Voter Confidence and Electoral Participation: Report

Thomas Cao, Susan Athey Stanford University

Abstract

We assess how highlighting the electoral process's bipartisan oversight impacts voter trust and turnout based on a field experiment of 14,000 voters ahead of the 2022 U.S. midterm elections. The treatment increased voter trust by 5 percentage points but reduced turnout by 1.4 percentage points, especially among moderate Republicans. In particular, the treatment increased the proportion of those who reported full trust in the electoral outcomes but did not vote. This suggests that interventions intended to reduce partisan polarization and boost voter trust may unintentionally discourage turnout by making the moderates feel less personally necessary to vote.

Grant Amount

\$100,000

Introduction

Mistrust in elections and how it may affect democratic engagement has become a pivotal concern in the contemporary American political landscape. We study the relationship between partisan fears, voter trust, and electoral participation through a field experiment that engaged a random sample of 14,000 registered U.S. voters two weeks leading up to Election Day 2022.

Our treatment, designed to alleviate concerns about unilateral partisan manipulation in the electoral process, highlighted the bipartisan nature of electoral oversight to ensure fair and transparent electoral outcomes. The experiment unveiled a nuanced outcome: while voter trust in election outcomes surged, turnout surprisingly dipped, especially among moderate Republicans. This phenomenon suggests that enhancing electoral trust, though beneficial, might inadvertently dampen the imperative for individual voting, particularly among moderate voters.

We employed a methodological approach that integrates survey responses with actual voting behaviors, offering a comprehensive view of the intervention's impact. Our outcomes revealed a critical insight: a boost in electoral trust could be accompanied by a decreased urgency to vote, perhaps propelled by a reinforced belief in their party's success.

In the midst of growing interest in designing interventions that seek to reduce partisan animosity and boost trust, our findings shed light on the complex effects of attempts to bolster electoral integrity on voter behavior. In particular, our results highlight the necessity for sophisticated, targeted strategies to foster an informed, active electorate. Our insights aim to guide academics, policymakers, and election officials toward fostering a more informed and participatory electoral process.

Accomplishments

DESIGN

We emailed a random sample of registered U.S. voters (each linked to their voter registration record through L2's voter ID) during the two weeks before Election Day (October 25 to November 7, 2022). We recruited approximately 14,000 respondents to participate in our online survey. While building the infrastructure of outreach is less convenient than recruiting a sample of respondents from a survey company, our approach provides two advantages: First, the results are less likely to be affected by professional respondents who constantly participate in political surveys for monetary benefits, whose responses, therefore, may be less representative of the ordinary voters'. Second, prior research suggests that matching samples from professional survey platforms to voter file data leads to limited matching rates (from 79 percent to as low as 50 percent), and those who cannot be matched may be systematically different from those who can. (Igielnik et al. 2018) By recruiting voters through the contact information provided as part of L2's files of all registered voters, we largely avoid these issues and increase our data efficiency.

The survey experiment is pre-registered on the AEA RCT Registry.¹ It begins with pre-treatment questions about ideology, negative partisan affect, political trust, and information sources. Then, half of the

¹ Link to pre-registration: https://www.socialscienceregistry.org/trials/10300.

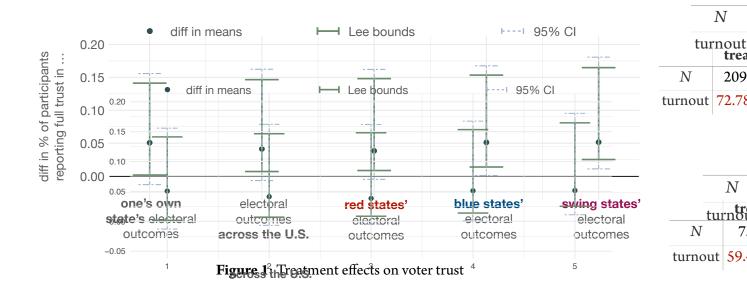
respondents are randomly assigned to our treatment information on the election process's bipartisan oversight embedded in the survey, which focuses on alleviating concerns that one party can single-handedly affect substantial decision-making. Before the treatment message is shown, we ask the treatment group a question on who is involved in election-related decisions (choices including, e.g., only Democrats/Republicans, only the party controlling one's state's executive branch, etc.). Respondents are told that answering the quiz question correctly will give them a chance to win a \$20 Amazon gift card, which incentivizes them to process the question and the underlying treatment content carefully. The control group only sees generic information on the 2022 midterm elections' scope.

The post-treatment outcome questions are respondents' confidence levels in electoral outcomes for their state, the entire country, and red/blue/swing states, each on a 5-point scale, with 5 representing that one fully trusts the election outcome. A careful balance of power and details drives the selection of outcome questions on voter trust. Other studies sometimes inquire about a host of questions on trust, ranging from the particulars of vote counting to the number of seats that may have been "stolen" due to voter fraud, and the sheer number of these questions can result in multiple hypotheses testing, which reduces statistical power. On the other hand, a single question may not capture the complexity of voter trust. Our questions focus on one of the most important consequences of voter trust, i.e., whether the election outcomes are trusted, and we decompose trust in nationwide election outcomes into those in red, blue, and swing states to understand better how participants of different ideologies react to our treatment. In addition, we also inquire whether they intend to vote in the 2022 elections as a post-treatment outcome question, again using a five-point scale where 5 represents a definite intention to vote, unless they indicated pre-treatment that they had already voted in the 2022 elections. This response allows future research to contrast between self-reported turnout inclinations and actual turnout behavior obtained from the official voter files. Note that we do not automatically exclude respondents self-reporting to have voted before participating in our experiment, as their self reports might not be truthful due to the potential of social desirability bias. However, we cross reference our survey data with voter files and exclude individuals whose ballot return date precedes their survey completion date. Finally, we ask them to predict the main outcomes of the midterm elections — to what extent they believe each party will gain control of the two chambers of Congress.

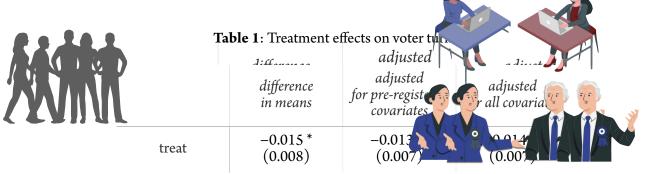
RESULTS²

The results, as shown in Figure 1, demonstrate significant and substantial differences in voter confidence across all measures of voter trust. Our treatment consistently generates a 4~6 percentage point increase in respondents who fully trust the electoral outcomes in their states, across the country, and in red/blue/swing states in the treatment group compared to the control group. It should be noted that participants assigned to treatment appear to attrit at a higher rate than those assigned to control, which threatens the validity of the simple difference-in-means estimate. Approximately 12% of the treatment group participants fail to finish the survey, as opposed to less than 1% in the control group. The differences remain robust after accounting for differential attrition in the treatment group with the nonparametric Lee (2009) bounds. The results are also robust across specifications.

² All data excludes New Hampshire respondents (turnout data not yet available) and excludes voters who participated in the survey after having voted according to the voter files.



However, somewhat counterintuitively, our treatment led to a small (1.4 percentage points) but significant decrease in actual turnout, as shown in Table 1. (The turnout rate for the control group is 59.99%; for the treatment group, it is 58.47%).



Note: Pre-registered covariates include each participant's gender, age, ideology/party ID, ethnicity, voting history in 2018 and 2020, trust levels in the Biden administration, former president Trump, and the Supreme Court, tendency to search for political information and to use social media, and whether each participant's state has above-average turnout levels in 2020. Additional covariates include whether each participant claimed to have voted (not balanced between treatment and control), information sources (including mainstream media and social media), and trust in Congress. Robust standard errors are reported in parentheses; *: p < 0.1; **: p < 0.05; ***: p < 0.01.

The negative effect on voter turnout was concentrated among the Republicans, as shown in Table 2. (After covariate adjustment, the effects for non-Republicans were almost exactly 0.)

Table 2: Voter turnout by party ID

		Republicans		Democrats		Others	
		treat	control	treat	control	treat	control
	\overline{N}	2090	2086	2493	2489	2232	2234
5% CI	turnout	72.78%	75.36%	59.93%	61.11%	43.46%	44.40%
		(w/ cov adju	st., p = 0.0005)	(w/ cov adj	just., p = 0.55	(w/ cov adju	ust., p = 0.95
•							_

treat control

0.10 0.0 0.05 0.00 -0.05-0.05 -0.10 -0.10 the Se

diff in mea

0.10

0.05

0.00

treat control

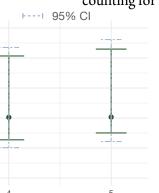
N

turnout

trea

209

Moreover, as shown in Table 3, the negative effect on voter turnout was further concentrated on moderate Republicans, as defined by relatively weak negative partisanship, i.e., those who do not regard the Democratic Party as a major threat to their way of life (lower than or equal to 3 on a scale of 1~5; the results are robust for other cutoffs A control in Appendix Table A1, thereasults and add robust after accounting for multiple hypothezistesting of different patisanzab groups. 2232

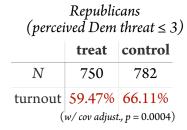


adjusted

(0.007)

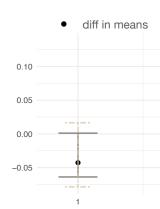
		_		_		
turnout	72.78%	75.36%	59.93%	61.11%	43.46%	44.40%

Table 3: Voter turnout among Republicans by negative partisanship



(perceived Dem threat > 3)					
	treat	control			
N	1332	1296			
turnout	80.41% (w/ cov adju	80.79% st., $p = 0.20$)			

Republicans



and didn't vote

MECHANISMS

With both survey outcomes and turnout, we can study changes in the proportions of combinations of beliefs and voting behavior, which help reveal potential mechanisms for the negative turnout. In particular, as shown in Figure 2, our treatment increased the proportion of participants who reported full trust in the electoral outcomes and did not vote. In contrast, our treatment decreased the proportion of participants who didn't fully trust the electoral outcomes and did not vote. (The results are robust after accounting for multiple hypothesis testing, as shown in Appendix Table A2. The results are also consistent for all covariatacross different measures of post-treatment voter trust in electoral outcomes, as shown in Appendix Table A3.) These results suggest it is unlikely that our treatment backfired by inducing greater doubt in the electoral system or reminding voters of potential partisan manipulation. Instead, the evidence is consis--0.014**tent with the mechanism that our treatment increased voter trust and consequently made some voters feel less necessary to personally turn out to vote. The effects are higher on our key group of moderate Republicans (who had particularly large negative treatment effects on turnout) and are robust when we look at the composite outcome of trust in blue states' electoral outcome and not voting.

> In addition, for the key subgroup of moderate Republicans, we conduct further exploratory analysis on the downstream effects of increased trust on their electoral outcome predictions. Figure 3 demonstrates the composite outcome of respondents' post-treatment predictions of electoral outcomes and voting behavior among this subgroup. Our treatment increased the proportion of those who believed the Republican Party would probably or definitely win and did not vote. In contrast, it does not impact the proportion of those who didn't believe the GOP would win and didn't vote.3 This suggests that one channel through which our mechanism of increasing trust works to decrease turnout is to make these voters on

³ Significant at 90% confidence level (for the Senate prediction). For completion's sake, Appendix Table A4 demonstrates the effects of our treatment on the composite outcome of respondents' post-treatment predictions of electoral outcomes across partisan subgroups. As expected, no other subgroup has significant effects.

the margin believe that their party would win nevertheless, thereby reducing their perceived necessity to

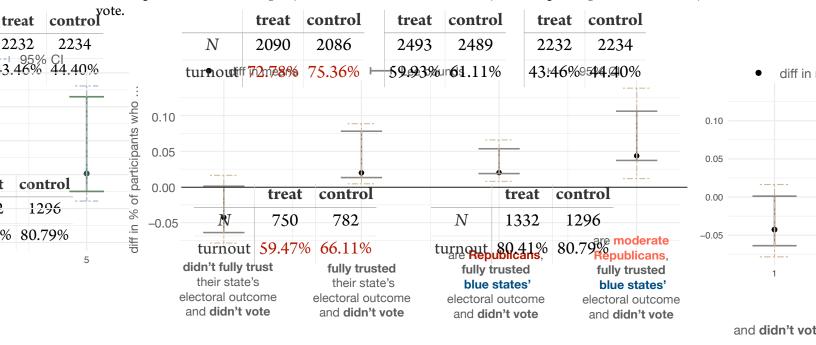


Figure 2: Combined outcomes of voter trust and turnout

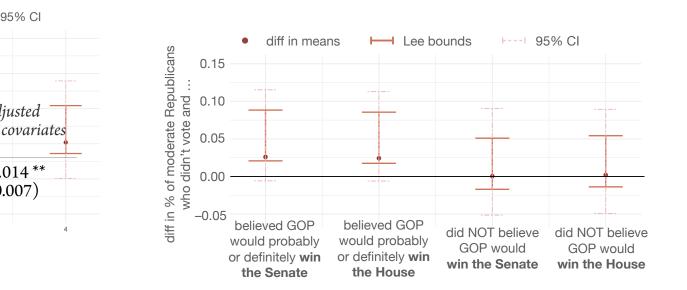


Figure 3: Combined outcomes of electoral prediction and turnout among moderate Republicans

Overall, evidence suggests that by increasing trust in the electoral outcomes, our bipartisan oversight treatment potentially diminished the (moderate) Republicans' sense of negative partisan sentiments toward Democrats, which were a motivating factor for turnout. At the same time, boosting trust in the system may strengthen their belief in a GOP electoral victory, which in turn might have weakened their sense of necessity to personally turn out to vote.

Products

We have accumulated a rich and novel dataset of approximately 14,000 observations from registered U.S. voters we contacted. The dataset consists of the following four components: 1) demographic covariates and party identification from the L2 voter file; 2) survey responses regarding ideology, negative partisan affect, information sources, and baseline trust levels in U.S. government and institutions, post-treatment; 3) treatment status and post-treatment survey outcomes on trust in electoral outcomes, self-reported voting inclination, and predictions of which party would win; and 4) actual voting behavior in the 2022 midterm elections. The dataset will be made publicly available after the publication of our paper on this experiment.

We have also presented or will be presenting, the study at various academic conferences, including the American Political Science Association (APSA) annual meeting, the Society for Political Methodology (Polmeth) annual meeting, and the Election Science, Reform, & Administration (ESRA) Conference. The latest version of our presentation poster is available at https://apsa2023-apsa.ipostersessions.com/default.aspx?s=B7-77-09-96-A6-1F-2E-60-70-D4-61-3A-E9-E9-F3-67.

Participants

In addition to our survey participants, we have engaged with election officials in North Carolina, California, Oregon, Ohio, Michigan, Colorado, Illinois, Utah, and Virginia to discuss our treatment message on the election's bipartisan oversight process to ensure that the wording used in our treatment is not only factually accurate but resemble actual voter communication. We thank Aaron Hayman from Logically.ai for facilitating the meetings with election officials. Herman Donner has provided valuable support throughout the project on logistic and financial matters and has reviewed important materials and documents related to the project. Analia Gomez Vidal has also contributed to the review of documents and project management. Patricia Andrews Fearon has participated in project discussions and contributed ideas to the project's literature review and survey design. Earlier versions of the survey have been piloted in the Stanford Graduate School of Business classes on experimental design.

Impacts

Our study reveals a somewhat counterintuitive relationship between voter trust and electoral participation. Existing literature suggests that voters tend to participate more when they have higher trust in elections. Observational data from 31 countries demonstrate that perceptions of electoral fairness are positively associated with the propensity to vote (Birch 2010). Indeed, based on our data, the correlation between voter trust in electoral outcomes and turnout among U.S. voters is also significantly positive in both control and treatment groups. Moreover, the literature has provided experimental evidence suggesting that boosting voter confidence in the non-political aspects of the electoral process may increase turnout: Gerber et al. (2013) demonstrate, based on a field experiment conducted during the 2010 elections in Connecticut, that government communication on ballot secrecy protections increases voter turnout, especially among recently registered nonvoters. In later work, Gerber et al. (2018) show that the result is robust when similar information is provided from non-governmental sources.

Different approaches to increasing trust may lead to different results in terms of voter turnout, and the impact of interventions may further depend on the context and the characteristics of potential voters. Thus, a change in voter confidence that results from an educational intervention about electoral security may have effects that differ from those arising from increasing trust in electoral outcomes. Trust in electoral outcomes has become a salient political issue as affective polarization grows. Berlinski et al. (2021) show that it is difficult to increase confidence in electoral outcomes using non-partisan factual information from mainstream sources. In response, researchers have focused on interventions that intend to alleviate negative partisan sentiments such as fear and anger (e.g., Braley et al. 2023; Moore-Berg et al. 2022), and these interventions are shown to be effective in reducing both partisan animosity and support for undemocratic behavior, including unwillingness to accept electoral outcomes (Voelkel et al. 2022).

As these partisan-themed interventions become increasingly popular among academic researchers and election officials, our study cautions against their unintended consequences of discouraging turnout. This is particularly relevant for moderate voters, who are exposed to partisan fear and anger but are more likely to be affected by evidence-based messages that alleviate these negative sentiments. Consequently, they may feel less need to personally turn out to vote, because negative partisanship is a strong motivator for turnout, especially among the more independently-minded voters (Bankert 2022), and potentially because they may become more convinced that their preferred party will secure its victory. Thus, without careful design of interventions and their dissemination, efforts to diminish affective partisan polarization might inadvertently favor more polarized candidates by squeezing out moderate voters.

Our study, therefore, underscores the need for a nuanced approach to voter education and engagement strategies. Future research may consider how to design customized interventions that target different demographics differently to maximize the gain in boosting voter trust in electoral outcomes without compromising participation in elections. While trust-building is crucial, if voter turnout is an important objective, complementary messages to encourage voting should accompany such efforts, especially for moderate potential voters.

Finally, our study contributes to developing election science methodology. Our experimental design, which couples survey data with actual field outcomes, offers a robust methodology for future experimental research. Such designs can help disentangle the multifaceted motivations and reveal possible mechanisms for potentially counterintuitive findings.

Changes and/or Problems

In the stage of voter outreach, we found that Gmail tended to classify our recruiting email as spam much more frequently than other email service providers. As a result, we asked L2 to provide voter files with non-Gmail addresses to increase our survey click-through. We collected 351 registered voters with Gmail addresses using separate outreach infrastructure, and their results are similar to the non-Gmail users (treatment \times Gmail = -0.0007, p = 0.99), despite differences in demographic distributions between the two groups.

We have made two changes relative to the research design proposed when applying for the grant. First, we did not proceed to collect data from U.S. citizens who had yet to register to vote, mainly because it was challenging and costly to obtain their identifiable information accurately. Second, we abandoned the plan to have another treatment arm that featured the treatment message only, without the incentivized quiz for a \$20 Amazon gift card, because of power issues and because the final research question was no longer focused on how to deliver treatments more effectively, making the comparison between the two treatment groups unnecessary.

References

- Bankert, A. (2022). Negative partisanship among Independents in the 2020 US presidential elections. *Electoral Studies*, 78, 102490.
- Berlinski, N., Doyle, M., Guess, A. M., Levy, G., Lyons, B., Montgomery, J. M., ... & Reifler, J. (2021). The effects of unsubstantiated claims of voter fraud on confidence in elections. *Journal of Experimental Political Science*, 10(1), 34-49.
- Birch, S. (2010). Perceptions of electoral fairness and voter turnout. *Comparative Political Studies*, 43(12), 1601-1622.
- Braley, A., Lenz, G. S., Adjodah, D., Rahnama, H., & Pentland, A. (2023). Why voters who value democracy participate in democratic backsliding. *Nature Human Behaviour*, 1-12.
- Gerber, A. S., Huber, G. A., Doherty, D., Dowling, C. M., & Hill, S. J. (2013). Do perceptions of ballot secrecy influence turnout? Results from a field experiment. *American Journal of Political Science*, 57(3), 537-551.
- Gerber, A. S., Huber, G. A., Fang, A. H., & Gooch, A. (2018). Nongovernmental Campaign Communication Providing Ballot Secrecy Assurances Increases Turnout: Results From Two Large-Scale Experiments. *Political Science Research and Methods*, 6(3), 613-624.
- Igielnik, R., Keeter, S., Kennedy, C., & Spahn, B. (2018). Commercial voter files and the study of US politics. Pew Research Center (Feb. 15) https://www.pewresearch.org/methods/2018/02/15/commercial-voter-files-and-the-study-of-us-politics.
- Lee, D. S. (2009). Training, wages, and sample selection: Estimating sharp bounds on treatment effects. *Review of Economic Studies*, 76(3), 1071-1102.
- Pasek, M. H., Ankori-Karlinsky, L. O., Levy-Vene, A., & Moore-Berg, S. L. (2022). Misperceptions about out-partisans' democratic values may erode democracy. *Scientific Reports*, 12(1), 16284.
- Voelkel, J., Stagnaro, M., Chu, J., Pink, S., Mernyk, J., Redekopp, C., ... & Willer, R. (2022). Megastudy identifying successful interventions to strengthen Americans' democratic attitudes. *Northwestern University: Evanston, IL, USA*.

Appendix: Full Results and Multiple Hypothesis Testing Corrections

Table A1: Treatment effects on voter turnout across partisan subgroups

	Moderate	Non-moderate	Moderate	Non-moderate
	Republicans	Republicans	Democrats	Democrats
treatment effect	066	004	020	002
	(.025)	(.015)	(.024)	(.016)
	p = .0071	p = 0.8047	p = .3738	p = .8831
treatment ef-	070	017	.009	011
fects controlling	(.020)	(.013)	(.019)	(.014)
for covariates	p = .0004	p = .1986	p = .6299	p = .4204

Note: Moderate partisans here are measured by negative partisanship, referring to those who indicated not viewing the other party as a major threat to their way of life (reporting 1, 2, or 3 on a 5-point scale). Non-moderate partisans refer to those who indicated otherwise (reporting 4 or 5). Unadjusted *p*-values provided in the table. After the Bonferroni correction, the negative effect on turnout among the moderate Republicans remains significant at 95% confidence level.

Table A2: Treatment effects on combinations of voter trust in state-level electoral outcomes and voter turnout across partisan subgroups

	All	Moderate Republicans	Non- moderate Republicans	Moderate Democrats	Non- moderate Democrats
voted 2022 & full trust	Lee lower bound: 012 (.007)	Lee lower bound: 036 (.025)	Lee lower bound: .014 (.015)	Lee lower bound: 001 (.019)	Lee lower bound: 009 (.019)
in state-level outcomes	Lee upper bound: .053 (.008)	Lee upper bound: .046 (.026)	Lee upper bound: .115 (.017)	Lee upper bound: .048 (.020)	Lee upper bound: .047 (.019)

voted 2022 & not full trust in state-level outcomes	Lee lower bound: 069 (.009) Lee upper bound: 005 (.009)	Lee lower bound: 118 (.025) Lee upper bound: 035 (.026)	Lee lower bound: 123 (.021) Lee upper bound: 022 (.020)	Lee lower bound: 069 (.022) Lee upper bound: 021 (.022)	Lee lower bound:050 (.016) Lee upper bound: .006 (.016)
did not vote 2022 & full trust in state-level outcomes	Lee lower bound: .013 (.006) Lee upper bound: .078 (.006) **	Lee lower bound: .038 (.018) Lee upper bound: .103 (.020) *	Lee lower bound: .012 (.007) Lee upper bound: .030 (.008) *	Lee lower bound:004 (.016) Lee upper bound: .100 (.019)	Lee lower bound: .003 (.012) Lee upper bound: .051 (.013)
did not vote 2022 & not full trust in state-level outcomes	Lee lower bound:062 (.008) Lee upper bound: .003 (.008)	Lee lower bound: 032 (.022) Lee upper bound: .033 (.024)	Lee lower bound:023 (.014) Lee upper bound:005 (.015)	Lee lower bound:077 (.026) Lee upper bound: .027 (.026)	Lee lower bound: 048 (.014) Lee upper bound: 000 (.015)

Note: *: p < 0.05 (the 95% confidence interval of the Lee bounds does not cover 0); **: p < 0.01 (the 99% confidence interval of the Lee bounds does not cover 0). After the Bonferroni correction, the positive effect on the proportion of participants who did not vote in 2022 but reported full trust in state-level electoral outcomes remains significant at the 95% confidence level. In terms of partisan subgroups, after the Bonferroni correction, the same positive effect among the moderate Republicans (unadjusted p-value = 0.019) remains significant at the 90% confidence level. Note that the Lee bounds are conservatively estimated.

Table A3: Treatment effects on combinations of voter trust in different electoral outcomes and voter turnout across partisan subgroups

	All	Moderate Republicans	Non- moderate Republicans	Moderate Democrats	Non- moderate Democrats
voted 2022 & full trust	Lee lower bound: 009 (.007)	Lee lower bound: 037 (.023)	Lee lower bound: .025 (.010)	Lee lower bound: .003 (.017)	Lee lower bound: 021 (.017)
in country- level out- comes	Lee upper bound: .056 (.007)	Lee upper bound: .045 (.024)	Lee upper bound: .082 (.008) **	Lee upper bound: .052 (.018)	Lee upper bound: .035 (.018)
voted 2022 & not full trust in	Lee lower bound: 073 (.009)	Lee lower bound: 117 (.027)	Lee lower bound: 132 (.020)	Lee lower bound: 074 (.023)	Lee lower bound: 037 (.018)
country-lev- el outcomes	Lee upper bound: 008 (.009)	Lee upper bound: 035 (.027)	Lee upper bound: 032 (.019) *	Lee upper bound: 025 (.023)	Lee upper bound: .019 (.018)
did not vote 2022 & full	Lee lower bound: .015 (.005)	Lee lower bound: .031 (.016)	Lee lower bound: .014 (.004)	Lee lower bound: 001 (.009)	Lee lower bound: 020 (.020)
trust in country-lev- el outcomes	Lee upper bound: .080 (.006) **	Lee upper bound: .097 (.019) *	Lee upper bound: .020 (.003) **	Lee upper bound: .064 (.011)	Lee upper bound: .064 (.013)
did not vote 2022 & not full trust in	Lee lower bound: 063 (.008)	Lee lower bound: 026 (.023)	Lee lower bound: 025 (.015)	Lee lower bound: 073 (.026)	Lee lower bound: 043 (.015)
country-lev- el outcomes	Lee upper bound: .001 (.009)	Lee upper bound: .040 (.024)	Lee upper bound: 007 (.015)	Lee upper bound: .031 (.026)	Lee upper bound: .005 (.016)
voted 2022 & full trust	Lee lower bound: 004 (.006)	Lee lower bound: 040 (.022)	Lee lower bound: .012 (.016)	Lee lower bound: 012 (.016)	Lee lower bound: 001 (.014)
in red-state outcomes	Lee upper bound: .061 (.007)	Lee upper bound: .039 (.024)	Lee upper bound: .113 (.018)	Lee upper bound: .033 (.018)	Lee upper bound: .058 (.014)

voted 2022 & not full	Lee lower bound: 077 (.009)	Lee lower bound:111 (.027)	Lee lower bound:120 (.021)	Lee lower bound:055 (.023)	Lee lower bound:060 (.019)
trust in red- state out- comes	Lee upper bound:	Lee upper bound:032	Lee upper bound:020	Lee upper bound:010	Lee upper bound:001
	012 (.009)	(.027)	(.021)	(.024)	(.019)
did not vote 2022 & full trust in red-	Lee lower bound: .012 (.005)	Lee lower bound: .026 (.015)	Lee lower bound: .012 (.007)	Lee lower bound: .009 (.014)	Lee lower bound:004 (.008)
state out- comes	Lee upper bound: .078 (.006) **	Lee upper bound: .095 (.018) *	Lee upper bound: .028 (.008)	Lee upper bound: .094 (.010)	Lee upper bound: .042 (.010)
did not vote 2022 & not full trust in	Lee lower bound: 061 (.008)	Lee lower bound:024 (.024)	Lee lower bound:021 (.014)	Lee lower bound:040 (.016)	Lee lower bound:040 (.016)
red-state outcomes	Lee upper bound: .004 (.009)	Lee upper bound: .045 (.025)	Lee upper bound: .005 (.014)	Lee upper bound: .007 (.016)	Lee upper bound: .007 (.016)
voted 2022 & full trust	Lee lower bound: 002 (.007)	Lee lower bound:024 (.023)	Lee lower bound: .043 (.010)	Lee lower bound:005 (.017)	Lee lower bound:014 (.018)
in blue-state outcomes	Lee upper bound: .064 (.008)	Lee upper bound: .054 (.025)	Lee upper bound: .085 (.008) **	Lee upper bound: .041 (.018)	Lee upper bound: .045 (.018)
voted 2022 & not full trust in blue-	Lee lower bound: 080 (.009)	Lee lower bound:127 (.027)	Lee lower bound:151 (.020)	Lee lower bound:063 (.022)	Lee lower bound:048 (.017)
state out- comes	Lee upper bound: 015 (.009)	Lee upper bound:048 (.027) *	Lee upper bound:051 (.019) **	Lee upper bound:018 (.023)	Lee upper bound: .011 (.018)
did not vote 2022 & full trust in blue-	Lee lower bound: .015 (.005)	Lee lower bound: .037 (.017)	Lee lower bound: .011 (.004)	Lee lower bound:005 (.014)	Lee lower bound:006 (.012)
state out- comes	Lee upper bound: .080 (.006) **	Lee upper bound: .106 (.020) *	Lee upper bound: .018 (.004) **	Lee upper bound: .078 (.009)	Lee upper bound: .041 (.013)

				·	
did not vote	Lee lower bound:	Lee lower bound:035	Lee lower bound:021	Lee lower bound:079	Lee lower bound:038
2022 & not	064 (.008)	(.023)	(.015)	(.026)	(.014)
full trust in	(1117)	(**=5)	(** = &)	(**=*)	(** = 1)
blue-state	Lee upper	Lee upper	Lee upper	Lee upper	Lee upper
outcomes	bound: .002	bound: .034	bound:004	bound: .028	bound: .009
	(.009)	(.024)	(.015)	(.026)	(.015)
	Lee lower	Lee lower	Lee lower	Lee lower	Lee lower
voted 2022	bound: .006	bound:015	bound: .034	bound:005	bound: .011
& full trust	(.006)	(.021)	(.010)	(.016)	(.015)
in swing- state out-	Lagunnar	Lagunnar	Lagunnar	Lagunnar	Lee upper
comes	Lee upper bound: .070	Lee upper bound: .064	Lee upper bound: .079	Lee upper bound: .041	bound: .070
002200	(.007)	(.023)	(.008) **	(.018)	(.016)
	Lee lower	, ,	, , , ,	, ,	, ,
	bound:	Lee lower	Lee lower	Lee lower	Lee lower
voted 2022	087 (.009)	bound:136	bound:143	bound:063	bound:073
& not full trust in	, ,	(.027)	(.020)	(.023)	(.019)
swing-state	Lee upper	Lee upper	Lee upper	Lee upper	Lee upper
outcomes	bound:	bound:058	bound:042	bound:017	bound:014
	022 (.009) **	(.027) *	(.019) *	(.0234)	(.019)
	Lee lower	Lee lower	Lee lower	Lee lower	Lee lower
did not vote	bound: .018	bound: .036	bound: .016	bound:001	bound: .002
2022 & full	(.005)	(.015)	(.004)	(.013)	(.009)
trust in					
swing-state	Lee upper	Lee upper	Lee upper	Lee upper	Lee upper
outcomes	bound: .081 (.003) **	bound: .105 (.012) **	bound: .021 (.004) **	bound: .074 (.009)	bound: .049 (.010)
	` '	, ,	, ,	, ,	` ′
1: 1	Lee lower	Lee lower	Lee lower	Lee lower	Lee lower
did not vote 2022 & not	bound: 068 (.008)	bound:033 (.024)	bound:026 (.015)	bound:083 (.026)	bound:046 (.016)
full trust in	000 (.000)	(.027)	(.013)	(.020)	(.010)
swing-state	Lee upper	Lee upper	Lee upper	Lee upper	Lee upper
outcomes	bound:	bound: .036	bound:009	bound: .025	bound: .000
	002 (.009)	(.025)	(.015)	(.026)	(.016)
'	·				

Note: *: p < 0.05 (the 95% confidence interval of the Lee bounds does not cover 0); **: p < 0.01 (the 99% confidence interval of the Lee bounds does not cover 0). The results in Table A2 are generally robust across different voter trust measures.

Table A4: Treatment effects on combinations of voter predictions of electoral outcomes and voter turnout across partisan subgroups

	All	Moderate Republicans	Non-moder- ate Republicans	Moderate Democrats	Non-moder- ate Democ- rats
voted 2022 & believed GOP would probably or	Lee lower bound:030 (.007)	Lee lower bound:090 (.021)	Lee lower bound:053 (.022)	Lee lower bound:017 (.018)	Lee lower bound:014 (.010)
definitely win the Sen- ate	Lee upper bound: .036 (.008)	Lee upper bound:015 (.023)	Lee upper bound: .049 (.022)	Lee upper bound: .031 (.019)	Lee upper bound: .049 (.012)
voted 2022 & did not believe GOP would prob-	Lee lower bound: 052 (.009)	Lee lower bound:057 (.027)	Lee lower bound:057 (.045)	Lee lower bound:054 (.022)	Lee lower bound:052 (.019)
ably or defi- nitely win the Senate	Lee upper bound: .014 (.009)	Lee upper bound: .018 (.028)	Lee upper bound: .045 (.020)	Lee upper bound:005 (.023)	Lee upper bound: .011 (.019)
did not vote 2022 & be- lieved GOP would prob-	Lee lower bound:008 (.006)	Lee lower bound: .021 (.015)	Lee lower bound:019 (.012)	Lee lower bound:000 (.019)	Lee lower bound:011 (.007)
ably or defi- nitely win the Senate	Lee upper bound: .058 (.007)	Lee upper bound: .089 (.019) †	Lee upper bound:003 (.013)	Lee upper bound: .106 (.022)	Lee upper bound: .035 (.010)
did not vote 2022 & did not believe GOP would	Lee lower bound:041 (.008)	Lee lower bound:017 (.024)	Lee lower bound: .010 (.010)	Lee lower bound:082 (.025)	Lee lower bound:032 (.016)
probably or definitely win the Sen- ate	Lee upper bound: .024 (.008)	Lee upper bound: .051 (.025)	Lee upper bound: .026 (.011)	Lee upper bound: .024 (.026)	Lee upper bound: .014 (.017)
voted 2022 & believed GOP would probably or	Lee lower bound:033 (.008)	Lee lower bound:105 (.024)	Lee lower bound:079 (.021)	Lee lower bound:025 (.019)	Lee lower bound: 0.014 (.014)
definitely win the House	Lee upper bound: .033 (008)	Lee upper bound:030 (.026)	Lee upper bound: .022 (.021)	Lee upper bound: .023 (.020)	Lee upper bound: .076 (.015)

-					
voted 2022	Lee lower	Lee lower	Lee lower	Lee lower	Lee lower
& did not	bound:050	bound:042	bound:030	bound:045	bound:079
believe GOP	(.008)	(.026)	(.016)	(.022)	(.019)
would prob-					
ably or defi-	Lee upper	Lee upper	Lee upper	Lee upper	Lee upper
nitely win	bound: .016	bound: .033	bound: .072	bound: .003	bound:016
the House	(.009)	(.027)	(.018)	(.023)	(.019)
did not vote	Lee lower	Lee lower	Lee lower	Lee lower	Lee lower
2022 & be-	bound:004	bound: .017	bound:020	bound:004	bound:003
lieved GOP	(.006)	(.017)	(.013)	(.019)	(.009)
would prob-	(.000)	(.017)	(.010)	(.01)	(.00)
ably or defi-	Lee upper	Lee upper	Lee upper	Lee upper	Lee upper
•		* *	* *	* *	* *
nitely win	bound: .062	bound: .086	bound:004	bound: .111	bound: .043
•		* *	* *	* *	* *
nitely win the House did not vote	bound: .062 (.007)	bound: .086 (.020)	bound:004 (.014)	bound: .111 (.023)	bound: .043 (.011)
nitely win the House	bound: .062 (.007)	bound: .086 (.020)	bound:004 (.014) Lee lower	bound: .111 (.023)	bound: .043 (.011) Lee lower
nitely win the House did not vote	bound: .062 (.007) Lee lower bound:045	bound: .086 (.020) Lee lower bound:014	bound:004 (.014) Lee lower bound: .011	bound: .111 (.023) Lee lower bound:087	bound: .043 (.011) Lee lower bound:041
nitely win the House did not vote 2022 & did	bound: .062 (.007)	bound: .086 (.020)	bound:004 (.014) Lee lower	bound: .111 (.023)	bound: .043 (.011) Lee lower
nitely win the House did not vote 2022 & did not believe	bound: .062 (.007) Lee lower bound:045 (.008)	bound: .086 (.020) Lee lower bound:014 (.023)	bound:004 (.014) Lee lower bound: .011 (.009)	bound: .111 (.023) Lee lower bound:087 (.025)	bound: .043 (.011) Lee lower bound:041 (.016)
nitely win the House did not vote 2022 & did not believe GOP would	bound: .062 (.007) Lee lower bound:045 (.008)	bound: .086 (.020) Lee lower bound:014 (.023) Lee upper	bound:004 (.014) Lee lower bound: .011 (.009)	bound: .111 (.023) Lee lower bound:087 (.025) Lee upper	bound: .043 (.011) Lee lower bound:041 (.016) Lee upper
did not vote 2022 & did not believe GOP would probably or	bound: .062 (.007) Lee lower bound:045 (.008) Lee upper bound: .021	bound: .086 (.020) Lee lower bound:014 (.023) Lee upper bound: .054	bound:004 (.014) Lee lower bound: .011 (.009) Lee upper bound: .027	bound: .111 (.023) Lee lower bound:087 (.025) Lee upper bound: .020	bound: .043 (.011) Lee lower bound:041 (.016) Lee upper bound: .057
did not vote 2022 & did not believe GOP would probably or definitely	bound: .062 (.007) Lee lower bound:045 (.008)	bound: .086 (.020) Lee lower bound:014 (.023) Lee upper	bound:004 (.014) Lee lower bound: .011 (.009)	bound: .111 (.023) Lee lower bound:087 (.025) Lee upper	bound: .043 (.011) Lee lower bound:041 (.016) Lee upper

Note: +: p < 0.10 (the 90% confidence interval of the Lee bounds does not cover 0). We do not conduct multiple hypothesis testing because this is exploratory analysis and we are only looking at the key subgroup of moderate Republicans, as driven by prior analysis. As expected, no other subgroup has significant effects, and the effects on the proportion of those who did not vote in 2022 and did not believe that the Republican Party was likely to win are not significant for moderate Republicans. The effects for the House predictions were qualitatively similar to those for the Senate predictions.