

Supporting Information for

# Is the Political Right More Credulous?: Experimental Evidence Against Asymmetric Motivations to Believe False Political Information

Accepted for publication, the *Journal of Politics*

Timothy J. Ryan and Amanda Aziz

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## 1. Funding Research Proposal

*[What follows is the verbatim Short Study Proposal Submitted to TESS, to document that data were analyzed in a way consistent with the original purpose of the study.]*

Proposal Title: Are Losers Gullible? A New Test of Ideological Asymmetry in Conspiracy Beliefs

### *Asymmetric Credulity*

Citizens' factual knowledge about current events influences the policies they endorse (Gilens 2001), the candidates they support (Lau and Redlawsk 1997), and the extent to which they meet the normative requirements of citizenship (Delli-Carpini and Keeter 1997). Understanding the basis for what citizens believe has recently taken on heightened importance. After all, several developments—the erosion of fairness standards for television news coverage; the rise of choice-based media; and the new potential for false information to spread via social media platforms—all make it more difficult for people to distinguish truth from falsity (Arceneaux and Johnson 2013; Prior 2007). Following the 2016 presidential election and well into Donald Trump's presidential term, Democratic and Republican politicians traded accusations that political opponents trafficked in “fake news.” It is understandable amidst all this that commentators would voice trepidation that democracy is losing its grounding in reality (e.g. Foley 2017).

Are citizens on one end of the political spectrum more likely to believe misinformation than those on the other side? According to recent studies, yes: conservatives are more credulous with respect to conspiracy theories than liberals (Miller, Saunders, and Farhart 2016), though this result may be part of a more general pattern in which members of the party that does not hold the presidency (“losers,” though not in a pejorative sense) readily accept information that is damaging to political victors (Miller et al. 2017). The possibility that citizens of a certain partisan or ideological stripe believe false information more readily than their political opponents is important, since it would elucidate one mechanism that leads fevered political discourse—unmoored from facts—to shift its locus from one side of the ideological spectrum to another.

The chief evidence for asymmetric credulity comes from studies in which participants report the extent to which they believe *real* conspiracy theories. For instance, the 2012 American National Election Study (ANES), as well as privately-sponsored research, asked participants whether the 2010 Affordable Care Act included death panels and whether the government intentionally breached levees during Hurricane Katrina to protect middle class homes. Responses to these and similar items are combined into an index of items that are favorable to liberals and a separate index of items that are favorable to conservatives. Conservatives endorse the conservative-favoring items more than liberals endorse the liberal-favoring items—a pattern that stands up to statistical controls for political information and trust (Miller, Saunders, and Farhart 2016).

### *Asymmetric Credulity? Or Asymmetric Conspiracies?*

A limitation of existing studies is that the asymmetry finding is subject to an alternative interpretation: the particular conspiracies examined might differ in their inherent believability. For instance, it might be inherently more plausible that the Affordable Care Act included death panels than that the government intentionally breached levees during Hurricane Katrina. In such a case, conservative respondents might not believe conservative-favoring conspiracies because the conspiracies are conservative. Rather, the conspiracies might be more believable.

Conspiracies could differ in their plausibility for at least three distinct reasons. First, some conspiracy theories might have been promulgated more forcefully than others. For instance, Sarah Palin’s “death panel” phrase was widely discussed, so might be influenced by a simple familiarity effect. Second, some theories might differ in their *prima facie* consistency with other known facts. For instance, even if a subject knows nothing about Hurricane Katrina, she might have a strong prior belief that a city government would never intentionally breach levees. Third, although all the theories measured are, strictly speaking, false, the conservative-favoring theories might have more of a grain of truth to them. For instance, although the Affordable Care Act certainly did not include death panels, it did provide for an agency called the Independent Payment Advisory Board, which would have the statutory power to cut Medicare funding for certain procedures, to control costs.

Miller and colleagues acknowledge this limitation, and emphasize that the decision to measure beliefs about real conspiracies enhanced the naturalism of the studies conducted (Miller et al. 2016, 837-838 for a careful discussion). Still, running a study that assesses potential measurement limitations will increase confidence in this important vein of research.

### *Proposed Solution*

The possibility that the items used are themselves asymmetrical can be addressed. A straightforward way to do so is to employ items that more tightly control for potential confounding factors. These new items should have three properties. First, they should be fictional, addressing the concern that some conspiracies are more familiar than others. Second, the conspiracies should be associated with Democrats or Republicans by virtue of a random assignment, ensuring symmetry in associations as a matter of design. Third, they should focus on malfeasance that, *prima facie*, would be equally likely of a Republican or Democratic official. (Consider: An item asking whether an elected official is colluding with a foreign government would be inappropriate, since precisely this charge has been levied against Donald Trump’s associates, so might be more plausible for a Republican politician.) The instrumentation proposed below fulfills these three requirements.

*An Additional Consideration [Note: NORC was not able to include knowledge or personality items on the instrument, but a measure of political trust was available in NORC’s background panel information.]*

While only the items presented below are necessary to test for partisan bias in conspiracy beliefs, the value of this study would be augmented were it to be fielded on an instrument that included additional items—many of which are fielded on public opinion surveys routinely. First, it would be desirable for the items to be matched with standard measures of political knowledge and political trust, since both of these factors have been found to moderate belief in conspiracy theories in past work (Miller et al. 2016). Second, it would be desirable to measure at least one personality trait. If it is in fact true that conservatives accept conspiracy theories more readily than liberals, an obvious potential explanation for the difference is that some personality trait induces people *both* to identify as conservative *and* to believe conspiracy theories.

There are many different personality traits that could plausibly play this role. However, it would be sensible to start by examining *authoritarianism*. There is a substantial literature on authoritarianism (Hetherington and Weiler 2009). It has been a focus of ongoing research (Taub 2016) including studies of conspiracy theories (Miller et al. 2016). As such, it would augment the value of the study proposed here if the questions I propose were included on an instrument that already happened to be measuring authoritarianism.

*References [for funding proposal]*

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## 2. Previous Results Concerning Belief Asymmetry

Here, we summarize recent research that is situated to assess liberal/conservative asymmetries in believing false political information. To conduct our synthesis, we canvassed the literature for studies written up since 2014 that measured American respondents' beliefs in false political information. We include studies that provide relevant results, even if they were designed for some other purpose. However, to constrain our review and focus on research most closely related to the objectives of our own study, the items had to meet three criteria. First, we focused on studies that measured beliefs in *specific* false propositions. Thus, we put aside studies that assess, for instance, scientific literacy, or a general propensity toward conspiratorial thinking (e.g. Miller et al. 2017, Studies 3 & 4). Second, the measured items had to be clearly distinguishable as having bad implications for one side of the political spectrum or the other. Thus, we do not assess beliefs about, for instance, whether TWA Flight 800 was shot down (cf. Nyhan et al. 2016). Third, we focus on propositions that are, in some sense, *scandalous*. Thus, items that assess factual beliefs about the health of the economy, foreign aid spending as a percentage of the economy, and the number of American deaths in foreign interventions are beyond our scope. Within these parameters, we hope our review is comprehensive, but of course stand ready to incorporate findings we might have missed.

Table SI-1: Previous Results Concerning Belief Asymmetry

Study	Was the false information really promulgated?	Symmetry-related findings	Reference	Sample
Miller et al. (2016), Study 1	Yes	Conservatives more credulous.*	Table 1	MTurk
Miller et al. (2016), Study 2	Yes	Conservatives more credulous.*	Table 2	2012 ANES
Miller et al. (2017), Studies 1 & 2	Yes	Conservatives more credulous.*	Table 3	MTurk
Enders & Smallpage (2018a)	Yes	Democrats and Republicans approximately equally credulous.	Table 2	MTurk
Enders & Smallpage (2018b), Studies 1-3	Yes	Official corrections backfire among Republicans, but not Democrats.*	Table 1	MTurk
Enders, Smallpage & Lupton (2018), Study 1	Yes	Republicans more credulous.*	Figure 1	2012 ANES
Enders, Smallpage & Lupton (2018), Study 2	Yes	Republicans more credulous.*	Figure 3	MTurk
Oliver & Wood (2014)	Yes	Conservatives more credulous.	Figure 1	2006, 2010, 2011 CCES
Uscinski et al. (2016)	Yes	Democrats and Republicans approximately equal in propensity to believe in a media conspiracy.	Table 1, Figure 4, Figure 6	2012 CCES
Wood (2015), Study 2	No	Not presented.	--	MTurk
Pennycook & Rand (2018), Study 1	Yes	In evaluating fake vs. real news, Clinton supporters more sensitive to consistency pressures than Trump supporters.	Figure 4	MTurk
Pennycook & Rand (2018), Study 2	Yes	In evaluating fake vs. real news, Clinton and Trump supporters comparably sensitive to consistency pressures.	Figure 7	MTurk
Smallpage et al. 2017, Study 2	Yes	Not presented.	--	MTurk

\* As the text notes, these authors emphasize that Republican / conservative credulity might be attributable to their status as the out-of-power party at the time.

Here, we wish to flag one interesting study that is not included in Table SI-1 (because it does not focus on scandalous information), but which offers a provocative alternative approach for elucidating ideological asymmetry. Kahan et al. (2017) present participants with identical quantitative information and examine inferences drawn from the information. To elucidate ideological symmetry, they randomly assign whether the information was political in nature (how gun control laws change crime) or not (whether a skin cream induces rashes). They also randomized the valence of the information (there is evidence of a harmful effect, or not). They find that individual-level numeracy moderates interpretation of the information, but ideology does not.

#### *References:*

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Uscinski, Joseph E, Casey Klofstad, and Matthew D Atkinson. 2016. "The Messenger Overwhelming the Message: Ideological Cues and Perceptions of Bias in Television News." *Political Research Quarterly* 69(1): 57–71.

Wood, Michael J. 2015. "Some Dare Call It Conspiracy: Labeling Something a Conspiracy Theory Does Not Reduce Belief in It." *Political Psychology* 37(5): 695–705.



### 3. Question Wording (Main Study)

[PID1] Do you consider yourself a Democrat, a Republican, an Independent, or none of these?

Democrat  
Republican  
Independent  
None of these  
Don't know

[PIDA] Do you consider yourself a strong or moderate Democrat?

Strong Democrat  
Moderate Democrat  
Don't know

[PIDB] Do you consider yourself a strong or moderate Republican?

Strong Republican  
Moderate Republican  
Don't know

[PIDI] Do you lean more towards the Democrats or the Republicans?

Lean Democrat  
Lean Republican  
Don't lean  
Don't know

[Transition text] Next, we are going to ask you about some events that may or may not have happened. For each, please tell us how likely you think the event occurred.

[Wisconsin] Did Lucas Hofmann, a [randomized Republican / Democratic] prosecutor in Wisconsin, plot with [Republican / Democratic] Party members to suppress evidence that a Gerry Mason, a wealthy donor in the state, engaged in pedophilia?

This event definitely occurred  
This event probably occurred  
This event might have occurred  
This event probably did not occur  
This event definitely did not occur

[Ohio, party opposite of Wisconsin] Did the [Republican / Democratic] legislators in Ohio accept laundered money from a group of Canadian steel manufacturers, hoping to improve their business dealings in the state?

This event definitely occurred  
This event probably occurred  
This event might have occurred  
This event probably did not occur  
This event definitely did not occur

[Oil] Was the price of crude oil higher on March 1, 2016 than on October 1, 2016?

This event definitely occurred  
This event probably occurred  
This event might have occurred  
This event probably did not occur  
This event definitely did not occur

*The following items are part of the NORC Public Affairs Profile. Thus, they are part of our dataset, but were not part of our questionnaire for this study—except for a small number of respondents for whom this information was missing, in which case the missing questions were presented after the items above.*

[Government Trust] How much of the time do you think you can trust the government in Washington, DC to do what is right?  
Just about always  
Most of the time  
Only some of the time  
Almost never  
Don't know

[Media Trust] How much of the time do you think you can trust the media to report the news fairly?  
Just about always  
Most of the time  
Only some of the time  
Almost never  
Don't know

[D3] Generally speaking, do you consider yourself to be liberal, moderate, or conservative?  
Liberal  
Moderate  
Conservative

[D4, if D3 liberal] Do you consider yourself to be:  
Extremely liberal  
Very liberal  
Somewhat liberal  
Don't know

[D5, if D3 conservative] Do you consider yourself to be:  
Extremely conservative  
Very conservative  
Somewhat conservative  
Don't know

Education (highest degree received)  
No formal education  
1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, or 4<sup>th</sup> grade  
5<sup>th</sup> or 6<sup>th</sup> grade  
7<sup>th</sup> or 8<sup>th</sup> grade

9<sup>th</sup> grade  
10<sup>th</sup> grade  
11<sup>th</sup> grade  
12<sup>th</sup> grade no diploma  
High school graduate  
Some college, no degree  
Associate degree  
Bachelor's degree  
Master's degree  
Professional or doctorate degree

#### 4. Question Wording (Study 2)

The questionnaire in Study 2 was identical to the main study, except for the differences noted below.

- After the questions about partisan identification, the questionnaire measured respondent ideology with this question:

We hear a lot of talk these days about liberals and conservatives. Here is a seven-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale, or haven't you thought much about this?

Extremely liberal  
Liberal  
Slightly liberal  
Moderate; middle of the road  
Slightly conservative  
Conservative  
Extremely conservative

- After the ideology question, we included a fuller battery measuring political trust:

How much of the time do you think you can trust each of the following groups to do what is right? [Grid response.]

The federal government  
Law enforcement  
The media  
People in general

Almost never  
Some of the time  
Most of the time  
Almost always

- After the questions about trust, we measured attention to politics:

Some people seem to follow what's going on in government and public affairs most of the time -- whether there's an election going on, or not. Others aren't that interested. How much would you say you follow what's going on in politics?

All of the time  
Most of the time  
Some of the time  
Only now and then  
Hardly at all

- The text transitioning to the rumor items was slightly different. (The altered text was to clarify how the respondents should evaluate the new rumor items we presented.):

Next, we are going to ask you about some events that may or may not have happened. For each, please tell us how likely it is that the event occurred. The specific event we'd like you to think about is in **bold**.

- The Ohio and Wisconsin items from Study 1 were presented next, and are exactly the same, except that we bolded the particular claim that respondents should focus on. (This was more critical for the new items, but we wanted to be consistent in our formatting conventions.) Response options for all items were identical to Study 1.

[Ohio] **{{e://Field/r1dr}} legislators in Ohio accepted laundered money from a group of Canadian steel manufacturers,** hoping to improve their business dealings in the state.

[Wisconsin] **Lucas Hofmann, a {{e://Field/r2dr}} prosecutor in Wisconsin, plotted with {{e://Field/r2dr}} Party members to suppress evidence that a Gerry Mason, a wealthy donor in the state, engaged in pedophilia.**

- Next we presented the following eight items in a fully randomized order. The first two focus on incompetence, the next two on hypocrisy, the next two on social norms, and the final two are measures of acquiescence bias.

[Hypocrisy 1] Jack Whitney is a **{{e://Field/hyp1dr}}** prosecutor in Virginia who repeatedly criticized President **{{e://Field/hyp1to}}** for spending too much time on the golf course. **Whitney was recently found to have skipped more than fifteen workdays in 2018 to play golf.** [For this item, the second field was Trump if Whitney was a Democrat, and Obama if Whitney was a Republican.]

[Hypocrisy 2] **Luke Settle was a {{e://Field/hyp2dr}} member of the Missouri House of Representatives. He criticized several other politicians for accepting meetings with lobbyists from the pharmaceutical industry. However, in March, a local newspaper discovered that Luke Settle met with lobbyists from the pharmaceutical industry several times himself.**

[Incompetence 1] Matthew Palmquist was a **{{e://Field/i1dr}}** recently appointed to head the Kansas Office of Community Engagement. **In a recent hearing, he was unable to name three counties in Kansas.**

[Incompetence 2] Samantha Kersh, a **{{e://Field/i2dr}}**, is a judge in the state of Nevada. **In a recent trial, she had to ask her assistant what Miranda Rights are.**

[Norms 1] At a recent town hall, a high school student told Tyler Mayo, the **{{e://Field/b1dr}}** mayor of Galloway Ridge, Michigan, that his school is not doing enough to prepare him for college. **Mayo rudely rolled his eyes and replied, "Not everybody is cut out for college."**

[Norms 2] **Gerald Jackson, a candidate for attorney general of Minnesota, refused to shake his opponent's hand on the debate stage.**

[Acquiescence 1 (identical to Study 1)] **The price of crude oil was higher on March 1, 2016 than on October 1, 2016.**

[Acquiescence 2] **In 2018, the U.S. Census Bureau reported Sacramento, CA to be the largest city (by population) that is also a state capital.**

- Study 2 ended with the following demographic questions:

[Education] What is the highest level of education you have completed?

Less than high school  
High school diploma  
Some college / Associate's degree  
College degree  
Graduate degree

[Gender] Are you

Male  
Female  
Neither best describes me

[Race] What racial or ethnic group best describes you?

White  
Black / African American  
Asian  
Other  
Prefer not to say

[Income]

What was your total household income in the past 12 months?

[Ten response options ranging from "Less than \$9,999" to "More than \$150,000."]

[Age] How old are you? Please enter your age in years

- Finally, we included the following item borrowed from Lopez & Hillygus.<sup>1</sup>

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<sup>1</sup> This item is from Lopez & Hillygus, "Why So Serious?: Survey Trolls and Misinformation." (March 13, 2018). Available at SSRN: <https://ssrn.com/abstract=3131087>

## 5. Results from Replication Study (Study 2)

In July of 2019, we conducted a close replication of the study reported in the main text. We preregistered the design and analytical approach we used for this study, and the anonymized preregistration is available at:

[https://osf.io/sfyez?view\\_only=d835b658236b48e38650e842c88a7f53](https://osf.io/sfyez?view_only=d835b658236b48e38650e842c88a7f53)

As detailed in the preregistration, as well as Section 4 above, Study 2 is nearly identical to Study 1, the main difference being that we took advantage of more flexible length constraints to include fuller pre-treatment measurement of potential moderating variables. We also included an extension (described in the preregistration and below), though we incorporated the extension in a way such that it would not interfere with the main replication effort. (All items related to the extension were placed after the main replication items.) One *de minimis* modification is that, to make the extension items work right, we needed to place certain phrases of the initial rumor items in bold, as described in Section 4 above.

As described in our pre-registration, we recruited respondents from two distinct sources: Dynata<sup>2</sup> and Positly. Dynata uses targeted online recruitment to construct an opt-in panel of survey respondents who have expressed an interest in completing research studies for compensation. Dynata invites participants to studies such that the sample reflects Census benchmarks for age, gender, ethnicity, and region. Positly is a service that facilitates recruiting survey respondents via Amazon.com Mechanical Turk. Aside from having a convenient interface, Positly implements quality control measures that prevent duplicate responding and protect against fraudulent survey responses, which recently became a major concern for survey research.<sup>3</sup> We did not have resources to conduct Study 2 on a probability sample (as with the main study), but this two-pronged approach allowed us to recruit a demographically diverse sample and to nearly match our sample size from Study 1. Additionally, we can probe whether our results hold across two participant pools recruited in different ways.

We asked Dynata to collect 1,000 complete responses. Due to an accounting error on Dynata's part, we were provided with 1,340 complete responses from this source. Also discussed in the preregistration, we expected to collect 700 respondents from Positly, though the exact number would depend on the average completion time. We ended up with 666 complete responses from Positly. Thus, our analysis dataset includes 2,006 complete responses. (Study 1 had 2,056.)

Following our preregistered plan, we began by assessing whether our main estimates of interest—Republican  $\times$  Consistent interactions—were different in the Dynata and Positly portions of Study 2. Three-way Republican  $\times$  Consistent  $\times$  Sample interactions showed little evidence of this.<sup>4</sup> Hence, as planned, we pool the Dynata and Positly portions together for our main analysis.

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<sup>2</sup> The preregistration discusses a contract with Survey Sampling International (SSI). We had forgotten that SSI has changed its name to Dynata. These terms both refer to the same organization.

<sup>3</sup> See Kennedy, Ryan and Clifford, Scott and Burleigh, Tyler and Jewell, Ryan and Waggoner, Philip, The Shape of and Solutions to the MTurk Quality Crisis (October 24, 2018). Available at SSRN: <https://ssrn.com/abstract=3272468>

<sup>4</sup> For the Ohio item,  $\beta = -0.005$ ;  $SE = 0.051$ ;  $p = 0.93$ . For the Wisconsin item,  $\beta = 0.058$ ;  $SE = 0.050$ ;  $p = 0.25$ .

Table SI-2 mirrors Table 1 in the main text, with all variables coded in identical fashion. The top row can be interpreted as the effect of a party-consistent rumor among Democrats. This effect is always convincingly positive—a familiar and entirely expected result. The interaction terms can be interpreted as the extent to which the consistency effect is different among Republicans. These interactions are always negative, and they are statistically significant for the Wisconsin item. Thus, Study 2 uncovers evidence that Democrats and Republicans differ in their credulity of false political information, but not in the usual way: if anything, it is *Democrats* who exhibit greater consistency pressures in this test.<sup>5</sup>

How are these results reconciled with those reported in the main text, where consistency pressures were roughly equivalent for Democrats and Republicans? One possibility suggested by Miller et al. (2016) is that citizens whose party is out of power develop a sense of inefficacy and thus are more credulous of false political information that benefits their side. The initial study took place one year into Donald Trump’s presidency, but perhaps it takes more than one year for the requisite feelings of inefficacy to take hold. Then again, the initial study took place at a time when Republicans controlled not only the presidency, but also both houses of Congress. Study 2, in contrast, took place after Democrats seized control of the House of Representatives in the 2018 midterm elections, which might attenuate Democrats’ sense of inefficacy. Also, the finding that Democrats are more credulous than Republicans is driven mostly by the Wisconsin item, and we can think of no particular reason why the “conspiracies are for losers” hypothesis would apply more strongly to the Wisconsin item than the Ohio item.

We think much remains to be understood about how individual traits, rumor characteristics, and contextual factors interact to influence citizens’ belief in false information. (See the next section.) Nevertheless, the results of Studies 1 and 2 provide a consistent answer to our unifying question. Is the propensity to believe false political information singular to the political right? No.

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<sup>5</sup> Is the marginal effect of party consistency statistically significant among Republicans? Generally yes. In model 1, the marginal effect among Republicans is 0.055 (SE=0.019,  $p=0.004$ ). In Model 3, the marginal effect is 0.038 (SE=0.018,  $p=0.040$ ). In Model 5, the marginal effect is 0.047 (SE=0.011,  $p<0.001$ ).



Table SI-2: Results from Replication Study

	Ohio	Ohio	Wisconsin	Wisconsin	Pooled	Pooled
Party-consistent = 1	0.079** (0.016)	0.078** (0.018)	0.117** (0.015)	0.125** (0.017)	0.098** (0.008)	0.101** (0.010)
Republican = 1	0.009 (0.017)	-0.016 (0.019)	0.041* (0.017)	0.037 (0.020)	0.024* (0.012)	0.010 (0.014)
Consistent $\times$ Republican	-0.025 (0.024)	0.005 (0.028)	-0.079** (0.024)	-0.084** (0.027)	-0.052** (0.014)	-0.039* (0.016)
Wisconsin = 1	— —	— —	— —	— —	0.009 (0.007)	0.011 (0.008)
Positly = 1	-0.032* (0.024)	-0.039** (0.015)	-0.057** (0.012)	-0.069** (0.014)	-0.045** (0.010)	-0.054** (0.002)
Intercept	0.450** (0.048)	0.457** (0.014)	0.448** (0.012)	0.451** (0.014)	0.445** (0.010)	0.449** (0.011)
Partisan Leaners	Included	Excluded	Included	Excluded	Included	Excluded
Observations (People)	1,721	1,364	1,720	1,363	3,441 (1,724)	2,727 (1,367)
R-squared	0.023	0.030	0.047	0.055	0.034	0.040

\*\* p&lt;0.01, \* p&lt;0.05, two-tailed tests

Standard errors in parentheses. The dependent measure is respondent's belief in a political rumor, scaled from 0 to 1. Party-consistency and Republican identification are both binary variables. Pure independents are excluded from this analysis. The pooled models include random effects for respondents and respondent clustered standard errors.

## 6. Extension to Main Study

Peer reviewers for our initial study raised an important possibility. Perhaps individuals who identify with the political right *are* more motivated to believe false information than those on the left, but this credulity is only evident for some kinds of rumors—ones that differ from the Ohio and Wisconsin items in critical ways. If this were true, it might be the case that the political right really is more credulous (on average) than the political left, but our test might fail to reveal the asymmetry because we did not choose the appropriate type of rumor.

Study 2 included instrumentation designed to begin to explore this possibility. As our pre-registration discusses, we presented Study 2 respondents with six additional rumor items (administered after the replication items and presented in a fully randomized order). Two of these items focused on *incompetence*; two focused on *hypocrisy*; and two focused on *breaches of social norms*. We chose these three dimensions because we found little guidance in past work for the specific areas in which the political right should be especially credulous, and they seemed like three reasonable candidates that jointly encompass a large swath of political innuendo. As in Study 1, the party implicated by the rumor was randomly assigned (counterbalanced within each pair). When we examine these items in an approach identical to above, we find the following:

- For the incompetence items, there is no significant difference between Democrats and Republicans. (For the relevant interaction term,  $\beta = 0.006$ ,  $SE = 0.015$ ,  $p = 0.68$ .)
- For the hypocrisy items, Republicans are significantly *less* credulous than Democrats. (For the interaction term,  $\beta = -0.031$ ,  $SE = 0.013$ ,  $p = 0.021$ .)
- Similarly, for the breach of norms items, Republicans are again significantly less credulous than Democrats, though the hypothesis test (two-tailed) is very near the .05 threshold. (For the interaction term,  $\beta = -0.029$ ,  $SE = 0.015$ ,  $p = 0.052$ .)

Thus, the extension embedded in Study 2 uncovers no evidence that the political right is more motivated to believe congenial false political information than the political left.

We recognize that the results above do not resolve questions about who is disposed to believe false information, and under what conditions. We plan to expand on these results in future work. But we include them here because they provide some assurance that the conclusion of our paper—*asymmetric credulity by the political right is exaggerated*—is not an artifact of the particular ilk of rumor we initially chose.

## 7. Assessing Whether Treatment Effects are Moderated by Respondent Ideology

As we discuss in the main text, we prioritized a focus on asymmetry by respondent *partisanship* over respondent *ideology*. Nevertheless, we can examine asymmetry by respondent ideology to a certain extent. NORC maintains profile information on each of its Amerispeak Panel respondents, and one of the measures available is respondent ideology. The profile information is less reliable than information about partisanship (which we measured on our own instrument), since it could be out of date, or a different member of the same household could be using the same Amerispeak account. Additionally, there is a mismatch between the moderating variable (ideology) and the text manipulated by random assignment (partisanship).

These caveats noted, the table below parallels Table 1 in the main text, but substitutes a seven-point measure of respondent ideology (recoded such that liberals = 0 and conservatives = 1) for the measure of partisanship. The number of observations included in this analysis are substantially lower than the analysis in the main text because a high proportion of our respondents (49.9%) report their ideology as “Middle of the road,” and we cannot define either treatment assignment as being ideology-consistent for these individuals.

Table SI-3: Ideology Does not Moderate Consistency Effects			
	Ohio	Wisconsin	Pooled
Ideology-consistent = 1	0.069** (0.019)	0.096** (0.019)	0.083** (0.010)
Conservative = 1	-0.013 (0.019)	0.041* (0.018)	0.015 (0.013)
Consistent × Conservative	0.004 (0.027)	-0.045 (0.026)	-0.021 (0.014)
Wisconsin = 1	— —	— —	0.001 (0.007)
Intercept	0.440** (0.014)	0.412** (0.013)	0.424** (0.011)
Observations (People)	1,012	1,008	2,020 (1,015)
R-squared	0.028	0.035	0.030

\*\* p<0.01, \* p<0.05, two-tailed tests

Standard errors in parentheses. Conservative is a binary variable that takes a value of 1 for conservatives, and 0 for liberals. (Respondents who report being perfectly moderate, or who say they do not have an ideological leaning, are excluded.) The pooled models include random effects for respondents and respondent clustered standard errors.

As the interaction terms in the table show, there is no clear pattern of asymmetry by respondent ideology. Conservatives are *less* responsive to consistency pressures on the Wisconsin item, though the difference is not significant ( $p=0.09$ ). There is no clear asymmetry on the Ohio item.

We can conduct a similar analysis using the data from Study 2—except that this analysis will have the advantage of measuring ideology in the same instrument (pre-treatment, as discussed above). Table SI-4 reports these results. They are quite similar to the results reported in Table SI-2: there is no clear asymmetry for the Ohio item, and liberals, rather than conservatives, appear more susceptible to consistency pressures for the Wisconsin item. We refer readers to Section 5 for a fuller discussion of this pattern.

Table SI-4: Ideology and Consistency in Study 2			
	Ohio	Wisconsin	Pooled
Ideology-consistent = 1	0.082** (0.017)	0.127** (0.017)	0.105** (0.009)
Conservative = 1	-0.017 (0.018)	0.024 (0.019)	0.003 (0.013)
Consistent $\times$ Conservative	-0.023 (0.027)	-0.078** (0.026)	-0.051** (0.015)
Wisconsin = 1			0.008 (0.007)
Intercept	0.450** (0.012)	0.430** (0.012)	0.437** (0.010)
Observations (People)	1,438	1,434	2,872 (1,439)
R-squared	0.024	0.043	0.033

\*\*  $p < 0.01$ , \*  $p < 0.05$ , two-tailed tests

Standard errors in parentheses. Conservative is a binary variable that takes a value of 1 for conservatives, and 0 for liberals. (Respondents who report being perfectly moderate, or who say they do not have an ideological leaning, are excluded.) The pooled models include random effects for respondents and respondent clustered standard errors.

## 8. Weighted Analysis

The table below parallels the analysis in Table 1 of the main text, but includes inverse probability weights (provided by NORC) that reflect the inverse probability of selection into the study. These weights are calculated via a raking ratio method the general population figures for age, sex, education, race/ethnicity, and Census Division. A small number of respondents (N=19, which represents less than 1% of the sample) were assigned weights greater than 5 (and in one case, 21.4). We considered this weighting to give too much influence to single observations in the dataset, and hence cap the assigned weights at a value of 5.

	Ohio	Ohio	Wisconsin	Wisconsin	Pooled	Pooled
Party-consistent = 1	0.116** (0.019)	0.122** (0.023)	0.031 (0.019)	0.006 (0.022)	0.073** (0.011)	0.064** (0.013)
Republican = 1	0.041* (0.019)	0.041 (0.023)	-0.023 (0.019)	-0.023 (0.023)	0.008 (0.014)	0.008 (0.017)
Consistent × Republican	-0.026 (0.027)	-0.035 (0.034)	0.042 (0.026)	0.049 (0.031)	0.008 (0.016)	0.007 (0.019)
Wisconsin = 1	— —	— —	— —	— —	0.009 (0.008)	0.016 (0.010)
Intercept	0.398** (0.014)	0.395** (0.016)	0.463** (0.014)	0.478** (0.017)	0.427** (0.011)	0.429 (0.012)
Partisan Leaners	Included	Excluded	Included	Excluded	Included	Excluded
Observations	1,722	1,270	1,718	1,266	3,440 (1,727)	2,536 (1,273)
R-squared	0.066	0.065	0.017	0.008	0.035	0.027

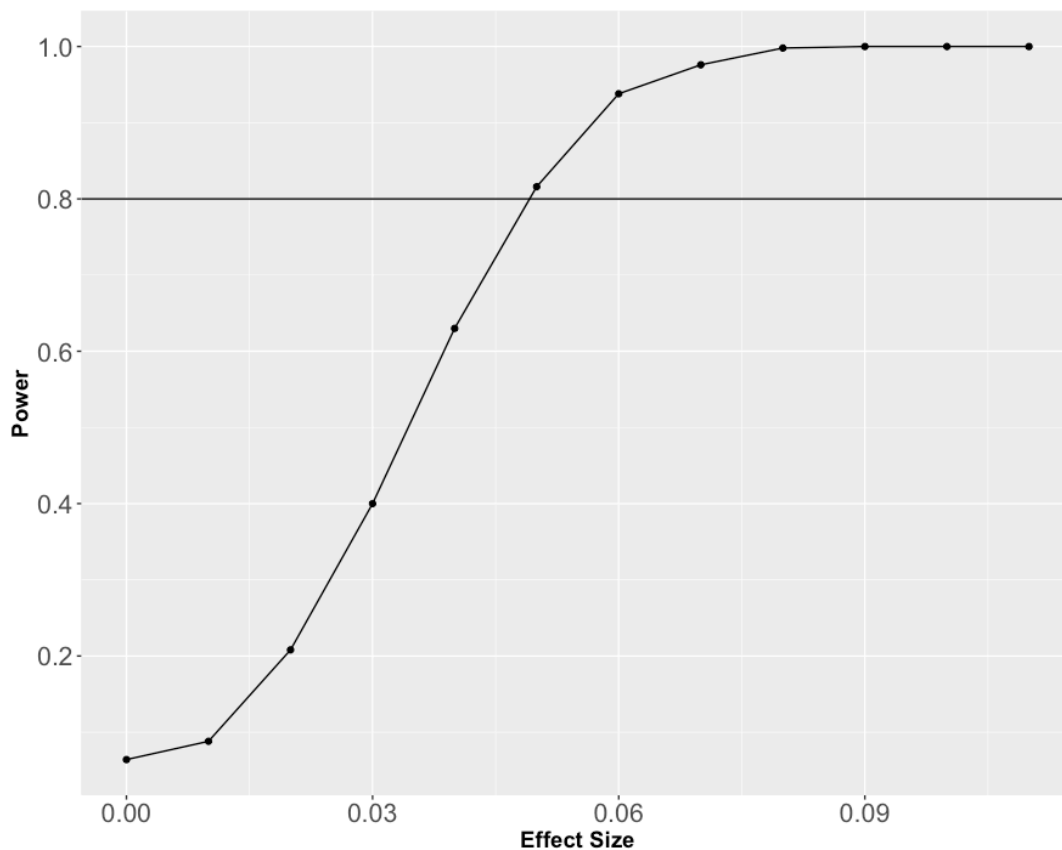
\*\* p<0.01, \* p<0.05, two-tailed tests

Standard errors in parentheses. The dependent measure is respondent's belief in a political rumor, scaled from 0 to 1. Party-consistency and Republican identification are both binary variables. Pure independents are excluded from this analysis. The pooled models include random effects for respondents and respondent clustered standard errors.

## 9. Power Analysis

To hew closely to the properties of our research design, we conducted a power analysis via simulation. We model treatment effects as shifting means of a binomial distribution with between 0 and 4 successes (reflecting the five-point response scale of our primary dependent measure). Consistent with our within-subjects research design, we simulate a repeated measures dataset in which the dependent measure is taken twice per subject, with one measurement reflecting the treatment condition and one reflecting the control condition. We then estimate the treatment effect and subgroup interaction for each simulated dataset, using the model reported in Column 5 of main text Table 1. Figure SI-1 shows how statistical power to detect a statistically significant (two-tailed  $p < .05$ ) interaction term varies as a function of the magnitude of the underlying interaction effect. As the figure shows, our design has a power greater than .8 (a conventional threshold) to detect an interaction effect as small as .05—five percent of the range of the DV.

Figure SI-1: Power Analysis



For full transparency, we report the R code underlying this analysis in its entirety below.

```
library(estimatr)
library(randomizr)
library(fabricatr)
library(ggplot2)
library(nlme)
```

```

set.seed(1789) # Seed is arbitrary
people <- 1727 # Sample size for Model 5 in Table 1.
obs <- people*2 # Two obs per person.
treats<-c()

one_sim <- function(inter) {

  dat <- fabricate(
    caseid = add_level(N=people, group=sample(x=c("Democrat","Republican"), prob=c(.57,.43),
    size=N, replace=TRUE)), # Analysis sample is 57% Democratic and 43% Republican

    rumor = add_level(N=2,

    Y0=draw_binomial(prob=.43, trials=4, N=obs), # .43 is mean value in the non-consistent
    condition
    Y1=draw_binomial(prob=(.43+.074) + inter * (group=="Republican"), trials=4, N=obs)) #
    main effect of .074 is from the data
  )

  for(i in seq(from=1, to=obs, by=2)) {
    samp <- sample(x=c(0,1))
    treats[i] <- samp[1]
    treats[i+1] <- samp[2]
  }

  Y = dat$Y0 * (1-treats) + dat$Y1 * treats

  Dat <- cbind(dat,treats,Y)

  # Estimate
  fit <- lme(Y ~ treats + group + treats*group, random=~1|caseid, data=dat, control =
  c(maxIter=500, opt="optim"))
  pval<- summary(fit)$tTable[,5][4]
  pval<=.05
}

ef_sizes<-seq(from=.00, to=.11, by=.01) # Simulate effect sizes from 0 to .11
powers <- sapply(ef_sizes, function(N) mean(replicate(500, one_sim(inter=N))))
plot <- qplot(ef_sizes, powers) + geom_line() + geom_hline(yintercept = .8)
plot + scale_y_continuous(name="Power", breaks=seq(0,1,.2)) + scale_x_continuous(name="Effect
Size")

ggsave("powerplot.png", dpi=800)

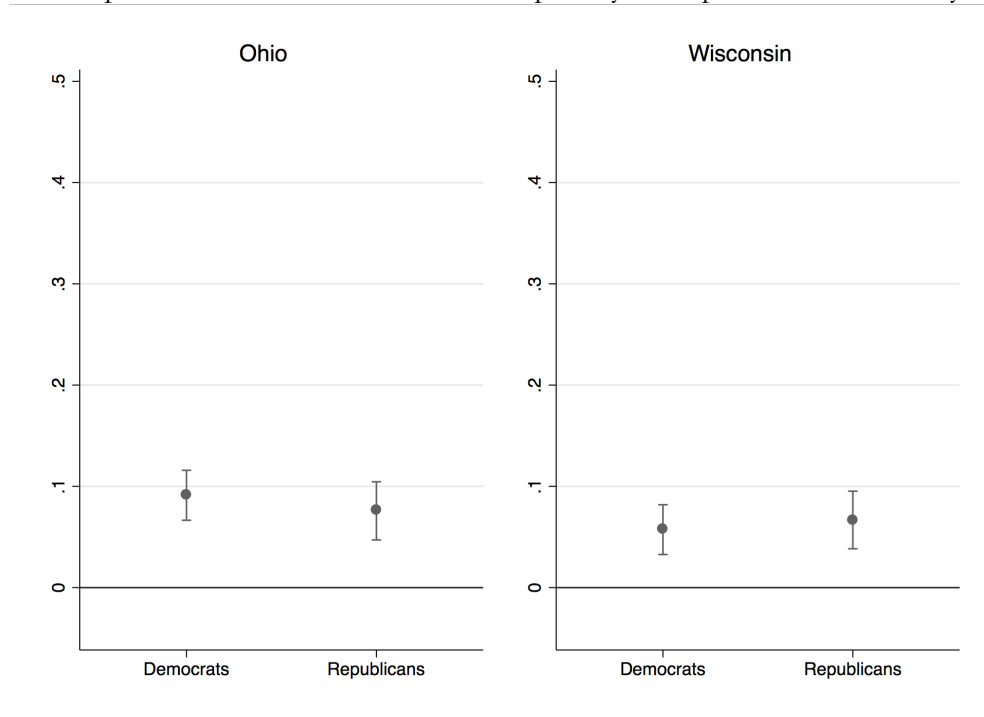
```

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## 10. Graphical Representation of Main Results

Here, we present the main results from Table 1 in the main text graphically. (We present this figure here due to space limitations in the main text.)

Figure SI-2: Republicans and Democrats are Comparably Susceptible to Consistency Pressures



Dots represent the marginal effect of a party-consistent rumor, based on models 1 and 3 in main text Table 1. Whiskers are 95% confidence intervals.



## 11. Ordered Logit Estimates

The table below parallels Table 1 in the main text, but the estimation approach is ordered logit, for readers interested in better understanding possible nonlinearities in our dependent measure.

Table SI-6: Ordered Logit Models						
	Ohio	Ohio	Wisconsin	Wisconsin	Pooled	Pooled
Party-consistent = 1	0.904** (0.123)	0.954** (0.141)	0.564** (0.125)	0.496** (0.142)	0.947** (0.091)	0.944** (0.108)
Republican = 1	0.116 (0.131)	0.030 (0.153)	-0.040 (0.131)	0.009 (0.152)	0.034 (0.123)	0.010 (0.143)
Consistent $\times$ Republican	-0.204 (0.184)	-0.210 (0.214)	0.087 (0.187)	0.003 (0.217)	-0.090 (0.138)	-0.152 (0.162)
Wisconsin = 1	— —	— —	— —	— —	0.022 (0.068)	0.115 (0.080)
Partisan Leaners	Included	Excluded	Included	Excluded	Included	Excluded
Observations (People)	1,722	1,270	1,718	1,266	3,440 (1,727)	2,536 (1,274)
** p<0.01, * p<0.05, two-tailed tests						

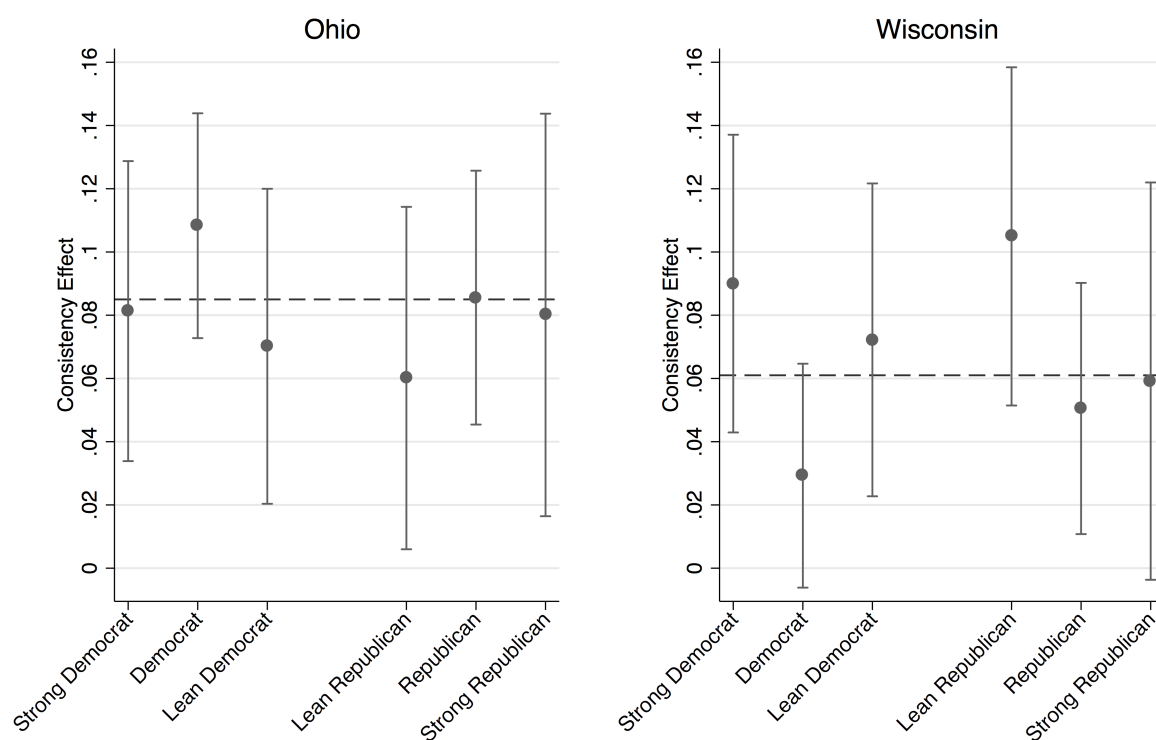
Standard errors in parentheses. The dependent measure is respondent's belief in a political rumor, scaled from 0 to 1. Party-consistency and Republican identification are both binary variables. Pure independents are excluded from this analysis. The pooled models include random effects for respondents and respondent clustered standard errors. Intercept and cut points omitted.

## 12. Secondary Analysis: Treatment Effects, by level of Partisan Intensity

The figure below speaks to whether the null findings reported in the main text might arise because the sample is asymmetrical in terms of its partisan intensity. For instance, if strong Republicans are more susceptible to consistency pressures than strong Democrats, and the sample disproportionately contains strong Democrats, then the average effects within a particular party might mask asymmetry that exists at particular levels of partisan intensity.

The figure reveals no evidence of this. For each level of partisan intensity, Democrats are comparable to Republicans, and there is no trend of increasing consistency biases as one reads from the center of each panel to the wings.

Figure SI-3: Marginal Effect of Consistency, by Party Identification



Dots represent the marginal effect of a party-consistent rumor, based on a simple difference of means test. Whiskers are 95% confidence intervals. The dashed line in each panel is the average consistency treatment effect (pooling across all partisans and leaners) for that item.

### 13. Secondary Analysis: Treatment Effects on Pure Independents

Here, for completeness, we report how the random assignment influenced responses from individuals who report themselves to be independents who do not lean toward either political party. The main reason one might want to inspect these effects is to help establish the validity of the instrumentation. Null effects are desirable, since they suggest that no particular party / rumor configuration (Democrats or Republicans laundering money or suppressing evidence) is inherently more plausible than others. Therefore, significant treatment effects among partisans are more readily interpretable as reflecting consistency biases, rather than underlying properties of the items used.

Table SI-4 reports treatment effects on pure independents. (Because scandal consistency is undefined for pure independents, we arbitrary code the effect of making a particular scandal implicate Republicans.) As the table shows, pure independents' endorsement of the false information does not depend on which party is implicated.

Table SI-7: Treatment Effects Among Pure Independents			
	Ohio	Wisconsin	Pooled
Republicans Implicated = 1	-0.002 (0.025)	-0.017 (0.024)	-0.009 (0.014)
Wisconsin = 1	— —	— —	0.002 (0.014)
Intercept	0.487** (0.019)	0.497** (0.016)	0.492** (0.016)
Observations (People)	311	310	621 (312)
R-squared	0.000	0.002	0.00
** p<0.01, * p<0.05, two-tailed tests			

Standard errors in parentheses. The pooled models include random effects for respondents and respondent-clustered standard errors.

## 14. Secondary Analysis: The Role of Education

One could easily imagine a person's level of education serving to moderate consistency pressures in evaluating false political information: highly-educated individuals might be more competent to assess the veracity of political information. More to the point, highly-educated people might be more motivated or better equipped to suppress partisan consistency pressures. On the other hand, highly-educated people might be more motivated and equipped to act in party-consistent ways. (See Miller et al. 2016 for a similar argument about political knowledge.) Our dataset includes a measure of respondent's education (recorded earlier as part of NORC's panel information for each respondent), so for thoroughness, we examine these relationships here.

Before delving into the analysis, we note an *ex ante* reason to doubt that incorporating education into the analysis will salvage the hypothesis that Republicans more readily believe false information implicating partisan opponents than Democrats. As is common, the association between education (coded on a 0-1 scale) and Republican Party identification is modestly negative (Pearson's  $r = -0.05$ ,  $p < .04$ ). As such, one would expect that statistically adjusting Republicans such that they are comparable to Democrats in terms of education would *decrease* partisan bias. Still, we conduct the relevant analyses below.

We use the education measure described in Section 2 above, which we scale from 0 (no formal education) to 1 (advanced degree). Table SI-8 regresses rumor endorsement (for our two politically-charged rumors) on this measure, as well as demographic controls. Model (1) includes all available respondents. Model (2) excludes pure independents in our sample. We include model (2) so that there is an even comparison as we transition to model (3), which interacts education with the treatment indicator. (Model 3 necessarily excludes pure independents, since party-consistency is undefined for them.)

All three models show that education is negatively associated with belief in false political information. (In a parallel model, it is also negatively associated with endorsement of the politically neutral Oil item described in the text, suggesting that at least some of this relationship is attributable to lower acquiescence bias among highly-educated respondents:  $\beta = -0.087$ ,  $SE = 0.042$ ,  $p < .04$ .) However, the interaction with the treatment indicator is not significant ( $p = .34$ ). The sign on the interaction term suggests that well-educated respondents are, if anything, more vulnerable to consistency pressures than uneducated respondents—similar to the relationship Miller et al. (2016) find for political knowledge.<sup>6</sup>

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<sup>6</sup> Motivated by findings in Miller et al. (2016), we went one step further and also examined whether education appears to moderate consistency pressures differently for Democrats and Republicans. However, the trends for Democrats and Republicans are not appreciably different. (Results available on request.)

Table SI-8: Education and Endorsement of False Political Information

	(1)	(2)	(3)
Party-consistent = 1	—	—	0.035 (0.041)
Education (0-1)	-0.134** (0.031)	-0.141** (0.033)	-0.166** (0.041)
Consistent × Education	—	—	0.051 (0.054)
Republican (0-1)	0.013 (0.012)	0.015 (0.012)	0.015 (0.012)
Female = 1	0.007 (0.007)	0.005 (0.008)	0.005 (0.008)
Age (0-1)	-0.102** (0.016)	-0.106** (0.017)	-0.106** (0.017)
Region			
Midwest = 1	-0.021 (0.011)	-0.015 (0.012)	-0.015 (0.012)
South = 1	-0.009 (0.011)	-0.005 (0.012)	-0.005 (0.012)
West = 1	-0.005 (0.012)	0.007 (0.013)	0.006 (0.013)
Race			
Black = 1	0.028* (0.013)	0.036* (0.015)	0.035* (0.015)
Hispanic = 1	0.007 (0.012)	0.007 (0.013)	0.007 (0.013)
Other = 1	0.004 (0.015)	0.013 (0.017)	0.013 (0.017)
Wisconsin item = 1	0.001 (0.005)	0.001 (0.006)	0.002 (0.006)
Intercept	0.609** (0.027)	0.608** (0.030)	0.590** (0.035)
Pure independents included?	Yes	No	No
Observations (people)	4,061 (2,039)	3,440 (1,727)	3,440 (1,727)
R-squared	0.027	0.030	0.063

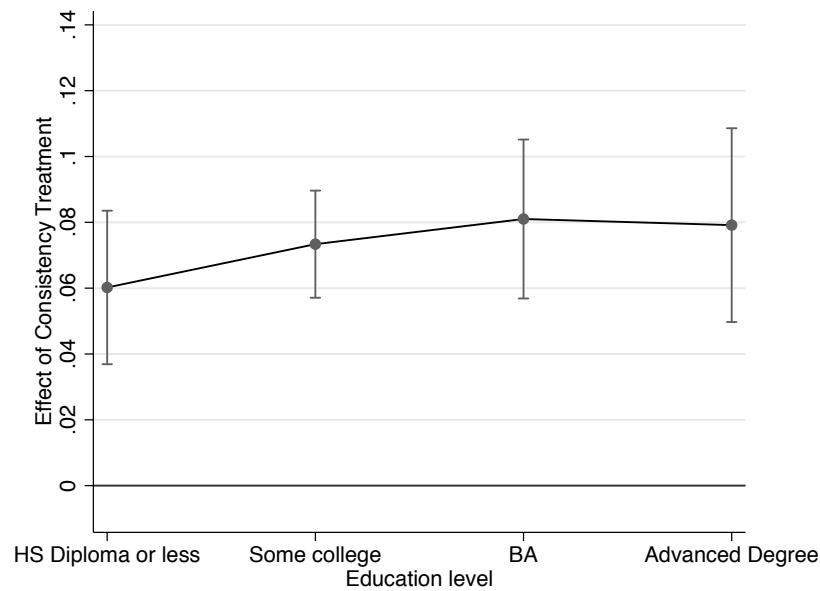
\*\* p<0.01, \* p<0.05, two-tailed tests

Clustered standard errors in parentheses. The pooled models include random effects for respondents.

One potential reservation about the analysis above is that it imposes linear relationships between education and the dependent measures. Our education measure is finely-grained (see Section 2), but the distribution is uneven. To more fully elucidate the effects of education, we recode the measure into four sensible levels, and estimate treatment effects separately at each level. Figure SI-4 shows

the results. Consistent with Table SI-8, there is a modest relationship such that highly-educated respondents are more susceptible to consistency pressures than low-education respondents.

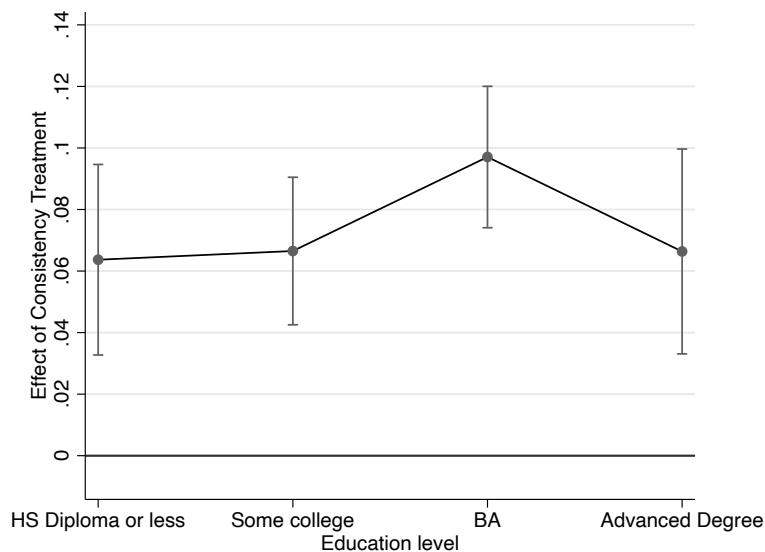
Figure SI-4: Well-Educated Respondents Exhibit More Consistency Bias



Marginal effect of party-consistent cue, estimated at various levels of education. Whiskers represent 95% confidence intervals. Pure independents are excluded.

Figure SI-5 reports the same pattern as it manifests in Study 2. The pattern is arguably similar, though the degree of statistical uncertainty leaves the matter open to interpretation.

Figure SI-5: Education and Consistency Pressures (Study 2)



Whiskers represent 95% confidence intervals.

## 15. Secondary Analysis: The Role of Political Trust

Miller et al. (2016) posit that political knowledge and political trust each play a role in disposing citizens to believe political conspiracy theories. In particular, they conjecture (and find) that citizens who are low in trust but high in political knowledge are most likely to endorse conspiracies—and that this pattern is especially true of conservatives. (Though they also posit that the opposite pattern might arise once Democrats become politically disempowered—particularly if they lose control of the White House, which of course had occurred by the time we conducted our study.)

We lack a measure of political knowledge, so cannot fully assess Miller et al.’s findings in a fresh dataset. However, the NORC AmeriSpeak Panel information does include respondents’ answers to two questions about political trust: it asked about trust in the government in Washington D.C., and the media. These two items exhibit mediocre reliability (Cronbach’s  $\alpha=.42$ ). Additionally, Study 2 included (pre-treatment) the same four-question trust battery used by Miller et al. (Cronbach’s  $\alpha=.68$ ). Hence, we can examine whether the patterns Miller et al. uncover endure over time.

To assess whether political trust moderates partisan bias, we regress scandal endorsement on indicators for a partisan-consistent scandal, political trust, and the interaction of these two variables. Given Miller et al.’s conclusion that the relationship depends on political affinities, we estimate the model separately for Republicans and Democrats. Figure SI-6 summarizes the results. In Study 1, political trust appears to moderate consistency pressures for Republicans, but not Democrats.<sup>7</sup> In Study 2—conducted approximately one year later—trust moderates consistency pressures for both Republicans and Democrats.<sup>8</sup>

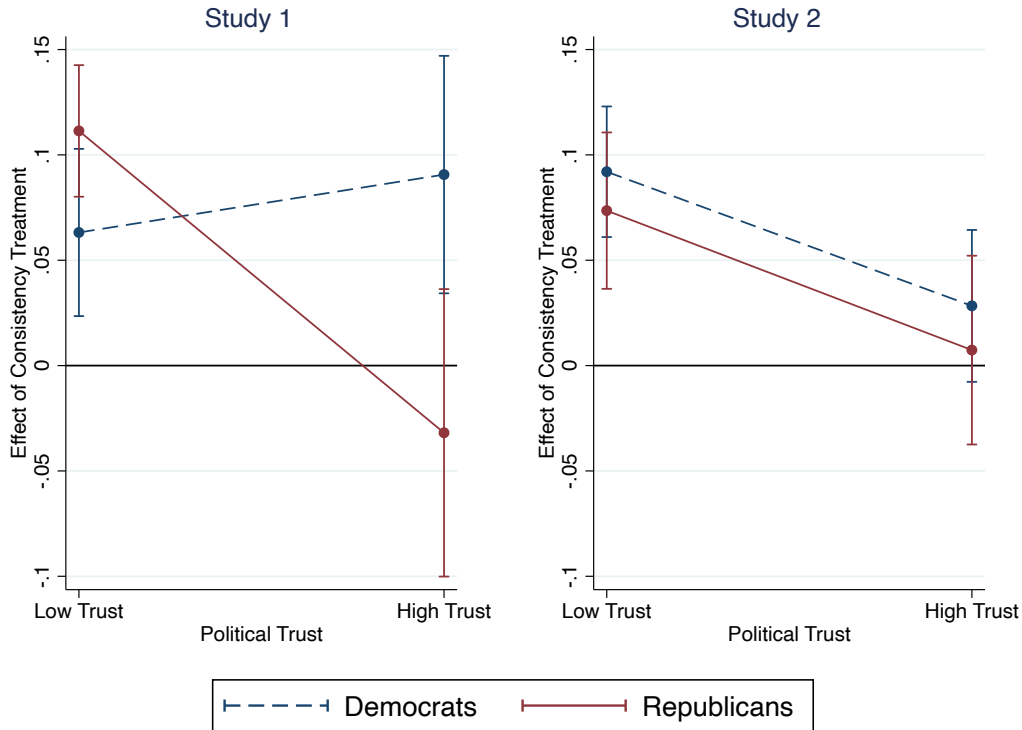
Democrats exhibit slightly more bias when they are high in trust than low, though the relevant interaction term is not significant ( $\beta=0.028$ ,  $SE=0.047$ ,  $p=.56$ ). Republicans exhibit more bias when they are low in trust than when they are high in trust, and the relevant interaction term is significant ( $\beta=-0.143$ ,  $SE=0.047$ ,  $p<.01$ ).

---

<sup>7</sup> For Republicans, the relevant interaction term is significant ( $\beta=-0.143$ ,  $SE=0.047$ ,  $p<.01$ ). For Democrats, it is not ( $\beta=0.028$ ,  $SE=0.047$ ,  $p=.56$ ).

<sup>8</sup> However, neither relevant interaction term is dispositively significant. For Democrats, ( $\beta=-0.063$ ,  $SE=0.032$ ,  $p=0.050$ ). For Republicans, ( $\beta=-0.066$ ,  $SE=0.039$ ,  $p=0.094$ ).

Figure SI-6: Political Trust Moderates Consistency Pressures for Republicans, but not Democrats



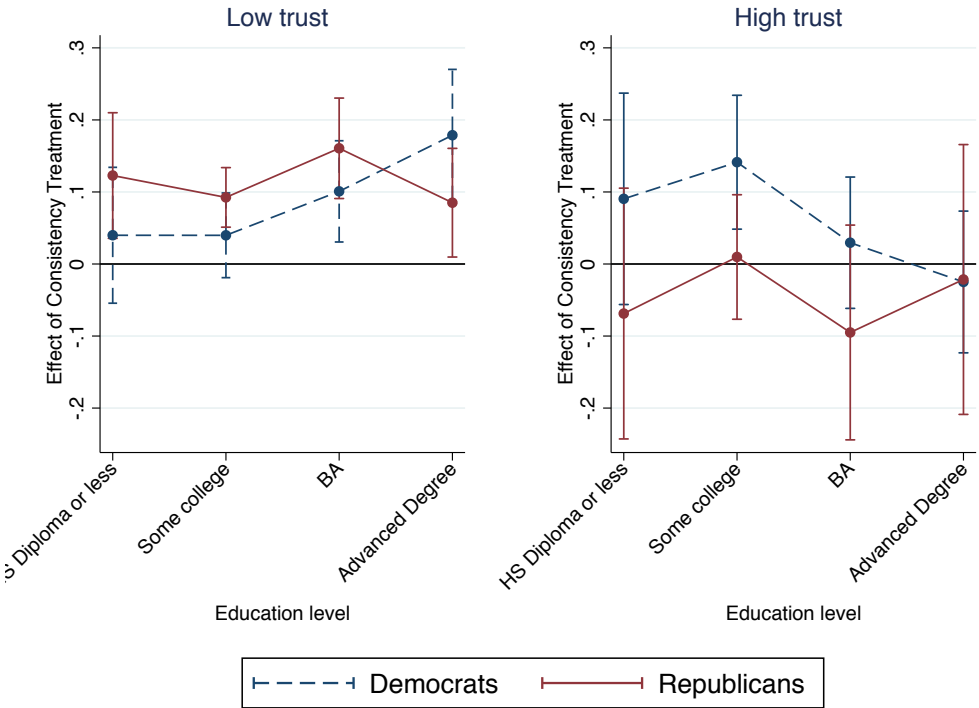
Whiskers represent 95% confidence intervals.

In one sense, these results handsomely produce the result Miller et al. (2016) would expect: low trust is associated with greater endorsement of false information among Republicans. Additionally there is evidence that the pattern for Democrats reversed during the Trump presidency—though this change appears to have unfolded slowly. (Even Study 1 took place a full year into the Trump presidency. And surprisingly, the reversal took place after Democrats took control of the House of Representatives. As we note in Section 5, this occurrence might have arrested the possible reversal.) Finally, Miller et al.'s framework might have predicted that trust would cease to moderate consistency pressures among Republicans, the longer their in-party held control of the White House. But Figure SI-6 reveals no evidence of such attenuation.

As a final related test from Study 1, we examine the effects of education and trust jointly, using a model in which the consistency treatment, education, trust, and partisanship are entered in a four-way interaction. The results are shown in Figure 7 below. There is a hint (via the right-hand panel) that when education and trust coincide, consistency pressures are near zero for both Democrats and Republicans. We leave further exploration of this possible pattern to future studies.



Figure SI-7: Effect of Consistency Treatment, by Trust and Education.



Whiskers represent 95% confidence intervals.

## 16. NORC AmeriSpeak Recruitment Process

The pages that follow append a technical overview of the AmeriSpeak Panel recruitment process, prepared by NORC.

## APPENDIX

# TECHNICAL OVERVIEW OF THE AMERISPEAK® PANEL NORC'S PROBABILITY-BASED RESEARCH PANEL

Updated December 14, 2016

Prepared by J. Michael Dennis, Ph.D.

### Overview.

Funded and operated by NORC at the University of Chicago, AmeriSpeak® is a probability-based panel designed to be representative of the US household population. Randomly selected US households are sampled with a known, non-zero probability of selection from the NORC National Frame, and then contacted by US mail, telephone interviewers, overnight express mailers, and field interviewers (face to face). AmeriSpeak panelists participate in NORC studies or studies conducted by NORC on behalf of NORC's clients.

In 2016, the AmeriSpeak Panel is expanding to 20,000 households, with a large oversample of young African-American, Hispanic, and Asian adults (age 18 to 30). AmeriSpeak will expand further in 2017 by creating new panels specific to Latino and teen research.

### Sample Frame

In order to provide a nationally representative sample, AmeriSpeak leverages the NORC National Sample Frame, constructed by NORC to cover over 97 percent of U.S. households. The 2010 National Frame used a two-stage probability sample design to select a representative sample of households in the United States. The first stage—the sampling unit—is a National Frame Area (NFA), which is either an entire metropolitan area (made up of one or more counties) or a county (some counties were combined so that each NFA contains a population of at least 10,000). The largest NFAs with a population of at least 1,543,728 (0.5 percent of the 2010 Census U.S. population) were selected with certainty; these areas have a high-population density, and are dominated by tracts with street-style addresses. These areas contain 56 percent of the population within 8 percent of the geographic area of the United States. The remaining areas were stratified into areas where street-style addresses predominate, and the remaining areas, which are less likely to have street-style addresses. The latter stratum ("rural" areas) comprises 81 percent of the geographic area, but only 14 percent of the population.

Within the selected NFAs, the second stage sampling unit is a segment, defined either in terms of Census tracts or block groups, containing at least 300 housing units according to the 2010 Census. A stratified probability sample of 1,514 segments was selected with probability proportional to size. For most of the 1,514 segments, the USPS DSF provided over 90 percent coverage of the segment in terms of city-style addresses that are geo-codeable. For the 123 segments where the DSF provided insufficient coverage, we enhanced the DSF address list with in-person listing. The National Sample Frame contains almost 3 million households, including over 80,000 rural households added through the in-person listing.

The National Frame involves addresses in almost every state. For the remaining states, AmeriSpeak added some address-based sampling (ABS) addresses in 2016 from the USPS DSF to assure AmeriSpeak sample representation for all US States. As of October 2016, 0.9% of AmeriSpeak Panel recruited adults were sourced from the ABS (99.1% from the National Frame). Proper weights allow the full use of the combined sample.

### **Sample Selection for Panel Recruitment**

The 2014-2016 AmeriSpeak Panel sample consists of nationally representative housing units drawn from the 2010 NORC National Sample Frame and less than 1% from address-based sampling. The 2010 NORC National Sample Frame is stratified based on segment (Census tract or Census block group) characteristics such as age and race/ethnicity composition of the segment, and then, a stratified simple random sample of housing units is selected. Specifically, based on Census tract-level data, segments were classified as having a higher concentration of 18-24 year old adults or not, and a higher concentration of Hispanics, non-Hispanic African Americans, and other. Based on these strata definitions, 6 strata (2 based on age times 3 based on race/ethnicity) were used to oversample housing units in segments higher in young adults and/or Hispanics and non-Hispanic African-Americans. This is referred to as the initial sample or first stage of panel recruitment.

In the second stage of panel recruitment, initially sampled but nonresponding housing units are subsampled for a nonresponse follow-up (NRFU). At this stage, consumer vendor data are matched to housing units, and housing units that are flagged (based on consumer vendor data) as having a young adult or minority (Hispanic and non-Hispanic African American) are oversampled for the nonresponse follow-up. Overall, approximately one in five initially nonresponding housing units are subsampled for NRFU. However, as mentioned previously, selection of housing units for NRFU is a stratified simple random sample based on consumer vendor data. Due to NRFU, these initially nonresponding housing units have a much higher selection probability compared to the housing units that were recruited during the first stage of panel recruitment. Note that a small fraction of initially nonresponding housing units are not eligible for NRFU due to these housing units being classified as “hard refusals” or having an appointment for a call back from NORC.

In summary, there are two reasons why the sampling design for AmeriSpeak Panel recruitment deviates from EPSEM sampling: (a) oversampling of housing units in segments with a higher concentration of young adults and minorities results in the sample selection probabilities being higher for housing units in these segments; and (b) the nonresponse follow-up effort results in initially nonresponding housing units having a much higher selection probability. Furthermore, oversampling associated with NRFU results in higher selection probabilities for initially nonresponding housing units that are flagged (based on consumer vendor data) as having a young adult or minority.

### **AmeriSpeak Panel Recruitment Procedures.**

Recruitment is a two-stage process: initial recruitment using less expensive methods and then non-response follow-up using personal interviewers. For the initial recruitment, sample units are invited to join AmeriSpeak online by visiting the panel website AmeriSpeak.org or by telephone (in-bound/outbound supported). English and Spanish language are supported for both online and telephone recruitment. Study invitations are communicated via an over-sized pre-notification postcard, a USPS recruitment package in a 9”x12” envelope (containing a cover letter, a summary of the privacy policy, FAQs, and a study brochure), two follow-up post cards, and also follow-up by NORC’s telephone research center for matched sample units.

The second-stage non-response follow-up targets a stratified random sub-sample of the non-responders from the initial recruitment. Stratification is based on consumer vendor data and stratification variables from the initial recruitment stage in order to increase sample representation of young adults, non-Hispanic African Americans, and Hispanics. Units sampled for the non-response follow-up are sent by Federal Express a new recruitment package with an enhanced incentive offer. NORC field interviewers then make personal, face-to-face visits to the respondents’ homes to encourage participation. NORC field interviewers administer the recruitment survey in-person using CAPI or else encourage the respondents to register at AmeriSpeak.org or call the toll-free AmeriSpeak telephone number to register.

### **Recruiting Non-Internet and “Net Averse” Households.**

Under certain conditions, AmeriSpeak gives respondents a choice regarding their preferred mode for future participation in AmeriSpeak surveys. For the 2014-2016 recruitment, 79% of the recruited panelists were enrolled in AmeriSpeak to receive online surveys, while 21% of the recruited adults agreed to participate in AmeriSpeak telephone mode surveys. For the 2016 recruitment, respondents provided an option of online or telephone modes include: persons without internet access, persons whose only internet access is via a smartphone, and persons with internet access but unwilling to share an email address. A recruited household can consist of both web-mode and phone-mode panelists residing in the same household.

### **Impact of Non-Response Follow-up.**

The non-response follow-up improves the representativeness of the AmeriSpeak sample with respect to certain demographic segments, including but not limited to rural and/or lower income households, cell-phone only households, persons age 18 to 34, African Americans, Hispanics, and persons without a high school degree or have only a high school degree (no college). Compared to panelists recruited in the initial stage, panelists recruited via the non-response follow-up campaign are more politically conservative, are less knowledgeable about science, report less interest in current events and topics in the news (such as climate change), and are less likely to read a print newspaper.

### **AmeriSpeak Panel Recruitment Response Rate and Other Sample Metrics.**

Between October 2014 and October 2016, 20,939 households were recruited to the AmeriSpeak Panel. The AAPOR RR3 (response rate) for the panel recruitment during this time frame is 34.3% (weighted to take into account selection probabilities).<sup>1</sup> The estimated cumulative AAPOR RR3 for client surveys is 10% to 20% (varying according to study parameters and taking into account all sources of non-response including panel recruitment, panel household attrition, and survey participation).<sup>2</sup> NORC documented the AAPOR response rate calculation methodology for 2014-2015 recruitment.<sup>3</sup>

Key statistics with respect to the 2014-2016 recruited households are as follows: 51% recruited via the non-response follow-up recruitment using overnight Federal Express mailers and face-to-face methodology (with NORC field staff visiting households); 21% indicated a preference for the telephone mode of data collection for participating in AmeriSpeak studies; 25% of the recruited households are non-Internet; 71% are cell-phone only or cell-phone mostly; 18% are African-American and 15% Hispanic; and 33% have household income below \$30,000 (compared to ACS benchmark of 29%).

### **Mixed-Mode Data Collection.**

Panelists may participate in 2 to 3 AmeriSpeak Panel studies per month via online (computer, tablet, or smartphones) or by CATI phone. CATI phone mode respondents represent a population currently under-represented in web panels that exclude non-internet households or “net averse” persons. NORC’s telephone interviewers administer the phone mode of survey questionnaires using a data collection system supporting both the CATI phone and web modes of data collection, providing an integrated sample management and data collection platform. For panelists using smartphones for web-mode AmeriSpeak surveys, the NORC survey system renders an optimized presentation of the survey questions for these mobile users. For general population client studies, approximately 20% of the completed interviews are completed by the telephone mode.

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<sup>1</sup> The response rate calculation incorporates the selection probabilities of the samples for the initial recruitment and non-response follow-up stages, as calculated by the US Bureau of the Census for the American Community Survey.

<sup>2</sup> A properly calculated AAPOR response rate for panel-based research takes into account all sources of non-response at each stage of the panel recruitment, management, and survey administration process. A common misapplication of the term “response rate” in online panel surveys is representing the survey-specific cooperation rate as the “survey response rate.”

<sup>3</sup> See “Response Rate Calculation Methodology for Recruitment of a Two-Phase Probability-Based Panel: The Case of AmeriSpeak” authored by Robert Montgomery, J. Michael Dennis, Nada Ganesh. The paper is available at [amerispeak.norc.org](http://amerispeak.norc.org) on the “research” page.

### **Panel Management Policies**

NORC maintains strict rules to limit respondent burden and reduce the risk of panel fatigue. On average, AmeriSpeak panel members typically participate in AmeriSpeak web-based or phone-based studies two to three times a month.

Because the risk of panel attrition increases with the fielding of poorly constructed survey questionnaires, the AmeriSpeak team works with NORC clients to create surveys that provide an appropriate user experience for AmeriSpeak panelists. AmeriSpeak will not field surveys that in our professional opinion will result in a poor user experience for our panelists and in panel attrition.

### **ABOUT NORC AT THE UNIVERSITY OF CHICAGO**

As one of the world's foremost independent research institutions, NORC at the University of Chicago delivers objective data and meaningful analysis to help decision-makers and leading organizations make informed choices and identify new opportunities. Since 1941, NORC has applied sophisticated methods and tools, innovative and cost-effective solutions, and the highest standards of scientific integrity and quality to conduct and advance research on critical issues. Today, NORC expands on this tradition by partnering with government, business, and nonprofit clients to create deep insight across a broad range of topics and to disseminate useful knowledge throughout society.

Headquartered in downtown Chicago, NORC works in over 40 countries around the world, with additional offices on the University of Chicago campus, the DC metro area, Atlanta, Boston, and San Francisco.

### **ADDITIONAL RESOURCES**

To learn more about AmeriSpeak or to share an RFP, please contact AmeriSpeak at [AmeriSpeak-BD@norc.org](mailto:AmeriSpeak-BD@norc.org). Information about AmeriSpeak capabilities and research papers are available online at [AmeriSpeak.NORC.org](http://AmeriSpeak.NORC.org).