Prebunking and Credible Source Corrections Increase Election Credibility: Evidence from the U.S. and Brazil[†]

John Carey
Dartmouth College

Brian Fogarty
University of Notre Dame

Marília Gehrke
University of Groningen

Brendan Nyhan
Dartmouth College

Jason Reifler
University of Exeter

Abstract

What makes corrections of false information effective? We investigate the effectiveness of two influential approaches, corrections from credible sources and prebunking misinformation before people encounter it, in the context of widespread claims of voter and election fraud after recent elections in the United States and Brazil. We first compare the effectiveness of corrections in which credible sources attest to an election's integrity with prebunking messages that warn of false claims respondents might encounter and counter those claims with information about how elections are secured. In parallel experiments conducted in the U.S. and Brazil, both approaches increased election confidence and reduced fraud beliefs after exposure. However, prebunking's effects over time were greater than those of the credible sources correction in the U.S. and exceeded those of the credible sources correction in Brazil. To isolate the mechanism for prebunking's effectiveness, we conducted another experiment in the U.S. in which we randomized the forewarning of misinformation exposure within the prebunking, a key element of inoculation theory. Prebunking again increased election confidence and decreased fraud beliefs but only when the forewarning was omitted, suggesting that the novel substantive content of the prebunking treatment, rather than the warning itself, is responsible for the observed effects.

Corrective information generally reduces misperceptions immediately after exposure (e.g., Walter et al. 2020; Walter and Murphy 2018). However, the effectiveness of corrections varies greatly, raising important questions about how best to reduce the prevalence of false beliefs (Nyhan 2020, 2021). This issue is especially acute in countries where the legitimacy of elections has come under threat.

Two of the most influential approaches for countering misperceptions about consequential issues are providing corrections from credible sources speaking against political interest (e.g., Benegal and Scruggs 2018; Berinsky 2017) and prebunking false claims prior to (re)exposure (e.g., Jolley and Douglas 2017; Lewandowsky et al. 2020). To evaluate these approaches and identify what makes them effective in countering attacks on democratic legitimacy, we conduct survey experiments in the United States and Brazil, countries in which confidence in recent elections has been challenged by false claims of widespread voter and election fraud. In both countries, incumbent presidents seeking reelection (Donald Trump in the U.S. and Jair Bolsonaro in Brazil) made unsupported claims about fraud during their re-election campaigns. Both continued to attack the integrity of their countries' elections after their defeat, helping to inspire supporters to attack their nations' capitols, occupying and ransacking government buildings in unsuccessful efforts to overturn the election results.

These types of events demonstrate the potential precarity of democratic institutions. In the U.S., for instance, several leading Republican candidates refused to commit to accepting the results of the 2024 election, including Ron DeSantis ("I don't know what Democrats have up their sleeve") and Donald Trump, who said he would respect the outcome only "if I think it's an honest election" (CNN 2023; Terkel, Egwuonwu, and Tabet 2024). It is therefore essential to determine how to most effectively protect the legitimacy of democratic institutions legitimacy against false and unsupported accusations of electoral fraud and malfeasance.

Past research on beliefs about voter fraud has considered the role of factors such as political attitudes (Udani and Kimball 2018), partisan identification (Gronke et al. 2019), changes in election laws (Ansolabehere and Persily 2007), and media coverage (Udani, Kimball, and Fogarty 2018). However, less is known about how to restore confidence in elections after sustained attacks on their legitimacy.

Typically, voters on the winning side express greater belief in election integrity than those on the losing side, with the divergence driven by increased confidence among the winners (Edelson et al.

2017; Levy 2021). By contrast, the kind of unsubstantiated voter fraud claims that have become common since 2016 in the U.S. have been shown to disproportionately reduce confidence in election integrity among supporters of the losing side (Berlinski et al. 2023; Bright Line Watch 2022; Clayton et al. 2020). In particular, Berlinski et al. (2023) find that exposure to fact-checks after seeing unsupported claims of election fraud did not measurably change election confidence among participants overall or among Trump supporters. However, the fact-checks tested were not from sources speaking against their immediate partisan interests (i.e., Republicans, whom we refer to as "credible sources" in this context) nor were respondents exposed to them prior to the fraud claims.

We therefore fielded three survey experiments in the U.S. and in Brazil to understand how to effectively counter voter and election fraud myths. Study 1 was conducted in the U.S. prior to the 2022 midterm elections. Study 2 was a parallel experiment fielded in Brazil after the 2022 elections there. In both studies, some participants were randomized to a credible sources correction condition in which they read about how allies of the incumbent (Trump in the U.S. and Bolsonaro in Brazil) or disinterested parties (election observers in Brazil) affirmed the legitimacy of the prior election. Others were instead randomized to a prebunking correction condition providing information about how fraud claims they might hear were prevented by election security procedures or to a placebo condition. Study 3, which was conducted in the U.S., sought to pinpoint the mechanism for the prebunking correction effect by randomizing inoculation language warning people of future exposure to false information.

In Study 1 in the U.S., the two treatments had similar effects immediately after exposure, but only the prebunking treatment produced reductions in fraud beliefs that were measurable in a later survey wave. In Study 2 in Brazil, which took place in a single survey wave, the prebunking correction was more effective than the credible sources correction at increasing election confidence and reducing belief in fraud. Finally, in Study 3 in the U.S., the inoculation forewarning of misinformation exposure did not measurably change the effectiveness of the treatment. Moreover, the marginal effects of the forewarning on election confidence and perceptions of the prevalence and effects of fraud were only statistically significant when it was omitted. In each study, we find evidence that the effects were often larger among people who were previously misinformed or who are more predisposed to believe misinformation.

These results suggest that both prebunking and credible sources corrections can effectively counter false information about voter and election fraud, but provide some evidence that the prebunking treatment is more effective. Given the lack of effects from the forewarning in Study 3, we interpret these differences as resulting from the novel information about election security provided in the prebunking, which is consistent with recent findings by Thorson (2024) and Thorson and Abdelaaty (2023) showing that corrections targeting misperceptions about existing policy (in this case, the procedures taken to secure elections) are more effective than those targeting misperceptions about outcomes (i.e., the legitimate winner of the last election).

Theoretical framework

Fact-checks and corrective information typically increase the accuracy of the beliefs of people who are exposed to them n(Walter et al. 2020; Walter and Murphy 2018). Our studies address important theoretical and empirical questions by evaluating the effectiveness of two different types of corrective interventions — credible sources corrections and prebunking corrections, which we refer to as "credible sources" and "prebunking" below. We also investigate whether prefacing factual content with an inoculation message increases the effectiveness of the prebunking treatment.

The credible sources correction delivers information from sources who are disinterested or speaking against partisan interest, a theoretical approach that should make corrective claims more credible. Prior research suggests that sources speaking against their partisan interest may be more effective at changing beliefs than even neutral third parties (Berinsky 2017). This approach has been successfully applied to restoring confidence in elections, which increased more among Republicans who saw messages from Republicans affirming the legitimacy of the 2020 election than among those who saw comparable messages from other sources (Clayton and Willer 2023). One of our studies measures the effect of such a message over time, extending beyond the one-shot design employed by Clayton and Willer.

Another important approach is to provide factual information that anticipates and counters (or "prebunks") misinformation that is circulating by providing factually correct information. Exposing people to corrective information before exposure rather than afterward is thought to help the accurate

information be encoded into memory and/or shape how subsequent information is processed (Cook and Lewandowsky 2011; for a review of the theoretical motivation and prior research, see Prike and Ecker 2023).[1]

A specific version of prebunking known as inoculation has proven to be especially influential among some researchers (e.g., Lewandowsky and van der Linden 2021; Traberg, Roozenbeek, and van der Linden 2022). Inoculation is a variant of prebunking that also provides audiences with a warning that they might encounter claims that are unsupported by facts and should be alert and skeptical (Traberg, Roozenbeek, and van der Linden 2022). This approach is conceptually similar to a vaccination, as it involves exposing people to a small amount of false information and then providing them with facts or strategies to help them recognize and reject it (as with the immune response to a weakened or deactivated virus in a vaccine).[2] Studies have successfully used inoculation to reduce misperceptions on climate change, public health interventions, and other areas (Cook, Lewandowsky, and Ecker 2017; Lewandowsky and van der Linden 2021; Traberg, Roozenbeek, and van der Linden 2022). Though inoculation is traditionally conceptualized as being most effective when it occurs before misinformation exposure (Compton 2020), an inoculation treatment after exposure is still thought to provide benefits by helping people build resistance to the false information they have encountered and making them more resistant to similar types of misinformation in the future (Compton 2020; Ivanov et al. 2017).

Finally, we note recent theoretical developments suggesting that corrections describing the *content* of existing policies (i.e., prebunking corrections describing policies that protect election integrity) may be more effective than providing information about policy *outcomes* (i.e., credible corrections attesting to the legitimacy of the election results). By this account, although existing predispositions shape how people receive new information (Gaines et al. 2007), interpretation of facts about policy results are processed with a particularly strong partisan bias, limiting the effect of new information

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[1] However, exposure to a correction after encountering the misinformation in question has also been found to be effective (Brashier et al. 2021; Kotz, Giese, and König 2023; Pillai, Brown-Schmidt, and Fazio 2023; Swire-Thompson et al. 2021; Tay et al. 2022; Vraga et al. 2020).

[2] We specifically test the effects of providing factual information refuting false claims on a specific issue or topic, which Roozenbeek, Traberg, and van der Linden (2022) call "issue-based inoculation." An alternative is what they call "technique-based" inoculation, which provides strategies that help people to recognize and reject techniques that are used to mislead across issues. We do not test the effects of such an approach here.

on attitudes and beliefs (Bisgaard 2015, 2019). Critically, when new information pertains to policy outcomes rather than content, people are more likely to regard the source as partisan and the facts as contestable (Thorson 2024). For example, Thorson and Abdelaaty (2023) show that corrective information about the content of asylum policy (for example, how refugees apply for asylum) increased support for the policy more than correcting misinformation about its outcomes (for example, inflated perceptions of the share of refugees receiving welfare benefits). In other work, Kustov and Landgrave (2023) show that informing respondents about the administrative burdens and obstacles confronted by those who seek to immigrate legally to the U.S. increased support for more open immigration policies. These findings suggest that the prebunking approach we tested of delivering basic factual content about election administration and security practices is potentially promising. We contribute to existing literature by testing a different issue and policy context (election fraud) and by examining the breadth of these effects across multiple outcomes, particularly given concerns that correcting specific misperceptions about election fraud may not affect overall confidence in elections or general beliefs about the prevalence of fraud (Carey et al. 2023).

Study overview

The studies we report, which are summarized in Table 1, examine the effectiveness of credible sources corrections and prebunking at countering election misinformation in the U.S. and Brazil.

Table 1: Experimental design overview

	Country	Elections	Dates	Interventions
Study 1	U.S.	2020 / 2022	Oct./Nov. 2022	Prebunking, credible sources corrections
Study 2	Brazil	2022 / 2026	Feb. 2023	Prebunking, credible sources corrections
Study 3	U.S.	2022 / 2024	Jan. 2023	Prebunking with/without forewarning

In Study 1, which was fielded in the U.S. just before the 2022 midterm elections, we test the effectiveness of credible sources corrections attesting to the integrity of the 2020 election and prebunking corrections challenging misinformation about election administration and security that people might hear about the 2022 election. Study 2, which was fielded in Brazil a few weeks after the 2022 presidential election and the subsequent pro-Bolsonaro riots there, uses the same basic design but substitutes

credible sources and prebunking content from the Brazilian context. In both studies, the prebunking treatment bundles an inoculation warning of a future persuasive threat ("Here is the truth about some claims you might hear...") (van der Linden 2019; van der Linden et al. 2017) with factual content delivered in a "reality vs. myth" format to counter those claims. Study 3, which was fielded two months after the 2022 U.S. midterm elections, examines the underlying mechanism for the prebunking treatment effect by randomizing treated participants into a prebunking condition with the inoculation forewarning message or to one in which the forewarning is absent.[3]

Study 1: Credible sources and prebunking corrections in the U.S.

The 2020 U.S. election culminated in an unprecedented effort by a sitting president to overturn the outcome based on false claims of widespread fraud. Claims of fraud by conservative groups, pundits, and politicians had become prominent in the 2008 and 2012 elections (Fogarty et al. 2015), leading to a plurality of Americans falsely believing voter fraud was a significant problem even before the 2016 and 2020 elections (Ahlquist, Mayer, and Jackman 2014; Levitt 2014). Donald Trump then stoked fears about election fraud throughout his presidency, including falsely claiming to have won the popular vote in 2016 and establishing an ill-fated voter integrity commission (BBC 2016; Villeneuve 2018).

The so-called "Big Lie" — the claim that the presidency was stolen from Trump in 2020 by fraud — increased partisan polarization in fraud beliefs, threatening the perceived legitimacy of U.S. elections (Jacobson 2023). Though confidence in the national election count increased from 61% to 88% after the election among Trump's opponents, it declined from 56% to 28% among his supporters (Bright Line Watch 2022). As a result, many Americans continue to question Joe Biden's victory. For instance, surveys in late 2022 found that 37% of respondents said Biden only won because of voter fraud or indicated they were uncertain if he won fairly, including 55% of Republicans (Monmouth University Poll 2022a,b).

In Study 1, we draw from the theory above to test two approaches for addressing misperceptions about voter fraud and election integrity in the U.S. The first approach is the credible sources correction,

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[3]We report the studies in non-chronological order for expositional reasons. Study 3 was conducted prior to Study 2 but it is helpful to directly compare and contrast Studies 1 and 2 given their parallel design and to subsequently consider the evidence from Study 3 about the mechanism for the prebunking treatment effect we observe in both contexts.

which draws its persuasive force from the identities of the sources who are quoted. It seeks to reassure voters that American elections are safe and secure by presenting evidence of Republican judges and officials rejecting claims of voter fraud from Trump, their partisan ally. The second approach is the prebunking correction, which instead warns people about election misinformation they may encounter (a forewarning) and seeks to counter those myths by describing the institutional mechanisms and protections used in the U.S. to ensure the integrity of the election process (providing information about existing policy).

These approaches also differ in their temporal orientation. The credible sources correction is inherently retrospective — in Study 1, it offers information about the 2020 U.S. presidential election, which had already taken place. By contrast, the prebunking correction provided information prospectively about the 2022 U.S. midterm election, which had not yet occurred.

Hypotheses

For Study 1, we test the following preregistered hypotheses, which focus on the specific election addressed in the content of the correction:

> H1: Exposure to a credible sources correction will increase confidence in the 2020 election and reduce beliefs about the prevalence and effects of fraud in the 2020 election.
>
> H2: Exposure to a prebunking correction will increase confidence in the 2022 election and reduce beliefs in the prevalence and effects of fraud in the 2022 election.

We also report results below for preregistered research questions about whether these corrections would affect perceptions of the other election (i.e., 2022 for credible sources and 2020 for prebunking), whether the effects of the two treatments would be statistically distinct from each other, and about whether effects would still be observable in future waves.

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Survey and experimental design

We conducted a three-wave panel survey bracketing the 2022 midterm election.[4] The principal results in Study 1 are from an experiment embedded in the first survey wave, which was fielded from October 18–November 7, 2022 ($n = 3,772$). We measured treatment effects from Study 1 in the second and third waves, which were fielded December 7–20, 2022 ($n = 2,986$) and January 21–30, 2023 ($n = 2,030$), respectively. Each subsequent survey wave also included experiments; results from the second wave are reported in Carey et al. (2023) and results from the third wave are reported below as Study 3. The outcomes used to test for over-time effects of Study 1 were measured in pre-treatment batteries in the second and third waves (i.e., before any new experimental manipulation). Unweighted sample demographics are summarized in Table B1 — the sample leans female, older, and Democratic (55% female, median age group 55–64, 36% have a college degree, 72% white, 52% identify as Democrats or lean toward the party).

Participants were randomized into one of three conditions (see Table B1): credible sources, prebunking (with an inoculation forewarning), or a placebo condition. In both of the treatment conditions, respondents were exposed to an introductory article followed by four articles of corrective information. The credible sources correction in this study highlighted statements from Republicans who spoke against their partisan interest in affirming the legitimacy of Joe Biden's election. The introductory article, titled "Legitimacy of 2020 Election Affirmed by Leading Republicans," was followed by four articles highlighting key Republican figures debunking voter fraud claims about the 2020 election. These articles were adapted from news articles (Balsamo 2022; Helderman and Viebeck 2020), reports (Danforth et al. 2022), and quotes documenting Republican judges and officials affirming the legitimacy of the 2020 election (assembled by the authors). In the prebunking condition, the introductory article, which was titled "Beware of False Rumors You May Hear about the 2022 Election," was instead followed by four articles debunking specific myths circulating in 2022 about the security and integrity of the voting process. These articles were adapted from the Rumor

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[4]A substantial portion of survey participants ($n = 2,643$) were invited to this panel because they had participated in a two-wave panel examining election confidence and voter fraud perceptions after the 2020 U.S. presidential election. Results from the 2020–2021 panel will be presented in a separate paper. The sample for the 2022 midterm elections panel was constructed to maximize retention of participants from the 2020 panel, with YouGov using its standard matching and weighting approach to maximize the representativeness of the resulting sample.

Figure 1: Introductory article in credible sources and prebunking treatments

(a) Study 1 credible sources correction

Legitimacy of 2020 Election Affirmed by Leading Republicans

Experts agree that American elections are safe and secure. Some politically-motivated groups are claiming that the 2020 presidential election was marred by irregularities and fraud that denied then-President Donald Trump a victory and delivered a win for Joe Biden.

In fact, there is widespread evidence that the 2020 election was administered effectively. Allegations of widespread fraud have been investigated and found to be unsupported in a variety of settings, including in courts, by state governments, and by legal experts.

Importantly, these conclusions have been affirmed by numerous Republicans and conservatives at the highest levels of American politics and in the judiciary, including many political allies of President Trump. Examples of Republicans and conservatives who have affirmed the legitimacy of the 2020 election result include Senate Majority Leader Mitch McConnell, Attorney General Bill Barr, numerous judges appointed by Trump, and the Republican governors of Arizona and Georgia.

(b) Study 1 prebunking correction

Beware of False Rumors You May Hear about the 2022 Election

Experts agree that American elections are safe and secure. Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process, including the 2022 midterm elections that will be held this November.

For instance, they claim that people can easily cast unauthorized mail-in/absentee ballots and tamper with election drop boxes used by election officials to collect those ballots. They also claim that voting system software can be easily manipulated and that votes are frequently cast on behalf of dead people.

These claims may sound convincing at first. However, the Department of Homeland Security confirms that numerous protections are in place to protect the integrity of the election process. These facts contradict the rumors promoted by some political actors.

Full treatment content is available in Online Appendix A.

vs. Reality section of the website of the Cybersecurity and Infrastructure Security Agency (CISA; `https://www.cisa.gov/rumor-vs-reality`), which is part of the Department of Homeland Security. Figure 1 presents images of the introductory article shown to respondents for both the credible sources and prebunking treatments. The headlines of the four articles shown to participants after the introductory article are presented in Table 2. Following the presentation on the CISA website, each article had a heading titled "Reality" that was designated with green check marks and a "Rumor" designated with a red X (see Online Appendix A).

For respondents in the prebunking condition, each of the four articles after the introductory article began with the following forewarning message: "Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process. Here is the truth about some claims you might hear concerning the 2022 midterm elections that will be held this November" (van der Linden 2019; van der Linden et al. 2017). In this way, the prebunking correction includes the two key elements of inoculations: a warning about potential future exposure to false claims and a message preemptively giving people accurate information before misinformation exposure. (We test the specific contribution of the inoculation forewarning in Study 3.)

To encourage treatment compliance, participants were told in advance that they would be asked a question about each article after exposure and were unable to advance the article page for 10 seconds.

Table 2: Treatment article headlines

Credible sources	Prebunking	Placebo
"Legitimacy of 2020 Election Affirmed by Leading Republicans"	"Beware of False Rumors You May Hear about the 2022 Election"	"Keep Up-To-Date with World Events"
"Article: Republican Leaders Say Biden Won"	"Reality: Safeguards protect the integrity of the mail-in/absentee ballot process"	"Article: Sauces in cooking"
"Article: Republican Judges Reject Trump's Election Lawsuits"	"Reality: Robust safeguards protect against tampering with ballots returned via drop box"	"Article: Why hiking is good for your health"
"Article: Trump's Attorney General Says No Evidence of Widespread Fraud"	"Reality: Voting systems must be certified by state and/or federal voting system testing programs"	"Article: Airlines serve hearing-impaired passengers"
"Article: Republican Governors Certify Biden Wins in Swing States"	"Reality: Voter registration list maintenance and other election integrity measures protect against illegal voting"	"Article: Sleep aids are now high-tech"

Full treatment content is available in Online Appendix A.

Participants who answered a comprehension check correctly advanced to the next article or question in the survey. Those who failed were asked to re-read the article and answer the comprehension question up to two more times before advancing in the survey (i.e., respondents would advance in the survey after answering correctly or after getting the question wrong a third time). Because these comprehension questions were administered post-treatment, the analyses that follow do not subset to participants who answered them correctly (in other words, we estimate intent-to-treat effects).

Across all three studies, we use a variety of outcome measures measuring attitudes about the credibility and legitimacy of elections that tap general beliefs about election integrity (confidence in the vote count), the prevalence and effects of fraud (how often specific types of fraud or malfeasance occur and how many legislative elections were decided by fraud), and whether specific election outcomes were legitimate. Specific outcome variables in Study 1 include questions about whether Joe Biden was the rightful winner of the 2020 presidential election, the prevalence of various types of fraud in

2020, confidence in the 2020 vote count, and the number of U.S. House seats won by fraud in 2020 (all retrospective assessments) as well as confidence in the 2022 vote count and the number of House races won by fraud in 2022 (both prospective assessments). (See Online Appendix A for question wording.)

All analyses below were preregistered unless otherwise indicated (`https://osf.io/gpy3s`).

Results

Figure 2 shows the estimated effects of the credible sources and prebunking correction treatments (see Table B2 for results in tabular form). Consistent with our first hypothesis, exposure to the credible sources correction about the 2020 election (triangular markers) increased belief that Biden was the rightful 2020 winner, increased confidence in the 2020 vote count, and diminished belief in the prevalence of fraud in 2020. The estimated effect of the credible sources correction on beliefs about the number of House seats won by fraud in 2020 is in the expected (negative) direction but the effect is not statistically significant. By contrast, though the correction prebunking false claims about 2022 (square markers) increased confidence in the 2022 vote count, it did not measurably diminish the number of House seats people thought would be won by fraud in 2022, providing mixed support for the second hypothesis.

Both treatments also had significant effects on outcomes related to the election other than the one they targeted (which were preregistered research questions). The credible sources correction, which retrospectively focused on the 2020 election, reduced expectations of House seats won by fraud in 2022, but did not measurably increase confidence in the 2022 vote count. The prebunking correction, which prospectively focused on the 2022 election, increased belief that Biden was the rightful winner in 2020, increased confidence in the 2020 vote count, and diminished estimates of fraud prevalence in 2020.

When we compare treatment effects directly (a preregistered research question), Figure 2 suggests the credible sources correction and prebunking operated relatively similarly across the range of the outcome measures. Across six outcomes, the credible sources correction increased perceptions more that Biden won the 2020 election, the prebunking correction treatment reduced beliefs more about

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Figure 2: Immediate effects of Study 1 treatment
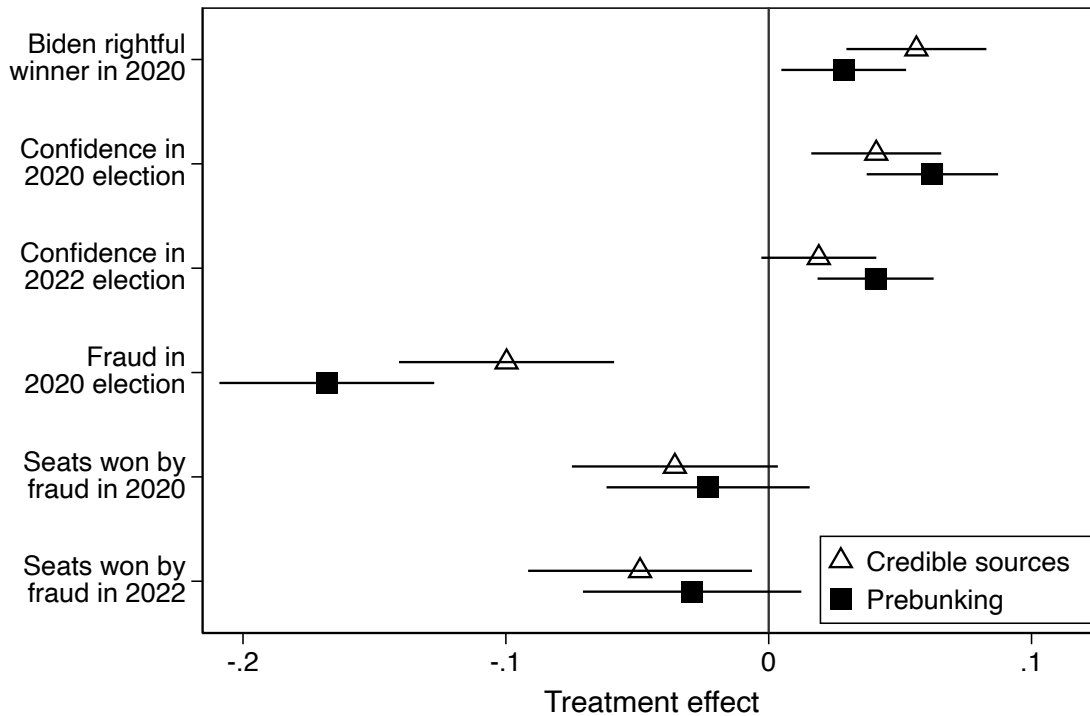
Model estimates from Table B2. See Online Appendix A for stimuli and question wording.

the prevalence of fraud in 2020, and there was no measurable difference for the other four outcomes.

Finally, we consider whether effects of treatments on specific outcomes varied between elections (2020 versus 2022; another preregistered research question). We found that the effects for both treatments on confidence in election vote counts were measurably weaker for beliefs about the 2022 election relative to those about 2020 but found no measurable difference across elections for seats won by fraud (see Table B3).

We also tested for heterogeneous treatment effects among participants based on their political predispositions (partisanship and support for Donald Trump) and pre-treatment measures of the outcome variable in question. As we show in Tables B4–B6, the most pronounced pattern of heterogeneous effects applies to outcome variables associated with the 2020 election — belief that Biden was the rightful winner, election confidence, and prevalence of fraud (although not House seats won by fraud).

Figure 3: Over-time impact of Study 1 treatment effects

(a) Credible sources
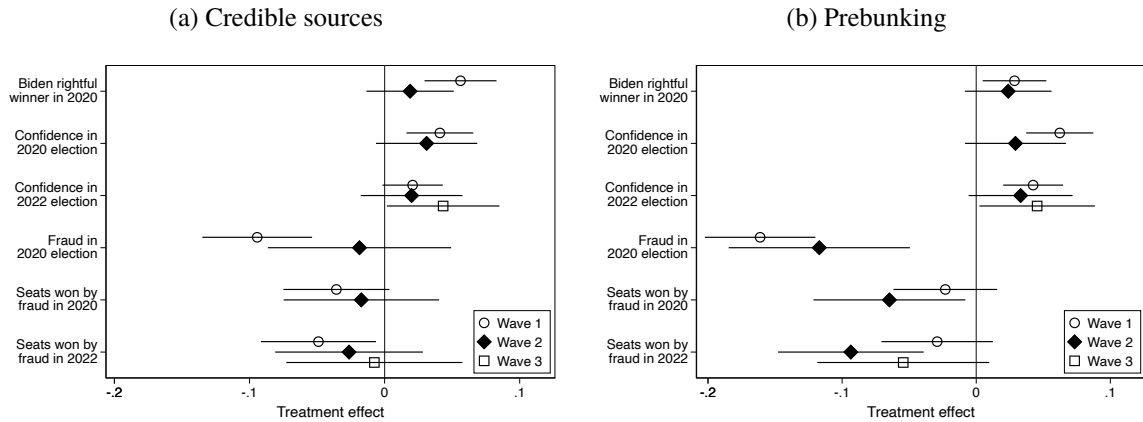
(b) Prebunking

Model estimates from Table B7. See Online Appendix A for stimuli and question wording.

Across these measures, we find *stronger* effects of both the credible sources and prebunking corrections among groups with a greater affinity toward fraud narratives (Republicans, Trump supporters, and participants who were not among the tercile with the lowest beliefs in fraud or greatest confidence in elections).[5] These findings suggest that messages correcting correct fraud misperceptions could be especially effective among the audiences that are most susceptible to such narratives.

Substantively, the treatment had meaningful effects immediately after exposure, increasing the percentage of respondents who said Biden was "definitely" or "probably" the rightful winner from 71.8% in the control condition to 76.1% in the credible sources correction condition and 75.4% in the prebunking condition. These effects were often larger for vulnerable groups per our findings above. Among Republicans, for example, belief Biden was the rightful winner increased from 32.5% in control to 43.8% and 38.5%, respectively, for credible sources and prebunking.

Finally, we test whether the effects of the treatments in Study 1 are detectable in later waves of our panel survey. Figure 3 shows treatment effect estimates for outcomes measured in more than one survey wave: whether Biden was the rightful winner in 2020, confidence in the 2020 and 2022 vote

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[5]The heterogeneous effects that we observe by pre-treatment outcomes may reflect floor and ceiling effects. The proportion of participants whose pre-treatment outcomes were at the relevant floor or ceiling and could not move further down or up (respectively) due to treatment are as follows: Biden was the rightful winner: 61%; confidence in the 2020 vote count: 46%; confidence in the 2022 vote count: 40%; seats won due to fraud in 2020: 60%; seats won due to fraud in 2022: 60%; and prevalence of voter and election fraud in 2020: 13%.

count, and beliefs about House seats won by fraud in 2020 and 2022, and beliefs about the prevalence of fraud in 2020. For the credible sources treatment, effects remain in the anticipated direction but are no longer measurable in later waves (the sole exception is confidence in the 2022 election, which unexpectedly reaches significance in wave 3 of the panel survey after not doing so in waves 1 or 2). For the prebunking treatment, the pattern is different. More treatment effects are statistically discernible in later waves, including increased confidence in the 2022 election in wave 3, reduced belief in the prevalence of fraud in the 2020 election in wave 2, and reduced belief in the number of seats that would be won by fraud in 2020 and 2022 in wave 2.[6]

We offer three general observations on the results from Study 1. First, both treatments improve the credibility of election results immediately after exposure across a range of outcome measures. Second, these results are generally similar — despite focusing on different elections, the retrospective credible sources treatment and the prospective prebunking treatment affected perceptions of both the 2020 and 2022 elections. Finally, the prebunking treatment had more frequent downstream effects, measurably improving election credibility in at least one post-treatment wave for four of the five outcome measures compared to just one for the credible sources treatment.

Study 2: Prebunking and credible sources corrections in Brazil

Brazil's 2022 presidential election showed striking parallels to the 2020 election and its aftermath in the U.S. After the first round of the contest on October 3, the top two candidates — incumbent Jair Bolsonaro and former president Luiz Inácio (Lula) da Silva — advanced to a run-off on October 30. Bolsonaro consistently trailed Lula in public opinion polls and repeatedly made unsubstantiated claims that Brazil's electronic voting machines, which do not produce verifiable paper records, were insecure (Attie et al. 2022). Observers widely understood Bolsonaro's claims as an effort to build support for a challenge to an anticipated win by Lula, particularly within Brazil's military, in which

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[6]We find no evidence that treatment assignment in wave 1 affected participation in later waves in an exploratory analysis: $\chi^2(2) = 0.2443$, $p = 0.885$ in wave 2, $\chi^2(2) = 2.0386$, $p = 0.361$ in wave 3.

Bolsonaro had previously served as an officer (Deutsche Welle 2023; Savarese and Jeantet 2023).[7] In the election's aftermath, however, a Defense Ministry report found no support for the president's fraud claims (Jeantet and Bridi 2023). Nonetheless, the president's supporters set up protest camps outside military facilities, asking military forces to intervene directly (Downie 2022; Noticias 2022). On January 8, 2023, a week after Lula was inaugurated, protesters who were still camped at the Armed Forces Headquarters in Brasilia marched to the Congress building, breached security, and sacked the facility (Nicas et al. 2023). Brazilian security forces soon reestablished order, arresting many of the protesters.

Study 2 leverages the parallels between the false fraud claims by Presidents Trump and Bolsonaro to estimate the effects of credible sources and prebunking corrections in a non-U.S. context. Following Study 1, we evaluate the effect of a credible sources correction quoting Bolsonaro allies and neutral election observers affirming the legitimacy of the election as well as a prebunking correction drawn from Brazil's top election security agency that delivers factual content countering specific false claims about election fraud. The presentation of both types of corrective content in Study 2, as well as of non-political placebo content, parallels that in Study 1. Study 2 also introduces a set of outcomes measuring participants' abilities to identify true and false statements about elections and to distinguish between them. As a result, we can directly assess the impact of exposure to corrections on the factual beliefs targeted by the corrections as well as broader effects on outcomes such as election credibility and beliefs about the prevalence of fraud.

Hypotheses

Mirroring the first hypothesis from Study 1, we expect the credible sources correction in Study 2 to increase the credibility of the 2022 election:[8]

> H3: Exposure to a credible sources correction treatment about the prevalence of voter

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[7]The strategy of making preemptive fraud allegations as hedges against potential election losses extends beyond Brazil and the United States. In the lead-up to Argentina's November 2023 presidential election, candidate Javier Milei made repeated, unsubstantiated allegations of fraud — and his supporters engaged in preemptive protests at the offices of the country's electoral authority — professing to anticipate having the election stolen from him (Nicas, Alcoba, and Cholakian Herrera 2023). The election itself produced a Milei victory with 56% of the vote, which the winning candidate did not dispute (Politi and Biller 2023).

[8]For expositional reasons, our hypotheses are numbered consecutively in the manuscript, which differs from the numbering in our preregistrations after Study 1.

fraud in the 2022 election (compared to a placebo condition) will increase confidence in the 2022 election and reduce beliefs about the prevalence and effects of fraud (frequency of voter fraud, the number of seats changed by fraud) in the 2022 election.

We modified our hypothesis based on the results from Study 1 for the effect of the prebunking correction, which we expected to increase the credibility of both the 2022 and 2026 elections:

H4: Exposure to a prebunking correction instructions treatment will increase confidence in the 2022 and 2026 elections and reduce beliefs about the prevalence and effects of fraud (frequency of voter fraud and the number of seats changed by fraud) in the 2022 and 2026 elections compared to the placebo condition.[9]

Finally, we expected the prebunking treatment to increase the accuracy of respondent beliefs about the election administration and security practices that it describes as being used in Brazilian elections:

H5: Exposure to a prebunking correction treatment will increase the perceived accuracy of the true claims it supports, reduce the perceived accuracy of the misperceptions it targets, and improve respondents' ability to distinguish between them compared to the placebo condition.

We also report results below for preregistered research questions about the effects of the credible sources correction on perceptions of the 2026 election and respondent factual beliefs, whether the effects of the treatments differ between the 2022 and 2026 elections, and whether the effects of the treatments differ from each other for the outcomes listed above.

Survey and experimental design

Participants in Study 2 were recruited by Netquest from its opt-in Internet panel (fielding dates: February 24–28, 2023; $n = 2,949$). The survey, which was administered using Qualtrics, was programmed and translated into Portuguese by the authors and was designed to match the look and feel of Study 1 as closely as possible. Our sample size was determined by maximizing the number of respondents

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[9]Based on results from Study 1, our preregistered hypotheses for the prebunking treatment in Studies 2 and 3 apply to both the retrospective and prospective outcomes.

who could be recruited given our design and deadline constraints on when grant resources could be used. We began fielding with quotas for age, region, and sex but these were deactivated after two days to maximize sample size and thus statistical power for our experiment. As would be expected of an online survey without strictly imposed quotas, our Brazil sample is somewhat more highly educated, affluent, white and female than the Brazilian population as a whole. Unweighted sample demographics are summarized in Table B8 (57% female, median age 35–44, 55% have at least some college, 52% white, 49% right of center).

Brazilian participants in Study 2 were randomized into three conditions mirroring those used in the U.S. in Study 1 (see Table B8): a credible sources correction, a prebunking correction, or a placebo condition with non-political content. The credible sources correction delivered affirmations of the legitimacy and integrity of Brazil's election from actors who were either partisan opponents of Lula or neutral observers (the latter group was not present in Study 1).[10] These included Bolsonaro's son, his coalition partners in the legislature (including the President of the Chamber of Deputies), a former Bolsonaro cabinet minister, and international election observers.[11] The prebunking treatment presented participants with four short articles rebutting specific unsupported allegations of election fraud or mismanagement that were circulating in Brazilian politics at the time of the 2022 election. The articles, which were adapted from the website of Brazil's Superior Tribunal of Elections (TSE), addressed practices for the review of voting machine software, safeguards against hackers, security measures taken by poll workers, and the conduct of vote count audits. The format of the content in each condition was designed to mirror Study 1.

All analyses below were preregistered unless otherwise indicated (`https://osf.io/ynbxp/`).

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[10]Because Study 2 was conducted just a few months after the run-off election in Brazil, no published report like the one cited in Study 1 was available nor had the Brazilian court system ruled on Bolsonaro's behavior (he was later found ineligible to run for public office until 2030 for having intentionally spread unfounded doubts about election fraud during the 2022 campaign). The credible sources correction in Study 2 therefore drew from events such as statements and announcements made after the election and during the inauguration of the next Congress.

[11]Senator Flavio Bolsonaro, the president's eldest son, posted a statement online the day after the election that was widely seen as an early acknowledgement of defeat from Bolsonaro's inner circle (Gullino 2022; Scheller 2022; Silva 2022).

Results

Figure 4 shows the estimated effects of the credible sources and prebunking interventions on voter confidence, fraud perceptions, and the accuracy of factual beliefs about elections in Brazil. Our hypothesis that the credible sources correction would increase confidence in the 2022 election and reduce beliefs about the prevalence and effects of fraud is partly supported. As Figure 4a shows, the credible sources correction increased confidence in past (2022) and future (2026) elections and decreased the number of Chamber of Deputies seats believed to have been won by fraud in 2022, but did not change beliefs in the prevalence of election fraud in either election or the expected number of seats that would be won by fraud in 2026.[12] Because the prebunking correction delivered factual information about ongoing election security practices rather than endorsements of the results from one election, we predicted that this treatment should affect both retrospective beliefs about the 2022 election and prospective beliefs about 2026. Consistent with this expectation, Figure 4a shows that the prebunking treatment increased confidence in elections and decreased beliefs in the perceived prevalence and effects of fraud for both elections. Moreover, we can reject the null of no difference with the credible sources correction for four of the six outcomes (see Table B9 for point estimates). In each case, prebunking is more effective.

Figure 4b shows that the prebunking treatment increased respondents' ability to accurately identify true and false statements about Brazilian election procedures and to discern the difference between them as we predicted. The credible sources treatment had a similar effect on factual beliefs, although the effects were smaller. Per Table B10, the estimated effect of prebunking was statistically larger for each measure of factual belief accuracy, echoing the results above for voter confidence and fraud perceptions.

As in Study 1, we also tested whether treatment effects varied by participants' political predispositions (support for Jair Bolsonaro and partisanship) or pre-treatment measures of the outcome variable in question. Table B16 shows that the corrective effect of the prebunking treatment was measurably greater among respondents in the top tercile of Bolsonaro sentiment compared with those in the bot-

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[12]A preregistered research question asked whether the backward-looking credible sources correction would affect perceptions of the 2026 election. As noted above, we only find such an effect on voter confidence, not on beliefs about the prevalence or effects of fraud. In general, we examined whether the differences between estimated effects on beliefs related to the 2022 versus the 2026 election were statistically distinguishable — another preregistered research question. Table B13 shows that they are not measurably different for either treatment on any outcome.

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Figure 4: Effects of Study 2 treatment

(a) Voter confidence and fraud perceptions

(b) Factual beliefs
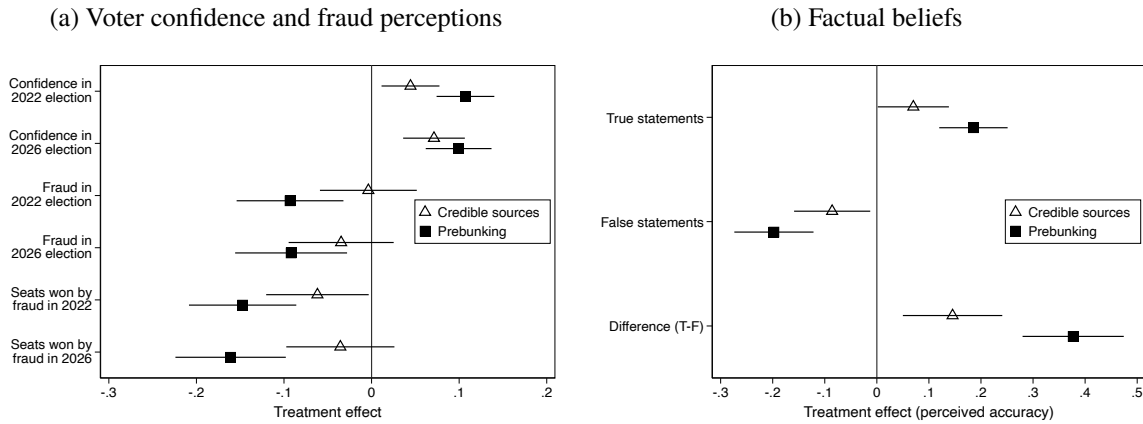
Model estimates from Tables B9 and B10. See Online Appendix A for stimuli and question wording.

tom tercile for four of six measures of voter confidence and fraud perceptions (confidence in the 2022

and 2026 elections and seats won by fraud in both elections). For the credible sources treatment, by

contrast, the difference in effects between the top and bottom tercile reaches significance only for con-

fidence in the 2022 election. We find little evidence of treatment effect heterogeneity by Bolsonaro

feelings for factual belief measures (Table B17).[13]

Finally, we find that the prebunking treatment in particular often had larger effects on partici-

pants who were previously most misinformed about election security, which we evaluate using tests

for treatment effect heterogeneity by pre-treatment outcomes. On five of the six measures of election

confidence and fraud beliefs reported in Table B18, for instance, the effect of prebunking was dis-

cernibly greater among the most misinformed tercile (i.e., the people with the least confidence in the

2022 election) than the least (i.e., those with the most confidence in the 2022 election). By contrast, the

effect of the credible sources correction was measurably greater for the most misinformed tercile for

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[13]We also test for heterogeneous effects by party identification, though Brazil's multiparty system, and particularly the small size of Bolsonaro's Partido Liberal [PL] (only 5.7% of survey respondents — see Table B8), limits our leverage. Table B14 shows that the effects of the prebunking treatment were measurably weaker for members of Lula's Partido de los Trabajadores [PT] (15.5% of respondents) — the group whose baseline levels of voter confidence were highest to begin with — for three of six outcomes compared with those who identified with neither the PL nor PT. We observe no such evidence of heterogeneity for the credible sources treatment. In general, we also find little evidence of heterogeneity in treatment effects on factual beliefs by party identification (see Table B15).

only two of six outcomes (election confidence in 2022 and 2026).[14] Similarly, prebunking was more effective for evaluation of true and false statements and discernment between them among participants with the highest pre-treatment levels of misinformation, whereas credible sources had a discernibly greater effect among this group only for the correct identification of true claims (Table B19).

The effects we report above are again substantively meaningful. Confidence in the 2022 and 2026 elections exceeded the scale midpoint (indicating respondents were closer to "very" or "somewhat" confident in the results on average) for 64.2% and 63.7% of respondents in credible sources and 63.4% and 62.9% in prebunking, respectively, versus 56.6% and 58.1% of respondents, respectively, in the control condition. For the top tercile of respondents by feelings toward Bolsonaro, these effects were even larger. For example, confidence in the 2022 election increased among these Bolsonaro supporters from 20.0% among controls to 28.5% and 28.2% for credible sources and prebunking, respectively. Belief in false statements about the election (indicating they are "very" or "somewhat accurate" on average) also declined from 29.4% for controls to 27.3% for credible sources and 23.6% for prebunking (54.1% versus 55.0% and 39.7%, respectively, for Bolsonaro supporters).

Study 2 suggests three general observations. First, both treatments increased confidence in elections (as in Study 1) and improved the accuracy of factual beliefs about elections (outcome measures not included in Study 1). Second, the prebunking treatment was more effective; it had a significant main effect on every outcome variable versus the control condition and the effect was measurably larger than the credible sources correction effect for seven of nine outcomes (Tables B9 and B10). Third, as in the U.S., the effects of our experimental interventions, and particularly of prebunking, were strongest precisely among people who were most predisposed to believe fraud claims or most misinformed.

Study 3: Prebunking with and without forewarning in the U.S.

Taken together, Studies 1 and 2 demonstrate the effectiveness of the prebunking treatment, which combines little-known facts about election security with an inoculation-style forewarning message.

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[14]The percentages of participants whose pre-treatment outcomes were at the relevant floor or ceiling and could not move further down or up (respectively) due to treatment were as follows: seats won due to fraud in the 2022 election: 60%; seats won due to fraud in the 2026 election: 60%; confidence in the 2022 election: 35%; confidence in the 2026 election: 36%; prevalence of fraud in the 2022 election: 46%; and prevalence of fraud in the 2026 election: 55%.

These forewarning messages are designed to elicit perceptions of threat and are a key component of inoculation interventions (Amazeen, Krishna, and Eschmann 2022; Lewandowsky and van der Linden 2021). Study 3 seeks to understand the mechanism for these findings by randomly varying the presence of the forewarning, allowing us to estimate the relative contributions of the novel substantive content provided in the treatment and the forewarning message. In this way, we contribute to the scholarly debate over the effects of inoculation messages. Some recent evidence suggests that the protective effects of inoculation may be limited (Durbin et al. 2024; Schmid-Petri and Bürger 2022; Spampatti et al. 2023), contradicting much previous research (Traberg, Roozenbeek, and van der Linden 2022). By holding the factual information provided in the treatment constant, our design allows us to isolate the effects of the forewarning. Study 3 also lets us consider potentially important boundary conditions, such as whether prebunking corrections are effective for different past and future elections (2022 and 2024, respectively, versus 2020 and 2022 in Study 1). As in Study 2, we also examine the effects of these interventions affect participants' ability to identify true and false statements about elections.

In this study, we compare two versions of a prebunking correction treatment — one with and one without a forewarning — to isolate the effect of providing factual information about election security procedures and to determine if the forewarning enhances or otherwise changes those effects. Unlike in Studies 1 and 2, where all participants in the prebunking condition also received a forewarning adapted from the inoculation literature, respondents in Study 3 were randomized to a version of the prebunking condition with a forewarning, a version without a forewarning, or a placebo condition.

Hypotheses

Our preregistered hypotheses address the effects of each version of the treatment (with and without a forewarning message) compared to the placebo condition on voter confidence and fraud perceptions in the 2022 and 2024 elections and discernment between true and false statements:

> H6: Exposure to a prebunking correction will increase confidence in the 2022 and 2024 elections and reduce beliefs about the prevalence and effects of fraud (frequency of voter fraud and the number of seats changed by fraud) in the 2022 and 2024 election compared to the placebo condition regardless of whether the prebunking correction is preceded by a

warning alerting participants that they might be exposed to misinformation in the future.

H7: Exposure to a prebunking correction will reduce the perceived accuracy of the misperceptions it targets, increase the perceived accuracy of the true claims it supports, and improve respondents' ability to distinguish between them compared to the placebo condition regardless of whether the prebunking correction is preceded by a warning alerting participants that they might be exposed to misinformation in the future.

We also report results below for a preregistered research question asking whether there are differences between the two versions of the prebunking correction (with and without an inoculation forewarning message) for our key outcome measures — confidence in elections, beliefs in the prevalence and effects of fraud, and belief in and discernment between true and false statements.

Survey and experimental design

The design of Study 3 allows for important comparisons with Studies 1 and 2. Like Study 1, it was conducted around the 2022 midterm elections in the United States and the treatment source material comes from CISA. Like Study 2, it was conducted about ten weeks *after* an election — from January 21-30, 2023 ($n = 2,030$) — rather than before. As a result, we shifted the retrospective and prospective elections about which respondents were asked to report their beliefs about fraud from 2020 and 2022 to 2022 and 2024 (thus separating the outcome measures from the false narrative about widespread fraud in 2020 that still dominates U.S. discussions of the topic). Asking about 2024 also required U.S. participants to project estimates of fraud further into the future than in Study 1 (similarly to our Brazilian participants, who were asked in Study 2 about the 2026 election). Unweighted sample demographics are summarized in Table B20 — the participants, who were retained from Study 1 as part of a panel survey, again lean older and Democratic (55% female, median age group 55–64, 35% have a college degree, 73% white, 53% identify as Democrats or lean toward the party).

Participants were randomized into one of three conditions (see Table B20): prebunking with a forewarning message, prebunking without the forewarning message, or a placebo condition. To ensure that our results were not affected by previous exposure in Study 1, the set of myths we targeted and the messages themselves were different from those in Study 1. These messages were again adapted from

genuine CISA "myth vs. reality" messages (see Online Appendix A).

As in Study 2, we included a battery of questions designed to test participants' ability to discern accurate from inaccurate information about voting administration (for example, whether voting system software is subject to review), security (for example, the nature of safeguards to protect against tampering with ballot dropboxes), and fraud (for example, the prevalence of ballots cast by deceased citizens). The full set of questions is in Online Appendix A.

All analyses below were preregistered unless otherwise indicated (https://osf.io/gpy3s).

Results

We first evaluate the effects of the prebunking correction with and without forewarning. The results, which are presented in Figure 5a and Table B21, only partly confirm our expectations that the correction will improve participants' election confidence and diminishing their beliefs in the prevalence and effects of fraud. For five of the six outcomes measured, the prebunking treatment condition without a forewarning had a significant effect relative to the placebo condition. By contrast, the effect of the prebunking treatment with a forewarning was not significant for any outcomes, though we can only directly reject the null of no difference in one case (see Table B21). We further note that the pooled estimates of the treatment effects are not measurably different from zero across these outcome measures due to weaker effects in the forewarning condition (see Table B23).

Consistent with our expectations, both versions of the prebunking treatment were effective in improving factual knowledge about elections. Figure 5b and Table B22 show that the treatments increased participants' ability to recognize true and false statements and to distinguish between them.[15]

As with previous studies, we test for heterogeneous treatment effects. For our measures of voter confidence and fraud perceptions, we find no patterns of consistent differential effects by party (Table B25), by Trump sentiment (Table B27), or exposure to corrective treatments in previous waves of the panel survey (Tables B31–B32). However, both treatments often diminished belief in fraud prevalence in 2022 and in expected seats won by fraud in both 2022 and 2024 to a greater degree among participants with higher pre-treatment fraud beliefs (Table B29). Similarly, the effects of the treatments are

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[15]These findings are consistent when we estimate pooled treatment effects — see Table B24.

Figure 5: Effects of Study 3 prebunking treatment and without forewarning

(a) Voter confidence and fraud perceptions

(b) Factual beliefs
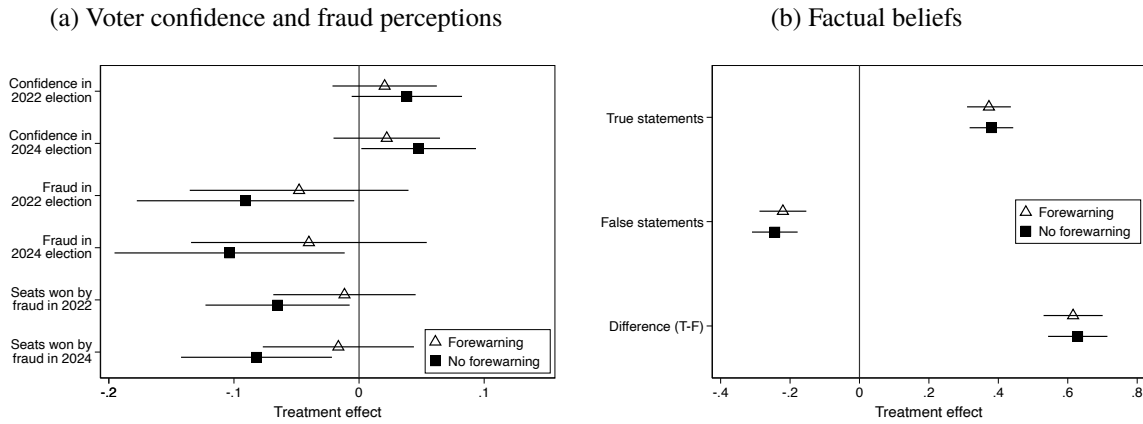
Model estimates from Tables B21 and B22. See Online Appendix A for stimuli and question wording.

often stronger for identification of false statements and for discernment of true versus false statements among people with warmer feelings toward Trump (Table B28) and less accurate pre-treatment beliefs (Table B30).[16] Exploratory analyses also reveal that for two key belief-related outcomes — belief in false claims and discernment between true and false claims — the treatment effects were weaker among Republicans who received the forewarning than for those who did not ($p < .005$ and $p < .01$, respectively; see Table B26). A parallel finding was observed among the respondents who were most misinformed prior to treatment ($p < .01$ and $p < .05$, respectively; see Table B29).[17]

Substantively, effects on our binary measure of election confidence were modest. The percentages of respondents who expressed confidence in the 2022 and 2024 elections (scoring above the scale midpoint for each) were 86.8% and 84.5%, respectively, among controls, 87.1% and 86.4%, respectively, for prebunking with a forewarning, and 86.8% and 85.5%, respectively, for prebunking with no forewarning. However, belief in false statements (perceptions that the claims are "very" or "somewhat" accurate on average) diminished substantially, declining from 19.5% among controls to 12.3% and

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[16]We note, again, that floor/ceiling effects may mute treatment effects. The percentages of participants whose pre-treatment outcomes were at the relevant floor or ceiling and could not move further down or up (respectively) due to treatment were as follows: seats won due to fraud in the 2022 election: 63%; seats won due to fraud in the 2024 election: 63%; confidence in the 2022 election: 54%; confidence in the 2024 election: 49%; prevalence of fraud in the 2022 election: 18%; and prevalence of fraud in the 2024 election: 19%.

[17]A similar pattern was observed for respondents with the warmest feelings toward Trump for belief in false claims, which were reduced significantly more for treated respondents who did not receive the forewarning compared to those who did not ($p < .01$; see Table B28). We found no measurable difference in effects on discernment, however, among this group.

10.6% with and without a forewarning. These differences were especially large for vulnerable sub-groups. Among Republicans, for example, false claim beliefs decreased from 41.3% among controls to 24.4% and 19.7%, respectively, for the prebunking treatment with and without a forewarning.

We conclude from these results that the prebunking treatment's effectiveness was driven by its factual content, not the inoculation-style forewarning message. When we deliver the treatment with and without the forewarning, only the latter approach had a statistically discernible impact on fraud beliefs and election confidence. As in previous studies, these treatments were often differentially effective among participants who were misinformed or more vulnerable to misinformation. However, these differential effects were unexpectedly attenuated (though still significant) when a forewarning was included for belief in false claims and discernment between true and false claims among Republicans, suggesting that the inoculation-style language has the opposite of its intended effect.

Discussion

We leveraged the remarkable parallels between recent presidential elections in the U.S. and Brazil to test the effectiveness of corrective messages about fraud prevalence in two of the world's largest democracies. The studies described here suggest four central conclusions. First, Studies 1 and 2 showed that broad types of corrections we tested — credible sources corrections and prebunking corrections — were effective in increasing electoral confidence and correcting misperceptions about fraud. Consistent with recent research suggesting that explanations of current policy are a particularly useful approach to addressing misperceptions (Thorson 2024; Thorson and Abdelaaty 2023), these studies also revealed that prebunking outperformed the credible sources approach both over time (in the U.S. context) and in the scope of its effects across outcomes measures (in the Brazilian context). Third, Study 3 demonstrates that the effectiveness of prebunking was driven by the factual content delivered rather than by forewarning respondents about potential exposure to untruths. Finally, the effects of both corrections — and of prebunking, in particular — were often larger among people who were previously misinformed or whose partisanship and candidate attitudes make them more vulnerable to misinformation.

For each study, Table 3 summarizes key results from each experimental treatment on the outcome

measures, which we order left to right from more general attitudes to more specific beliefs. Studies 1 and 2 in the U.S. and Brazil, respectively, tested the effectiveness of credible sources affirming election integrity and prebunking messages delivering factual content about election safeguards. In these two studies, both approaches almost always increased confidence in election results both retrospectively and prospectively. These effects were often greatest among those who were most misinformed. The effects of the treatments on perceptions of fraud and its effects on election outcomes were similar in the U.S., whereas the effects of the prebunking message were stronger in Brazil. Study 1, which included a follow-up survey, provided evidence that the prebunking message had more consistent downstream effects on election confidence and fraud perceptions than the credible sources correction (as indicated by the cell borders in Table 3; see Table B7 for details). Finally, both treatments were effective at improving the accuracy of respondents' factual beliefs (Studies 2 and 3).

Table 3: Summary of results immediately after treatment across outcomes and studies

	$\leftarrow$ *More general attitudes*							*More specific factual beliefs* $\rightarrow$		
	Election conf.		Biden	Fraud freq.		Seats won		Factual beliefs		
	Past	Future	Past	Past	Future	Past	Future	T	F	T – F
Study 1 (U.S.)										
Credible sources	***	n.s.	***	***		n.s.	*			
Prebunking	***	***	*	***		n.s.	n.s.			
Study 2 (Brazil)										
Credible sources	**	***		n.s.	n.s.	*	n.s.	*	*	***
Prebunking	***	***		***	***	***	***	***	***	***
Study 3 (U.S.; prebunking only)										
No forewarning	n.s.	*		*	*	*	*	***	***	***
Forewarning	n.s.	n.s.		n.s.	n.s.	n.s.	n.s.	***	***	***

Cell entries are *p*-values for immediate treatment effects: $^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. n.s. indicates not significant; cells in gray indicate outcome was not measured. Boxes around cells indicate $^{*}p < 0.05$ in either future wave (Study 1 only). All models estimated using OLS with robust standard errors (Study 1: Tables B2 and B7; Study 2: Tables B9–B10; Study 3: Tables B21–B22).

While prebunking somewhat outperformed the credible sources approach in the U.S. in Study 1, this advantage was more pronounced in the Brazilian context in Study 2. The difference might stem from the recency of the events referenced in the credible sources corrections in our Brazilian experiment. The U.S. credible sources treatment referred to court decisions from cases that had been re-

solved and to a detailed report produced by a committee of high-ranking Republican officials whereas the Brazilian treatments were based on statements in the immediate aftermath of the election (albeit from high-ranking officials, like the president of the Chamber of Deputies, and Bolsonaro's own son). In short, Study 2 provides compelling evidence that both approaches can be effective but that prebunking can outperform credible sources, particularly among people who are especially susceptible to misinformation.

In general, the advantages of prebunking that we document are reinforced by practical advantages for real-world actors trying to correct misperceptions, including media companies and social media platforms. Prebunking does not require searching for credible sources who are willing to speak against their partisan interest or amplifying messages from partisans. The facts required for effective prebunking are available immediately from neutral sources. In addition, a credible sources approach generally requires context to understand — many people will not fully understand why a statement is against the interest of a particular actor. Finally, the sources of credible sources corrections may come to be seen as less credible over time precisely because of their willingness to contradict their allies on some controversial factual question. (Practitioners should not always avoid corrections from credible sources, of course. We demonstrate their effectiveness and note that the approach may be more appropriate or easier to implement in some cases.)

Finally, Study 3 showed that, in the context of the U.S. 2022 midterm elections, the prebunking correction without a forewarning message increased overall confidence in elections prospectively (but not retrospectively), diminished beliefs in the prevalence of fraud practices and estimates of House seats determined by fraud (both retrospectively and prospectively), and improved the accuracy of factual beliefs and discernment. By contrast, the same prebunking correction *with* a forewarning message succeeded only in improving the accuracy of factual beliefs and discernment. We thus find no evidence that forewarning (which has been presented as an important part of the broader inoculation approach) *increases* the efficacy of corrective information. The difference between the treatments' estimated effects are almost never significant and the forewarning actually reduced the effects of prebunking on the belief accuracy of Republicans. These findings raise important questions about the mechanism that is responsible for inoculation effects — something that future research should consider.

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We note several other questions are important to examine in future research. First, as we note above, the differences we observed between studies could be partly attributable to features of the context or messages that are idiosyncratic to the time and place in which the research was conducted — future studies should replicate these results using other messages and in other contexts. Second, it would be valuable to replicate the Brazil study with a fully representative sample. Third, we find that the effects of the messages in Study 1 diminish over time. Further research should aim to determine why some message effects persist longer than others.

In the end, though, these findings are optimistic. Our studies reveal that democracy-defending messages can be effective, especially prebunking approaches that provide novel factual information about how elections are secured. Moreover, these effects are stronger among the groups we expect to be most resistant, suggesting little need to craft distinct messages for people who reject election outcomes. The key challenge, then, is to deliver messages like these more widely and to ensure that their effects last.

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Online Appendix A: Survey instrument and experimental stimuli

Study 1 questionnaire

[Consent]

ABOUT THIS RESEARCH

You are being asked to participate in a research study. Scientists do research to answer questions and learn new information. Some research might help change or improve the way we do things in the future. This consent information will tell you more about the study to help you decide whether you want to participate. Please read this information before agreeing to be in the study.

TAKING PART IN THIS STUDY IS VOLUNTARY

You may choose not to take part in the study or may choose to leave the study at any time. Deciding not to participate, or deciding to leave the study later, will not result in any penalty and will not affect your relationship with YouGov, the University of Notre Dame, Dartmouth College, or the University of Exeter.
As an alternative to participating in the study, you may choose not to take part.

WHY IS THIS STUDY BEING DONE?

The purpose of this study is to learn more about public opinion on U.S. elections and issues in the news.

You were selected as a possible participant because you are an adult American citizen participating in YouGov's survey panel pool. Additionally, you may have agreed to participate in YouGov's Pulse program.

 The study is being conducted by Brian Fogarty from the Center for Social Science Research at the University of Notre Dame, Jason Reifler from the Department of Politics at the University of Exeter, and John Carey and Brendan Nyhan from the Department of Government at Dartmouth College. It is funded by the MIT Election Data and Science Lab.

HOW MANY PEOPLE WILL TAKE PART?
If you agree to participate, you will be one of 3,750 participants taking part in this study.

WHAT WILL HAPPEN DURING THE STUDY?
If you agree to be in the study, you will be asked to do the following things:

-Completion of a short survey on YouGov's website or app. The survey is anticipated to take less than 10 minutes to complete.
-Possibly, completion of a short follow-up survey approximately one month from now on YouGov's website or app. The follow-up survey is anticipated to take less than 10 minutes to complete.
-If you have agreed to participate in YouGov's Pulse program, anonymous tracking data on your online website visits may be used by the researchers. However, there are no actions you need to take related to YouGov Pulse and this study.

WHAT ARE THE RISKS OF TAKING PART IN THE STUDY?
While participating in the study, the potential risks include:
-A risk of completing the survey is being uncomfortable answering the questions.-To minimize this potential risk, you can skip any questions that you feel uncomfortable answering.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THE STUDY?
We don't expect you to receive any benefit from taking part in this study, but we hope to learn things that will help scientists in the future.

HOW WILL MY INFORMATION BE PROTECTED?
Efforts will be made to keep your personal information confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. No information which could identify you will be shared in publications about this study and databases in which results may be stored.
Organizations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the study investigator and his/her research associates, the University of Notre Dame Institutional Review Board or its designees, and (as allowed by law) state or federal agencies, especially the Office for Human Research Protections (OHRP), who may need to access the research records.

WILL MY INFORMATION BE USED FOR RESEARCH IN THE FUTURE?
Your information will not be used or distributed for future research studies.

WILL I BE PAID FOR PARTICIPATION?
You will receive 500 points for completing each survey.

YouGov does not allow for prorated compensation. In the event of an incomplete survey, you will not receive any points.

WHO SHOULD I CALL WITH QUESTIONS OR PROBLEMS?
For questions about the study, contact the researcher, Brendan Nyhan at nyhan@dartmouth.edu.

PARTICIPANT'S CONSENT
In consideration of all of the above, I give my consent to participate in this research study. By proceeding, I confirm that I am 18 years old, and agree to take part in this study.
-I agree to take this survey
-Take me to another survey

In what year were you born?

Are you…?
Male
Female

What is your age?

What racial or ethnic group best describes you?
-White
-Black or African-American
-Hispanic or Latino
-Asian or Asian-American
-Native American
-Middle Eastern
-Two or more races
-Other (open text)

What is the highest level of education you have completed?
-Did not graduate from high school
-High school graduate
-Some college, but no degree (yet)
-2-year college degree
-4-year college degree
-Postgraduate degree (MA, MBA, MD, JD, PhD, etc.)

Thinking back over the last year, what was your family's annual income?
-Less than $10,000
-$10,000–$19,999
-$20,000–$29,999
-$30,000–$39,999
-$40,000–$49,999
-$50,000–$59,999
-$60,000–$69,999
-$70,000–$79,999
-$80,000–$99,999
-$100,000–$119,999
-$120,000–$149,999
-$150,000–$199,999
-$200,000–$249,999
-$250,000–$349,999
-$350,000–$499,999
-$500,000 or more

What is your zip code?

When it comes to politics, would you describe yourself as liberal, conservative, or neither liberal nor conservative?
-Very liberal
-Somewhat liberal
-Slightly liberal

-Moderate; middle of the road
-Slightly conservative
-Somewhat conservative
-Very conservative

Generally speaking, do you think of yourself as a ...?
-Democrat
-Republican
-Independent
-Other (open text)
-Not sure

[if Democrat]
Would you call yourself a strong Democrat or a not very strong Democrat?
-Strong Democrat
-Not very strong Democrat

[if Republican]
Would you call yourself a strong Republican or a not very strong Republican?
-Strong Republican
-Not very strong Republican

[if independent, other, not sure]
Do you think of yourself as closer to the Democratic or the Republican Party?
-The Democratic Party
-The Republican Party
-Neither
-Not sure

Generally, how interested are you in politics?
-Extremely interested
-Very interested
-Somewhat interested
-Not very interested
-Not at all interested

Do you approve or disapprove of the way Joe Biden is handling his job as President?
-Strongly approve
-Somewhat approve
-Somewhat disapprove
-Strongly disapprove

The next set of questions helps us learn what types of information are commonly known to the public. Please answer these questions on your own without asking anyone or looking up the answers. Many people don't know the answers to these questions, but we'd be grateful if you would please answer

every question even if you're not sure what the right answer is.

It is important to us that you do NOT use outside sources like the Internet to search for the correct answer. Will you answer the following questions without help from outside sources?
-Yes
-No

For how many years is a United States Senator elected - that is, how many years are there in one full term of office for a U.S. Senator?
Two years
Four years
Six years
Eight years
None of these
Don't know

How many times can an individual be elected President of the United States under current laws?
Once
Twice
Four times
Unlimited number of terms
Don't know

How many U.S. Senators are there from each state?
One
Two
Four
Depends on which state
Don't know

Who is currently the Prime Minister of the United Kingdom?
Richard Branson
Liz Truss
David Cameron
Theresa May
Margaret Thatcher
Don't know

For how many years is a member of the United States House of Representatives elected - that is, how many years are there in one full term of office for a U.S. House member?
-Two years
-Four years
-Six years
-Eight years
-For life

-Don't know

We would like to get your feelings toward some people, groups, and countries who are in the news these days using something we call the feeling thermometer. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward the person, group, or country. Ratings between 0 degrees and 50 degrees mean that you don't feel favorable toward the person or institution and that you don't care too much for that person, group, or country. You would rate them at the 50 degree mark if you don't feel particularly warm or cold toward that person, group, or country. If we come to a person or institution whose name you don't recognize, you don't need to rate them.
-Joe Biden
-Democratic Party
-Republican Party
-Donald Trump
-The news media
-Election officials
-Black people
-White people

Please rate how much you agree with the following statements:
-Much of our lives are being controlled by plots hatched in secret places.
-Even though we live in a democracy, a few people will always run things anyway.
-The people who really 'run' the country, are not known to the voter.
-Big events like wars, recessions, and the outcomes of elections are controlled by small groups of people who are working in secret against the rest of us.

-Strongly agree
-Somewhat agree
-Neither agree nor disagree
-Somewhat disagree
-Strongly disagree

Currently, Democrats have a majority in the U.S. House of Representatives. Which party do you expect to hold a majority in the U.S. House of Representatives after the November 2022 elections?
-Definitely Democrats
-Probably Democrats
-Probably Republicans
-Definitely Republicans

Currently, Democrats have a majority in the U.S. Senate. Which party do you expect to hold a majority in the U.S. Senate after the November 2022 elections?
-Definitely Democrats
-Probably Democrats
-Probably Republicans
-Definitely Republicans

Please indicate whether you agree or disagree with each statement below.
-By law, abortion should never be permitted.
-In order to reduce the budget deficit, the federal government should eliminate all welfare programs that help poor people.
-The federal government should raise the minimum wage to $10.
-The federal government should guarantee health insurance for all citizens.
-The federal government should pass new rules that protect the right of workers to join labor unions.
-Barack Obama was the first president of the United States.

-Strongly agree
-Somewhat agree
-Neither agree nor disagree
-Somewhat disagree
-Strongly disagree

In November 2020, elections were held for 435 seats in the U.S. House of Representatives and 35 seats in the U.S. Senate. In how many of these elections do you think the winning candidate was not the rightful winner but instead won due to voter fraud?
-None
-One or two
-Three to nine
-Ten or more

In November 2022, elections will be held for 435 seats in the U.S. House of Representatives and 34 seats in the U.S. Senate. In how many of these elections do you think the winning candidate will not be the rightful winner but instead will win due to voter fraud?
-None
-One or two
-Three to nine
-Ten or more

Please indicate whether you agree or disagree with each statement below.
-People convicted of murder should be given the death penalty.
-World War I came after World War II.
-Gays and lesbians should have the right to legally marry.
-In order to reduce the budget deficit, the federal government should raise taxes on people that make more than $250,000 per year.
-The Affordable Care Act passed by Congress in 2010 should be repealed.

-Strongly agree
-Somewhat agree
-Neither agree nor disagree
-Somewhat disagree
-Strongly disagree

How much, if at all, do you trust the information you get from...
-National news organizations
-Local news organizations
-Social media (such as Facebook, Twitter, and Instagram)
-Political leaders in the federal government
-Political leaders in the [respondent state] government

-A lot
-Some
-Not too much
-Not at all

Now we'd like to ask you about the election that took place in November 2020 for the presidency, U.S. Congress, and other offices

How confident are you that your vote was counted as you intended in the 2020 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your local area were counted as voters intended in the 2020 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your state were counted as voters intended in the 2020 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes nationwide were counted as voters intended in the 2020 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

Do you consider Joe Biden to be the rightful winner of the 2020 election or not the rightful winner?
-Definitely the rightful winner
-Probably the rightful winner
-Probably not the rightful winner

-Definitely not the rightful winner

To the best of your knowledge, how often did each of these occur in the 2020 presidential election?
-Voting more than once in an election.
-Stealing or tampering with ballots.
-Pretending to be someone else when voting.
-People voting who are not U.S. citizens.
-Voting with an absentee ballot intended for another person.
-Officials preventing absentee voters from voting.

-A million or more
-Hundreds of thousands
-Tens of thousands
-Thousands
-Hundreds
-Less than a hundred
-Less than ten

Now we would like to ask you about the elections that will take place in November 2022 for the U.S. Congress and other offices.

How confident are you that your vote will be counted as you intend in the November 2022 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your local area will be counted as voters intend in the November 2022 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your state will be counted as voters intend in the November 2022 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes nationwide will be counted as voters intend in the November 2022 election?
-Very confident
-Somewhat confident

-Not too confident
-Not at all confident

[new page]
[prebunking treatment; p=1/3]

Please read the following articles carefully. (You'll need to answer questions about them correctly to successfully complete the survey.)

Beware of False Rumors You May Hear about the 2022 Election

Experts agree that American elections are safe and secure. Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process, including the 2022 midterm elections that will be held this November.

For instance, they claim that people can easily cast unauthorized mail-in/absentee ballots and tamper with election drop boxes used by election officials to collect those ballots. They also claim that voting system software can be easily manipulated and that votes are frequently cast on behalf of dead people.

These claims may sound convincing at first. However, the Department of Homeland Security confirms that numerous protections are in place to protect the integrity of the election process. These facts contradict the rumors promoted by some political actors.

[new page]

Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process. Here is the truth about some claims you might hear concerning the 2022 midterm elections that will be held this November.

✓**Reality: Safeguards protect the integrity of the mail-in/absentee ballot process.**

✕ **Rumor: People can easily violate the integrity of the mail-in/absentee ballot request process.**

Numerous safeguards protect the integrity of the mail-in/absentee ballot process. Ballot request forms typically require applicants to sign a form affirming their eligibility to cast a mail-in/absentee ballot under penalty of law. Election officials then verify the identity and eligibility of the requester by checking the signature and information submitted against the corresponding voter registration record and making sure that multiple ballots are not sent to the same voter. When a mail-in/absentee ballot is submitted, election officials verify the signature and confirm the ballot has been properly submitted before it is counted.

[new page]

According to the page you just read, how do election officials protect the integrity of mail-in/absentee ballots?

-Verify the identity and eligibility of requesters and then verifying the signature when a ballot is submitted
-Sending texts to voters asking them to confirm which candidates they voted for
-Accepting mail-in/absentee ballots only from voters in one party
-There are no safeguards in place
[repeat up to three times if not answered correctly]

[new page]

Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process. Here is the truth about some claims you might hear concerning the 2022 midterm elections that will be held this November.

✓**Reality: Robust safeguards protect against tampering with ballots returned via drop box.**

✕ **Rumor: Drop boxes for mail-in/absentee ballots can be easily tampered with, stolen, or destroyed.**

Robust safeguards protect against tampering with ballots returned via drop box. Drop boxes located outdoors are typically made of heavy and high-grade metal, bolted to the ground, and include security features such as locks, tamper-evident seals, minimally sized ballot insertion slots, and fire and water-damage prevention features. Drop boxes located indoors are typically staffed and protected by existing building security measures. Ballots returned via drop box are retrieved by election officials or designated individuals, often in bipartisan teams, at frequent intervals.

[new page]

According to the page you just read, how are ballots from outdoor drop boxes protected?
-Using locks, tamper-evident seals, minimally sized ballot insertion slots, and other security features
-By picking up ballots monthly
-Using boxes that are not bolted to the ground
-There are no safeguards in place
[repeat up to three times if not answered correctly]

[new page]

Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process. Here is the truth about some claims you might hear concerning the 2022 midterm elections that will be held this November.

✓**Reality: Voting systems must be certified by state and/or federal voting system testing programs.**

✕ **Rumor: Voting system software is not reviewed or tested and can be easily manipulated.**

Voting systems undergo testing from state and/or federal programs that certify voting system hardware and software. Under these programs, voting system manufacturers submit systems to undergo testing and review by an accredited laboratory or state testers. This testing is designed to check that systems function as designed and meet applicable standards for accuracy, privacy and accessibility. Once systems are deemed compliant, they are further tested by election officials to ensure proper functioning before deployment.

[new page]

According to the page you just read, what is one way that voting systems are tested and certified?
-By accredited laboratories according to state and federal standards
-By the companies that make them
-By the Voting Machine Manufacturers of America (VMMA) trade association
-By Underwriters Laboratories
[repeat up to three times if not answered correctly]

[new page]

Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process. Here is the truth about some claims you might hear concerning the 2022 midterm elections that will be held this November.

✓**Reality: Voter registration list maintenance and other election integrity measures protect against illegal voting.**

✕ **Rumor: Votes are being cast on behalf of dead people and these votes are being counted.**

Voter registration list maintenance and other election integrity measures protect against voting illegally on behalf of deceased individuals. Election officials regularly remove deceased individuals from voter registration rolls based on death records, which provide a strong audit trail to identify any illegal attempts to cast ballots on behalf of deceased individuals. Additional election integrity safeguards, including signature matching and information checks, further protect against voter impersonation and voting by ineligible persons.

Taken out of context, some voter registration information may appear to suggest suspicious activity, but are actually innocuous clerical errors or the result of intended data practices. For example, election officials in some states use temporary placeholder data for registrants whose birth date or year is not known (e.g., 1/1/1900, which makes such registrants appear to be more than 120 years old). In other instances, an adult son or daughter with the same name and address as their deceased parent could be misinterpreted as a deceased voter or lead to clerical errors.

[new page]

According to the article you just read, which records are frequently used to update voter registration lists and ensure they are up to date?

-Death records
-Public school enrollment records
-Magazine subscription data
-Officials never remove names from registration rolls unless requested to do so by next of kin
[repeat up to three times if not answered correctly]

[new page]
[credible correction treatment; p=1/3]

Legitimacy of 2020 Election Affirmed by Leading Republicans

Experts agree that American elections are safe and secure. Some politically-motivated groups are claiming that the 2020 presidential election was marred by irregularities and fraud that denied then-President Donald Trump a victory and delivered a win for Joe Biden.

In fact, there is widespread evidence that the 2020 election was administered effectively. Allegations of widespread fraud have been investigated and found to be unsupported in a variety of settings, including in courts, by state governments, and by legal experts.

Importantly, these conclusions have been affirmed by numerous Republicans and conservatives at the highest levels of American politics and in the judiciary, including many political allies of President Trump. Examples of Republicans and conservatives who have affirmed the legitimacy of the 2020 election result include Senate Majority Leader Mitch McConnell, Attorney General Bill Barr, numerous judges appointed by Trump, and the Republican governors of Arizona and Georgia.

[new page]

Article: Republican Leaders Say Biden Won

Eight well-known Republican attorneys, judges, and politicians say they want conservatives in particular to know the 2020 election wasn't stolen — former President Donald Trump lost.

"Our conclusion is unequivocal," they write. "Joe Biden was the choice of a majority of the Electors, who themselves were the choice of the majority of voters in their states. Donald Trump and his supporters have failed to present evidence of fraud or inaccurate results significant enough to invalidate the results of the 2020 Presidential Election."

The report's authors are former U.S. Senators John Danforth (R-MO) and Sen. Gordon H. Smith (R-Or.); Republican election lawyer Ben Ginsberg; former U.S. Solicitor General Theodore B. Olson, who served under George W. Bush; David Hoppe, the former chief of staff to two Republican Congressional Majority Leaders; and former federal judges Thomas B. Griffith, J. Michael Luttig, and Michael McConnell — all appointed by Republican presidents.

[new page]

According to the article you just read, who recently issued a report affirming that former President Donald Trump lost the 2020 election?
-Eight well-known Republican attorneys, judges, and politicians
-Six well-known Democratic attorneys, judges, and politicians
-Four law professors
-Nine election officials
[repeat up to three times if not answered correctly]

[new page]

Article: Republican Judges Reject Trump's Election Lawsuits

President Trump filed numerous lawsuits claiming voter fraud, illegal polling procedures, and errors with ballots and voting machines that would have invalidated the 2020 election results.

However, in a remarkable show of near-unanimity across the nation's judiciary, at least 86 judges — ranging from jurists serving at the lowest levels of state court systems to members of the United States Supreme Court — rejected at least one post-election lawsuit filed by Trump or his supporters.

In particular, numerous conservative jurists have balked at the sweeping attempts by Trump and his allies to throw out millions of votes after they were cast — rejecting claims of irregularities as unfounded and challenges to the voting process as belated.

In total, 38 judges appointed by Republicans dealt blows to such suits, with some writing searing opinions.

Taken together, the judges's decisions have comprehensively dismantled the arguments advanced by Trump in his effort to get the courts to subvert Biden's victory.

[new page]

According to the article you just read, how many judges appointed by Republicans ruled against lawsuits filed by Trump and his allies to overturn the results of the 2020 election?
-0
-1
-5
-10
-38
[repeat up to three times if not answered correctly]

[new page]

Article: Trump's Attorney General Says No Evidence of Widespread Fraud

Disputing President Donald Trump's claims, Attorney General William Barr declared in December

2020 that the U.S. Justice Department uncovered no evidence of widespread voter fraud that could change the outcome of the 2020 election.

Barr's comments contradicted the concerted effort by Trump, his boss, to subvert the results of the 2020 election's voting and block President-elect Joe Biden from taking his place in the White House.

Barr told the Associated Press that U.S. attorneys and FBI agents "have not seen fraud on a scale that could have effected a different outcome in the election." The comments were especially notable coming from Barr, who has been one of the president's most ardent allies.

[new page]

In the article you just read, which Republican official was described as saying that there was no evidence of widespread fraud in the 2020 election?
-Attorney General Bill Barr
-Senator Mike Rounds
-Representative Roger Aderholt
-Governor Kevin Stitt
[repeat up to three times if not answered correctly]

[new page]

Article: Republican Governors Certify Biden Wins in Swing States

Joe Biden's victory in the 2020 election has been recognized by numerous leading Republican officials, including Trump allies Governor Brian Kemp of Georgia and Governor Doug Ducey of Arizona, who both certified that Biden won their states, as well as Senate Majority Leader Mitch McConnell.

For instance, Ducey said, "Arizona is a good government state. I trust our election system. There's integrity in our election system. Joe Biden did win Arizona."

Similarly, Brad Raffensperger, the Republican Secretary of State of Georgia, said the following before Kemp announced that the election results in the state had been certified: "Working as an engineer throughout my life, I live by the motto that numbers don't lie. As secretary of state, I believe that the numbers that we have presented today are correct. The numbers reflect the verdict of the people."

At the national level, Senate Majority Leader Mitch McConnell also acknowledged that Biden won the 2020 election, saying "The Electoral College has spoken."

[new page]

According to the article you just read, who certified the 2020 presidential election results in Arizona and Georgia?
-Republican governors
-Democratic governors

-The House of Representatives
-The U.S. Senate
[repeat up to three times if not answered correctly]

[new page]
[placebo condition; p=1/3]

Keep Up-To-Date with World Events

It is important for people to be informed about events happening in the world today. Please read the following news articles, which will cover several different topics.

[new page]

Article: Sauces in cooking

Travis Lett often steals. Of course, the only person this pensive chef ever steals from is himself. At Gjelina, his Los Angeles, USA restaurant with a large, ever-changing menu, "We're constantly appropriating elements from dishes we've done in the past to create new combinations," he said.

There's a lesson here: To improve your cooking, learn how to make and use sauce like a professional.

Five basic types of sauces appear over and over again on menus and in cookbooks that feature the kind of vegetable-heavy, flavor-dense food that cooks and eaters favor today: yogurt sauce, pepper sauce, herb sauce, tahini sauce and pesto. Master each one, and you'll immediately have access to the dozens of variations that descend from them, too. <p>Think of them as the new mother sauces, an updated version of the five mother sauces of French cuisine. Armed with one of these five sauces, the home cook can go on and cook what he or she is most comfortable cooking: roast chicken, grilled steak or fish, roasted vegetables, a pot of beans or rice. The right sauce will transform the distinct elements of a dish into a unified statement of taste.

[new page]

According to the article you just read, which of the following food types are essential for cooking different types of dishes?
-Sauce
-Condiments
-Proteins
-Grains
[repeat up to three times if not answered correctly]

[new page]

Article: Why hiking is good for your health

The experience of hiking is unique, research suggests, conveying benefits beyond what you receive from typical exercise. Not only does it oxygenate your heart, it helps keep your mind sharper, your body calmer, your creativity more alive, and your relationships happier. And, evidence suggests that being around trees may provide extra benefits, perhaps because of certain organic compounds that trees exude that boost our mood and our overall psychological well-being.

Hiking in nature is so powerful for our health and well-being that some doctors have begun prescribing it as an adjunct to other treatments for disease. As one group of researchers puts it, "The synergistic effect of physical activity and time spent in nature make hiking an ideal activity to increase overall health and wellness."

Hiking involves something many other forms of exercise don't: trails. That means it requires navigating in a world that's not totally predictable. Slippery dirt, overhanging branches and hidden obstacles, trail markers, and wild animals crossing your path — all of the things you might encounter on a trail — require micro- and macro-adjustments to your route, which is good for your brain.

[new page]

According to the article you just read, why does hiking differ from other types of exercise?
-Benefits for wellness and mood
-Need for different equipment
-Safety concerns
-Cost and distance barriers
[repeat up to three times if not answered correctly]

[new page]

Article: Airlines serve hearing-impaired passengers

Delta Airlines recently announced that employees who speak any of the 300-plus types of sign language will be identified by a notice on their employee nametag. In a press release, the company stated that this update will allow "customers and qualified employees [to] immediately be able to visually recognize when they hold sign language as a common connection."

Delta becomes the latest major airline to take steps to help their customers who are deaf or hard of hearing have a smoother time traveling. In early 2019, Virgin Atlantic Airways introduced a "hidden symbol," included on a slip with its tickets or worn as a pin, which allow people with disabilities that are not apparent to identify themselves to employees. The company also offers sign language interpretation in British Sign Language if notified in advance. Those services, however, are only available on international flights.

A number of other airlines, including Southwest, do not list their specific services for deaf and hard-of-hearing passengers on their websites but provide a phone number with relay service or teletypewriter service. Many airlines, including United, ask deaf and hard-of-hearing customers to identify themselves to staff.

[new page]

According to the article you just read, where will Delta employees who speak sign language be identified for hearing-impaired passengers?
-Employee nametags
-Airport signs
-Television monitors at airport gates
-Passenger tickets
[repeat up to three times if not answered correctly]

[new page]

Article: Sleep aids are now high-tech

This morning, like most mornings, I looked at my phone. The screen read, "26." "Only a 26?" I thought. Then I realized my mistake: I'd forgotten to switch it on until 2:45 a.m.

"It" is Beddit, a device that sits underneath my fitted sheet and tracks my heart rate and movement while I sleep. Each morning, I'm awarded a score — a 100 is perfect, a zero means you did not sleep at all. Before technology started trying to fix sleep, it ruined it.

New gadgets can tell us what we're doing wrong. Sleep isn't just what we do when we're not doing anything: It's a market, a massive and trendy economy that's selling something we can't live without.

The appeal of these services is obvious. The ease of booting up your smartphone and accomplishing such a boring, adult purchase — complete with a customization quiz, no less — is far more appealing than the alternative.

"The ... industry was overdue for disruption and the direct-to-consumer e-commerce wave is just starting to crescendo," says Matt Hayes, head of marketing at Leesa.

[new page]

According to the article you just read, what is Beddit?
-An Internet forum for insomniacs
-An Internet company that sells sheets directly to consumers
-A device that measures sleep quality
-A portable mattress
[repeat up to three times if not answered correctly]

[end randomized stimuli]
[new page]

Now we would like to again ask you about the elections that will take place in November 2022 for the

U.S. Congress and other offices.

How confident are you that your vote will be counted as you intend in the November 2022 election?
Very confident
Somewhat confident
Not too confident
Not at all confident

How confident are you that votes in your local area will be counted as voters intend in the November 2022 election?
Very confident
Somewhat confident
Not too confident
Not at all confident

How confident are you that votes in your state will be counted as voters intend in the November 2022 election?
Very confident
Somewhat confident
Not too confident
Not at all confident

How confident are you that votes nationwide will be counted as voters intend in the November 2022 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

In November 2022, elections will be held for 435 seats in the U.S. House of Representatives and 34 seats in the U.S. Senate. In how many of these elections do you think the winning candidate will not be the rightful winner but instead will win due to voter fraud?
-None
-One or two
-Three to nine
-Ten or more

You said you expect that the results of [one or two / three to nine / ten or more] elections for the U.S. House and Senate in 2022 will be changed by voter fraud. Please explain why you expect this to be true.

Now we'd like to again ask you about the election that took place in November 2020 for the presidency, U.S. Congress, and other offices.

How confident are you that your vote was counted as you intended in the 2020 election?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your local area were counted as voters intended in the 2020 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your state were counted as voters intended in the 2020 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes nationwide were counted as voters intended in the 2020 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

Do you consider Joe Biden to be the rightful winner of the 2020 election or not the rightful winner?
-Definitely the rightful winner
-Probably the rightful winner
-Probably not the rightful winner
-Definitely not the rightful winner

To the best of your knowledge, how often did each of these occur in the 2020 presidential election?
-Voting more than once in an election.
-Stealing or tampering with ballots.
-Pretending to be someone else when voting.
-People voting who are not U.S. citizens.
-Voting with an absentee ballot intended for another person.
-Officials preventing absentee voters from voting.

-A million or more
-Hundreds of thousands
-Tens of thousands
-Thousands
-Hundreds
-Less than a hundred

-Less than ten

In November 2020, elections were held for 435 seats in the U.S. House of Representatives and 35 seats in the U.S. Senate. In how many of these elections do you think the winning candidate was not the rightful winner but instead won due to voter fraud?
-None
-One or two
-Three to nine
-Ten or more

You said you think that the results of [one or two/three to nine/ten or more] elections for the U.S. House and Senate in 2020 were changed by voter fraud. Please explain why you believe this to be true.

We sometimes find people don't always take surveys seriously, instead providing humorous or insincere responses to questions. How often do you do this?
-Never
-Rarely
-Some of the time
-Most of the time
-Always

It is essential for the validity of this study that we know whether participants looked up any information online during the study. Did you make an effort to look up information during the study? Please be honest; you will not be penalized in any way if you did.

-Yes, I looked up information
-No, I did not look up information

Study 2 questionnaire

[English version provided below; translated Portuguese version fielded to participants available at `https://osf.io/ynbxp/`]

ABOUT THIS RESEARCH

You are being asked to participate in a research study. Scientists do research to answer questions and learn new information. Some research might help change or improve the way we do things in the future. This consent information will tell you more about the study to help you decide whether you want to participate. Please read this information before agreeing to be in the study

TAKING PART IN THIS STUDY IS VOLUNTARY

You may choose not to take part in the study or may choose to leave the study at any time. Deciding not to participate, or deciding to leave the study later, will not result in any penalty and will not affect your relationship with YouGov, the University of Notre Dame, Dartmouth College, or the University

of Exeter.

As an alternative to participating in the study, you may choose not to take part.

WHY IS THIS STUDY BEING DONE?

The purpose of this study is to learn more about public opinion on U.S. elections and issues in the news.

The study is being conducted by Brian Fogarty from the Center for Social Science Research at the University of Notre Dame, Jason Reifler from the Department of Politics at the University of Exeter, and John Carey and Brendan Nyhan from the Department of Government at Dartmouth College. It is funded by a grant from the European Research Council.

HOW MANY PEOPLE WILL TAKE PART?

If you agree to participate, you will be one of 3,750 participants taking part in this study.

WHAT WILL HAPPEN DURING THE STUDY?

If you agree to be in the study, you will be asked to do the following things: Completion of a short survey on YouGov's website or app. The survey is anticipated to take less than 20 minutes to complete.

While participating in the study, the potential risks include: A risk of completing the survey is being uncomfortable answering the questions. To minimize this potential risk, you can skip any questions that you feel uncomfortable answering.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THE STUDY?

We don't expect you to receive any benefit from taking part in this study, but we hope to learn things that will help scientists in the future.

HOW WILL MY INFORMATION BE PROTECTED?

Efforts will be made to keep your personal information confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. No information which could identify you will be shared in publications about this study and databases in which results may be stored.
Organizations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the study investigator and his/her research associates, the University of Notre Dame Institutional Review Board or its designees, and (as allowed by law) state or federal agencies, especially the Office for Human Research Protections (OHRP), who may need to access the research records.

WILL MY INFORMATION BE USED FOR RESEARCH IN THE FUTURE?

Your information will not be used or distributed for future research studies.

WILL I BE PAID FOR PARTICIPATION?

You will receive 1000 points for completing each survey. YouGov does not allow for prorated compensation. In the event of an incomplete survey, you will not receive any points.

WHO SHOULD I CALL WITH QUESTIONS OR PROBLEMS?

For questions about the study, please contact either Jason Reifler at j.reifler@exeter.ac.uk or Brendan Nyhan at nyhan@dartmouth.edu.

In consideration of all of the above, I give my consent to participate in this research study. By proceeding, I confirm that I am 18 years old, and agree to take part in this study.
-I agree to take this survey
-I do not agree to take this survey

[Demographics]

In what state of Brazil do you live?
[state list]

In what city of <state> do you live?
[open text]

Do you live in an urban area of a city, a neighborhood close to the urban area of a city, a neighborhood close to a rural area, or a rural area?
-An urban area of a city
-A neighborhood close to the urban area of a city
-A neighborhood close to a rural area
-A rural area?

Do you consider yourself white, mestizo, indigenous, black, mulatto, or of another race?
-White
-Mestizo
-Indigenous
-Black
-Mulatto
-Other

How old are you? [———-] years old

For statistical purposes, could you please tell me what your gender is?
-Man/male
-Woman/female

-Other

What is the highest level of education you have reached?
-None
-Primary/elementary education (incomplete or complete)
-Secondary/high school (incomplete or complete)
-Higher education / bachelor's degree / college (incomplete or complete)
-Postgraduate / MBA / masters / doctorate (incomplete or compete)

What is the monthly family income of your household, including remittances from abroad and the income of all working adults and children?

-Between R$0 and R$2424
-Between R$2424 and R$4847
-Between R$4848 and R$8483
-Between R$8484 and R$12119
-Between R$12120 and R$24240
-More than R$24240

KNOWLEDGE
The next set of questions helps us learn what types of information are commonly known to the public. Please answer these questions on your own without asking anyone or looking up the answers. Many people don't know the answers to these questions, but we'd be grateful if you would please answer every question even if you're not sure what the right answer is.

It is important to us that you do NOT use outside sources like the Internet to search for the correct answer. Will you answer the following questions without help from outside sources?

How many years are there in one full term of office for a Senator in Brazil?
-Two years
-Four years
-Six years
-Eight years
-None of these
-Don't know

How many consecutive times can an individual be elected President of Brazil under current laws?
-Once
-Twice
-Four times
-Unlimited number of terms
-Don't know

How many Senators are there from each state?
-One

-Two
-Three
-Depends on which state
-Don't know

Who is currently the President of Argentina?
-Carlos Menem
-Alberto Fernández
-Cristina Fernández de Kirchner
-Gabriel Boric
-Mauricio Macri
-Don't know

How many years are there in one full term of office for a Deputado Federal member?
-Two years
-Four years
-Six years
-Eight years
-For life
-Don't know

FEELING THERMOMETERS
We would like to get your feelings toward some people, groups, and countries who are in the news these days using something we call the feeling thermometer. Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward the person, group, or country. Ratings between 0 degrees and 50 degrees mean that you don't feel favorable toward the person or institution and that you don't care too much for that person, group, or country. You would rate them at the 50 degree mark if you don't feel particularly warm or cold toward that person, group, or country. If we come to a person or institution whose name you don't recognize, you don't need to rate them.

-Lula da Silva
-Partido dos Trabalhadores
-Partido Liberal
-Jair Bolsonaro
-The news media
-Election officials
-Black people
-White people

CONSPIRACY BELIEFS
Please rate how much you agree with the following statements:
-Much of our lives are being controlled by plots hatched in secret places.
-Even though we live in a democracy, a few people will always run things anyway.
-The people who really 'run' the country, are not known to the voter.
-Big events like wars, recessions, and the outcomes of elections are controlled by small groups of

people who are working in secret against the rest of us.

-Strongly agree
-Somewhat agree
-Neither agree nor disagree
-Somewhat disagree
-Strongly disagree

MEDIA TRUST (grid)
How much, if at all, do you trust the information you get from...
-National news organizations
-Local news organizations
-Social media (such as Facebook, Twitter, and Instagram)
-Political leaders in the federal government
-Political leaders in the [STATE NAME] government

-A lot
-Some
-Not too much
-Not at all

When we speak of political leanings, we talk of those on the left and those on the right. In other words, some people sympathize more with the left and others with the right. According to the meaning that the terms "left" and "right" have for you, and thinking of your own political leanings, where would you place yourself on a scale from 1 to 10 where 1 is the most left and 10 is the most right? Tell me the number.

1 2 3 4 5 6 7 8 9 10 Do not know
Left   Right

Do you currently identify with a political party?
-Yes
-No
-Don't know

Which political party do you identify with? [if yes]
-PT (Partido dos Trabalhadores)
-MDB (Movimento Democrático Brasileiro)
-PSDB (Partido da Social Democracia Brasileira)
-PSB (Partido Socialista Brasileiro)
-UNIÃO (União Brasil)
-PC do B (Partido Comunista do Brasil)
-PPS (Partido Popular Socialista)
-PTB (Partido Trabalhista Brasileiro)
-PSOL (Partido Socialismo e Liberdade)

-PP (Progressistas)
-PL (Partido Liberal)
-REDE (Rede Sustentabilidade)
-PDT (Partido Democrático Trabalhista)
-PSL (Partido Social Liberal)
-NOVO (Partido Novo)
-Outro
-Não sabe

Did you vote in the first round in the last presidential elections of 2022?
-Voted
-Did not vote
-Don't know

Did you vote in the second round in the last presidential elections of 2022?
-Voted
-Did not vote
-Don't know

How much interest do you have in politics: a lot, some, little or none?
-A lot
-Some
-Little
-None

Speaking in general of the current administration, how would you rate the job performance of President Lula da Silva?
-Very good
-Good
-Neither good nor bad
-Bad
-Very bad
-Don´t know

Please indicate whether you agree or disagree with each statement below.

-By law, abortion should never be permitted.
-In order to reduce the budget deficit, the federal government should eliminate all welfare programs that help poor people.
-The federal government should raise the minimum wage to $10.
-The federal government should guarantee health insurance for all citizens.
-The federal government should pass new rules that protect the right of workers to join labor unions.
-Getúlio Vargas was the president of Argentina.

-Strongly agree

-Somewhat agree
-Neither agree nor disagree
-Somewhat disagree
-Strongly disagree

In October 2022, in the elections, Brazilians chose 513 federal deputies and 27 senators. In how many of these elections do you think the winning candidate was not the rightful winner but instead won due to voter fraud?

-None
-One or two
-Three to nine
-Ten or more

In the 2026 elections, Brazilians will vote to choose 513 federal deputies and 54 senators. In how many of these cases do you think that the candidate will not be legitimately elected, but will instead win due to voter fraud?

-None
-One or two
-Three to nine
-Ten or more

Now we would like to ask you about the elections that took place in October 2022 to elect the president, governors, deputies and Brazilian senators.

How confident are you that your vote was counted correctly in the 2022 elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your local area were counted correctly in the 2022 elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your state were counted correctly in the 2022 elections?

-Very confident
-Somewhat confident
-Not too confident

-Not at all confident

How confident are you that votes nationwide were counted correctly in the 2022 elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

To the best of your knowledge, how often did each of these occur in the 2022 elections?

Voting more than once in an election
Stealing or tampering with ballots
Hacking a voting machine
Pretending to be someone else when voting
People voting who are not Brazilian citizens
Having the right to vote prevented by poll workers.

-A million or more
-Hundreds of thousands
-Tens of thousands
-Thousands
-Hundreds
-Less than a hundred
-Less than ten

Now we would like to again ask you about the 2026 elections that will take place for president, governors, deputies, and Brazilian senators.

How confident are you that your vote will be counted correctly in the 2026 elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your local area will be counted correctly in the 2026 elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your state will be counted correctly in the 2026 elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes nationwide will be counted correctly in the 2026 elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How often do you expect each of these will occur in the 2026 elections?

-Voting more than once in an election
-Stealing or tampering with ballots
-Hacking a voting machine
-Pretending to be someone else when voting
-People voting who are not Brazilian citizens
-Having the right to vote prevented by poll workers.

-A million or more
-Hundreds of thousands
-Tens of thousands
-Thousands
-Hundreds
-Less than a hundred
-Less than ten

Please indicate whether you believe the following statements about elections in Brazil are accurate or not.

[non-targeted false]

-Votes are regularly being cast on behalf of dead people.
-Only Brazil uses an electronic voting machine.

[targeted false]

-Audits and investigations find evidence of fraud in Brazilian elections
-Vulnerabilities in election technology mean that elections have been hacked and hackers are able to change election results

[non-targeted true]

-At the time of voting, it is strictly forbidden to use electronic devices (cell phones, tablets and cameras, for example) in the voting booth where the electronic ballot box is located.
-Poll workers and members of the polling station and those responsible for monitoring the electoral process are prevented from wearing clothes or objects that feature propaganda for a political party, coalition or candidate.

[targeted true]

-Voting machine software is carefully tested and inspected to make sure it works correctly.
-Poll workers cannot alter the software or hardware of voting machines.

-Very accurate
-Somewhat accurate
-Not very accurate
-Not at all accurate

[new page]
[prebunking treatment; p=1/3]

Please read the following articles carefully. (You'll need to answer questions about them correctly to successfully complete the survey.)

[new page]

Beware of False Rumors You May Hear about Brazilian Elections

Experts agree that Brazilian elections are safe and secure. Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process.

For instance, they claim that voting machine software is untested and is vulnerable to hacking. They also claim that election workers can tamper with voting machines and that fraud is widespread in Brazilian elections.

These claims may sound convincing at first. However, the Superior Tribunal of Elections confirms that numerous protections are in place to protect the integrity of the election process. These realities counteract the rumors promoted by some political actors.

Please read the passage above and the forward button will appear momentarily.

[new page]

Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process. Here is the truth about some claims you might hear concerning elections in Brazil.

✓**Reality: Voting machine software is carefully tested and inspected to make sure it works correctly**

✕ **Rumor: Voting machine software is not reviewed or tested and can be easily manipulated**

The Electoral Justice uses the latest in terms of information security to guarantee integrity, authenticity and, when necessary, secrecy. During the development period of the electoral systems, various tests are performed by both the TSE and the Regional Electoral Courts to verify the correct functioning of the entire software suite. Political parties, the Public Prosecutor's Office, the Brazilian Bar Association, the Federal Police, and other entities can monitor software development through code inspection, in the same environment in which the applications used in the elections will be generated.

[new page]
According to the article you just read, who verifies the accuracy of the voting machine software?

-Political parties
-TSE and the Regional Electoral Courts
-Federal Police
-Public Prosecutor's Office and the Brazilian Bar Association
-TSE and political parties
[repeat up to three times if not answered correctly]

[new page]

Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process. Here is the truth about some claims you might hear concerning elections in Brazil.

✓**Reality: Numerous safeguards protect the integrity of the electronic voting process**

✕ **Rumor: Vulnerabilities in election technology mean that elections have been hacked and hackers are able to change election results**

The electronic ballot box uses the most modern technologies for cryptography, digital signature and digital summary. All this technology is used by the hardware and software of the electronic voting machine to create a chain of trust, ensuring that only the software developed by the Superior Electoral Court (TSE), generated during the sealing ceremony of the electoral systems, can be executed in the electronic voting machines. duly certified by the Electoral Justice. Any attempt to run unauthorized software on the voting machine will result in its operation being blocked. Likewise, attempts to run official software on non-certified hardware will result in the application being canceled. All this technology has been exercised during the Public Security Tests, which has allowed the TSE to make these mechanisms even more secure.

Please read the passage above and the forward button will appear momentarily.

[new page]
According to the article you just read, what kind of technology prevents hackers from changing election results?

-Cryptography and digital signatures
-Undercover police agents
-Crowdsourcing on social media
-Wiretapping of suspected hackers
-Random confiscation and testing of personal computers
[repeat up to three times if not answered correctly]

[new page]

Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process. Here is the truth about some claims you might hear concerning elections in Brazil.

✓ **Reality: Poll workers cannot alter the software or hardware of voting machines**
× **Rumor: Voting machines can be easily tampered with by poll workers**

At no time do poll workers have access to the source code of the electoral systems. Although these individuals come into contact with the electronic voting machines, they are unable to violate the software and hardware. This is ensured by the various security mechanisms, based on digital signatures and encryption, that create a chain of trust between hardware and software and prevent any violation of the electronic voting machine. Only the software developed by the Superior Electoral Court (TSE), generated during the sealing ceremony of the electoral systems, can be executed in the electronic voting machines. Any attempt to run unauthorized software on the voting machine will result in its operation being blocked.

Please read the passage above and the forward button will appear momentarily.

[new page]
According to the article you just read, what kind of software runs on electronic voting machines?

-Only software developed by the Superior Electoral Court
-Microsoft Windows 11.28
-Apple Operating System 7.12
-Any open-source software
-Software provided by international election observers
[repeat up to three times if not answered correctly]

[new page]

Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process. Here is the truth about some claims you might hear concerning elections in

Brazil.

✓**Reality: Audits and investigations find no evidence of fraud in Brazilian elections**
× **Rumor: Electoral fraud is prevalent in Brazil**

The electronic ballot box was implemented in the Brazilian elections of 1996. In these 22 years, allegations of suspected fraud are frequent. However, to date, no case has been identified and proven. In 2014, the party of the defeated candidate in the presidential election conducted extensive audit work in that year's elections. After six months of work, the party team's conclusion was that the result of the election faithfully corresponded to the results obtained in all ballot boxes, that is, there was no fraud in the totaling of votes. The computerization of the Brazilian electoral process managed to eliminate a series of maneuvers and deviations responsible for many frauds in elections. From the single computerized registration of voters, in 1985, to the adoption of biometric voter recognition, there are countless mechanisms to combat fraud that the Electoral Justice has been adopting.

Please read the passage above and the forward button will appear momentarily.

[new page]

According to the page you just read, which of these methods does Brazil use to combat voter fraud?
-Biometric voter recognition
-Special police units
-Fraud investigators from Argentina
-Citizen informants
-Psychics who specialize in lie detection
[repeat up to three times if not answered correctly]

[credible correction treatment; p=1/3]

Legitimacy of 2022 Election Affirmed by Bolsonaro Supporters and Independent Observers

Experts agree that Brazilian elections are safe and secure. Some politically-motivated groups are claiming that the 2022 presidential election was marred by irregularities and fraud that denied then-President Jair Bolsonaro a victory and delivered a win for Luiz Inácio Lula da Silva.

In fact, there is widespread evidence that the 2022 election was administered effectively. Allegations of widespread fraud have been investigated and found to be unsupported in a variety of settings, including by international observers and by prominent Bolsonaro allies.

Importantly, these conclusions have been affirmed by many supporters of former President Bolsonaro. Examples of those who have affirmed the legitimacy of the 2020 election result include Senator Flavio Bolsonaro (PL), Senator Rodrigo Pacheco (PSD), Deputy Arthur Lira (PP), Senator-elect Sergio Moro (Union-PR), and over 100 international observers.

Please read the passage above and the forward button will appear momentarily.

[new page]

Article: Flávio Bolsonaro admits his father's defeat in the elections

On October 31th, 2022, the day after the presidential elections, Senator Flávio Bolsonaro admitted his father's defeat in the elections. He posted on Twitter:
"Thank you to everyone who helped us to rescue patriotism, who prayed, prayed, went to the streets, gave their sweat for the country that is working and gave Bolsonaro the biggest vote of his life! Let's lift our heads and not give up of our Brazil! God in charge!"
A few hours later, he posted another message: "Dad, I'm with you until the end!"
Flávio's posts were covered by several news organizations because it meant the breaking of silence by Jair Bolsonaro and his family after the defeat in the election.

Please read the passage above and the forward button will appear momentarily.

[new page]

According to the article you just read, to what ideals did Senator Flavio Bolsonaro appeal?
-Patriotism and faith in God
-Ambition and energy
-Resilience and defiance
-Manliness and toughness
-Curiosity and sensitivity
[repeat up to three times if not answered correctly]

[new page]

Article: International observers observe Brazilian election to ensure security and integrity"

Faced with allegations that electronic voting machines are subject to fraud, 120 specialists from different countries traveled to Brazil to follow the voting and the tallying of votes for the 2022 Elections in both rounds. In addition to foreign observers, eight national institutions witnessed the work of the electoral process. The Superior Electoral Court (TSE) released a list with the names of the institutes responsible for the technical evaluation, ensuring the integrity and security of the electronic ballot box. It also listed Brazilian organizations, public and private, that issued reports whose results attest to the reliability of the ballot boxes and the electoral process.

Please read the passage above and the forward button will appear momentarily.

[new page]

According to the article you just read, how many international election observers were included on the list released by the Superior Electoral Court (TSE) of actors who verified election results?
-Over 100

-10
-25
-50
-75
[repeat up to three times if not answered correctly]

[new page]

Article: Ex-ally of Bolsonaro defends democracy in Brazil
Re-elected in 2023 president of Chamber of Deputies, Deputy Arthur Lira included the defense of democracy in his inaugural speeches on February 1st. He also criticized the destruction caused by vandals during the Congress invasion on January 8th, 2023 in Brasília.

In the 2022 elections, Arthur Lira supported the candidacy of Jair Bolsonaro, who repeatedly questioned the fairness of the Brazilian electoral process and electronic voting machines. Lira became president of the Chamber of Deputies in 2021 as a result of an alliance with Bolsonaro and his allies, which shielded the former president from dozens of impeachment requests.

Lira said in his inaugural speech: "This House will not accept, defend or endorse any act, speech or demonstration that threatens democracy. Whoever acts in this way will face the repulsion of this Parliament, the rejection of the Brazilian people and the rigors of the law."

Please read the passage above and the forward button will appear momentarily.

[new page]

According to the article you just read, what is the position held by Arthur Lira?
-Federal deputy
-Attorney General
-Mayor
-Supreme Court Justice
-Coach of the Brazilian National Futbol Team
[repeat up to three times if not answered correctly]

[new page]
Article: Bolsonaro's allies acknowledged defeat

Some close allies have made posts on social networks acknowledging Lula's victory. Former minister and senator-elect Damares Alves (Republicans-DF) made a post on Instagram admitting defeat.

"We lost an election, but we didn't lose the love for the country. Bolsonaro will leave the Presidency of the Republic in January with his head held high."

Senator-elect Sergio Moro (Union-PR) also acknowledged defeat. He went to the debates with Bolsonaro in the second round and took a position contrary to Lula.

"Democracy is like that. The result of an election cannot overcome the duty of responsibility we have with Brazil."

Bolsonarista of the most engaged, federal deputy Carla Zambelli (PL-SP) also admitted defeat. She promised a fierce opposition to the Petista governments. "And I promise you, I will be the biggest opposition that Lula ever imagined he would have."

Please read the passage above and the forward button will appear momentarily.

[new page]
According to the article you just read, what role will Carla Zambelli play in politics now?
-Opposition to President da Silva
-Minister of Foreign Affairs
-Minister of the Environment
-Mayor of Sao Paulo
-She will host a political talk show on television
[repeat up to three times if not answered correctly]

[placebo condition; p=1/3]

[new page]

Keep Up-To-Date with World Events

It is important for people to be informed about events happening in the world today. Please read the following news articles, which will cover several different topics.

[new page]
End of the year matches Lovin' Wine

It's time to celebrate health, family, achievements. And nothing better than celebrating around the table and toasting life. A good wine is the perfect and indispensable pairing to enjoy Christmas dinner, welcome in the New Year, or celebrate any special occasion.

Lovin' Wine, a canned wine startup, could not be left out of the party. It has delicious tips for pairing drinks and food with a full portfolio of premium canned wines.

To harmonize with the festivities, Lovin' indicates: Red Wine, Brut White, Rosé Dry, White Dry, Rosé Wine and White Wine.

In addition to these labels, the Brut Rosé launch also goes well with parties. Very versatile, it harmonizes perfectly with salads, white and red meats, in addition to being amazing with not-too-sweet desserts.

From Chester to Peru and from desserts to Panettone, the brand has labels for all tastes, with emphasis on sparkling wines that make suppers and celebrations even more refined and special.

Please read the passage above and the forward button will appear momentarily.

[new page]

According to the article you just read, which holidays can Lovin' Wine be used to celebrate?
-Christmas and New Year's
-Dia dos Namorados
-Carnaval
-Easter
-Labor Day
[repeat up to three times if not answered correctly]

[new page]

Fuzzy Açaí expands its product line and launches new flavors

Fuzzy Açaí has just increased its product line with the launch of new flavors combined with the Amazonian fruit. The novelties hit the market in versions: Açaí with Strawberry, Açaí with Banana, Açaí with Guaraná and Açaí Zero Açúcar, all in 200g portions. Another launch is the Açaí flavor with Leitinho, with syrup mixed with milk flavor, in 1.5l packages.

"Our products are made with a higher concentration of açaí pulp, which comes directly from the Amazon and follows all the parameters of sustainability, certification and standardization of the fruits. We developed the entire Fuzzy line free of artificial aromas and colorings, to offer a sorbet natural and soft, even if still frozen," highlights César Augusto Bergamini, CEO of the BRGMN group, holding company that owns Fuzzy Açaí.

The new flavors of Fuzzy Açaí can already be found in the main supermarket chains and retailers in the states of São Paulo, Rio de Janeiro, Minas Gerais, Mato Grosso do Sul and Bahia.

[new page]

According to the article you just read, which of the following brands recently expanded its product line?
-Fuzzy Açaí
-Havaianas
-Brahma
-Sadia
-Yoki
[repeat up to three times if not answered correctly]

Please read the passage above and the forward button will appear momentarily.

According to the article you just read, where was the Jetour DASHING SUV officially launched?
-Saudi Arabia
-China
-United States
-Germany
-Italy
[repeat up to three times if not answered correctly]

Please read the passage above and the forward button will appear momentarily.

According to the article you just read, where are Kalsec's food ingredient products going to be distributed?
-Colombia
-Brazil
-Argentina
-Chile
-Mexico
[repeat up to three times if not answered correctly]

[ALL RESPONDENTS RESUME]

Now we would like to again ask you about the elections that took place in October 2022 to elect the president, governors, deputies, and Brazilian senators.

How confident are you that your vote was counted correctly in the 2022 elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your local area were counted correctly in the 2022 elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your state were counted correctly in the 2022 elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes nationwide were counted correctly in the 2022 elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

To the best of your knowledge, how often did each of these occur in the 2022 elections?

Voting more than once in an election
Stealing or tampering with ballots
Hacking a voting machine
Pretending to be someone else when voting
People voting who are not Brazilian citizens
Having the right to vote prevented by poll workers.

-A million or more
-Hundreds of thousands
-Tens of thousands
-Thousands
-Hundreds
-Less than a hundred
-Less than ten

In October 2022, in the Elections, Brazilians chose 513 federal deputies and 27 new senators. In how many of these cases do you think that the candidate was not legitimately elected, but ended up winning due to voter fraud?

-None
-One or two
-Three to nine
-Ten or more

Now we would like to again ask you about the Elections of 2026 that will elect the president, governors, deputies, and Brazilian senators.

How confident are you that your vote will be counted correctly in the 2026 Elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your local area will be counted as voters correctly in the 2026

elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your state will be counted correctly in the 2026 elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes nationwide will be counted correctly in the 2026 elections?

-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How often do you expect each of these will occur in the 2026 Elections?

Voting more than once in an election
Stealing or tampering with ballots
Hacking a voting machine
Pretending to be someone else when voting
People voting who are not Brazilian citizens
Having the right to vote prevented by poll workers.

A million or more
Hundreds of thousands
Tens of thousands
Thousands
Hundreds
Less than a hundred
Less than ten

In the 2026 Elections, Brazilians will vote to choose 513 federal deputies and 54 senators. In how many of these cases do you think that the candidate will not be legitimately elected, but will instead win due to voter fraud?

-None
-One or two
-Three to nine

-Ten or more

[new page]

Please indicate whether you believe the following statements about elections in Brazil are accurate or not.

[non-targeted false]

Votes are regularly being cast on behalf of dead people.
Only Brazil uses an electronic voting machine.

[targeted false]

Audits and investigations find evidence of fraud in Brazilian elections
Vulnerabilities in election technology mean that elections have been hacked and hackers are able to change election results

[non-targeted true]

At the time of voting, it is strictly forbidden to use electronic devices (cell phones, tablets and cameras, for example) in the voting booth where the electronic ballot box is located.
Poll workers and members of the polling station and those responsible for monitoring the electoral process are prevented from wearing clothes or objects that feature propaganda for a political party, coalition or candidate.

[targeted true]

Voting machine software is carefully tested and inspected to make sure it works correctly
Poll workers cannot alter the software or hardware of voting machines

-Very accurate
-Somewhat accurate
-Not very accurate
-Not at all accurate

We sometimes find people don't always take surveys seriously, instead providing humorous or insincere responses to questions. How often do you do this?

-Never
-Rarely
-Some of the time
-Most of the time
-Always

It is essential for the validity of this study that we know whether participants looked up any information online during the study. Did you make an effort to look up information during the study? Please be honest; you will not be penalized in any way if you did.

-Yes, I looked up information
-No, I did not look up information

Thank you for answering these questions. This research is not intended to support or oppose any political candidate or office. The research has no affiliation with any political candidate or campaign and has received no financial support from any political candidate or campaign. Should you have any questions about this study, please contact Jason Reifler at j.reifler@exeter.ac.uk or Brendan Nyhan at nyhan@dartmouth.edu.

Study 3 questionnaire

[Consent]

ABOUT THIS RESEARCH

You are being asked to participate in a research study. Scientists do research to answer questions and learn new information. Some research might help change or improve the way we do things in the future. This consent information will tell you more about the study to help you decide whether you want to participate. Please read this information before agreeing to be in the study.

TAKING PART IN THIS STUDY IS VOLUNTARY

You may choose not to take part in the study or may choose to leave the study at any time. Deciding not to participate, or deciding to leave the study later, will not result in any penalty and will not affect your relationship with YouGov, the University of Notre Dame, Dartmouth College, or the University of Exeter.
As an alternative to participating in the study, you may choose not to take part.

WHY IS THIS STUDY BEING DONE?

The purpose of this study is to learn more about public opinion on U.S. elections and issues in the news.

You were selected as a possible participant because you are an adult American citizen participating in YouGov's survey panel pool. Additionally, you may have agreed to participate in YouGov's Pulse program.

The study is being conducted by Brian Fogarty from the Center for Social Science Research at the University of Notre Dame, Jason Reifler from the Department of Politics at the University of Exeter, and John Carey and Brendan Nyhan from the Department of Government at Dartmouth College. It is funded by the MIT Election Data and Science Lab.

HOW MANY PEOPLE WILL TAKE PART?
If you agree to participate, you will be one of 3,750 participants taking part in this study.

WHAT WILL HAPPEN DURING THE STUDY?
If you agree to be in the study, you will be asked to do the following things:

-Completion of a short survey on YouGov's website or app. The survey is anticipated to take less than 10 minutes to complete.
-Possibly, completion of a short follow-up survey approximately one month from now on YouGov's website or app. The follow-up survey is anticipated to take less than 10 minutes to complete.
-If you have agreed to participate in YouGov's Pulse program, anonymous tracking data on your online website visits may be used by the researchers. However, there are no actions you need to take related to YouGov Pulse and this study.

WHAT ARE THE RISKS OF TAKING PART IN THE STUDY?
While participating in the study, the potential risks include:
-A risk of completing the survey is being uncomfortable answering the questions.-To minimize this potential risk, you can skip any questions that you feel uncomfortable answering.

WHAT ARE THE POTENTIAL BENEFITS OF TAKING PART IN THE STUDY?
We don't expect you to receive any benefit from taking part in this study, but we hope to learn things that will help scientists in the future.

HOW WILL MY INFORMATION BE PROTECTED?
Efforts will be made to keep your personal information confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. No information which could identify you will be shared in publications about this study and databases in which results may be stored.

Organizations that may inspect and/or copy your research records for quality assurance and data analysis include groups such as the study investigator and his/her research associates, the University of Notre Dame Institutional Review Board or its designees, and (as allowed by law) state or federal agencies, especially the Office for Human Research Protections (OHRP), who may need to access the research records.

WILL MY INFORMATION BE USED FOR RESEARCH IN THE FUTURE?
Your information will not be used or distributed for future research studies.

WILL I BE PAID FOR PARTICIPATION?
You will receive 500 points for completing each survey.

YouGov does not allow for prorated compensation. In the event of an incomplete survey, you will not receive any points.

WHO SHOULD I CALL WITH QUESTIONS OR PROBLEMS?

For questions about the study, contact the researcher, Brendan Nyhan at nyhan@dartmouth.edu.

PARTICIPANT'S CONSENT
In consideration of all of the above, I give my consent to participate in this research study. By proceeding, I confirm that I am 18 years old, and agree to take part in this study.
-I agree to take this survey
-Take me to another survey

When it comes to politics, would you describe yourself as liberal, conservative, or neither liberal nor conservative?
-Very liberal
-Somewhat liberal
-Slightly liberal
-Moderate; middle of the road
-Slightly conservative
-Somewhat conservative
-Very conservative

Generally speaking, do you think of yourself as a ...?
-Democrat
-Republican
-Independent
-Other (open text)
-Not sure

Strong Democrat
Not very strong Democrat
Strong Republican
Not very strong Republican
The Democratic Party
The Republican Party
Neither
Not sure
Don't know

In talking to people about elections, we often find that a lot of people were not able to vote because they weren't registered, they were sick, or they just didn't have time.

Which of the following statements best describes you?
-I did not vote in the election this November
-I thought about voting this time, but didn't
-I usually vote, but didn't this time
-I am sure I voted

Generally, how interested are you in politics?

-Extremely interested
-Very interested
-Somewhat interested
-Not very interested
-Not at all interested

Do you approve or disapprove of the way Joe Biden is handling his job as President?
-Strongly approve
-Somewhat approve
-Somewhat disapprove
-Strongly disapprove

Please indicate whether you agree or disagree with each statement below.

By law, abortion should never be permitted.
In order to reduce the budget deficit, the federal government should eliminate all welfare programs that help poor people.
The federal government should raise the minimum wage to $10.
The federal government should guarantee health insurance for all citizens.
The federal government should pass new rules that protect the right of workers to join labor unions.
Abraham Lincoln was the president of Mexico.

-Strongly agree
-Somewhat agree
-Neither agree nor disagree
-Somewhat disagree
-Strongly disagree

In November 2022, elections were held for 435 seats in the U.S. House of Representatives and 34 seats in the U.S. Senate. In how many of these elections do you think the winning candidate was not the rightful winner but instead won due to voter fraud?
-None
-One or two
-Three to nine
-Ten or more

In November 2024, elections will be held for 435 seats in the U.S. House of Representatives and 33 seats in the U.S. Senate. In how many of these elections do you think the winning candidate will not be the rightful winner but instead will win due to voter fraud?
-None
-One or two
-Three to nine
Ten or more

Please indicate whether you agree or disagree with each statement below.

People convicted of murder should be given the death penalty.

The leader of the American government is the king.

Gays and lesbians should have the right to legally marry.

In order to reduce the budget deficit, the federal government should raise taxes on people that make more than $250,000 per year.

The Affordable Care Act passed by Congress in 2010 should be repealed.
-Strongly agree
-Somewhat agree
-Neither agree nor disagree
-Somewhat disagree
-Strongly disagree

Now we would like to ask you about the elections that took place in November 2022 for the U.S. Congress and other offices.

How confident are you that your vote was counted as you intended in the November 2022 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your local area were counted as voters intended in the November 2022 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your state were counted as voters intended in the November 2022 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes nationwide were counted as voters intended in the November 2022 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

To the best of your knowledge, how often did each of these occur in the 2022 election?
-Voting more than once in an election.
-Stealing or tampering with ballots.

-Pretending to be someone else when voting.
-People voting who are not U.S. citizens.
-Voting with an absentee ballot intended for another person.
-Officials preventing absentee voters from voting.

-A million or more
-Hundreds of thousands
-Tens of thousands
-Thousands
-Hundreds
-Less than a hundred
-Less than ten

On Election Day 2022, a printing malfunction took place at about one-quarter of the polling places in Maricopa County, the most populous county in Arizona. This problem stopped some ballots from being counted onsite.

Please indicate whether you believe the following statement is accurate or not:

Only voting sites in conservative areas in Arizona's Maricopa County experienced issues with tabulating ballots on Election Day 2022.
-Very accurate
-Somewhat accurate
-Not very accurate
-Not at all accurate

Please state whether you agree or disagree with the following statement:

In the 2022 election for Arizona governor, Katie Hobbs, the Democrat, defeated Kari Lake, the Republican, due to election fraud and therefore is NOT the rightful winner.
-Strongly agree
-Somewhat agree
-Somewhat disagree
-Strongly disagree

Now we would like to again ask you about the elections that will take place a little less than two years from now in November 2024 for the U.S. presidency, Congress, and other offices.

How confident are you that your vote will be counted as you intend in the November 2024 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your local area will be counted as voters intend in the November

2024 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your state will be counted as voters intend in the November 2024 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes nationwide will be counted as voters intend in the November 2024 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How often do you expect each of these will occur in the 2024 election?

Voting more than once in an election.
Stealing or tampering with ballots.
Pretending to be someone else when voting.
People voting who are not U.S. citizens.
Voting with an absentee ballot intended for another person.
Officials preventing absentee voters from voting.

-A million or more
-Hundreds of thousands
-Tens of thousands
-Thousands
-Hundreds
-Less than a hundred
-Less than ten

Please indicate whether you believe the following statements about U.S. elections are accurate or not.

More votes in one contest than other contests on the ballot means that results cannot be trusted.
If results as reported on election night change over the ensuing days or weeks, the process is hacked or compromised.
Votes are regularly being cast on behalf of dead people.
Voting system software is not reviewed or tested to ensure against manipulation of results.
If there are problems with voting machines at a voting site, the votes from that site will not be counted.

Poll workers intentionally give non-standard writing instruments, such as Sharpies, only to specific voters to cause their ballots to be rejected.

Procedures for casting and counting ballots prevent election officials from knowing which candidates an individual voted for.

Ballot handling procedures protect against intentional or unintentional ballot destruction and related tampering.

Robust safeguards protect against tampering with ballots returned via drop box.

Safeguards protect the integrity of the mail-in/absentee ballot process.

Legal protections guard against the removal of eligible voters during updates of registration lists by election officials.

Voters are protected by state and federal law from threats or intimidation at the polls, including from election observers.

-Very accurate
-Somewhat accurate
-Not very accurate
-Not at all accurate

[new page]
[prebunking treatment; p=2/3 (p=1/3 with forewarning, p=1/3 with no forewarning]

Please read the following articles carefully. (You'll need to answer questions about them correctly to successfully complete the survey.)

Experts agree that American elections are safe and secure. The Department of Homeland Security confirms that numerous protections are in place to protect the integrity of the election process.

[new page]

[prebunking warning]
Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process. Here is the truth about some claims you might hear concerning elections in the United States.

✓**Reality: Variations in vote totals for different contests on the same ballot occur in every election and do not by themselves indicate fraud or issues with voting technology.**

✕ **Rumor: More votes in one contest than other contests on the ballot means that results cannot be trusted.**

Variations in vote totals for different contests on the same ballot occur in every election. Differences in vote totals across different contests by themselves are not indications of issues with voting technology or the integrity of election processes or results. Variations happen when a voter intentionally or unintentionally does not make a selection in a given contest on their ballot. For example, a voter may choose to vote for president, senator, and governor, but not in other races that are lower down on their

ballot. Even if a voter does not cast a vote in a particular contest, properly marked votes on their ballot are counted.

[new page]

[prebunking warning]
Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process. Here is the truth about some claims you might hear concerning elections in the United States.

According to the page you just read, why is it normal for there to be more votes cast in the contest for president than in the race for a state legislative seat?
-Some voters who marked a preference for president on their ballot might not bother to indicate a preference for a state legislative candidate.
-Some voters who are eligible to cast a vote for the presidency are not eligible to vote in the state legislative contest.
-There are usually more candidates running for state legislature than for president.
-Voters in some states are allowed to cast two ballots for president.
[repeat up to three times if not answered correctly]

[new page]

[prebunking warning]
Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process. Here is the truth about some claims you might hear concerning elections in the United States.

✓Reality: Election results are not final until certification. Election night reporting is unofficial and those results may change as ballot counting is completed.

× Rumor: If results as reported on election night change over the ensuing days or weeks, the process is hacked or compromised, so the results can't be trusted.

Election results reported on election night are always unofficial and are provided solely for voters' convenience. Fluctuations in unofficial results reporting will occur during and after election night as more ballots are processed and counted, often including military and overseas ballots, and validated provisional ballots. Variations in state processes may also mean ballots cast through different methods (e.g., early in-person voting, mail-in voting, and election day voting) are counted and unofficially reported in different orders. Official results are released after rigorous canvassing (verification) and certification by local and state election officials.

[new page]

According to the page you just read, why might election results reported on election night change in the following days?

-Not all ballots can be processed and counted by election night.
-Federal law prohibits election officials from starting to count ballots until the day after the election. The only results reported on election night are from public opinion polls.
-Mail-in ballots cannot be counted until all the ballots cast in person have been counted.
-Federal judges regularly change election results when they determine the winner unfit for office.
[repeat up to three times if not answered correctly]

[new page]

[prebunking warning]
Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process. Here is the truth about some claims you might hear concerning elections in the United States.

✓**Reality: Safeguards are in place to protect ballot secrecy.**

✕ **Rumor: Public officials can find out which candidates you voted for.**

Ballot secrecy is guaranteed by law in all states. These security measures ensure that individual ballots, once cast, cannot be traced back to the voters who cast them. For in-person voting, privacy measures include dividers between voting stations and requirements that poll workers maintain distance from voters while they are casting their ballots. For mail-in and provisional voting, election officials follow strict procedures to ensure ballot secrecy when ballots are retrieved from ballot envelopes. While ballot choices are secret in almost all circumstances, a voter's party affiliation and whether they voted or not generally are public information.

[new page]

According to the page you just read, how do election officials protect the secrecy of ballots?
-Poll workers are legally required to maintain distance from voters while they cast ballots.
-Poll workers swear an oath of silence.
-Ballots are destroyed once they are counted so they cannot be traced back to voters.
-Election officials who operate vote counting machines are blindfolded.
[repeat up to three times if not answered correctly]

[new page]

[prebunking warning]
Some politically-motivated groups are using misleading tactics to confuse voters and sow distrust in the electoral process. Here is the truth about some claims you might hear concerning elections in the United States.

✓**Reality: Ballot handling procedures protect against intentional or unintentional ballot destruction and related tampering.**

✕ **Rumor: Ballots can easily be removed, added, replaced, or destroyed without detection, altering official vote counts.**

Federal law requires that ballots, applications, registrations, and other records related to elections for federal offices must be retained and preserved for 22 months from the date of the election. This requirement ensures all ballots and relevant records are preserved in their post-election state in case they are needed for recounts, audits, or other post-election processes. Images or video of election officials discarding papers may appear suspicious when taken out of context, but they are likely depicting legal disposal of election materials.</p>

[new page]

According to the page you just read, how long must ballots be preserved after an election under federal law?
-22 months
-24 hours
-4 years
-Forever
[repeat up to three times if not answered correctly]

[new page]
[placebo condition; p=1/3]

Keep Up-To-Date with World Events

It is important for people to be informed about events happening in the world today. Please read the following news articles, which will cover several different topics.

[new page]

Campbell's® Chunky® Enters the Metaverse with Fortnite Creative and Introduces The Chunky FuelUp Tournament

The 'Official Soup Sponsor of the NFL' is taking soup into the metaverse by launching the Chunky FuelUp Tournament, an immersive experience featuring three unique challenges to test players' speed, agility, and accuracy including:

-Spicy Soup Sprint: Players will fly through branded cans and slide down a giant spoon racing to complete the course as fast as possible.

-Protein Power Course: Players will experience an agility-based training course, juking past tackling dummies and other football-themed obstacles.

-Hearty Hail Mary: Participants will test their quarterback skills as they attempt to throw as many cans into moving targets as fast as possible within three one-minute rounds.

[new page]

According to the article you just read, which of the following soups is entering the Metaverse?
-Campbell's Chunky
-Progresso
-Top Ramen
-Amy's Organic
[repeat up to three times if not answered correctly]

[new page]

Scotch Porter Becomes the Fastest-Growing Beard & Hair Care Brand in US Multi-Outlet Channels

Scotch Porter, which produces grooming and wellness products for men that are clean, affordable, and non-toxic, announced that it had been identified via IRI Worldwide as the fastest growing male grooming brand within the US beard and hair care market. The brand's growth of over 70% in the last year in US multi-outlet channels is evidence of the consumer demand for clean and affordable grooming solutions. Scotch Porter's robust growth strategies — rooted in a deep understanding of the consumer and their needs — have allowed the company to meet this demand at retail.

[new page]

According to the article you just read, which of the following brands is the fastest-growing grooming brand for men in the U.S. beard and hair care market?
-Scotch Porter
-Suave
-Just for Men
-Dollar Shave Club
[repeat up to three times if not answered correctly]

[new page]

Two-thirds of Americans Plan to Spend the Same or More on Retail Purchases in 2023 According to new Harris Poll Survey From DailyPay and Dollar Tree

Despite continued inflation and the potential of a recession, 67% of Americans plan to spend either the same or more in 2023 as they did in 2022 on retail purchases according to a new survey. However, 44% are more likely to prioritize shopping for bargains in-store this year compared to last.

Signaling a continued increase in in-person shopping, about 3 out 4 Americans (73%) plan on shopping the same or more in-store in 2023 versus last year.

"It's encouraging to see that Americans' spending plans are trending upward with only a third plan-

ning to spend less this year despite these times of financial uncertainty," said Kate Cheesman, Vice President of Customer Success, DailyPay.

[new page]

According to the article you just read, how much do Americans plan to spend in 2023?
-Less than they did in 2022
-Same or less than they did in 2022
-Same as they did in 2022
-Same or more than they did in 2022
-More than they did in 2022
[repeat up to three times if not answered correctly]

[new page]

The ARM & HAMMER™ Feline Generous program Announces Winners of "Happily Furever After" Sweepstakes

The ARM & HAMMER™ Feline Generous program today announced the winners of its "Happily Furever After" sweepstakes and the biggest single donation the program has given away to date. Purr-fectly impurrfect shelter cats are often overlooked for adoption due to age, illness, appearance, being bonded pairs or having misunderstood personalities. During the month-long campaign, more than 5,500 photos/videos of these amazing cats living "happily furever after" were submitted and the lucky winners selected are Elvis, Louie, Buddy, Miley and another Elvis. Each winning pet parent will receive a year's supply of ARM & HAMMER™ cat litter and each shelter will receive the $10,000 donation prize.

[new page]

According to the article you just read, two of the winning cats in the "Happily Furever After" contest had the same name. What was it?

-Elvis
-Mick
-Keith
-Posh
[repeat up to three times if not answered correctly]

[end of experimental stimuli]

Now we would like to again ask you about the elections that took place in November 2022 for the U.S. Congress and other offices.

How confident are you that your vote was counted as you intended in the November 2022 election?
-Very confident

-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your local area were counted as voters intended in the November 2022 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your state were counted as voters intended in the November 2022 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes nationwide were counted as voters intended in the November 2022 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

To the best of your knowledge, how often did each of these occur in the 2022 election?

Voting more than once in an election.
Stealing or tampering with ballots.
Pretending to be someone else when voting.
People voting who are not U.S. citizens.
Voting with an absentee ballot intended for another person.
Officials preventing absentee voters from voting.

-A million or more
-Hundreds of thousands
-Tens of thousands
-Thousands
-Hundreds
-Less than a hundred
-Less than ten

In November 2022, elections were held for 435 seats in the U.S. House of Representatives and 34 seats in the U.S. Senate. In how many of these elections do you think the winning candidate was not the rightful winner but instead won due to voter fraud?

-None
-One or two
-Three to nine
-Ten or more

Now we would like to again ask you about the elections that will take place a little less than two years from now in November 2024 for the U.S. presidency, Congress, and other offices.

How confident are you that your vote will be counted as you intend in the November 2024 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your local area will be counted as voters intend in the November 2024 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes in your state will be counted as voters intend in the November 2024 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How confident are you that votes nationwide will be counted as voters intend in the November 2024 election?
-Very confident
-Somewhat confident
-Not too confident
-Not at all confident

How often do you expect each of these will occur in the 2024 election?

Voting more than once in an election.
Stealing or tampering with ballots.
Pretending to be someone else when voting.
People voting who are not U.S. citizens.
Voting with an absentee ballot intended for another person.
Officials preventing absentee voters from voting.

-A million or more

-Hundreds of thousands
-Tens of thousands
-Thousands
-Hundreds
-Less than a hundred
-Less than ten

In November 2024, elections will be held for 435 seats in the U.S. House of Representatives and 33 seats in the U.S. Senate. In how many of these elections do you think the winning candidate will not be the rightful winner but instead will win due to voter fraud?
-None
-One or two
-Three to nine
-Ten or more

Please indicate whether you believe the following statements about U.S. elections are accurate or not.

More votes in one contest than other contests on the ballot means that results cannot be trusted.
If results as reported on election night change over the ensuing days or weeks, the process is hacked or compromised.
Votes are regularly being cast on behalf of dead people.
Voting system software is not reviewed or tested to ensure against manipulation of results.
If there are problems with voting machines at a voting site, the votes from that site will not be counted.
Poll workers intentionally give non-standard writing instruments, such as Sharpies, only to specific voters to cause their ballots to be rejected.
Procedures for casting and counting ballots prevent election officials from knowing which candidates an individual voted for.
Ballot handling procedures protect against intentional or unintentional ballot destruction and related tampering.
Robust safeguards protect against tampering with ballots returned via drop box.
Safeguards protect the integrity of the mail-in/absentee ballot process.
Legal protections guard against the removal of eligible voters during updates of registration lists by election officials.
Voters are protected by state and federal law from threats or intimidation at the polls, including from election observers

-Very accurate
-Somewhat accurate
-Not very accurate
-Not at all accurate

We sometimes find people don't always take surveys seriously, instead providing humorous or insincere responses to questions. How often do you do this?
-Never
-Rarely

-Some of the time
-Most of the time
-Always

It is essential for the validity of this study that we know whether participants looked up any information online during the study. Did you make an effort to look up information during the study? Please be honest; you will not be penalized in any way if you did.
-Yes, I looked up information
-No, I did not look up information

Online Appendix B: Additional results

Table B1: Study 1 balance and demographics

	Control	Credible sources	Prebunking	Total
Gender				
Male	546 (43.6%)	556 (43.9%)	612 (48.8%)	1,714 (45.4%)
Female	705 (56.4%)	710 (56.1%)	643 (51.2%)	2,058 (54.6%)
Age group				
18–34	129 (10.3%)	171 (13.5%)	163 (13.0%)	463 (12.3%)
35–44	219 (17.5%)	197 (15.6%)	212 (16.9%)	628 (16.6%)
45–54	188 (15.0%)	184 (14.5%)	180 (14.3%)	552 (14.6%)
55–64	294 (23.5%)	312 (24.6%)	300 (23.9%)	906 (24.0%)
65+	421 (33.7%)	402 (31.8%)	400 (31.9%)	1,223 (32.4%)
Education				
College degree	437 (34.9%)	453 (35.8%)	468 (37.3%)	1,358 (36.0%)
No college degree	814 (65.1%)	813 (64.2%)	787 (62.7%)	2,414 (64.0%)
Race				
White	922 (73.7%)	906 (71.6%)	891 (71.0%)	2,719 (72.1%)
Non-white	329 (26.3%)	360 (28.4%)	364 (29.0%)	1,053 (27.9%)
Party (with leaners)				
Democrat	651 (52.0%)	657 (51.9%)	661 (52.7%)	1,969 (52.2%)
Independent	187 (14.9%)	216 (17.1%)	212 (16.9%)	615 (16.3%)
Republican	413 (33.0%)	393 (31.0%)	382 (30.4%)	1,188 (31.5%)
N	1,251 (33.2%)	1,266 (33.6%)	1,255 (33.3%)	3,772 (100.0%)

Table B2: Immediate effects of Study 1 treatments

	Biden won	Confidence 2020	Confidence 2022	Fraud 2020	Seats won by fraud 2020	Seats won by fraud 2022
Credible sources	0.056***	0.041***	0.019	-0.100***	-0.036	-0.049*
	(0.014)	(0.013)	(0.011)	(0.021)	(0.020)	(0.022)
Prebunking	0.029*	0.062***	0.041***	-0.168***	-0.023	-0.029
	(0.012)	(0.013)	(0.011)	(0.021)	(0.020)	(0.021)
Controls	✓	✓	✓	✓	✓	✓
Credible sources − prebunking	0.028*	-0.021	-0.022	0.068***	-0.013	-0.020
	(0.014)	(0.014)	(0.012)	(0.024)	(0.021)	(0.023)

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Control variables selected via lasso from a preregistered list (`https://osf.io/gpy3s`). See Online Appendix A for stimuli and outcome question wording.

Table B3: Differences in effects of Study 1 treatments by election

	Election confidence	Seats won by fraud
2022 election (vs. 2020)	0.048***	0.005
	(0.011)	(0.014)
Credible sources	0.049***	-0.045*
	(0.013)	(0.020)
Credible sources × 2022	-0.034*	0.008
	(0.016)	(0.022)
Prebunking	0.071***	-0.029
	(0.014)	(0.020)
Prebunking × 2022	-0.033*	0.005
	(0.016)	(0.022)
Controls	✓	✓

OLS with robust standard errors clustered by respondent; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B4: Testing for heterogeneous effects of Study 1 treatments: Party

		Confidence			Seats won by fraud	
	Biden won	2020	2022	Fraud 2020	2020	2022
Credible sources	-0.006	0.021	0.020	-0.071***	-0.016	-0.005
	(0.012)	(0.013)	(0.012)	(0.025)	(0.020)	(0.025)
Credible sources × independent	0.075	-0.005	0.006	-0.014	-0.034	-0.079
	(0.043)	(0.041)	(0.043)	(0.064)	(0.060)	(0.062)
Credible sources × Republican	0.159***	0.065*	0.001	-0.063	-0.047	-0.104*
	(0.033)	(0.030)	(0.026)	(0.049)	(0.051)	(0.053)
Prebunking	0.006	0.038**	0.048***	-0.126***	-0.027	-0.031
	(0.012)	(0.014)	(0.012)	(0.025)	(0.020)	(0.024)
Prebunking × independent	0.003	0.033	0.001	0.012	0.002	0.049
	(0.041)	(0.041)	(0.042)	(0.061)	(0.062)	(0.068)
Prebunking × Republican	0.070*	0.059	-0.015	-0.105*	0.011	-0.014
	(0.028)	(0.031)	(0.025)	(0.050)	(0.048)	(0.050)
Independent	-0.029	0.007	-0.004	-0.029	0.012	0.034
	(0.031)	(0.029)	(0.031)	(0.046)	(0.046)	(0.050)
Republican	-0.061	-0.004	0.056***	-0.013	-0.012	0.060
	(0.032)	(0.028)	(0.020)	(0.044)	(0.047)	(0.050)
Controls	✓	✓	✓	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Independents are pure independents (no leaners); both the Republican indicator and the omitted category of Democrats exclude leaners. Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B5: Testing for heterogeneous effects of Study 1 treatments: Trump feelings

| | Biden won | Confidence | | Fraud 2020 | Seats won by fraud | |
		2020	2022		2020	2022
Credible sources	0.007	0.027	0.029*	-0.069***	-0.007	0.007
	(0.010)	(0.014)	(0.013)	(0.024)	(0.021)	(0.026)
Credible sources × second tercile	0.043	0.018	0.016	-0.030	-0.060	-0.025
	(0.029)	(0.028)	(0.026)	(0.049)	(0.042)	(0.052)
Credible sources × top tercile	0.126***	0.035	-0.030	-0.071	-0.049	-0.153***
	(0.035)	(0.033)	(0.029)	(0.052)	(0.053)	(0.054)
Prebunking	0.008	0.030*	0.060***	-0.108***	-0.030	-0.013
	(0.011)	(0.014)	(0.013)	(0.027)	(0.022)	(0.025)
Prebunking × second tercile	0.018	0.067*	-0.010	-0.104*	-0.013	0.011
	(0.027)	(0.032)	(0.027)	(0.049)	(0.043)	(0.050)
Prebunking × top tercile	0.052	0.046	-0.045	-0.101*	0.040	-0.053
	(0.028)	(0.031)	(0.028)	(0.051)	(0.049)	(0.051)
Second tercile Trump feelings	0.007	-0.018	-0.013	0.001	-0.007	0.036
	(0.019)	(0.020)	(0.015)	(0.034)	(0.029)	(0.036)
Top tercile Trump feelings	-0.067*	-0.028	0.034	0.070	-0.013	0.169***
	(0.029)	(0.029)	(0.024)	(0.052)	(0.052)	(0.053)
Controls	✓	✓	✓	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Respondents divided into terciles based on feelings toward Donald Trump on a 0–100 feeling thermometer (second tercile 2–48, top tercile 49–100). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B6: Testing for heterogeneous effects of Study 1 treatments: Pre-treatment outcomes

		Confidence			Seats won by fraud	
	Biden won	2020	2022	Fraud 2020	2020	2022
Credible sources	-0.000	0.009	0.015	0.006	0.003	0.017
	(0.010)	(0.009)	(0.011)	(0.027)	(0.017)	(0.020)
Credible sources × somewhat misinformed	0.259***	0.067*	-0.006	-0.256***	-0.067	-0.096
	(0.056)	(0.030)	(0.027)	(0.056)	(0.058)	(0.057)
Credible sources × most misinformed	0.129*	0.052	0.003	-0.141	-0.116	-0.264***
	(0.050)	(0.048)	(0.037)	(0.082)	(0.071)	(0.083)
Prebunking	0.005	0.006	0.012	-0.026	-0.003	0.003
	(0.011)	(0.009)	(0.010)	(0.026)	(0.017)	(0.020)
Prebunking × somewhat misinformed	0.156***	0.077**	0.050	-0.244***	-0.108	-0.059
	(0.049)	(0.030)	(0.026)	(0.056)	(0.056)	(0.057)
Prebunking × most misinformed	0.026	0.131***	0.040	-0.177*	0.016	-0.123
	(0.041)	(0.044)	(0.035)	(0.084)	(0.068)	(0.077)
Somewhat misinformed	-1.088***	-0.221***	-0.196***	1.104***	0.231***	0.405***
	(0.051)	(0.025)	(0.020)	(0.039)	(0.049)	(0.049)
Most misinformed	-2.142***	-0.677***	-0.605***	2.671***	0.750***	0.967***
	(0.058)	(0.056)	(0.038)	(0.075)	(0.073)	(0.084)
Controls	✓	✓	✓	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Respondents were divided into groups of three from least to most misinformed as evenly as possible based on pre-treatment versions of each outcome measure (distributions vary by outcome measure). Control variables selected via lasso from a preregistered list (`https://osf.io/gpy3s`). See Online Appendix A for stimuli and outcome question wording.

Table B7: Over-time impact of Study 1 treatment effects

	Biden won		Confidence 2020		Confidence 2022			Fraud 2020		Fraud seats 2020		Fraud seats 2022		
	W1	W2	W1	W2	W1	W2	W3	W1	W2	W1	W2	W1	W2	W3
Credible sources	0.056***	0.019	0.041***	0.031	0.021	0.020	0.043*	-0.094***	-0.019	-0.036	-0.018	-0.049*	-0.026	-0.008
	(0.014)	(0.016)	(0.013)	(0.019)	(0.011)	(0.019)	(0.021)	(0.021)	(0.035)	(0.020)	(0.029)	(0.022)	(0.028)	(0.033)
Prebunking	0.029*	0.024	0.062***	0.029	0.042***	0.033	0.045*	-0.161***	-0.117***	-0.023	-0.066*	-0.029	-0.093***	-0.054
	(0.012)	(0.016)	(0.013)	(0.019)	(0.011)	(0.020)	(0.022)	(0.021)	(0.034)	(0.020)	(0.029)	(0.021)	(0.028)	(0.033)
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Control variables selected via lasso from a preregistered list (`https://osf.io/gpy3s`). See Online Appendix A for stimuli and outcome question wording.

Table B8: Study 2 balance and demographics

	Control	Credible sources	Prebunking	Total
Gender				
Male	427 (42.6%)	449 (44.7%)	392 (41.6%)	1,268 (43.0%)
Female	575 (57.4%)	555 (55.3%)	551 (58.4%)	1,681 (57.0%)
Age group				
18–24	129 (12.9%)	98 (9.8%)	96 (10.2%)	323 (11.0%)
25–34	236 (23.6%)	259 (25.8%)	218 (23.1%)	713 (24.2%)
35–44	212 (21.2%)	221 (22.0%)	236 (25.0%)	669 (22.7%)
45–54	210 (21.0%)	214 (21.3%)	200 (21.2%)	624 (21.2%)
55–64	162 (16.2%)	163 (16.2%)	142 (15.1%)	467 (15.8%)
65+	53 (5.3%)	49 (4.9%)	51 (5.4%)	153 (5.2%)
Education				
At least some college	554 (55.3%)	569 (56.7%)	496 (52.6%)	1,619 (54.9%)
No college	448 (44.7%)	435 (43.3%)	447 (47.4%)	1,330 (45.1%)
Race				
White	519 (51.8%)	523 (52.1%)	480 (51.0%)	1,522 (51.6%)
Non-white	483 (48.2%)	481 (47.9%)	462 (49.0%)	1,426 (48.4%)
Ideology (1–10 scale)				
Left of center (1–4)	283 (32.6%)	282 (32.9%)	280 (33.8%)	845 (33.1%)
Center (5)	154 (17.7%)	165 (19.3%)	128 (15.5%)	447 (17.5%)
Right of center (6–10)	432 (49.7%)	410 (47.8%)	420 (50.7%)	1,262 (49.4%)
Party				
PL supporter (Bolsonaro's party)	48 (4.8%)	61 (6.1%)	59 (6.3%)	168 (5.7%)
PT supporter (Lula's party)	161 (16.0%)	153 (15.3%)	143 (15.2%)	457 (15.5%)
Neither PL nor PT	798 (79.2%)	784 (78.6%)	741 (78.6%)	2,323 (78.8%)
N	1,002 (34.0%)	1,004 (34.0%)	943 (32.0%)	2,949 (100.0%)

Table B9: Effects of Study 2 treatment: Voter confidence and fraud perceptions

	Confidence		Fraud		Seats won by fraud	
	2022	2026	2022	2026	2022	2026
Credible sources	0.045**	0.072***	-0.004	-0.037	-0.064*	-0.037
	(0.017)	(0.018)	(0.028)	(0.031)	(0.030)	(0.031)
Prebunking	0.108***	0.102***	-0.094***	-0.094***	-0.148***	-0.162***
	(0.017)	(0.019)	(0.031)	(0.033)	(0.031)	(0.032)
Controls	✓	✓	✓	✓	✓	✓
Credible sources −	-0.063***	-0.028	0.091***	0.057	0.084**	0.125***
prebunking	(0.018)	(0.020)	(0.030)	(0.032)	(0.032)	(0.032)

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B10: Effects of Study 2 treatment: Factual beliefs

	True claims	False claims	Difference (T-F)
Credible sources	0.076*	-0.084*	0.154***
	(0.035)	(0.037)	(0.049)
Prebunking	0.189***	-0.196***	0.387***
	(0.033)	(0.039)	(0.050)
Controls	✓	✓	✓
Credible sources − prebunking	-0.113***	0.113***	-0.233***
	(0.035)	(0.037)	(0.051)

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). Discernment measure represents the difference between the perceived accuracy of true items and the perceived accuracy of false items. See Online Appendix A for stimuli and outcome question wording.

Table B11: Effects of Study 2 treatment: Factual beliefs at item level

	Perceived accuracy
Credible sources	0.111
	(0.038)
Credible sources × false	-0.235*
	(0.063)
Prebunking	0.215**
	(0.032)
Prebunking × false	-0.440***
	(0.056)
False	-0.796***
	(0.040)
Controls	✓

OLS with robust standard errors clustered by respondent and item; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B12: Effects of Study 2 treatment: Discernment (T/F)

	Discernment (T/F)
Credible sources	0.059**
	(0.022)
Prebunking	0.132***
	(0.022)
Controls	✓

OLS with robust standard errors clustered by respondent and item; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Control variables selected via lasso from a preregistered list (`https://osf.io/gpy3s`). Discernment measure represents the ratio of the perceived accuracy of true items divided by the perceived accuracy of false items. See Online Appendix A for stimuli and outcome question wording.

Table B13: Differences in effects of Study 2 treatments by election

	Election confidence	Fraud prevalence	Seats won by fraud
2026 election (vs. 2022)	0.008	-0.100***	-0.006
	(0.014)	(0.031)	(0.030)
Credible sources	0.045**	-0.006	-0.062*
	(0.017)	(0.029)	(0.030)
Credible sources × 2026	0.027	-0.033	0.019
	(0.018)	(0.042)	(0.044)
Prebunking	0.103***	-0.092***	-0.148***
	(0.018)	(0.032)	(0.031)
Prebunking × 2026	0.002	-0.009	-0.014
	(0.020)	(0.046)	(0.045)
Controls	✓	✓	✓

OLS with robust standard errors clustered by respondent; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Control variables selected via lasso from a preregistered list (`https://osf.io/gpy3s`). See Online Appendix A for stimuli and outcome question wording.

Table B14: Testing for heterogeneous effects of Study 2 treatments on voter confidence and fraud perceptions: Party

	Confidence		Fraud		Seats won by fraud	
	2022	2026	2022	2026	2022	2026
Credible sources	0.046*	0.070***	0.007	-0.026	-0.064	-0.055
	(0.019)	(0.020)	(0.032)	(0.036)	(0.035)	(0.036)
Credible sources × PL	0.132	0.160	-0.140	-0.212	-0.134	0.094
	(0.082)	(0.086)	(0.158)	(0.150)	(0.114)	(0.139)
Credible sources × PT	-0.050	-0.043	-0.022	0.002	0.052	0.091
	(0.040)	(0.045)	(0.064)	(0.067)	(0.073)	(0.082)
Prebunking	0.126***	0.118***	-0.089*	-0.087*	-0.166***	-0.162***
	(0.019)	(0.022)	(0.036)	(0.037)	(0.036)	(0.037)
Prebunking × PL	0.015	0.031	-0.088	-0.172	-0.166	-0.084
	(0.084)	(0.093)	(0.160)	(0.168)	(0.126)	(0.166)
Prebunking × PT	-0.116***	-0.123**	-0.002	0.000	0.179*	0.051
	(0.039)	(0.048)	(0.071)	(0.084)	(0.074)	(0.073)
PL supporter	-0.122*	-0.074	0.155	0.182	0.081	-0.073
	(0.054)	(0.059)	(0.128)	(0.129)	(0.078)	(0.110)
PT supporter	0.100***	0.079**	0.003	-0.019	-0.023	-0.011
	(0.025)	(0.030)	(0.047)	(0.045)	(0.045)	(0.057)
Controls	✓	✓	✓	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). PL supporter indicates the respondent supports the Liberal Party, Bolsonaro's party in Brazil (Partido Liberal or PL); PT supporter indicates the respondent supports the Worker's Party, the party of Luiz Inácio (Lula) da Silva (Partido dos Trabalhadores or PT). Control variables selected via lasso from a preregistered list (`https://osf.io/gpy3s`). See Online Appendix A for stimuli and outcome question wording.

Table B15: Testing for heterogeneous effects of Study 2 treatments on factual beliefs: Party

	True claims	False claims	Difference (T-F)
Credible sources	0.062	-0.091*	0.150**
	(0.039)	(0.041)	(0.055)
Credible sources × PL	0.540***	0.332	0.207
	(0.163)	(0.209)	(0.237)
Credible sources × PT	-0.084	-0.069	-0.034
	(0.097)	(0.098)	(0.133)
Prebunking	0.197***	-0.201***	0.399***
	(0.037)	(0.044)	(0.056)
Prebunking × PL	0.237	0.130	0.141
	(0.164)	(0.201)	(0.243)
Prebunking × PT	-0.107	0.006	-0.129
	(0.091)	(0.102)	(0.131)
PL supporter	-0.320*	-0.026	-0.281
	(0.124)	(0.174)	(0.187)
PT supporter	0.124	-0.022	0.174
	(0.068)	(0.073)	(0.096)
Controls	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). PL supporter indicates the respondent supports the Liberal Party, Bolsonaro's party in Brazil (Partido Liberal or PL); PT supporter indicates the respondent supports the Worker's Party, the party of Luiz Inácio (Lula) da Silva (Partido dos Trabalhadores or PT). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B16: Testing for heterogeneous effects of Study 2 treatments on voter confidence and fraud perceptions: Bolsonaro feelings

	Confidence		Fraud		Seats won by fraud	
	2022	2026	2022	2026	2022	2026
Credible sources	-0.002	0.043	-0.002	-0.031	-0.018	-0.050
	(0.023)	(0.025)	(0.041)	(0.039)	(0.040)	(0.042)
Credible sources × second tercile	0.043	0.012	0.066	0.030	-0.011	0.080
	(0.040)	(0.041)	(0.063)	(0.067)	(0.069)	(0.072)
Credible sources × top tercile	0.080*	0.068	-0.084	-0.037	-0.135	-0.046
	(0.039)	(0.043)	(0.072)	(0.076)	(0.072)	(0.076)
Prebunking	0.035	0.014	-0.065	-0.085*	-0.070	-0.128***
	(0.022)	(0.027)	(0.041)	(0.043)	(0.041)	(0.040)
Prebunking × second tercile	0.079*	0.039	0.041	0.074	-0.058	0.099
	(0.040)	(0.045)	(0.067)	(0.071)	(0.067)	(0.071)
Prebunking × top tercile	0.143***	0.205***	-0.111	-0.082	-0.202**	-0.212**
	(0.040)	(0.046)	(0.078)	(0.081)	(0.075)	(0.076)
Second tercile Bolsonaro feelings	-0.085***	-0.058	-0.024	-0.077	0.047	-0.069
	(0.028)	(0.031)	(0.047)	(0.047)	(0.048)	(0.052)
Top tercile Bolsonaro feelings	-0.167***	-0.135***	0.105	0.027	0.191***	0.143*
	(0.032)	(0.035)	(0.058)	(0.062)	(0.058)	(0.060)
Controls	✓	✓	✓	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Indicators represent terciles of pre-treatment feelings toward Bolsonaro on a 0–100 feeling thermometer. Control variables selected via lasso from a pre-registered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B17: Testing for heterogeneous effects of Study 2 treatments on factual beliefs: Bolsonaro feelings

	True claims	False claims	Difference (T-F)
Credible sources	0.073	-0.204***	0.265***
	(0.055)	(0.057)	(0.076)
Credible sources × second tercile	-0.047	0.158	-0.202
	(0.082)	(0.086)	(0.116)
Credible sources × top tercile	0.122	0.228*	-0.094
	(0.085)	(0.090)	(0.117)
Prebunking	0.107	-0.250***	0.350***
	(0.056)	(0.060)	(0.078)
Prebunking × second tercile	0.082	0.154	-0.069
	(0.082)	(0.090)	(0.118)
Prebunking × top tercile	0.202*	-0.014	0.236
	(0.083)	(0.095)	(0.122)
Second tercile Bolsonaro feelings	-0.096	0.086	-0.185*
	(0.059)	(0.064)	(0.082)
Top tercile Bolsonaro feelings	-0.278***	0.341***	-0.632***
	(0.068)	(0.077)	(0.094)
Controls	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Indicators represent terciles of pre-treatment feelings toward Bolsonaro on a 0–100 feeling thermometer. Control variables selected via lasso from a pre-registered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B18: Testing for heterogeneous effects of Study 2 treatments on voter confidence and fraud perceptions: Pre-treatment outcomes

| | Confidence | | Fraud | | Seats won by fraud | |
	2022	2026	2022	2026	2022	2026
Credible sources	-0.022	-0.002	-0.014	-0.000	-0.018	0.000
	(0.017)	(0.016)	(0.018)	(0.029)	(0.033)	(0.034)
Credible sources × somewhat misinformed	-0.002	0.076*	-0.026	-0.077	-0.156	-0.075
	(0.036)	(0.034)	(0.051)	(0.057)	(0.108)	(0.111)
Credible sources × most misinformed	0.196***	0.149***	0.021	-0.066	-0.102	-0.096
	(0.038)	(0.045)	(0.077)	(0.086)	(0.075)	(0.079)
Prebunking	0.014	-0.014	-0.031	-0.013	-0.056	-0.078*
	(0.014)	(0.018)	(0.017)	(0.030)	(0.031)	(0.032)
Prebunking × somewhat misinformed	0.088*	0.133***	-0.137**	-0.148*	-0.144	-0.083
	(0.036)	(0.039)	(0.050)	(0.061)	(0.095)	(0.102)
Prebunking × most misinformed	0.186***	0.212***	-0.075	-0.185*	-0.275***	-0.258***
	(0.036)	(0.046)	(0.085)	(0.092)	(0.089)	(0.089)
Somewhat misinformed	-0.081*	-0.164***	-0.090*	-0.023	-0.099	-0.064
	(0.037)	(0.041)	(0.040)	(0.043)	(0.095)	(0.098)
Most misinformed	-0.230***	-0.310***	-0.256***	-0.069	-0.344	-0.199
	(0.068)	(0.081)	(0.090)	(0.090)	(0.185)	(0.188)
Controls	✓	✓	✓	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Indicators represent terciles of pre-treatment belief accuracy. Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B19: Testing for heterogeneous effects of Study 2 treatments on factual beliefs: Pre-treatment outcomes

	True claims	False claims	Difference (T-F)
Credible sources	0.001	-0.086	0.127
	(0.047)	(0.044)	(0.067)
Credible sources × somewhat misinformed	0.018	0.042	0.010
	(0.074)	(0.067)	(0.113)
Credible sources × most misinformed	0.172*	-0.039	-0.021
	(0.077)	(0.093)	(0.097)
Prebunking	-0.021	-0.104*	0.201***
	(0.048)	(0.045)	(0.068)
Prebunking × somewhat misinformed	0.211***	-0.097	0.167
	(0.072)	(0.071)	(0.114)
Prebunking × most misinformed	0.364***	-0.392***	0.371***
	(0.076)	(0.100)	(0.103)
Somewhat misinformed	-0.426***	0.726***	-0.901***
	(0.054)	(0.055)	(0.084)
Most misinformed	-1.003***	1.422***	-1.576***
	(0.063)	(0.081)	(0.087)
Controls	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Indicators represent terciles of pre-treatment belief accuracy. Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B20: Study 3 balance and demographics

| | Prebunking | | | |
	Control	Forewarning	No forewarning	Total
Gender				
Male	322 (47.3%)	317 (48.0%)	327 (47.5%)	966 (47.6%)
Female	359 (52.7%)	343 (52.0%)	362 (52.5%)	1,064 (52.4%)
Age group				
18–34	82 (12.0%)	65 (9.8%)	78 (11.3%)	225 (11.1%)
35–44	116 (17.0%)	99 (15.0%)	118 (17.1%)	333 (16.4%)
45–54	121 (17.8%)	92 (13.9%)	114 (16.5%)	327 (16.1%)
55–64	180 (26.4%)	187 (28.3%)	208 (30.2%)	575 (28.3%)
65+	182 (26.7%)	217 (32.9%)	171 (24.8%)	570 (28.1%)
Education				
College degree	237 (34.8%)	210 (31.8%)	257 (37.3%)	704 (34.7%)
No college degree	444 (65.2%)	450 (68.2%)	432 (62.7%)	1,326 (65.3%)
Race				
White	483 (70.9%)	484 (73.3%)	510 (74.0%)	1,477 (72.8%)
Non-white	198 (29.1%)	176 (26.7%)	179 (26.0%)	553 (27.2%)
Party				
Democrat	366 (53.7%)	362 (54.8%)	356 (51.7%)	1,084 (53.4%)
Independent	114 (16.7%)	91 (13.8%)	101 (14.7%)	306 (15.1%)
Republican	201 (29.5%)	207 (31.4%)	232 (33.7%)	640 (31.5%)
N	681 (33.5%)	660 (32.5%)	689 (33.9%)	2,030 (100.0%)

Table B21: Effects of Study 3 prebunking treatment: Voter confidence and fraud perceptions

	Confidence		Fraud		Seats won by fraud	
	2022	2024	2022	2024	2022	2024
With forewarning	0.020	0.022	-0.048	-0.040	-0.012	-0.017
	(0.021)	(0.022)	(0.045)	(0.048)	(0.029)	(0.031)
Without forewarning	0.038	0.048*	-0.091*	-0.103*	-0.065*	-0.082**
	(0.022)	(0.023)	(0.044)	(0.047)	(0.029)	(0.031)
Controls	✓	✓	✓	✓	✓	✓
With forewarning −	-0.018	-0.025	0.043	0.063	0.053	0.065*
without forewarning	(0.022)	(0.023)	(0.044)	(0.047)	(0.029)	(0.029)

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B22: Effects of Study 3 prebunking treatment: Factual beliefs

	True claims	False claims	Difference (T-F)
With forewarning	0.373***	-0.221***	0.615***
	(0.032)	(0.034)	(0.043)
Without forewarning	0.380***	-0.244***	0.629***
	(0.032)	(0.034)	(0.044)
Controls	✓	✓	✓
With forewarning −	-0.007	0.023	-0.022
without forewarning	(0.030)	(0.034)	(0.045)

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B23: Effects of combined Study 3 prebunking treatment: Voter confidence and fraud perceptions

	Confidence		Fraud		Seats won by fraud	
	2022	2024	2022	2024	2022	2024
Prebunking	0.015	-0.080	-0.028	0.025	-0.085	-0.027
	(0.036)	(0.071)	(0.043)	(0.036)	(0.073)	(0.044)
Controls	✓	✓	✓	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B24: Effects of combined Study 3 prebunking treatment: Factual beliefs

	True claims	False claims	Difference (T-F)
Prebunking	0.355***	-0.233***	0.622***
	(0.033)	(0.029)	(0.037)
Controls	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B25: Testing for heterogeneous effects of Study 3 treatments on voter confidence and fraud perceptions: Party

	Election confidence		Fraud prevalence		Seats won by fraud	
	2022	2024	2022	2024	2022	2024
With forewarning	0.025	0.026	-0.053	-0.045	-0.007	-0.027
	(0.023)	(0.022)	(0.052)	(0.057)	(0.031)	(0.035)
With forewarning × independent	-0.003	-0.019	0.035	-0.023	-0.005	0.030
	(0.066)	(0.068)	(0.135)	(0.139)	(0.084)	(0.088)
With forewarning × Republican	-0.014	-0.005	0.016	0.069	-0.020	0.021
	(0.053)	(0.055)	(0.108)	(0.117)	(0.073)	(0.077)
Without forewarning	0.043	0.028	-0.059	-0.078	-0.018	-0.053
	(0.022)	(0.023)	(0.046)	(0.050)	(0.029)	(0.031)
Without forewarning × independent	-0.067	-0.034	-0.079	-0.096	-0.026	0.039
	(0.073)	(0.075)	(0.144)	(0.150)	(0.083)	(0.090)
Without forewarning × Republican	0.014	0.073	-0.047	0.004	-0.133	-0.098
	(0.054)	(0.057)	(0.106)	(0.114)	(0.075)	(0.077)
Independent	0.005	0.015	-0.007	0.016	-0.011	-0.059
	(0.049)	(0.048)	(0.112)	(0.117)	(0.062)	(0.067)
Republican	0.040	0.003	-0.010	-0.015	-0.051	-0.063
	(0.051)	(0.051)	(0.102)	(0.109)	(0.071)	(0.067)
Controls	✓	✓	✓	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Independents are pure independents (no leaners); both the Republican indicator and the omitted category of Democrats exclude leaners. Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B26: Testing for heterogeneous effects of Study 3 treatments on factual beliefs: Party

	True claims	False claims	Difference (T-F)
With forewarning	0.330***	-0.201***	0.537***
	(0.049)	(0.041)	(0.065)
With forewarning × independent	0.177	-0.079	0.233
	(0.113)	(0.107)	(0.155)
With forewarning × Republican	0.032	-0.034	0.053
	(0.083)	(0.080)	(0.123)
Without forewarning	0.312***	-0.119***	0.442***
	(0.047)	(0.041)	(0.064)
Without forewarning × independent	0.124	-0.189	0.280
	(0.114)	(0.103)	(0.160)
Without forewarning × Republican	0.076	-0.294***	0.372***
	(0.083)	(0.076)	(0.122)
Independent	-0.117	0.055	-0.192
	(0.096)	(0.080)	(0.126)
Republican	-0.071	0.141	-0.257*
Controls	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Independents are pure independents (no leaners); both the Republican indicator and the omitted category of Democrats exclude leaners. Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B27: Testing for heterogeneous effects of Study 3 treatments on voter confidence and fraud perceptions: Trump feelings

	Election confidence		Fraud prevalence		Seats won by fraud	
	2022	2024	2022	2024	2022	2024
With forewarning	0.010	0.017	0.023	0.001	0.049	-0.000
	(0.023)	(0.024)	(0.054)	(0.059)	(0.032)	(0.036)
With forewarning × second tercile	0.006	0.021	-0.163	-0.123	-0.126*	-0.040
	(0.047)	(0.047)	(0.105)	(0.113)	(0.063)	(0.070)
With forewarning × top tercile	0.018	0.003	-0.120	-0.038	-0.102	-0.024
	(0.054)	(0.057)	(0.111)	(0.120)	(0.076)	(0.080)
Without forewarning	0.011	0.006	0.004	-0.034	-0.003	-0.031
	(0.023)	(0.025)	(0.049)	(0.051)	(0.029)	(0.033)
Without forewarning × second tercile	0.029	0.073	-0.098	-0.086	-0.057	-0.024
	(0.054)	(0.055)	(0.099)	(0.104)	(0.064)	(0.068)
Without forewarning × top tercile	0.052	0.076	-0.216	-0.147	-0.151	-0.139
	(0.056)	(0.059)	(0.114)	(0.121)	(0.079)	(0.080)
Second tercile Trump feelings	-0.053	-0.032	0.086	0.049	0.037	0.002
	(0.037)	(0.037)	(0.075)	(0.080)	(0.046)	(0.053)
Top tercile Trump feelings	-0.108	-0.043	0.115	0.093	0.176*	0.118
	(0.058)	(0.059)	(0.105)	(0.113)	(0.080)	(0.081)
Controls	✓	✓	✓	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Respondents divided into terciles based on feelings toward Donald Trump on a 0–100 feeling thermometer (second tercile 2–48, top tercile 49–100). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B28: Testing for heterogeneous effects of Study 3 treatments on factual beliefs: Trump feelings

	True claims	False claims	Difference (T-F)
With forewarning	0.300***	-0.145***	0.435***
	(0.053)	(0.042)	(0.069)
With forewarning × second tercile	0.134	-0.211**	0.372***
	(0.093)	(0.081)	(0.126)
With forewarning × top tercile	0.111	-0.082	0.204
	(0.086)	(0.083)	(0.127)
Without forewarning	0.322***	-0.080	0.390***
	(0.051)	(0.042)	(0.069)
Without forewarning × second tercile	0.079	-0.292***	0.390***
	(0.094)	(0.080)	(0.126)
Without forewarning × top tercile	0.063	-0.300***	0.380***
	(0.085)	(0.079)	(0.125)
Second tercile Trump feelings	-0.126	0.200***	-0.338***
	(0.078)	(0.062)	(0.097)
Top tercile Trump feelings	-0.129	0.232**	-0.360**
	(0.091)	(0.089)	(0.130)
Controls	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Respondents divided into terciles based on feelings toward Donald Trump on a 0–100 feeling thermometer (second tercile 2–48, top tercile 49–100). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B29: Testing for heterogeneous effects of Study 3 treatments on voter confidence and fraud perceptions: Pre-treatment outcomes

	Election confidence		Fraud prevalence		Seats won by fraud	
	2022	2024	2022	2024	2022	2024
With forewarning	0.057	0.114*	-0.003	0.024	0.022	-0.002
	(0.054)	(0.051)	(0.031)	(0.036)	(0.019)	(0.019)
With forewarning × somewhat misinformed	-0.004	-0.067	-0.071	-0.130*	-0.057	0.042
	(0.070)	(0.066)	(0.066)	(0.062)	(0.052)	(0.069)
With forewarning × most misinformed	-0.072	-0.125*	-0.251**	-0.159	-0.266***	-0.183*
	(0.056)	(0.053)	(0.094)	(0.104)	(0.087)	(0.086)
Without forewarning	0.010	0.033	-0.039	-0.022	-0.020	-0.012
	(0.060)	(0.053)	(0.030)	(0.030)	(0.015)	(0.019)
Without forewarning × somewhat misinformed	0.084	0.103	0.016	-0.004	0.027	-0.050
	(0.074)	(0.067)	(0.066)	(0.060)	(0.058)	(0.064)
Without forewarning × most misinformed	-0.006	-0.020	-0.213*	-0.187	-0.225*	-0.206*
	(0.062)	(0.055)	(0.093)	(0.103)	(0.095)	(0.092)
Somewhat misinformed	0.633***	0.614***	0.632***	0.733***	0.567***	0.599***
	(0.053)	(0.053)	(0.050)	(0.046)	(0.049)	(0.058)
Most misinformed	0.866***	0.812***	2.039***	2.245***	1.628***	1.642***
	(0.051)	(0.048)	(0.093)	(0.101)	(0.088)	(0.094)
Controls	✓	✓	✓	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Respondents were divided into groups of three from least to most misinformed as evenly as possible based on pre-treatment versions of each outcome measure (distributions vary by outcome measure). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B30: Testing for heterogeneous effects of Study 3 treatments on factual beliefs: Pre-treatment outcomes

	True claims	False claims	Difference (T-F)
With forewarning	0.061	-0.012	0.170***
	(0.040)	(0.026)	(0.052)
With forewarning × somewhat misinformed	0.396***	-0.377***	0.687***
	(0.072)	(0.065)	(0.097)
With forewarning × most misinformed	0.528***	-0.349***	0.554***
	(0.077)	(0.076)	(0.103)
Without forewarning	0.050	0.045	0.127*
	(0.043)	(0.032)	(0.053)
Without forewarning × somewhat misinformed	0.386***	-0.441***	0.626***
	(0.071)	(0.062)	(0.098)
Without forewarning × most misinformed	0.549***	-0.511***	0.754***
	(0.080)	(0.076)	(0.107)
Somewhat misinformed	-0.543***	0.505***	-0.875***
	(0.059)	(0.049)	(0.078)
Most misinformed	-0.999***	1.101***	-1.807***
	(0.068)	(0.067)	(0.096)
Controls	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Respondents were divided into groups of three from least to most misinformed as evenly as possible based on pre-treatment versions of each outcome measure (distributions vary by outcome measure). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B31: Testing for heterogeneous effects of Study 3 treatments on voter confidence and fraud perceptions: Study 1 interactions

	Election confidence		Fraud prevalence		Seats won by fraud	
	2022	2024	2022	2024	2022	2024
With forewarning	0.046	0.024	-0.026	-0.032	-0.011	0.009
	(0.034)	(0.037)	(0.079)	(0.083)	(0.050)	(0.051)
With forewarning × correction	-0.056	-0.021	-0.215*	-0.170	-0.003	-0.068
	(0.051)	(0.053)	(0.107)	(0.115)	(0.073)	(0.076)
With forewarning × prebunking	-0.037	0.014	0.162	0.155	0.004	-0.004
	(0.051)	(0.054)	(0.114)	(0.121)	(0.070)	(0.075)
Without forewarning	-0.009	0.025	-0.015	-0.038	-0.018	-0.027
	(0.038)	(0.041)	(0.080)	(0.084)	(0.051)	(0.051)
Without forewarning × correction	0.072	0.010	-0.148	-0.112	-0.070	-0.093
	(0.054)	(0.057)	(0.111)	(0.118)	(0.072)	(0.076)
Without forewarning × prebunking	0.054	0.056	-0.070	-0.077	-0.070	-0.067
	(0.054)	(0.058)	(0.110)	(0.116)	(0.072)	(0.074)
Correction (study 1)	0.025	0.040	0.067	0.047	0.027	0.041
	(0.039)	(0.040)	(0.080)	(0.087)	(0.053)	(0.058)
Prebunking (study 1)	0.030	0.038	-0.146	-0.163	0.005	0.010
	(0.035)	(0.038)	(0.083)	(0.086)	(0.052)	(0.055)
Controls	✓	✓	✓	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Control variables selected via lasso from a preregistered list (https://osf.io/gpy3s). See Online Appendix A for stimuli and outcome question wording.

Table B32: Testing for heterogeneous effects of Study 3 treatments on voter confidence and fraud perceptions: Wave 2 (U.S.) interactions

	Election confidence		Fraud prevalence		Seats won by fraud	
	2022	2024	2022	2024	2022	2024
With forewarning	0.019	0.052	-0.017	0.001	-0.048	-0.034
	(0.029)	(0.030)	(0.065)	(0.072)	(0.043)	(0.046)
With forewarning × wave 2 fact-check	-0.008	-0.059	-0.059	-0.080	0.072	0.035
	(0.042)	(0.044)	(0.090)	(0.098)	(0.058)	(0.063)
Without forewarning	0.041	0.069*	-0.108	-0.099	-0.110*	-0.109*
	(0.032)	(0.033)	(0.062)	(0.065)	(0.043)	(0.045)
Without forewarning × wave 2 fact-check	-0.017	-0.043	0.034	-0.008	0.090	0.055
	(0.045)	(0.047)	(0.089)	(0.095)	(0.059)	(0.061)
Wave 2 fact-check	-0.014	0.009	0.062	0.083	-0.082	-0.053
	(0.030)	(0.031)	(0.065)	(0.070)	(0.042)	(0.046)
Controls	✓	✓	✓	✓	✓	✓

OLS with robust standard errors; * $p < 0.05$, ** $p < 0.01$, *** $p < .005$ (two-sided). Control variables selected via lasso from a preregistered list (`https://osf.io/gpy3s`). See Online Appendix A for stimuli and outcome question wording.