

Legislators (Probably) Don't Think Voters Are More Conservative Than They Really Are: Survey Error In Elites' Perceptions of Public Opinion

August 31, 2026

Abstract

Three articles in the *APSR* find legislators' and their staffers' views of public opinion are biased. They think the public is more conservative than it is. I show that ideological bias varies across issues in the existing literature and aggregates to conservative bias due to an imbalanced mix of issues. I field three new surveys to create a larger, balanced set of issues. On the new surveys, respondents exhibit liberal bias, so on the full set overall conservative bias is minimal. I consider what mechanisms could lead to bias that changes ideological direction across issues and conclude that survey error and partial updating to evidence by legislators are most consistent with the evidence. I propose a new test of perceptual bias and find that conservative bias is minimal. Taken together, results suggest that challenges with survey research are being mistakenly interpreted as genuine gaps in legislators' knowledge about public opinion.

Word count: 10,815

Miller and Stokes (1963) launched the modern, quantitative study of legislative representation. Scholars had previously examined the relationship between legislators' policy positions and district characteristics (Rice 1928, *inter alia*), but Miller and Stokes advanced the literature by measuring district-level public opinion via surveys; distinguishing two pathways by which legislators might represent their voters, either through the selection of legislators whose personal opinions match their districts' or through electoral motivations that incentivize legislators to take popular positions; and, most importantly, measuring both pathways. It concluded that legislators want to represent voters, but representation is limited because legislators do not accurately perceive public opinion (Miller and Stokes 1963, p. 56).

Recent surveys of political elites have also found that political elites do not understand what the public wants (Kertzer et al. 2019; Pereira 2021; Furnas and LaPira 2024; Walgrave et al. 2023). Three studies published in the *American Political Science Review* show that state legislative candidates in the US, members of state and national parliaments in Europe, and high-level congressional staffers exhibit a conservative bias (Broockman and Skovron 2018; Pilet et al. 2023; Hertel-Fernandez, Mildemberger, and Stokes 2019). Legislators, and their staffers, think the public is more conservative than it really is. Pilet et al. (2023, p. 1037) conclude that the literature illustrates “conservative bias in elites’ perception of public opinion [is] a widespread regularity” and there is “a pressing need for further research on its sources and impacts.”

Bias in elite perceptions of public opinion would be important for at least two reasons. Conservative bias could cause failures of representation. Legislators may be more responsive to conservative interests by placing their favored issues on the agenda more often (an extensive margin) or by pushing conservative alternatives to issues already on the agenda (an intensive one). Enacted legislation may reflect the preferences of conservative voters more than liberal ones because policymakers mistakenly think the public is more conservative than it really is.

The existing literature suggests several substantive mechanisms behind perceptual bias

that would account for these distortions in representation. Broockman and Skovron (2018) (hereafter B&S) argue and show evidence that Republican voters were more likely than Democratic to contact their legislators.¹ Pilet et al. (2023) (PILET) add that the rise of far-right parties and erosion of social-democratic parties might contribute to biased beliefs in Germany, Belgium, Switzerland, and Canada. Hertel-Fernandez, Mildenerger, and Stokes (2019) (HFMS) note that contact from interest groups and egocentrism bias — in which perceptions are biased toward one’s own policy preference — might cause ideological bias among staffers. The influence and access of campaign donors (Kalla and Broockman 2016) along with the decline in local media and growth of ideological media (Martin and Yurukoglu 2017) might also affect the quality of legislators’ information environment. Canes-Wrone (2015) discusses how these mechanisms have been invoked to explain conservative bias in representation.

Conservative bias could also suggest that legislators do not have rational expectations. Normative and positive theories of democratic accountability hold that elections incentivize legislators to pass legislation that is popular with the voting public, which is made easier if lawmakers know what policies the public supports in the first place. Bias shows that their beliefs are wrong, consistently, in the same direction. They do not learn or update their mental picture of public opinion. The electoral benefits of appealing to the public are either too weak or the costs of learning are too strong for legislators to form an accurate perception of public opinion. Alternatively, public opinion may be too fickle and unpredictable for even lawmakers who care about representing the public to perceive. If true, a finding of conservative bias would raise serious questions about the link between the public and its representatives in contemporary democracies.

Miller and Stokes faced an early methodological critique from Erikson (1978). If public opinion is measured with error, its correlation with legislative voting will be attenuated. More than one mechanism can explain the weak relationship Miller and Stokes observe, so

¹Republicans were even more likely to contact Republican legislators, which might explain the even greater conservative bias among Republican than Democratic legislators.

we must consider whether a substantive or methodological mechanism is more likely. Erikson shows that improved statistical methods to address measurement error in public opinion lead to a stronger relationship between public opinion and legislative voting, which suggests that the original results substantially reflect the effects of measurement error and methodology.

This paper highlights another, symmetric problem in the growing body of research on elite misperceptions of public opinion. When legislators' perceptions about public opinion are elicited with error, or are biased for reasons unrelated to ideology, we again have multiple mechanisms that can explain observed patterns. Legislators' perceptions may reflect a genuine ideological bias in favor of conservative interests or methodological choices that are conflated with ideology. Additional data or analyses are needed to distinguish which of these mechanisms explains current results and thus how we should interpret findings from the literature.

This paper examines the credibility and generalizability of evidence of ideological bias through re-analysis of existing studies and new data. First, I examine the mix of questions asked in the existing literature. I find substantial imbalance across proposals' ideology and popularity. Prior papers tend to ask about proposals where the liberal position is more popular than the conservative one. I ask a complementary mix of questions, those on which the conservative position is popular, in two new surveys of legislators and staffers, and one in which the liberal and conservative position are about equally popular, in a survey of city councilors and state legislators. I find *liberal* bias on this new set of issues. The set of issues in the existing literature need not be a relevant sample of the full agenda, and on a larger, more balanced set, we see no consistent bias.

The mixed results on the larger set of issues calls out for more evidence to support the initial claim of ideological bias. One such piece of evidence would be a mechanism that can explain the patterns of bias switching ideological direction across issues. The second section of the paper considers whether non-ideological mechanisms may generate observed results. Perceptions of public opinion appear to be affected by a range of survey pathologies, including

censoring of response options, neutral response bias, insincere responding, partial updating to evidence, and simple noisy survey responding. For any given issue, these mechanisms may cause perceptions to be biased toward the midpoint of the response scale for reasons that have nothing to do with ideology, per se, and which would not suggest ideological bias on a larger, balanced set of issues.

The third section applies a new statistical test to estimate ideological bias that accounts for midpoint bias. If the challenges of survey research cause perceptions to be biased towards 50%, midpoint bias coincides with conservative bias on issues when the liberal position is popular and liberal bias when the liberal position is unpopular. The one type of issue where midpoint bias should not confound ideological bias is one on which the public is split 50-50. I estimate whether legislators over- or underestimate liberal support when the public is divided for the three prior studies and from the surveys in this paper. The third survey of state legislators and city councilors was fielded specifically to ask about issues on which the public is evenly divided, and we see minimal evidence of ideological bias.

I conclude by discussing the substantive and academic consequences of using surveys to elicit higher order beliefs, in this case beliefs about others' preferences. Just like with voters, surveys with elites face a range of challenges to obtain quality responses. Pathologies of surveys as an instrument for eliciting mental states can easily be interpreted as substantive gaps in the respondent's knowledge, information environment, or cognitive processes. Conflating these biases risks attributing the difficulties of research to the knowledge or behavior of those whom we are trying to study.

Defining and Measuring Ideological Bias

Relative to a given set of issues, bias is defined as the average difference between legislators' beliefs and the true parameter values. In this literature, the parameters of interest are public support for the given set of issues, beliefs are perceptions of public support, and bias

is considered in terms of its ideological direction. This definition of bias², which is one of several one might choose, motivates key analyses in the existing literature, such as Figure 1 in Pilet et al. (2023), Figure 2 in Broockman and Skovron (2018), and the discussion on page 9 in Hertel-Fernandez, Mildemberger, and Stokes (2019). These papers find evidence of conservative ideological bias on a set of two dozen salient economic and social issues in the US, Canada, and Western Europe.

There are potential criticisms of the research designs in this literature, to be sure. Surveying political elites faces numerous challenges. Are surveys conducted at the right time, when legislators are actively considering the issues? Do legislators report beliefs of what public opinion is at the time, or what public opinion will be closer to elections, after candidates are able to shape it? It's not clear that elites should care about average public opinion rather than the opinion of key subgroups, like donors or party elites, which may be far smaller than even their district constituencies. Public opinion itself may be only partially formed and mutable, so we may be asking elites to identify a vague, moving target.

Another question might be whether it matters if legislators can differentiate between 60% or 80% support for a particular position, or whether it is sufficient for them to correctly understand the majority's position. It should be easier for legislators to perceive the direction of public support than its magnitude, and that may be enough for them to take popular positions.³

One important, outstanding question merits special attention: what is the relevant set of issues on which to measure bias? The set of relevant issues could be a single one: one may care only whether Canadian members of Parliament hold ideologically biased beliefs about universal basic income. It may be that we care about the full set of issues on a legislative agenda, or a fair sample of them. The existing literature has found bias on a specific set of issues, but we do not know if those issues are representative of a broader agenda, of inherent

²Formalized as $\text{Bias} = \frac{\sum_i Y_i - Y^*}{N}$ where Y_i is respondent i 's belief about public opinion, Y^* is actual public opinion, and N is the number of respondents.

³As we will see in Figure 1, legislators correctly estimated the public's position on 20 of the 28 issues in prior papers, which suggests they do have some idea where the public stands.

interest due to their salience, or chosen for convenience.

The importance of defining the set of issues of interest to our definition of bias is illustrated in Figure 1. Each panel shows a pattern that might be obtained by comparing legislators' perceptions of public opinion to opinion as measured in actual surveys. The x-axis indicates the actual measure of public support for the liberal position on an issue; the y-axis legislators' perceptions, on average. Each point represents a single issue.

The first panel shows estimated vs. measured public opinion for a hypothetical set of issues of interest. If opinion is perceived perfectly, each issue will fall on the 45-degree line. There is no difference between perceptions and actual public opinion, for each individual issue and on average across them.

Panel 2 presents one manifestation of conservative perceptual bias. Legislators' estimates of liberal public opinion may be consistently lower than actual opinion. They underestimate how liberal the public is on every issue. In this case, selecting a subset of issues for study is unproblematic. Conservative bias is the same magnitude across issues, so any subset reveals an unbiased estimate of bias for the larger set.

Panel 3 represents another form of conservative bias. Legislators underestimate the public's liberal lean more on issues for which the public is more liberal. Legislators exhibit conservative bias on all issues — all issues fall below the 45-degree line — but the magnitude of their error increases across issues.

In this case, whether the set of issues studied by the researcher is representative of the broader universe of issues can be important. Including too many popular conservative issues will underestimate conservative bias on the broader set; too many popular liberal issues will overestimate it. Any selection of issues will get the correct sign — that legislators have conservative bias — but estimating magnitudes without bias requires a representative sample, including defining the broader sample of interest.

Panels 4 and 5 illustrate another possible pattern we might encounter with our approach. Were we to actually conduct polls of public opinion and legislator beliefs, legislators' percep-

tions would tend not to be fully responsive to public opinion. There most likely would be a positive relationship between the two, as legislators should be able to perceive when the public is more or less liberal on a policy. Their perceptions might not be fully responsive to public opinion, though, as displayed in Panel 4.

There might be several explanations for this flattening of the relationship. The most obvious is measurement error in the public opinion poll, as highlighted by Erikson (1978). Other causes may include behavioral biases in survey response, the structure of survey response variables, a genuine belief that the public is more divided than it really is, or legislators only partially updating their views of public opinion. The result is a type of midpoint bias: perceptions of public opinion are closer to 50% than actual public polling. This type of midpoint bias, the overestimation of small quantities and underestimation of large ones, has been recorded on quantitative estimation tasks across a range of settings (Landy, Guay, and Marghetis 2018). While the mechanism behind midpoint bias is unclear, the practical consequence is that survey-based measures of beliefs are often biased toward the middle of the response range.

Midpoint bias can cause the appearance of conservative bias in the aggregate when issues are sampled asymmetrically. A full or representative sample of issues from Panel 4 will produce an unbiased estimate of perceptions. Panel 5 shows a case of asymmetric sampling. Every popular liberal question from Panel 4 is retained, but with only three unpopular liberal questions. There are more questions on which respondents underestimate support for the liberal position than there are questions on which they overestimate support for it. Aggregating across issues leads to the appearance of conservative bias, even though respondents may demonstrate a liberal bias on issues where the liberal position is unpopular.

Panel 6 presents perceived and measured public support for the liberal position from the three APSR studies. The existing literature does not demonstrate conservative bias across all issues. Legislators and staff overestimate liberal support when the liberal alternative is unpopular. They exhibit a *liberal* bias on 5 of the 7 issues where the liberal position is

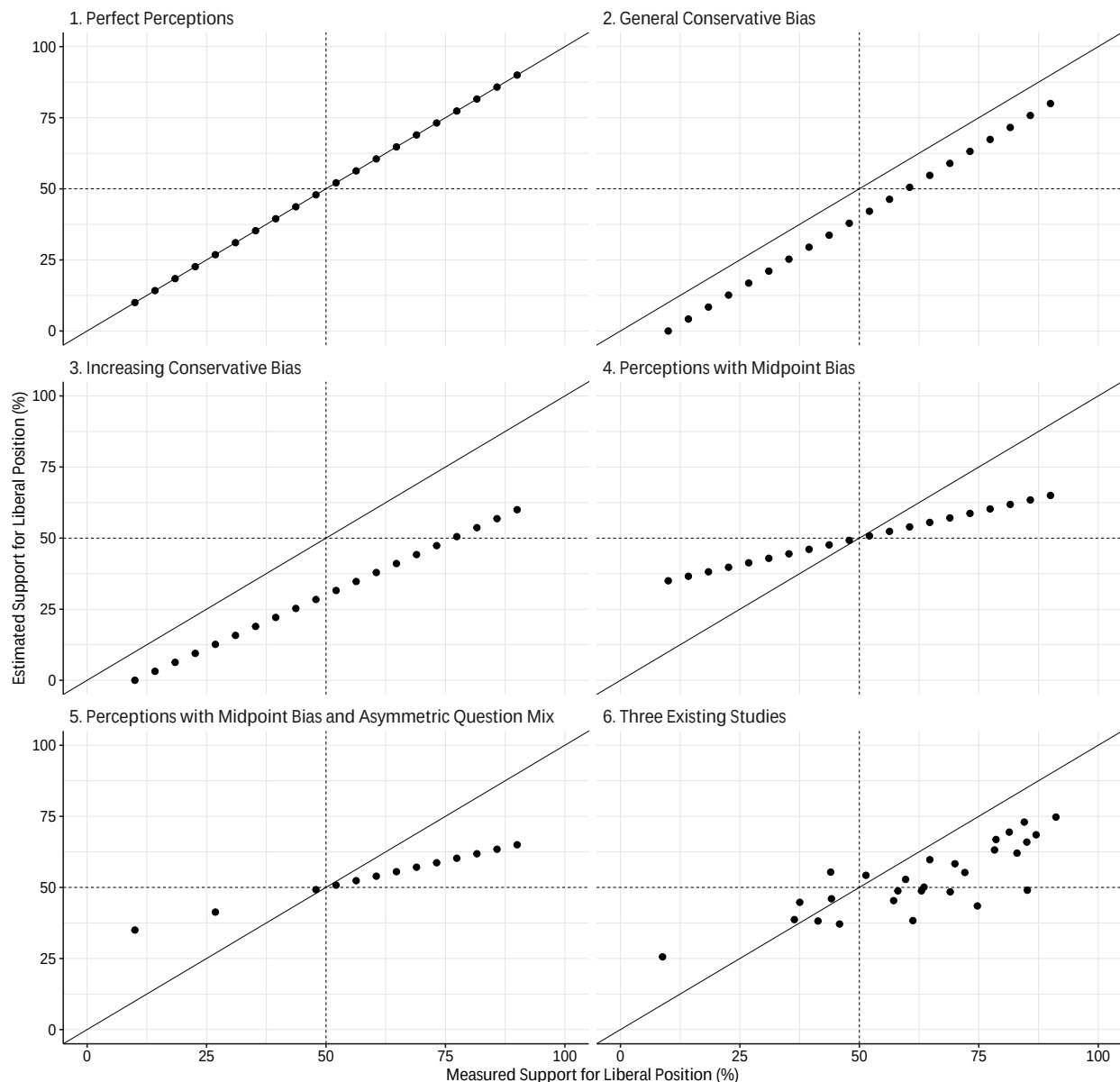


Figure 1: Illustrative Plots of Estimated vs. Measured Liberal Support. Each point represents a single survey question asked to the public and to legislators (or their staffers). Panels 1-5 are illustrative, based on twenty hypothetical questions; Panel 6 is based on three studies recently published in the APSR.

unpopular. However, liberal bias on these issues is overwhelmed by the number of issues on which respondents underestimate liberal support — which they do on 20 of the 21 issues where the liberal position is popular. Respondents in this literature demonstrate *conservative* bias in the aggregate because of the mix of issues.

In the existing literature, public support for the liberal position averages 63% across the 28 issues. The public is most supportive of the liberal position on fiscal issues (77% of the time). Capping the retirement age is supported by 80% or more of voters in Germany, Belgium, and Canada. In contrast, the public is least liberal on immigration (47%). Over 90% of German voters prefer faster deportation procedures and over 60% of Canadian voters prefer not to increase immigration. There are more fiscal questions (10) than immigration (6), which in part drives the liberal lean of the questions asked.

Existing studies do not find that policymakers consistently demonstrate conservative bias in beliefs about public opinion. Ideological bias varies in magnitude and even sign based on the popularity of the ideologically-coded responses. Results appear most consistent with the example of midpoint bias and asymmetric question mix.

The asymmetry in issue popularity again raises the question of which set of issues are relevant for measuring bias. Are these issues reflective of the broader policy agenda in these countries? If so, it is certainly possible, and in fact likely, that one political movement will have more popular proposals at a given time than another. But we would have more confidence in the representativeness of this sample of issues if there were an explicit sampling procedure for picking issues.

While we may not be able to answer whether the current samples are representative of the full population of issues, we can ask whether results from this literature extend to a larger, more balanced sample of issues. If we ask a complementary mix of questions — those on which the liberal position is unpopular or as popular as the conservative one — do we see the same results? Do the mechanisms proposed to explain ideological bias in the current mix of questions also account for results in the extended sample?

I examine whether this pattern of bias generalizes to three new surveys on which the liberal position is not more popular than the conservative one. The first two asked state legislators and congressional staffers to estimate public support for issues on which the liberal position is unpopular. A third survey examines another set of proposals: those on which the

Table 1: Questions in Existing Literature on Conservative Perceptual Bias

Hertel-Fernandez, Mildemberger, and Stokes (2019)

Congress should regulate carbon dioxide (the primary greenhouse gas) as a pollutant.
 Congress should repeal the Affordable Care Act of 2010.
 Congress should enact background checks for all gun sales, including at gun shows and over the internet.
 Congress should raise the federal minimum wage to \$12 an hour by 2020.
 Congress should authorize \$305 billion to repair and expand highways, bridges, and transit over the next 5 years.

Broockman and Skovron (2018)

Allow gays and lesbians to marry legally.
 Let employers and insurers refuse to cover birth control and other health services that violate their religious beliefs.
 Require background checks for all gun sales, including at gun shows and over the internet.
 Ban assault rifles.
 Allow police to question anyone they think may be in the country illegally.
 Grant legal status to all illegal immigrants who have held jobs and paid taxes for at least 3 years, and not been convicted of any felony crimes.
 Always allow a woman to obtain an abortion as a matter of choice.
 Permit abortion only in case of rape, incest, or when the woman’s life is in danger*.

Pilet et al. (2023)

Flanders and Wallonia

The right to strike should be restricted.
 Belgium should never expel someone to a country where human rights are violated.
 The retirement age may not exceed 67 years.

Germany

Citizens with higher incomes should be taxed more heavily than today.
 The retirement age should be raised step by step.
 Foreign citizens’ children that were born and raised in Germany should be allowed to keep their parent’s citizenship in addition to the German citizenship.
 Income and wealth should be redistributed in favor of poorer people.
 Declined asylum seekers should be more consequently deported.

Canada

Canada should increase the number of immigrants it admits each year.
 The government should provide a guaranteed annual income.
 The retirement age to receive Canada Pension Plan benefits should be raised to 70.
 Individuals who are terminally ill should be allowed to end their lives with the assistance of a doctor.

* This question was asked of legislators, included in the supplementary and replication files, but not included in the paper’s main analyses. The authors argue that CCES respondents did not correctly understand the question.

public is evenly split between the conservative and liberal position.

Ideological Bias in a Balanced Sample

I conducted three surveys with a complementary mix of policy questions to the existing literature: those on which the liberal position was unpopular or as popular as the conservative position with the public. In the first two surveys, I compiled twenty survey questions that asked the public whether they support or oppose popular conservative proposals and unpopular liberal ones. Survey questions were fielded by the Cooperative Election Study, Reuters, Monmouth University, USA Today and other reputable outlets.⁴ Conservative proposals were favored by 55–82% of respondents; liberal proposals by 23–44%. Popular conservative proposals included policies to limit immigration, increase funding for police and the military, and impose work requirements for welfare benefits; unpopular liberal ones those to teach critical race theory and pay reparations for slavery, ban gasoline cars and natural gas home appliances, and expand the Supreme Court. The 20 conservative-leaning questions are listed, with their sources and levels of public support, in Tables 2 and 3. These questions cover many of the same issues as the existing literature — immigration, welfare, policing, healthcare, and the environment — but the public is more conservative on the specific proposals addressing the issue.

To mirror the samples of B&S and HFMS, one survey was sent to state legislators in March 2024 and the other to congressional staff in May 2024. For the state legislators, an email invitation to participate was sent to 7,351 individuals who were serving in office with public email addresses as of March 2024, nearly the entire universe of 7,386 state legislative seats.⁵ 174 clicked through to the survey; 172 consented to participate; and 132 answered survey questions. The 2.3% click-through rate and 1.8% participation rate are similar to other recent efforts to survey elected officials. 63% of elected officials who indicated a party

⁴One of the 20 questions included was an Ipsos survey released by the American Petroleum Institute.

⁵The project, protocol IRB24-0224, was approved and deemed exempt as minimal risk by the author's university.

Table 2: Topics for 2024 State Legislator Survey

Proposal	Source	Public Support
Conservative Policies		
Increase the number of border patrols on the US-Mexican border.	CES 2022	69%
Increase the number of police on the street by 10% even if it means fewer funds for other public services.	CES 2022	55%
End the practice of colleges admitting students based on race or ethnicity (known as affirmative action).	Reuters 2023	61%
Require able-bodied adults 18 - 49 years of age who do not have dependents to have a job in order to receive food stamps.	CES 2022	61%
Require voters to show a photo id in order to vote.	Monmouth 2022	82%
Liberal Policies		
Decrease the number of police on the street by 10% and increase funds for other public services.	CES 2022	34%
Allow transgender girls to play on female sports teams in K-12 schools and universities if they're taking hormones.	USA Today 2023	24%
Ban natural gas, which often powers gas stoves and heat pumps, in newly constructed buildings, and instead require electric stoves and power.	Harvard Harris 2023	31%
Expand the size of the Supreme Court.	Monmouth 2022	38%
Provide reparations for slavery.	NPR / PBS 2019	30%

Public support is among voters who expressed an opinion.

Table 3: Topics for 2024 Congressional Staffer Survey

Proposal	Source	Public Support
Conservative Policies		
Increase domestic oil and gas drilling.	USA To-day 2023	65%
Ban pro-Palestinian demonstrations on college campuses.	Morning Consult 2024	61%
Send troops to the southern border and order the mass deportation of illegal immigrants.	USA To-day 2023	55%
Increase military spending.	Politico 2023	60%
Require Medicaid and SNAP benefits recipients to show proof of work to receive benefits.	Axios 2023	65%
Liberal Policies		
Make abortion generally legal during the 2nd trimester of pregnancy.	Gallup 2023	40%
Make abortion generally legal during the 3rd trimester of pregnancy.	Gallup 2023	24%
Allow people to identify as something other than man or woman on government documents, such as birth certificates, passports, or drivers licenses.	USA To-day 2023	37%
Teach critical race theory in public schools.	USA To-day 2023	44%
Ban new gasoline, diesel, and hybrid vehicles.	Ipsos-American Petroleum Institute	24%

Public support is among voters who expressed an opinion.

were Democrats, substantially more than the population average of 45% as reported by the National Conference of State Legislatures.

For congressional staff, I sent emails to 9,053 staffers for the US House of Representatives whose contact information was publicly available. 128 clicked through to the survey; 127 consented to participate; and 98 answered survey questions. Both legislators and staffers were asked about 5 conservative and 5 liberal policies.

Figure 2 displays respondents' ideological bias by issue. The figure includes a gray shaded region between the 45-degree line and the horizontal line where legislators estimate 50% of the public supports the policy. In this region, legislators correctly perceive the direction of public support but think the public is more divided than it really is. They understate the magnitude of public support, i.e. exhibit midpoint bias.

On all twenty issues on this new survey, the liberal position was unpopular with the public. On these 20 issues, legislators and staffers exhibit liberal bias on 15; more points fall above than below the 45-degree line. Issues where the conservative viewpoint is more popular with the public exhibit the opposite ideological bias as issues where the liberal perspective is popular.

Table 4 estimates liberal bias using regression. On average, state legislators exhibit a liberal bias of 2.5 percentage points on their questions; staffers 9.3 percentage points. If the appearance of conservative bias in the existing literature were caused by issue selection, then selecting the opposite mix of questions should have led bias to switch sign. That is what we observe. Two separate surveys of state legislators and congressional staff find liberal bias, on average, when respondents are asked about issues on which the liberal position is unpopular.

These two surveys, as well as those in prior studies, ask mostly about lopsided proposals — it is easier to illustrate misperceptions about public opinion when the public has a clear position. Only two of the 48 questions from previous studies and this paper measure public support within a range of 45–55 percentage points, despite many of the most important and salient political issues being deeply divisive.

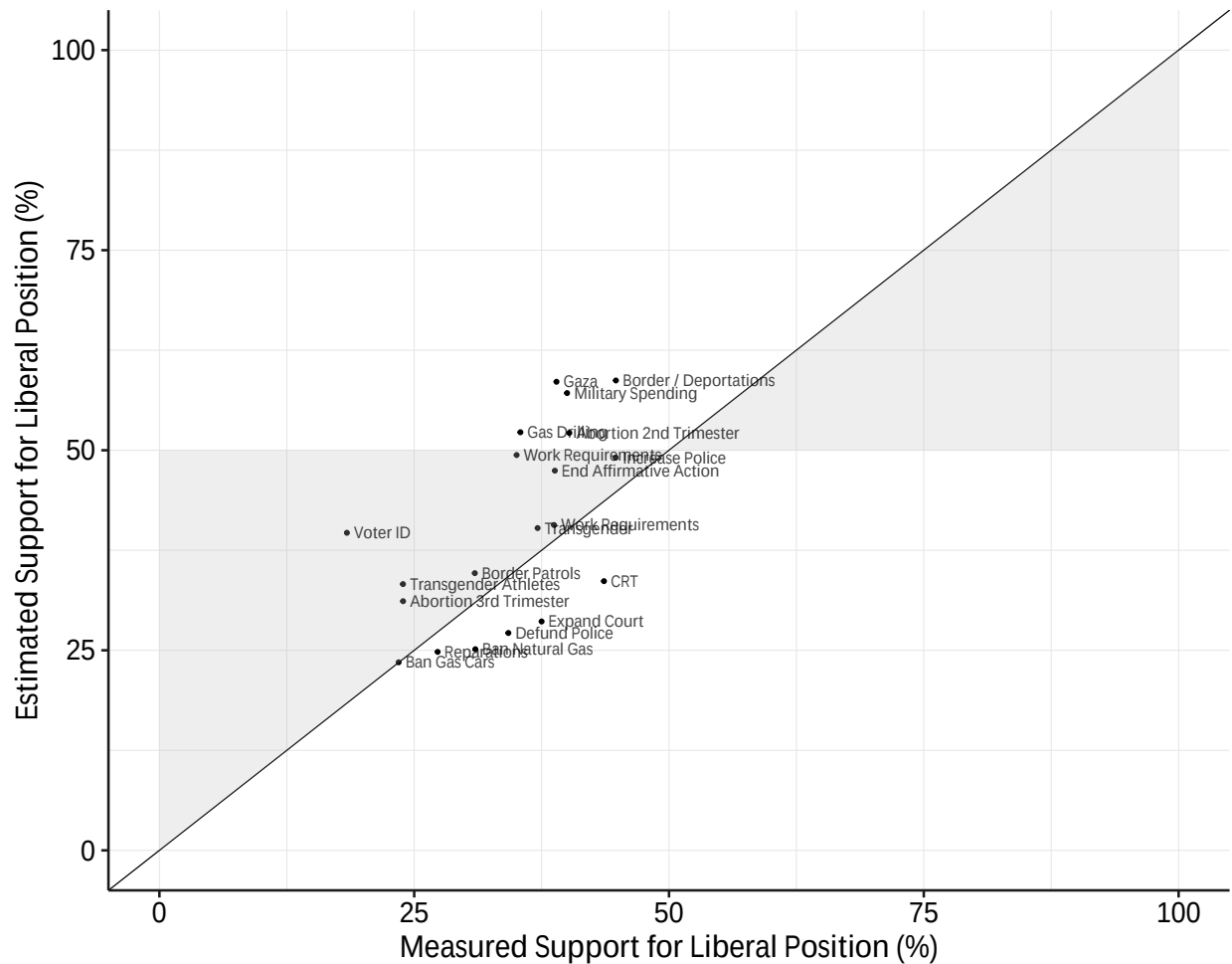


Figure 2: **Public Opinion Support, and Legislator Bias, from New Surveys.** Gray shaded regions indicate legislator estimates consistent with bias 50-50 bias.

I fielded a third survey of ten questions on which the liberal and conservative positions were about equally popular to represent these types of issues. The June 2024 survey asked about ten issues including charter schools, immigration, pandemic preparedness, and more. For each of these questions, between 45–55% of the public supported the proposal. The liberal position was more popular than the conservative one on half of the ten proposals. The proposals are described in Table 5.

The survey was first sent to the 662 city councilors from the 50 largest US cities, 16 of whom, or 2.4%, answered the survey. The survey was then sent to state legislators, 52 of

Table 4: ***Liberal Bias among State Legislators and Congressional Staff.*** DV: Error of respondent estimates in a liberal direction relative to survey baseline (in percentage points).

	State Legislators	Congressional Staff	Divisive Issues
	(1)	(2)	(3)
Intercept	2.5*	9.5**	4.7*
(SE)	(1.1)	(1.0)	(1.9)
N (estimates)	1,263	957	677
N (respondents)	132	98	68

Significance indicated at $p < 0.10$ (†), $p < 0.05$ (*), and $p < 0.01$ (**) two-sided. Standard errors clustered by respondent. Table displays results of the dependent variable regressed on an intercept.

whom, or 0.7%, answered this survey, the second one they had received within three months.⁶ As in the two prior surveys, all respondents are asked their perceptions of national public opinion on these issues.

Pooled results for the two subject populations are displayed in Column (3) of Table 4. On these ten divisive issues, state legislators and city councilors again exhibit *liberal* bias of around 5 percentage points. On all three new surveys, which ask about a different mix of questions than prior surveys, respondents exhibit the opposite perceptual bias.

While we may not know what a fair or representative sample of issues would look like — perhaps there are more popular liberal proposals on the agenda at a given time than conservative ones — we can ask what ideological bias looks like on a fuller, more balanced set of issues that include the 28 from prior studies and 30 from the new surveys. On average, the 58 questions asked display a conservative bias of about 2 percentage points. The aggregated direction of bias is the same as in prior studies, but its magnitude is substantially smaller than the 9 (PILET), 11 (HFMS), and 13 (B&S) percentage point estimates from prior studies. With more questions and a longer time period, legislators’ beliefs about public opinion do not appear to be meaningfully ideologically biased.

⁶The email solicitation was sent as a follow-up to the full list of state legislators, thanking them if they had answered the first survey and giving those who hadn’t another chance to participate. Thus it likely represents a distinct set of respondents.

Table 5: *Topics for 2024 State Legislator and City Councilor Survey*

Proposal	Source	Public Support
Conservative Position Popular		
Using taxpayer funds to pay for students to attend charter schools.	Fox News 2023	53%
The White House launching a new \$5 billion program for future COVID-19 vaccine development.	Reuters / Ipsos 2023	47%
The United States Supreme Court ruling that some businesses can deny creative and expressive services to individuals or groups of people based on free speech.	Reuters / Ipsos 2023	51%
The United States Supreme Court striking down President Biden’s student loan forgiveness program.	Reuters / Ipsos 2023	51%
The United States government banning the use of TikTok in the US.	ABC News / Ipsos 2024	55%
Liberal Position Popular		
Installing deterrents such as walls, floating barriers in rivers, and razor wire to prevent immigrants from entering the country illegally, even if they endanger or kill some people.	PPRI 2023	46%
The House of Representatives considering impeachment of Joe Biden.	Marquette Law 2023	47%
Cutting funding for the Internal Revenue Service (IRS).	Ipsos 2023	49%
Limiting the number of Chinese students studying in the United States.	Conference Board / Ipsos 2023	45%
The United States sending more military aid to Ukraine for their efforts in the war with Russia.	Quinnipiac 2024	55%

Public support is among voters who expressed an opinion.

What Mechanisms Explain Conflicting Bias Across Issues?

Beyond raising questions about what the relevant set of issues are that we care about and illustrating that evidence of conservative bias is weaker than thought, the new surveys serve another important purpose. They provide a constraint on the possible mechanisms behind findings of perceptual bias. Any mechanism needs to explain that the direction of ideological bias depends on the popularity of the ideologically-coded outcomes. In both the existing and new surveys, perceptions exhibit conservative bias when the liberal position is popular, but liberal bias when it is unpopular.

One possibility is that the relevant mechanisms switch direction over time. Public activism, donor influence, or partisan media may have leaned right during the period of the original surveys (from 2012-2018) but left more recently (in 2024). These mechanisms are plausible, even if one could marshal evidence for or against them.

Importantly, variation in the sign of ideological bias does not only occur across time, but also within study. The new surveys reinforce a pattern apparent in the original surveys, that of liberal bias when the liberal position is unpopular. Changes in mechanisms over time do not explain the pattern of bias that changes sign across issues in the original studies.

It is not clear that the mechanisms in the literature explain this pattern, either. Conservative voters, donors, and interest groups would have to be more active than liberal opponents when the conservative position is the minority one. Ideological media would have to fixate on issues where their side's position is unpopular. While that may be the case, we could also imagine that legislators receive more communication from pressure groups and the media when those groups' positions are more popular. I am not aware of empirical research on these questions. Such evidence could demonstrate that the substantive mechanisms in the literature are more or less plausible explanations of bias that changes direction across issues.

I consider what additional mechanisms are consistent with conflicting ideological bias across issues. The public opinion literature suggests many reasons why survey responses might be biased toward the midpoint of the response scale. These mechanisms represent the

many dimensions of survey error. Noisy, lazy, or insincere responding can all lead to midpoint bias in legislators’ survey responses. If surveys of the public are an imperfect measure of public opinion, which they surely are, then politicians might be right not to fully update their own perceptions of public opinion. Survey error on both sides of these analyses can lead to midpoint bias, which explains why ideological bias varies across issues’ popularity.

Noisy Responding

The first and simplest mechanism is that elites respond to surveys quickly, with little thought, or based on idiosyncratic considerations. Random guessing, perhaps among a subset of respondents, would generate wide dispersion in individual responses and an average response in the center of the response scale.

Pilet et al. (2023) study beliefs about public opinion among members of Canadian and European national parliaments. It asked MPs to estimate the share of voters nationwide who supported each one.⁷ The issues include high salience topics like welfare, immigration, and pension policy. Helpfully, Pilet et al. (2023) make available the MPs’ raw survey responses.⁸ Figure 3 shows the distributions of legislators’ estimates of public opinion. Each histogram shows the average legislator estimate (dashed, black line) and actual average public opinion from the survey (solid, red line).

Individual perceptions are widely dispersed, and average perceptions lean toward the midpoint of the scale relative to actual public opinion. Guaranteeing a national basic income in Canada will clearly appeal to some liberal voters but alienate conservatives. MPs’ estimates span nearly the entire range. On capping the retirement age, some Belgian MPs estimated 3% of the national public supported the issue while others placed the same figure at 100%. These are inaccurate perceptions. At the same time, average responses for 14 of

⁷Pilet et al. (2023) also asks about opinion among a politician’s electorate — the national opinion of their copartisans — and district, but I focus on the national opinion in this analysis so that MPs are predicting the same parameter, which does not vary across respondents.

⁸Broockman and Skovron (2018) and Hertel-Fernandez, Mildemberger, and Stokes (2019) add noise to their replication data, which makes these re-analyses less informative.

the 15 questions are closer to 50% than the true values. Clearly not all MPs are flipping coins — average beliefs are not 50% — but a meaningful percentage may be, and random responding will skew averages toward the midpoint of the response scale.

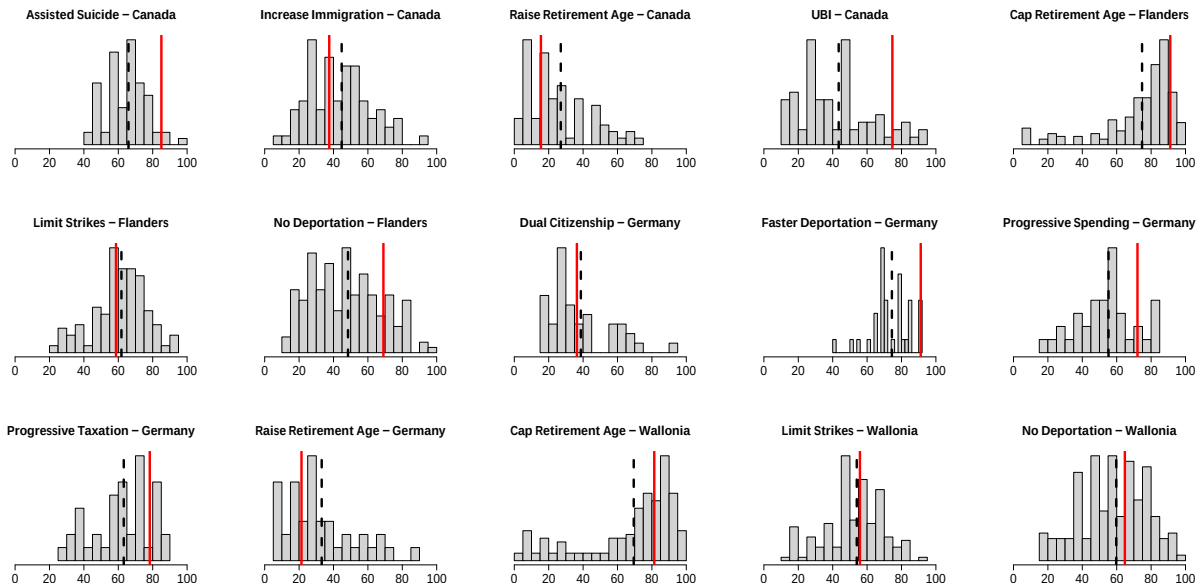


Figure 3: *Legislator Estimates of National Opinion, from Pilet et al (2023)*. Average estimate indicated by dashed, black line. Actual public opinion average indicated by solid, red line.

In the three new surveys, questions were asked in randomized order. We can examine whether respondents’ accuracy changed over the course of the brief, twelve question survey. For state legislators, their inaccuracy — here defined as the absolute error of their responses relative to the underlying public opinion measure — increases substantially. Errors are about 3 percentage points (15%) larger on the tenth than the first question. We do not see the same pattern for congressional staff or on the divisive questions. This suggestive evidence is consistent with a substantial portion of response variability coming down to simple measurement error due to rushed, thoughtless responding. This evidence is only suggestive, as staffers do not exhibit the same pattern, nor do state legislators and councilors on the divisive survey. The precision-weighted average of the three surveys is that absolute error increases by about 1 percentage point per ten questions ($\widehat{SE} = 0.8$). Long elite surveys may engender substantially more variation in responses than on these three short surveys.

Table 6: **Belief Accuracy about Public Opinion.** DV: Absolute error of legislator and staffer estimates relative to survey baseline (in percentage points).

	Legislators	Staff	Divisive
	(1)	(2)	(3)
Intercept	15.8**	18.0**	18.8**
(SE)	(0.9)	(1.0)	(1.3)
Question Order	0.3**	-0.1	0.0
	(0.1)	(0.1)	(0.2)
N (estimates)	1,263	957	677
N (respondents)	132	98	68

Significance indicated at $p < 0.10$ (†), $p < 0.05$ (*), and $p < 0.01$ (**) two-sided. Standard errors clustered by respondent. Table displays results of the dependent variable regressed on an intercept and a question order variable.

Neutral Response Bias

A second cause of midpoint bias from the public opinion literature is neutral response bias. Survey respondents may not pay attention, exert cognitive effort, or care about the quality of their answer. In this case, one tendency of survey respondents is to pick responses near the middle of the outcome scale. This pattern is apparent in Figure 3, as there are clusters of MPs who estimate 50% of the Canadian public supports assisted suicide and 50% of the Flemish public supports banning deportation despite the public being much more lopsided on these issues.

Censoring of Response Options

A third explanation for midpoint bias is a type of unbalanced scale problem related to censoring of the response options. Figure 4 highlights four survey questions from Canada, Germany, Flanders, and Wallonia. On these questions, public opinion is lopsided: 80% or more of the public supports the liberal position. Many MPs accurately perceive public support; the modal legislator response is close to the public opinion measure for each question. Nevertheless, on each question there is a long tail of estimates that badly miss the target. Because

actual support is so lopsided, there is little room for legislators to mistake public support in the liberal direction and much more in the conservative direction. The long tails due to the unbalanced scales pull the estimate averages toward 50%. The mean is a misleading summary statistic for MP’s actual beliefs because the response scale is constrained to fall between 0–100%.

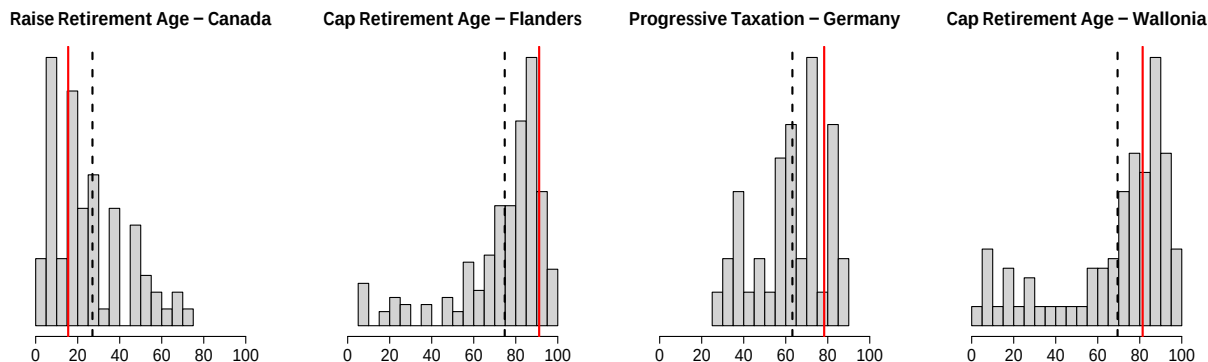


Figure 4: **Censored Responses from Pilet et al (2023).** Average estimate indicated by dashed, black line. Actual public opinion average indicated by solid, red line.

If average perceptions are too sensitive to outliers, other summary statistics may describe MPs’ perceptions in a way less affected by censoring of the response options. Using the median rather than mean MP perception reduces estimates of conservative bias in PILET from 9 to 7.5 percentage points. Using modal responses reduces conservative bias to 5 percentage points, though this estimate requires dropping two questions for which there is no unique modal response.⁹ While changing the summary statistic may address censoring problems, other survey pathologies will remain and potentially be exaggerated. For example, neutral response bias leads to clusters of responses at the midpoint, which may well become the modal response.

⁹Even dropping those two questions, using mean perceptions still generates estimates of conservative bias of 8.5 percentage points, so modal responses suggest less bias.

Insincere Responding

In any survey, respondents may not report their sincere beliefs, but instead give expressive or instrumental responses. Politicians may want to influence the results of the survey, make researchers believe they think the public agrees with them, make themselves think their positions are popular with the public, or simply undermine the research, for example if they hold animus towards academia.

Table 7 shows the percentage of respondents in the new state legislator survey from each party who gave unanimous partisan responses. These legislators responded that 100% of the public agreed with their party’s position on the issue. Republican respondents answered in this way at much higher rates than Democratic. Democrats said that the entire public agrees with them about 1% of the time, while Republicans said the same on 8% of questions.

Table 7: % Unanimous Responses to 2024 State Legislator Survey

Proposal	Democrats	Republicans
Conservative Policies		
US-Mexican border patrols	0%	11%
Increase police	0	9
End affirmative action	1	9
Work requirements for food stamps	0	9
Voter ID	0	11
Liberal Policies		
Decrease police	1	8
Transgender sports	1	3
Ban natural gas	0	10
Expand Supreme Court	3	10
Slavery reparations	2	3

These are salient, contested political issues, like allowing transgender youth to compete in sports of their choosing, defunding police, or expanding the Supreme Court. It is highly doubtful the public is unanimous on any of them. Yet, some legislators are reporting that

0% or 100% of the public supports them.

This asymmetry in extreme responding by Republicans would contribute several percentage points to a conservative bias in aggregate perceptions of public opinion. It also suggests these responses are unlikely legislators’ sincere beliefs. These patterns are unlikely to result entirely from confusion or misunderstanding the survey.¹⁰ Respondents’ answers need not be honest evaluations of public opinion.

Partial Updating to Evidence

Legislators’ responses to surveys are not the only source of survey error. Survey measures of public opinion also surely contain meaningful survey error. Even if legislators have seen surveys or been exposed to public attitudes through interactions with voters, they may be right not to fully update their beliefs about public opinion that is still forming and mutable. Instead, they may rely on their prior beliefs about legislation.

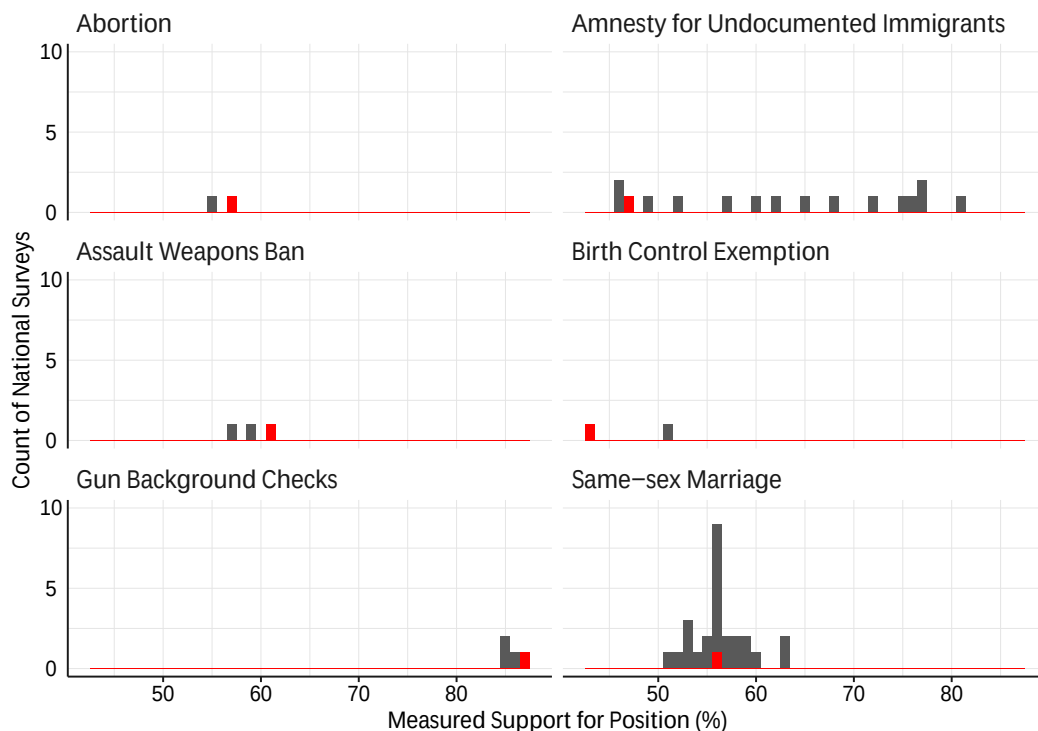
Prior beliefs could reflect legislators’ memory of similar bills, heuristics developed over their career, or their political gut instincts. One reasonable prior belief in the context of a contested policy question is to assume the public is roughly split. Legislators will learn more about public opinion through legislative and electoral activities, but reported beliefs about public opinion will ultimately be a weighted average of the signals they receive and their priors. Incorporating their priors may lead legislators to make better predictions or decisions than if they fully updated to evidence.

Partial updating to evidence has been documented among legislators in other settings, specifically in how policymakers weigh evaluations of policy effectiveness (Lee 2022; Vivalt and Coville 2020). It is reasonable to expect partial updating here as well. Further, Vivalt and Coville (2020) finds that politicians express confidence in their prior beliefs — they are more confident about policy effects than researchers of those policies, for example — and so

¹⁰For comparison, legislators said the public completely *disagrees* with their party less often: 2% of Democrats said the public unanimously supports increasing border controls and opposes banning natural gas appliances. Republicans never reported the public completely opposing the party’s position.

update less to evidence.

Analyzing how legislators update to public opinion information has not been studied in this literature, to my knowledge, so we cannot say anything about their prior beliefs or updating process directly. Nevertheless, Broockman and Skovron (2018) provide useful evidence on the variability of one public opinion signal, polls. Appendix E in their paper lists estimates of public support from their preferred survey together with other public polls conducted at the same time and with similar question wording. Figure 5 displays histograms of public support across the various surveys for the six issues they include.



*Figure 5: **Variation in Public Opinion Across Surveys.** Public opinion estimates taken from Appendix E of Broockman and Skovron (2018). Red bars indicate public opinion from the CES, which is used for analyses in BES.*

Across all six questions, the average difference between comparison polls and the CES is 7 percentage points. Four of the questions have only 1–3 other surveys for comparison. On these questions, public support for the proposal differs by 2–8 percentage points across surveys. Two questions, amnesty for undocumented immigrants and support for same-sex

marriage, feature 15 and 25 surveys for comparison, respectively. On these questions, public support for the policy varies by 12–35 percentage points.

These public opinion polls were chosen to demonstrate that ideological bias does not depend on the reference survey, and indeed CES respondents do not appear consistently more liberal than respondents to other polls. Nevertheless, the broader universe of polls shows that measuring public opinion is difficult and prone to variability, either because survey methodology or public opinion itself varies from survey to survey. Legislators may well understand that public opinion is a mutable, moving target and not as convincing a verdict on the appeal of a policy as it may seem at a given time.

Summary

Since the Erikson (1978) critique, the study of representation has used ever better measures of public opinion for comparison with legislative behavior. Unlike representation studies, the study of perceptual bias compares survey measures of public opinion to survey measures of perceptions of public opinion. There are good reasons to worry that survey error complicates the inferential problem on both sides of the equation.

These mechanisms associated with survey error all lead to ideological bias that changes direction across issues by means of midpoint bias. Unlike the mechanisms posited in the existing perceptual bias literature, midpoint bias can explain why ideological bias systematically switches signs across issues. It also makes clear, testable predictions about the direction and magnitude of ideological bias based on an issue's popularity.

A New Test of Ideological Bias

It is not clear that bias as defined in the literature is the right measure for evaluating the quality of policymakers' beliefs about public opinion. First, bias requires selecting a universe of issues, and it is not clear what the right set of issues is to make a general claim about misperceptions. Even if we were able to survey all issues on the agenda, voters might value

some issues more than others, such that small misperceptions on important issues counteract large misperceptions on less important ones.

Beliefs also might be biased on a given subset of issues in ways that are not caused by, but are conflated with, ideology. Survey error and partial updating will coincide with ideological bias if surveys select disproportionately many popular liberal policies, or alternatively many popular conservative policies. Another non-ideological bias would be if legislators believe the public is more divided or unified than it really is. Again, if the sample of issues leans too much in one direction, this bias would confound ideology.

All of these, and surely more, mechanisms may cause beliefs to appear biased, even if policymakers as a whole hold accurate, useful beliefs about public opinion. Are there other ways to evaluate policymakers' beliefs about public opinion?

I apply a new statistical test to estimate ideological bias that accounts for midpoint bias. If perceptions are biased towards 50% such that midpoint bias confounds ideological bias for lopsided issues, the one type of issue where midpoint bias is least problematic is one on which the public is split 50-50. When the public is evenly divided on an issue, do legislators and staff exhibit ideological bias? If so, we would be more confident in a genuine underlying perceptual bias rather than a survey artifact like midpoint bias.

I estimate ideological bias when the public is divided for the three prior studies and three surveys in this paper. Figure 6 plots perceived and measured public opinion for all questions separately by study. The following linear regression is fit to the data separately by study:

$$\bar{Y}_i \sim a + bY_i^* \tag{1}$$

where $\bar{Y}_i$ is the average of all respondents' estimated support for the liberal position on issue i and Y_i^* is measured support for the liberal position on issue i . In this framework, a , the intercept, is a new measure of bias, a shift in perceptions of how liberal public opinion is when the public is evenly divided, and b is a measure of how strongly legislators' perceptions

are related to public opinion across issues.¹¹

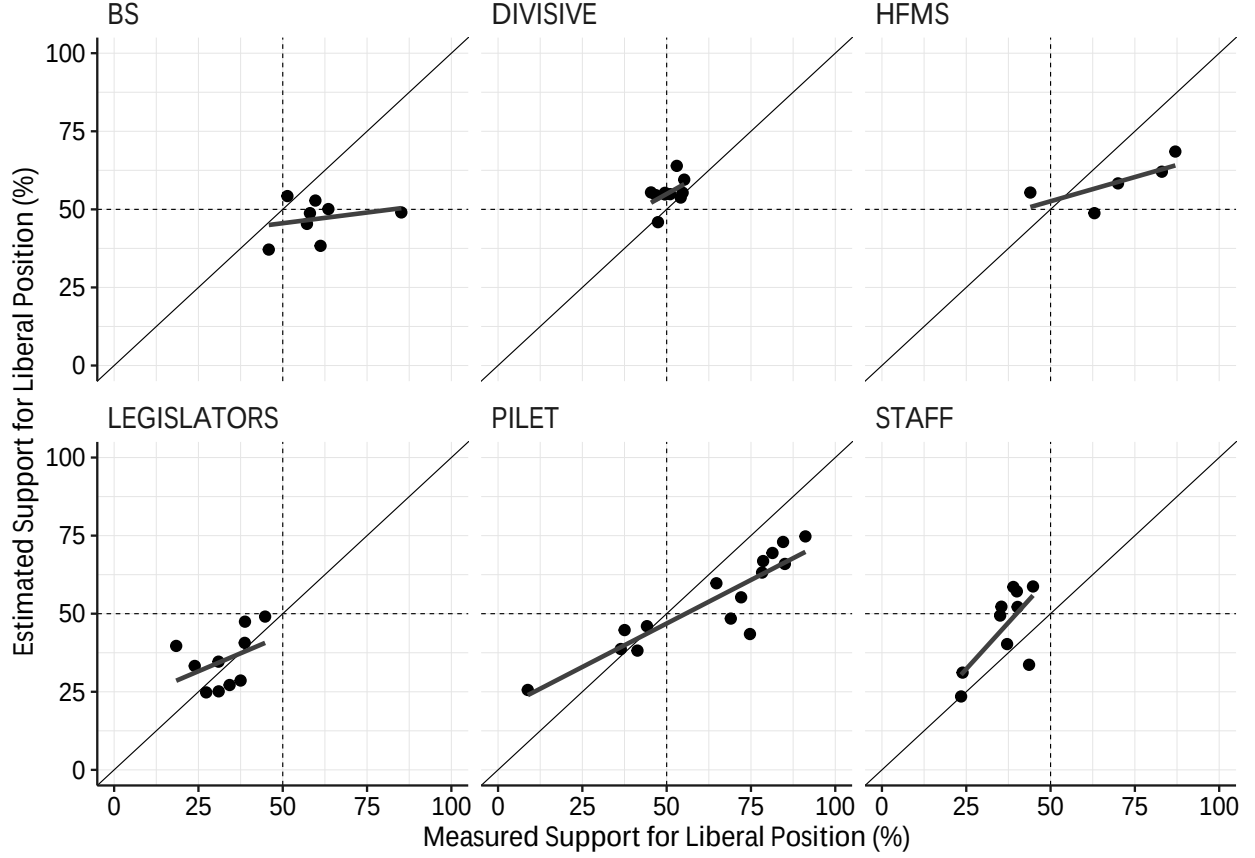


Figure 6: *Perceptions vs. Liberal Public Opinion.* Each point represents a single survey question. Linear regressions are fit separately for questions from each study.

One pattern in the data is that perceptions do reflect, if not perfectly, public opinion. Across issues, legislators are able to tell when the liberal position is relatively popular or unpopular: the slope of each regression is positive, though generally less than one. Congressional staff perceptions in the new survey are most strongly related to public opinion across issues: the slope of the regression is slightly greater than 1; legislators in the two new surveys and the PILET study are next (0.4-0.6); followed by congressional staffers in HFMS (0.3) and state legislative candidates in B&S (0.1).

Looking at each plot, we can see where the regression line crosses the x-axis at 50%; that

¹¹Equation (1) is estimated after normalizing $\bar{Y}_i$ and Y_i^* by subtracting 50% so that a represents overestimation of liberal opinion on divided issues.

is the point where the public is evenly divided. At that point, three of the surveys suggest policymakers overestimate how liberal the public is (Divisive issues, HFMS, and the Staff survey) and three underestimate it.

Table 8 displays results of the regressions from each plot, showing both the slope and where the lines intersect 50% public support, i.e. whether there is liberal bias (positive numbers) or conservative bias (negative). Across studies, weighting each study by its precision finds that respondents think the public is slightly more liberal than it really is by about 2 percentage points, although this estimate is small relative to the estimated standard error. Equally weighting studies finds de minimis ideological bias.

*Table 8: **Liberal Bias from Regression Tests of Six Surveys.** DV: Estimated support for Liberal Position.*

	B&S	Divisive	HFMS	Legislators	PILET	Staff	Average	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Intercept	-4.4	4.9**	2.6	-6.9	-3.1	12.0	1.7	0.8
(SE)	(3.2)	(1.4)	(4.2)	(6.9)	(2.0)	(6.8)	(1.0)	(4.6)
Slope	0.1	0.6	0.3	0.5	0.6**	1.2*	0.5**	0.5
	(0.2)	(0.4)	(0.2)	(0.4)	(0.1)	(0.4)	(0.1)	(0.3)
N Questions	8	10	5	10	15	10	48	48
Weights							Precision	Equal

Significance indicated at $p < 0.10$ (†), $p < 0.05$ (*), and $p < 0.01$ (**) two-sided. Precision-weighted average reported in Column 5. Estimated and measured support for the liberal position are both measured in percentage points and centered at 0 so positive values indicate estimates / measures where the liberal position is more popular than the conservative one.

This estimand is a departure from previous studies. It is a local estimand among bills with 50% support. This estimand should be less prone to midpoint bias. I find minimal bias but a significant relationship across issues. Legislators can, on average, discern on which issues the liberal position is more popular. The slope of this relationship is about 0.5. As with bias, this relationship is hard to interpret — how much should legislators’ perceptions vary with public opinion? Should their beliefs perfectly match public opinion, even though public opinion is mutable and imperfectly perceived by legislators? There are many reasons perceptions do not perfectly track public opinion, and we should not conclude that legislators

are irrational or do not care about public opinion. Comparing measures of beliefs to any absolute, idealized standard is misguided.

A weakness of this estimand is that we may be less concerned with perceptual bias on close issues than on more lopsided ones. If a legislator knows the public is split, it might not make much of a difference to their decision-making whether the public slightly approves or disapproves of a proposal. It may be more important whether legislators correctly perceive public opinion on more lopsided bills, about which this analysis tells us less.

Another weakness of this approach is that prior studies in this literature ask about predominantly lopsided issues. Only 2 of the 28 questions had public support between 45–55%. As a result, regression must extrapolate beyond the support of the data to estimate ideological bias for divided bills.

The divisive issues survey helps here, as all ten issues feature public opinion between 45–55% support, with the liberal and conservative position each the majority on half of the issues. Figure 6 shows that city councilors and state legislators exhibit a liberal bias on these issues. However, further analysis reveals one additional bias that confounds ideology.

Partisan Bias

Analyses so far have asked how legislators (and staffers) collectively perceive public opinion, but the composition of the respondent pool can also be a source of survey error and bias. How does ideological bias relate to the partisanship of the respondent?

Figure 7 plots perceived versus measured public opinion from the five US surveys separately for Democratic and Republican respondents. Linear regressions, i.e. Equation (1), are displayed separately for each party (in blue and red) together with an average of the two (in black).¹² In each study, Democratic respondents think the public is more liberal than Republican respondents do. Each group of partisans think the public leans in their direction. This is egocentrism or partisan projection bias (Furnas and LaPira 2024).

¹²Pilet et al. (2023) is not included due to its focus on multi-party democracies.

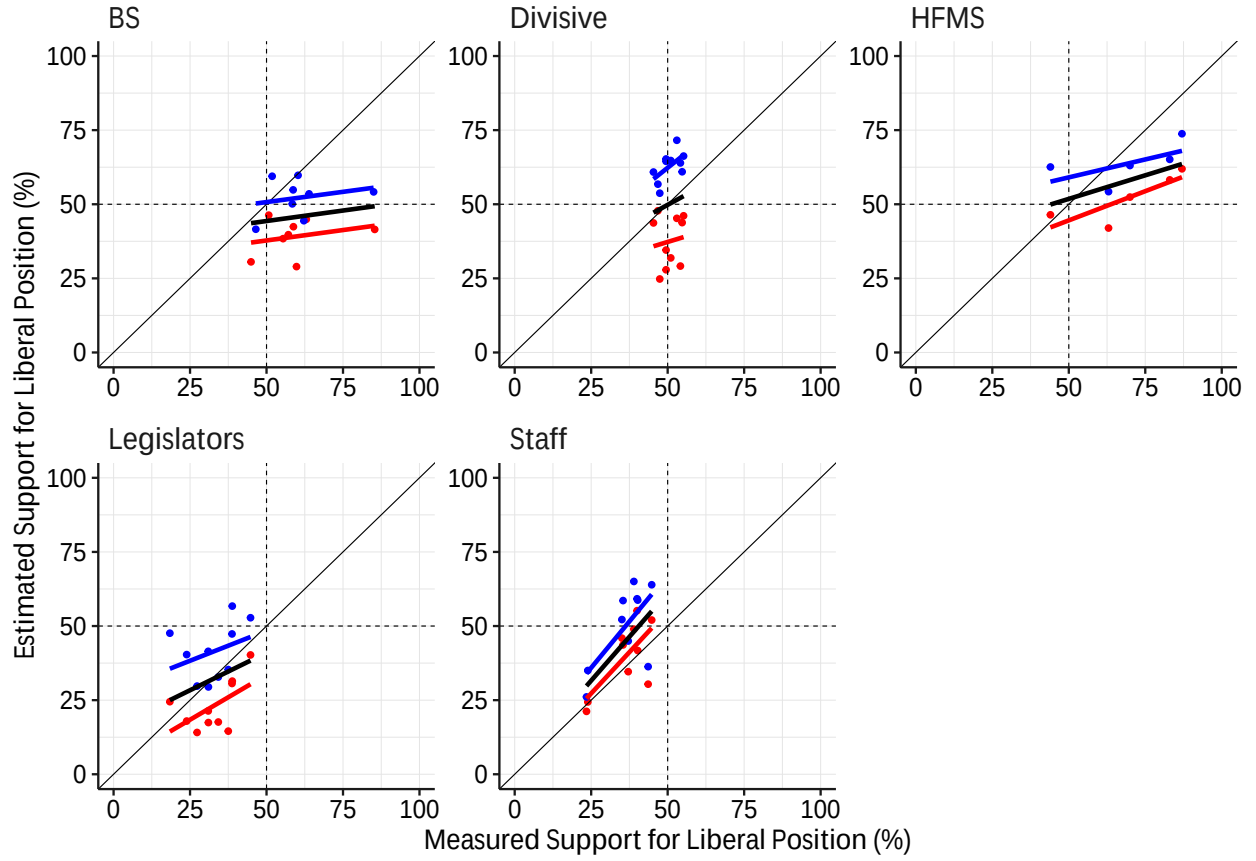


Figure 7: **Estimated vs. Measured Liberal Positions By Respondent Party.** Each point represents estimated public opinion on a single survey question among Democratic (blue) and Republican (red) respondents.

Partisan bias shows that the composition of the respondent pool influences average ideological bias overall. For example, the surveys of legislators in this paper find liberal bias, but they also were disproportionately answered by Democrats. Even if we can balance respondents on observables, unobserved heterogeneity remains a problem. Respondents to academic surveys may differ in other ways from nonrespondents that may correlate with ideology.

One interesting pattern concerns the divisive questions. Whereas simply averaging respondents' answers revealed liberal bias, equally weighting Democrats and Republicans offers a more sanguine picture. On average, state legislators and city councilors exhibit de minimis

ideological bias. At the same time, the relationship between perceptions and public opinion is meaningful.¹³ There is no evidence of ideological bias on these ten divisive policy questions when accounting for the partisan composition of the respondent pool.

Two additional points merit discussion for partisan bias. Partisan bias dominates ideological bias. The difference between Democrats' and Republicans' perceptions is typically larger than either group's divergence from accurately perceiving public opinion. Across the five US studies there is no clear evidence that one party is more biased than the other.

Partisan bias is also important because it again suggests that elite surveys are subject to significant, non-classical measurement error. Legislators may be exposed to a nonrepresentative segment of the population such that their beliefs are genuinely skewed toward their copartisans. On the other hand, they may project their own policy preferences onto the public.

Conclusion

This paper hearkens back to the classic Erikson (1978) paper on legislative representation. I argue that findings of conservative bias in legislators' perceptions of public opinion are likely artifacts of issue sampling and that survey error and partial updating explain patterns in misperceptions.

Surveying political elites is a promising research methodology. It allows us to collect new data in settings where the subjects of study often control what data are available. Surveys provide data on mental states, whereas the study of elites often has had to infer mental states from behavioral data. However, the well-known pathologies of survey response from the study of public opinion likely apply just as much, if not more, to elites than to the mass public. Respondents have difficulty with these tasks, even forecasting public opinion on salient issues. Many individual estimates are inaccurate, expressive, or biased. Researchers

¹³Regressing estimated support averaged across the two parties on measured support, after centering both variables at 50%, yields an estimated intercept of -0.6 ($\widehat{SE} = 1.7$) and slope of 0.6 (0.5).

should be cautious in claiming surveys show misperceptions or bias, as survey error may conflate the substantive bias of interest to the researcher.

Research designs that rely on individual-level beliefs will also rest on shaky foundations. For example, belief correction experiments aim to change behavior by means of aligning beliefs with baseline truth via treatment information. However, if pre-treatment beliefs are largely noise, treatment effects will be attenuated. If pre-treatment beliefs reflect the individual's own preferences or are otherwise systematically biased, there will be an exclusion restriction violation. Treatment may influence behavior by mechanisms other than, though correlated with, legislators' beliefs.

Although individual beliefs are unreliable, in the aggregate legislators do show some knowledge of public opinion, at least on these issues. They know whether a proposal is supported or opposed by a majority of voters. They correctly perceive when the public is divided, and they are able to tell when a liberal position is relatively popular or unpopular with the public. These findings reflect research on public opinion that finds individual voters' opinions are highly variable and move in unexpected directions, but aggregate public opinion responds to political and economic events.

Findings of insincere responding raise the likelihood that surveys do not elicit elites' genuine beliefs. Just like roll call votes, parliamentary speeches, and campaign platforms reflect considered presentations of self by strategic actors, so too do survey responses. The intuitive causal story that elites' biased beliefs lead to behavioral pathologies may be getting the causal direction backwards. Elites' extreme preferences or career considerations may cause them to report biased, insincere beliefs.

These problems require innovative solutions. Several papers in this literature examine variation in perceptions not only across issues, but also across districts. Since some districts will be more supportive of an issue than others, they ask whether legislators' and staffers' perceptions are also biased across districts.¹⁴ The authors of one paper conclude that “in

¹⁴I do not re-analyze those results, as these papers add random noise to replication data to prevent identifying survey respondents.

none of the five areas are staffers estimating their constituents’ preferences with any degree of relative or absolute accuracy.” (Hertel-Fernandez, Mildemberger, and Stokes 2019, p. 8). A second paper finds conservative bias that is roughly constant in magnitude across districts. Appendix D discusses this pattern, and why it also is difficult to reconcile with substantive mechanisms. If aggregate, issue-level perceptions are affected by survey error, perceptions of individual legislators are likely even noisier and more biased.

One promising approach is to elicit legislators’ beliefs in ways that are less subject to measurement error. Dias, Lucas, and Sheffer (2024) elicit the full distribution of legislators’ beliefs, rather than a point estimate of average public opinion. They find this approach reduces the inaccuracy of perceptions. Pereira (2021) shows that reminding politicians of the political diversity of their districts improves the accuracy of their perceptions; however, prompting them not to project their own opinions onto constituents has little impact. While these are potentially useful designs to more accurately elicit legislators’ beliefs, it remains unlikely that elite surveys can be purged of insincere responding or other pathologies. Researchers must consider how these problems might affect inferences in survey-based designs on a study-by-study basis.

References

- Broockman, David E, and Christopher Skovron. 2018. "Bias in perceptions of public opinion among political elites." *American Political Science Review* 112 (3): 542–563.
- Canes-Wrone, Brandice. 2015. "From mass preferences to policy." *Annual Review of Political Science* 18 (1): 147–165.
- Dias, Nicholas C., Jack Lucas, and Lior Sheffer. 2024. "Can Thinking About The Shape of Public Opinion Reduce Politicians' Perceptual Errors?"
- Erikson, Robert S. 1978. "Constituency Opinion and Congressional Behavior: A Reexamination of the Miller-Stokes Representation Data." *American Journal of Political Science* 22 (3): 511–535.
- Furnas, Alexander C, and Timothy M LaPira. 2024. "The people think what I think: False consensus and unelected elite misperception of public opinion." *American Journal of Political Science* 68 (3): 958–971.
- Hertel-Fernandez, Alexander, Matto Mildemberger, and Leah C Stokes. 2019. "Legislative staff and representation in Congress." *American Political Science Review* 113 (1): 1–18.
- Kalla, Joshua L, and David E Broockman. 2016. "Campaign contributions facilitate access to congressional officials: A randomized field experiment." *American Journal of Political Science* 60 (3): 545–558.
- Kertzer, Joshua D, Joshua Busby, Jonathan Monten, Jordan Tama, and Craig Kafura. 2019. Elite misperceptions and the domestic politics of conflict. Technical report Working paper.
- Landy, David, Brian Guay, and Tyler Marghetis. 2018. "Bias and ignorance in demographic perception." *Psychonomic bulletin & review* 25: 1606–1618.
- Lax, Jeffrey R, Justin H Phillips, and Adam Zelizer. 2019. "The party or the purse? Unequal representation in the US senate." *American Political Science Review* 113 (4): 917–940.

- Lee, Nathan. 2022. “Do Policy Makers Listen to Experts? Evidence from a National Survey of Local and State Policy Makers.” *American Political Science Review* 116 (2): 677–688.
- Martin, Gregory J., and Ali Yurukoglu. 2017. “Bias in Cable News: Persuasion and Polarization.” *American Economic Review* 107 (9): 2565–2599.
- Miller, Warren E, and Donald E Stokes. 1963. “Constituency Influence in Congress.” *American Political Science Review* 57 (1): 45–56.
- Pereira, Miguel M. 2021. “Understanding and reducing biases in elite beliefs about the electorate.” *American Political Science Review* 115 (4): 1308–1324.
- Pilet, Jean-Benoît, Lior Sheffer, Luzia Helfer, Frederic Varone, Rens Vliegenthart, and Stefaan Walgrave. 2023. “Do Politicians Outside the United States Also Think Voters Are More Conservative than They Really Are?” *American Political Science Review*: 1–9.
- Rice, Stuart Arthur. 1928. *Quantitative methods in politics*. AA Knopf.
- Shirani-Mehr, Houshmand, David Rothschild, Sharad Goel, and Andrew Gelman. 2018. “Disentangling bias and variance in election polls.” *Journal of the American Statistical Association* 113 (522): 607–614.
- Vivalt, Eva, and Aidan Coville. 2020. “How Do Policymakers Update Their Beliefs?” Available at <http://evavivalt.com/wp-content/uploads/How-Do-Policymakers-Update.pdf>.
- Walgrave, Stefaan, Arno Jansen, Julie Sevenans, Karolin Soontjens, Jean-Benoit Pilet, Nathalie Brack, Frédéric Varone, Luzia Helfer, Rens Vliegenthart, Toni van der Meer, Christian Bruenig, Stefanie Bailer, Lior Sheffer, and Peter John Loewen. 2023. “Inaccurate politicians: Elected representatives’ estimations of public opinion in four countries.” *The Journal of Politics* 85 (1): 209–222.

Warshaw, Christopher, and Jonathan Rodden. 2012. “How should we measure district-level public opinion on individual issues?” *The Journal of Politics* 74 (1): 203–219.

**Online Appendix for: “Legislators (Probably) Don’t Think Voters Are More
Conservative Than They Really Are: Survey Error In Elites’ Perceptions of
Public Opinion”**

Supplemental Information is intended for online publication only

Contents

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Appendix A: Supplementary Information and Results from Prior Studies

Figures A1 and A2 show 50-50 bias in congressional staffers' estimates of public opinion from Hertel-Fernandez, Mildenerger, and Stokes (2019) and foreign policy elites' estimates of public opinion from Kertzer et al. (2019). Both show most average estimates are closer to 50% than the actual public opinion survey results.

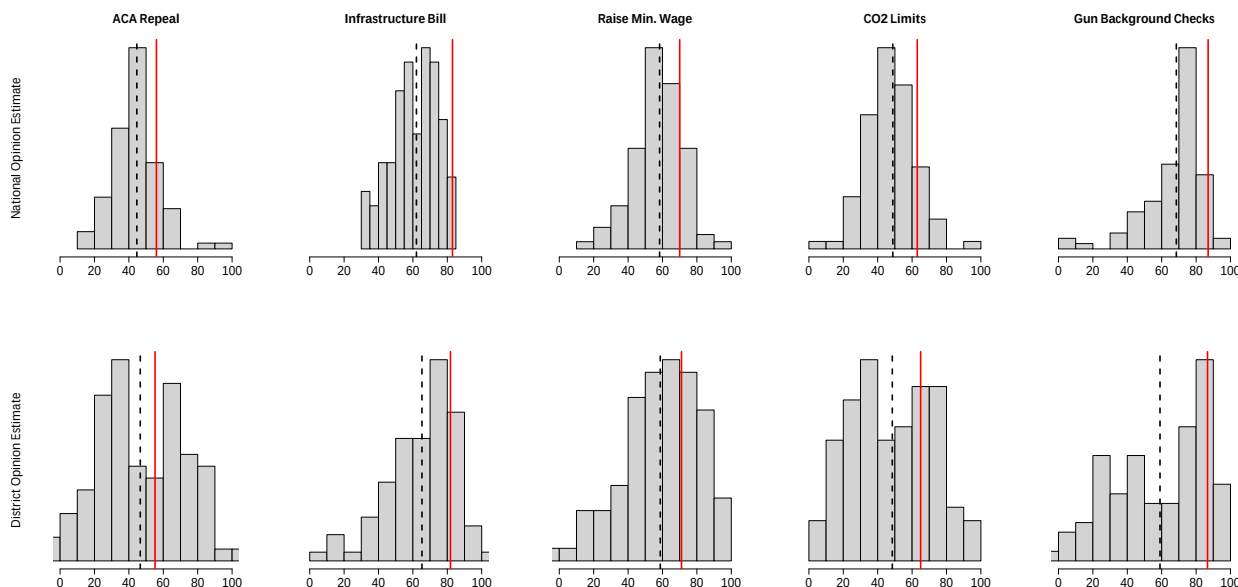


Figure A1: District Opinion Estimates from Hertel-Fernandez, Mildenerger, and Stokes (2019). Average estimate indicated by dashed, black line. Actual public opinion average indicated by solid, red line.

Figures A3 shows the estimates of district-level public opinion from Broockman and Skovron (2018). The histograms include the normally-distributed noise added by the authors for the replication data, so the actual distributions of district-level opinion are less dispersed. To get a sense of what they look like, the eighth histogram — on limiting abortions — does not feature the added noise, due to an error in the code to create the replication data. As an approximation, one could leave the remaining seven issues at their mean, and divide the standard deviation in half, to get a sense of the actual distribution of district opinion.

4.1.1 Results

Figure 2: Elites systematically misperceive the public as more isolationist than it really is

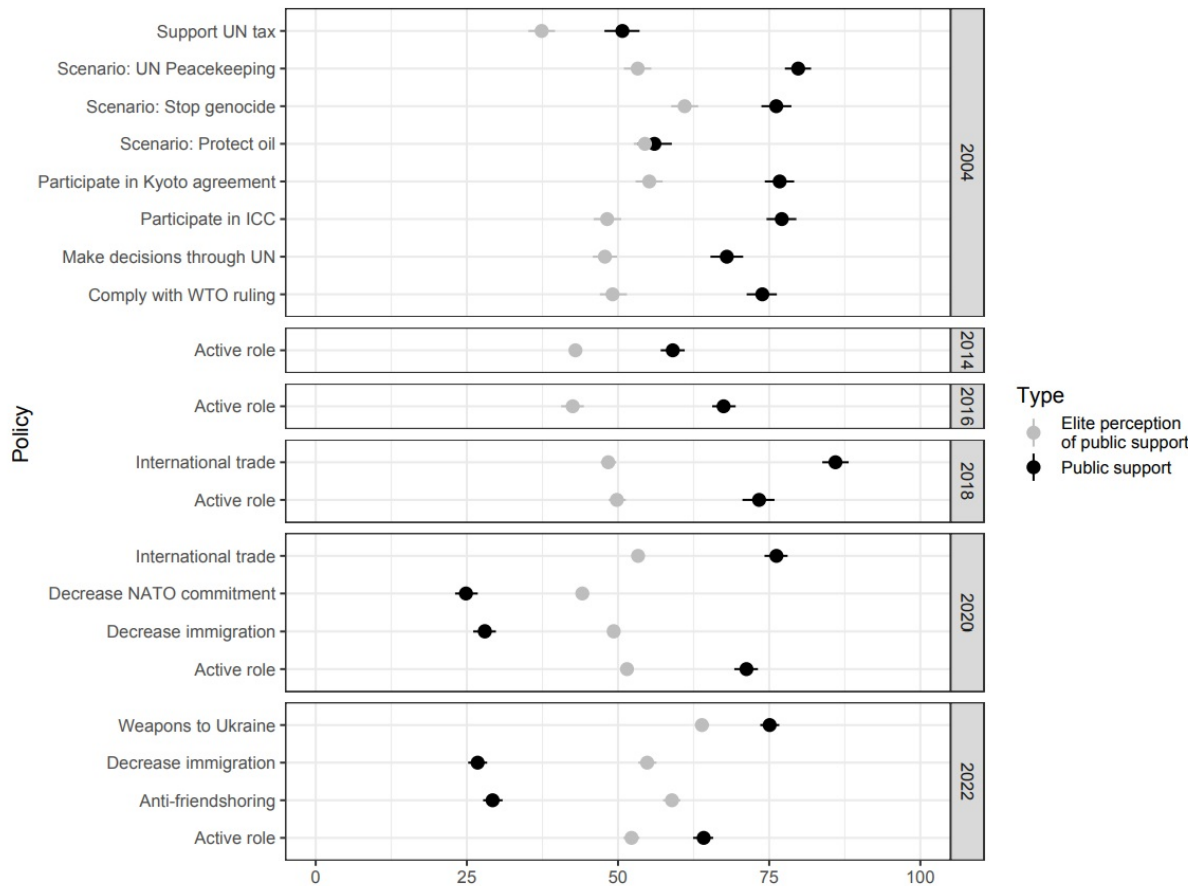


Figure A2: Foreign Policy Opinion Estimates from Kertzer et al. (2019).

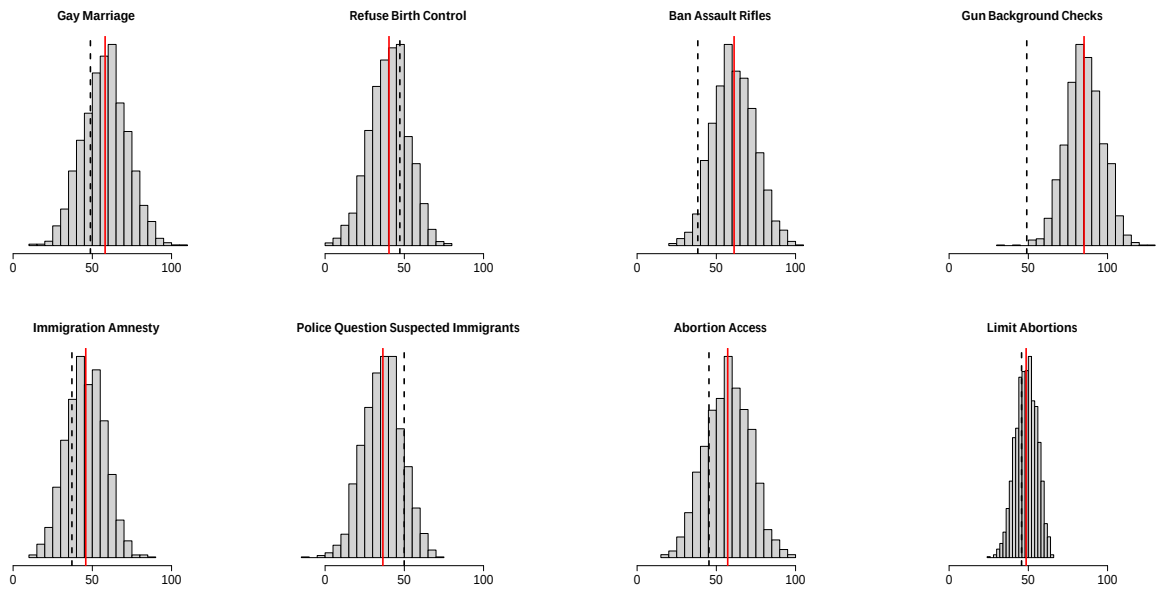


Figure A3: District Opinion Estimates from Broockman and Skovron (2018). Average estimate indicated by dashed, black line. Actual public opinion average indicated by solid, red line.

Appendix B: Survey of State Legislators and City Councilors on Divisive Bills

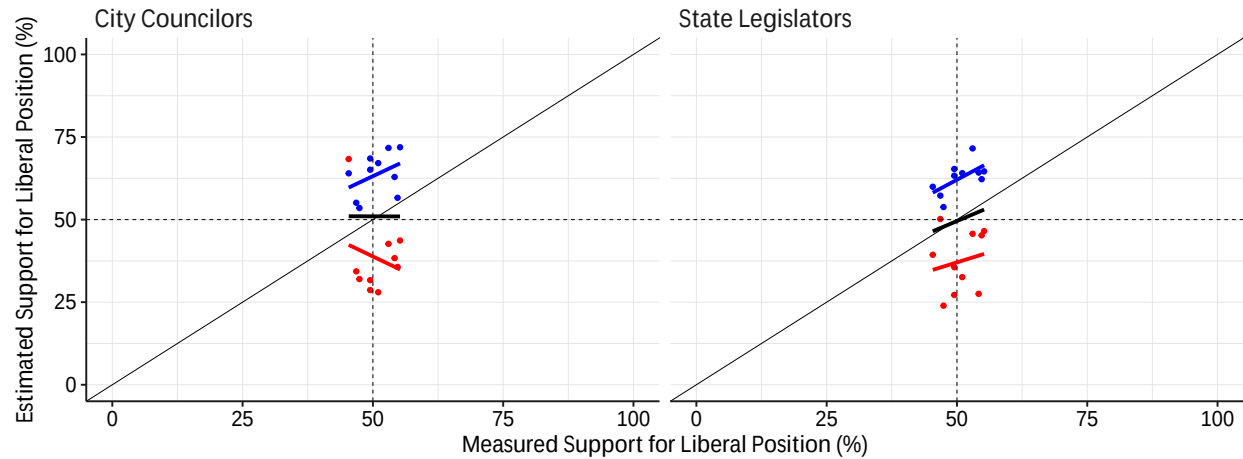


Figure B1: Estimated vs. Measured Liberal Positions on Divisive Questions By Respondent Party and Level of Government. Each point represents estimated public opinion on a single survey question among Democratic (blue) and Republican (red) respondents. Linear regressions are fit separately for each party. The black line represents the average of Democratic and Republican perceptions. Note that there are only 3 Republican city councilors; the issue on which they dramatically overstated public support for the liberal position is the TikTok ban.

Appendix C. Discussion of Ethics

This research was approved by the required Institutional Review Board, as protocol IRB-24-0222. Surveys began with information about the surveys and required consent before respondents could continue. It was preregistered on AsPredicted.org as Protocol 164709.

Appendix D. Perceptual Bias Across Districts

Existing studies not only examine conservative bias across issues, but also across districts. Some ask respondents to estimate public opinion in their own districts. This approach has several advantages. It is more theoretically valid. Elected officials are not incentivized by elections to learn or respond to national public opinion, but instead to opinion among their voters. Although legislators may care even more about the opinion of their co-partisan voters, donors, or key supporters than their district as a whole, district-level opinion is clearly closer to the theoretically-relevant estimand.

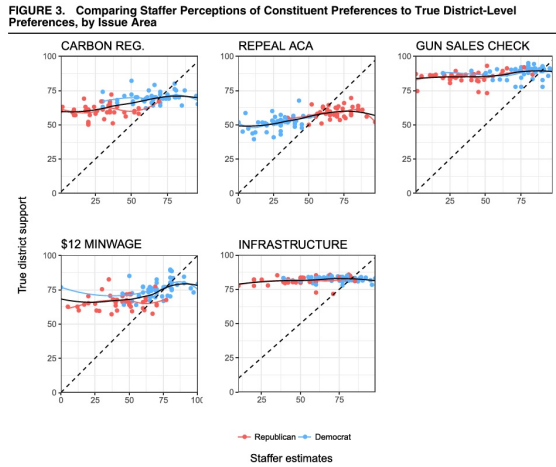
Eliciting district-level perceptions has another advantage. It creates variation in public opinion within issue, across districts. Some districts will be more supportive of the liberal position than others. If midpoint bias explains patterns in responses across issues, it might manifest in perceptions across districts, too. Just as we observed heterogeneous bias across issues due to survey error, we might observe heterogeneous bias across districts that is suggestive of survey error.

Figure D1 (left panel) reproduces Figure 3 from HFMS. It plots staffer estimates of district opinion on the x-axis and true (estimated) district support on the y-axis.¹⁵ Across districts, the primary pattern is heterogeneous, extreme, and inaccurate responding. The authors note that “...staffers estimate public opinion across the full range, from 0 to 100 support.... Staffer perceptions are far more extreme than the public’s actual policy preferences.” (Hertel-Fernandez, Mildemberger, and Stokes 2019, p. 8). Survey error, or a genuine lack of knowledge about public opinion, appear consistent with the authors’ inferences about across-district variation in perceptions of public opinion.

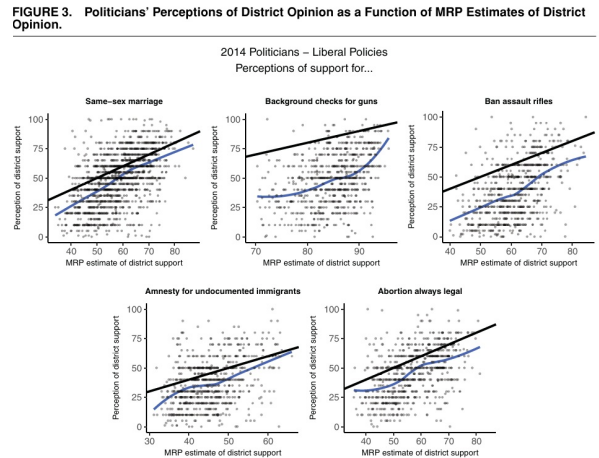
We see evidence of midpoint bias driving across-district results. On each issue, a locally-weighted regression line of all respondents crosses the 45-degree line. To the right of the 45-degree line, respondents overestimate support for the issue, and to the left they underestimate

¹⁵The axes on this graph are reversed from those used throughout this paper. Because HFMS add noise to the replication data to anonymize survey results, I cannot recreate this figure with flipped axes.

public support. Since each issue is popular with the public, there is more room for staffers to underestimate than overestimate public support. There is an unbalanced scale. On each issue, on average, staffers underestimate support. Tellingly, staffers also underestimate support for the one conservative bill (Repeal ACA), and thus demonstrate liberal bias on this bill. Ideological bias varies across issues and across districts in ways consistent with survey error and midpoint bias.



(a) Figure 3 of Hertel-Fernandez, Mildenerger, and Stokes (2019).



(b) Figure 3 (partial) of Broockman and Skovron (2018).

Figure D1: Elite Perceptions of District-Level Public Opinion.

Figure D1 (right panel) reproduces the across-district perceptions from Figure 3 in B&S. These graphs present a very different picture. Respondents across districts exhibit conservative bias of nearly constant magnitude, even when the conservative position is more popular among their constituents. The paper concludes that “politicians are strongly responsive to public opinion, in the sense that there is a strong and strikingly linear relationship between our estimates of reality and their perceptions.” (Broockman and Skovron 2018, p. 551).

Deeper inspection reveals a key limitation of across-district analyses: measurement error in district-level opinion. Since we do not have largescale surveys in each district, opinion must be taken from national surveys like the Cooperative Election Study (CES). Even with 50,000 respondents nationally in such surveys, there are 5,502 state house and 2,027 state

senate districts in the US, so there are few respondents per district. Further, respondents must be placed into state legislative districts using zip codes, which do not perfectly map to districts and thus introduce more error. Estimating public opinion based on the 10–25 respondents who may live in each district would include significant measurement error, so methods like multilevel regression and poststratification (MRP) can be used to improve estimates of district-level opinion.

Even with MRP, there is uncertainty in estimated district opinion. Using the method of composition (or propagated uncertainty) to simulate uncertainty in district opinion from B&S’ replication code, the standard deviation of state legislative district opinion ranges from 1.4 – 4.2 percentage points in lower chambers and 2.9 – 5.0 in upper chambers. These estimates are substantially smaller than other efforts to estimate error in district-level opinion. Warshaw and Rodden (2012) estimate the mean absolute deviation of estimates from benchmarks as 8 – 10 percentage points for state senate districts. Lax, Phillips, and Zelizer (2019) estimate the average standard deviation of public opinion at the state level to be 2.6 percentage points using the same method and data sources as B&S. All else equal, estimated opinion at smaller geographic levels should be less precise. Shirani-Mehr et al. (2018) estimate total survey error is roughly twice as large as typically reported.

Figure D2 explores the consequences of error in estimates of public opinion for inference.¹⁶ Panel (a) assumes legislators perfectly perceive true public opinion, but survey-based measures of public opinion include random error.¹⁷ Panel (a) shows the well-known bias in OLS regression, i.e. through Equation (1), caused by measurement error in the right-hand side variable (Erikson 1978). There is attenuation in the slope of the regression line (shown in

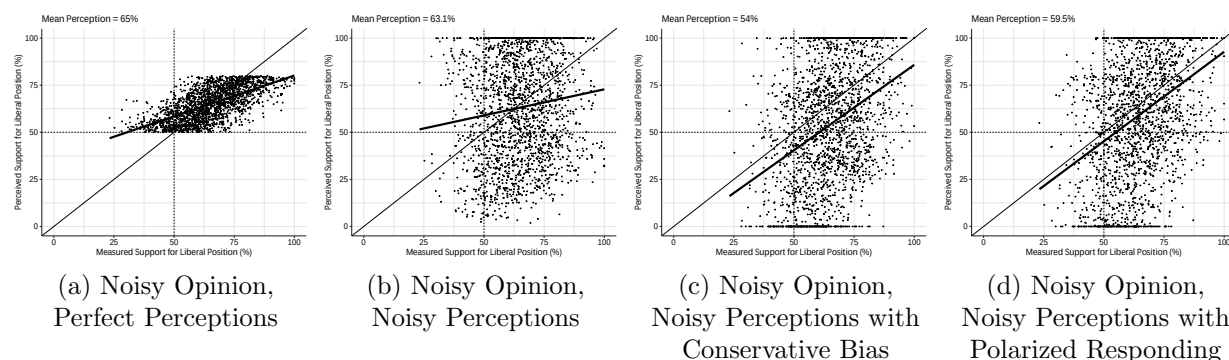
¹⁶The simulations assume a uniform distribution of true public opinion in 2,000 districts ranging from 50–80% support for the liberal position. See the end of this Appendix for the full simulation code.

¹⁷Measured public opinion is constructed as true district opinion plus random, i.i.d noise drawn from a normal distribution with mean zero and standard deviation ten. There are several reasons why total survey error may be this large. First, many CES respondents cannot be perfectly matched to state legislative districts, so there is sampling variability that is not captured by partially allocating respondents to overlapping districts. Second, there is analytic uncertainty associated with choosing a specific statistical model. Third, sampling or other errors in the original CES survey are not taken into account by the method of composition. The patterns of results presented here will hold if error in the opinion estimates is more modest.

black). The slope is less than 1.

Comparing Panel (a) to the results from B&S reveal an important fact: with measurement error in the x-axis variable, apparently perfect responsiveness from across-district analysis requires heterogeneous bias in perceptions across districts. The operative mechanism must vary across districts.¹⁸ Further, conservative bias in the most liberal districts can be explained by measurement error. Even when perceptions are perfect, measurement error in estimates of district opinion can lead to the appearance of conservative bias in some districts.

Panels (b) - (d) in Figure D2 explore mechanisms that can generate apparently perfect responsiveness of perceptions to opinions across districts. Panel (b) adds random noise to perceptions,¹⁹ since we see in the B&S figures that legislators' perceptions span nearly the entire range of support. Noisy responding does not change the slope of the regression line, so perceptions still appear weakly related to measured public opinion.



*Figure D2: **Simulated District Opinion and Perceptions with Survey Error.** Above each plot is the average perception. With true public support for the liberal position at 65%, average perceptions below 65% indicate conservative bias.*

Panel (c) shows the case of biased responding by respondents in conservative districts.²⁰ Biased responders are assumed to report public opinion 30 points below their actual percep-

¹⁸Measurement error does not lead to aggregate liberal bias. On average, legislators are simulated to think about 65% of the public supports the liberal position, which is consistent with true opinion in the simulations.

¹⁹Noisy perceptions are true perceptions plus i.i.d. draws from a uniform [-50,50] distribution. Perceptions that would fall outside of [0,100] are top- or bottom-coded.

²⁰The probability of being a biased responder is 100% in the most conservative districts, linearly decreasing in true district opinion to 50% in the median district, and 0% in liberal districts.

tions of public opinion. Biased responding of this form shifts the left-end of the regression line downward. It both decreases the intercept and increases the slope of the regression line.²¹

Biased responding, as implemented here, includes a range of response pathologies like egocentrism bias, animus to the surveyor, extreme responding, or expressive responding. Alternatively, conservative voters, interest groups, or media may influence legislators' perceptions of public opinion disproportionately among legislators in conservative districts. This is in fact the argument suggested by Broockman and Skovron: "Not only are Republican citizens more likely to contact their representatives in general, but also, as a descriptive matter, Republican citizens reach out to Republican politicians especially often" (Broockman and Skovron 2018, p. 558). This explanation could be applied to across-district variation in ideological bias by allowing bias to be larger where there are more Republican voters to contact politicians. Incorporating measurement error allows this mechanism to operate asymmetrically across districts, with midpoint bias still operating in others.

An asymmetric conservative influence is not the only mechanism that explains this pattern. Panel (d) presents another mechanism, that of polarized responding. Legislators in both conservative and liberal districts may answer that public opinion is more lopsided, or polarized, than it actually is.²² Polarized responding again steepens the regression line and counteracts the attenuation bias due to measurement error. Politicians think the public is more lopsided than it really is.

Notably, polarization bias could be caused by the process of estimating district opinion, which not only yields uncertainty in estimates, but also, potentially, bias. Modeling district-level opinion using partial-pooling methods like MRP will pull district estimates toward the sample average, with such pooling larger in districts with fewer respondents. Around

²¹Note that conservative bias in liberal districts is still caused by measurement error, not biased responding.

²²The probability of being a biased responder is 100% in the most conservative and liberal districts, linearly decreasing from both extremes in true district opinion toward 50% in the median district. Polarized responders are assumed to report perceptions of public opinions that are biased by 20 percentage points in either a conservative or liberal direction depending on whether district opinion falls below or above the median district.

10% of districts in B&S have no respondents in the CES, for example, so estimated opinion in these districts is based purely on extrapolation. Bayesian methods like MRP trade off bias for precision, but it is unclear how bias might affect these results. One possibility is that legislators may be accurately perceiving that district opinion is more polarized than estimated.²³

Putting together evidence from across-issue and across-district variation in ideological bias, which mechanisms are consistent with the broadest range of results? Asymmetric pressure from conservative groups or media is consistent with bias in some districts from B&S, but not all. In both B&S and HFMS, across-district results are consistent with polarization bias. Respondents think the public is more extreme than it is. Neither mechanism explains across-issue patterns in bias, however.

The mechanisms consistent with the broadest range of evidence relate to survey error. HFMS find noisy, extreme, partisan responses among staffers that are little correlated with district opinion. Across-district patterns in B&S are consistent with measurement error in public opinion explaining conservative bias in some districts. Noisy, extreme, neutral, and censored responses are visible in all the surveys in this literature. Across issues, conservative pressure seems unlikely to explain why conservative bias is largest when the liberal position is most popular. Egocentrism is apparent in all studies, as respondents think the public tends to agree with them.

We will never be able to identify a right or wrong mechanism. Each mechanism surely operates in some districts, on some issues, at some times. We can say, however, that across a larger set of issues than considered in the existing literature, ideological bias is smaller than thought, varies in predictable ways across issues based on survey error, and appears in heterogeneous ways across districts. Survey error is all-but-certain in both measures of district-level opinion and elite perceptions. It can explain, or at least exacerbate, ideological bias in both old and new surveys in this literature.

²³Bias might also explain why there is less sampling variability in state houses than state senates.

```

Ndlist <- 2000
data <- data.frame(district = runif(Ndlist , min = 50 , max = 80))

### noisy estimates of opinion, perfect perceptions
data$perfect_perception <- data$district
data$noisy_district <- data$district + rnorm(Ndlist , mean = 0, sd = 10)
data$noisy_district[data$noisy_district>100] <- 100
data$noisy_district[data$noisy_district<0] <- 0
mean(data$noisy_district)
mean(data$perfect_perception) -> mean_perfect_perception
mean_perfect_perception

data %>%
  ggplot(.) +
  geom_point(aes(x = noisy_district , y = perfect_perception) , size = 0.25)+
  geom_abline(intercept = 0 , slope = 1 , size = 0.25)+
  geom_hline(yintercept = 50 , size = 0.25 , linetype="dashed")+
  geom_vline(xintercept = 50 , size = 0.25 , linetype="dashed")+
  labs(subtitle = paste0("Mean Perception = ",round(mean_perfect_perception,1),"%"),
       y = "Perceived Support for Liberal Position (%)",
       x="Measured Support for Liberal Position (%)")+
  scale_color_manual(values = my_oka[c(1,2,3,5)]) +
  scale_y_continuous(breaks = seq(0,100,25), labels = seq(0,100,25), limits = c(0,100)) +
  scale_x_continuous(breaks = seq(0,100,25), labels = seq(0,100,25), limits = c(0,100)) +
  geom_smooth(aes(x = noisy_district , y = perfect_perception) , method = "lm" ,size = 1.5 ,
              color="black", se = FALSE)

### noisy public opinion, noisy perceptions
data$noisy_perception <- data$district + runif(Ndlist , min = -50 , max = 50)
data$noisy_perception[data$noisy_perception>100] <- 100
data$noisy_perception[data$noisy_perception<0] <- 0
mean(data$noisy_perception==100)
mean(data$noisy_perception==0)

mean(data$noisy_district)
mean(data$noisy_perception)
mean_noisy_perception <- mean(data$noisy_perception)

data %>%
  ggplot(.) +
  geom_point(aes(x = noisy_district , y = noisy_perception) , size = 0.25)+
  geom_abline(intercept = 0 , slope = 1 , size = 0.25)+
  geom_hline(yintercept = 50 , size = 0.25 , linetype="dashed")+
  geom_vline(xintercept = 50 , size = 0.25 , linetype="dashed")+
  labs(#title="Noisy Opinion, Noisy Perceptions",
       subtitle = paste0("Mean Perception = ",round(mean_noisy_perception,1),"%"),
       y = "Perceived Support for Liberal Position (%)",
       x="Measured Support for Liberal Position (%)")+
  scale_color_manual(values = my_oka[c(1,2,3,5)]) +
  scale_y_continuous(breaks = seq(0,100,25), labels = seq(0,100,25), limits = c(0,100)) +
  scale_x_continuous(breaks = seq(0,100,25), labels = seq(0,100,25), limits = c(0,100)) +
  geom_smooth(aes(x = noisy_district , y = noisy_perception) , method = "lm" ,size = 1.5 ,

```

```

color="black", se = FALSE)

### noisy public opinion, noisy and expressive perceptions
data$expressive_responder <- NA
for(i in 1:nrow(data)){
  if(data$district[i] >= 65){
    data$expressive_responder[i] <- 0
  } else {
    data$expressive_responder[i] <- sample(c(0,1) , 1 ,
    prob = c((data$district[i]-50)/30,1-((data$district[i]-50)/30)))
  }
}

data$noisy_perception2 <- data$district + runif(Ndist , min = -50 , max = 50)
data$expressive_perception <- ifelse(data$expressive_responder==1 ,
  data$noisy_perception2 -30 , data$noisy_perception2)
data$expressive_perception[data$expressive_perception>100] <- 100
data$expressive_perception[data$expressive_perception<0] <- 0
mean(data$expressive_perception==100)
mean(data$expressive_perception==0)

mean(data$noisy_district)
mean(data$expressive_perception)
mean_expressive_perception <- mean(data$expressive_perception)

data %>%
  ggplot(.) +
  geom_point(aes(x = noisy_district , y = expressive_perception) , size = 0.25)+
  geom_abline(intercept = 0 , slope = 1 , size = 0.25)+
  geom_hline(yintercept = 50 , size = 0.25 , linetype="dashed")+
  geom_vline(xintercept = 50 , size = 0.25 , linetype="dashed")+
  labs(subtitle=paste0("Mean Perception = ",round(mean_expressive_perception,1),"%"),
    #subtitle = "Original Data",
    y = "Perceived Support for Liberal Position (%)",
    x="Measured Support for Liberal Position (%)")+
  scale_color_manual(values = my_oka[c(1,2,3,5)]) +
  scale_y_continuous(breaks = seq(0,100,25), labels = seq(0,100,25), limits = c(0,100)) +
  scale_x_continuous(breaks = seq(0,100,25), labels = seq(0,100,25), limits = c(0,100)) +
  geom_smooth(aes(x = noisy_district , y = expressive_perception) , method = "lm" ,size = 1.5 ,
  color="black", se = FALSE)

### noisy public opinion, noisy and two-sided expressive perceptions
data$expressive_responder <- NA
for(i in 1:nrow(data)){
  if(data$district[i] >= 65){
    data$expressive_responder[i] <- sample(c(0,1) , 1 ,
    prob = c((data$district[i]-65)/30,1-((data$district[i]-65)/30)))
  } else {
    data$expressive_responder[i] <- sample(c(0,1) , 1 ,
    prob = c((data$district[i]-50)/30,1-((data$district[i]-50)/30)))
  }
}

```

```

data$noisy_perception2 <- data$district + runif(Ndist , min = -50 , max = 50)
data$expressive_perception[data$expressive_responder==1 & data$district >= 65] <-
  data$noisy_perception2[data$expressive_responder==1 & data$district >= 65] + 20
data$expressive_perception[data$expressive_responder==1 & data$district < 65] <-
  data$noisy_perception2[data$expressive_responder==1 & data$district < 65] -20

data$expressive_perception[data$expressive_perception>100] <- 100
data$expressive_perception[data$expressive_perception<0] <- 0
mean(data$expressive_perception==100)
mean(data$expressive_perception==0)

mean(data$noisy_district)
mean(data$expressive_perception)
mean_expressive_perception <- mean(data$expressive_perception)

data %>%
  ggplot(.) +
  geom_point(aes(x = noisy_district , y = expressive_perception) , size = 0.25)+
  geom_abline(intercept = 0 , slope = 1 , size = 0.25)+
  geom_hline(yintercept = 50 , size = 0.25 , linetype="dashed")+
  geom_vline(xintercept = 50 , size = 0.25 , linetype="dashed")+
  labs(subtitle=paste0("Mean Perception = ",round(mean_expressive_perception,1),"%"),
       #subtitle = "Original Data",
       y = "Perceived Support for Liberal Position (%)",
       x="Measured Support for Liberal Position (%)")+
  scale_color_manual(values = my_oka[c(1,2,3,5)]) +
  scale_y_continuous(breaks = seq(0,100,25), labels = seq(0,100,25), limits = c(0,100)) +
  scale_x_continuous(breaks = seq(0,100,25), labels = seq(0,100,25), limits = c(0,100)) +
  geom_smooth(aes(x = noisy_district , y = expressive_perception) , method = "lm" ,size = 1.5 ,
  color="black", se = FALSE)

```