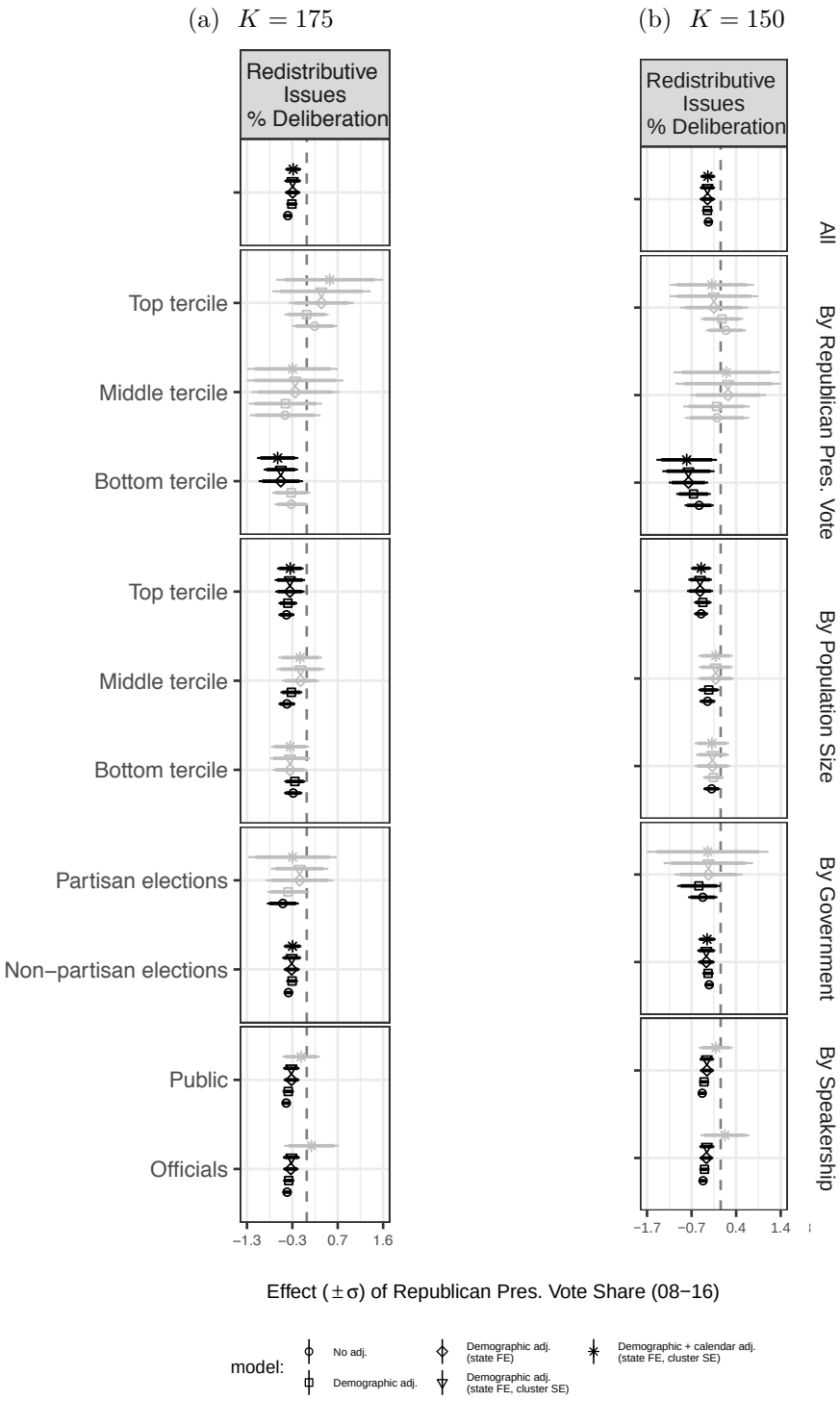

*Notes*: Shown are standardized WLS coefficient estimates of a municipality's Presidential vote-share on % mentions of redistributive topics (left), the estimated intensity ($\beta_i$ in Eq. 1) of partisan rhetoric (center), and the estimated slant ($\psi_i$ in Eq. 1) of partisan rhetoric. The weights used in WLS for each municipality are $|\mathcal{N}_i|$ where $|\mathcal{N}_i|$ is the number of meetings held by municipality $i$ in our time period – thus, mitigating the influence of municipalities with fewer uploaded meetings on our results. Thicker lines correspond to 90% confidence intervals while the thinner lines correspond to 95% confidence intervals.

Figure G42: **Model-Adjusted Estimates of Subgroup Nationalization (Sample-Weighted and Meeting-Weighted)**




*Notes*: Shown are standardized OLS coefficient estimates of a municipality's Presidential vote-share on % mentions of redistributive topics (left), the estimated intensity ($\beta_i$ in Eq. 1) of partisan rhetoric (center), and the estimated slant ($\psi_i$ in Eq. 1) of partisan rhetoric. The weights used in WLS for each municipality are $\widehat{w}_i \times |\mathcal{N}_i|$ where $\widehat{w}_i$ is the sample weight described in Section B and $|\mathcal{N}_i|$ is the number of meetings held by municipality $i$ in our time period. Thicker lines correspond to 90% confidence intervals while the thinner lines correspond to 95% confidence intervals.

Figure G43: **Model-Adjusted Estimates of Subgroup Nationalization (Redistributive Issues % Deliberation with Alternative Topic Model)**




*Notes*: Shown are standardized OLS coefficient estimates of a municipality's Presidential vote-share on % mentions of redistributive topics using our main topic model (left) and an alternative topic model (right). The same models are shown here as in Figure G42. Thicker lines correspond to 90% confidence intervals while the thinner lines correspond to 95% confidence intervals.