Explaining Partisan Gaps in Satisfaction with Democracy after Contentious Elections:

Evidence from a U.S. 2020 Election Panel Survey

Online Supplementary Appendix Material

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# Further Discussion of Literature

Our work is informed by the following research, some of which we acknowledge in the manuscript and some here due to word-count limitations. First, Anderson et al. (2005) and Anderson and Guillory (1997) often are credited with identifying the partisan gap in democratic satisfaction by winner-loser status, which has been reaffirmed cross-nationally by Blais et al. (2017), Dahlberg and Linde (2017), Monsiváis-Carrillo, Alejandro (2020); and Gärtner et al. (2020) among others.[[1]](#footnote-1) Anderson et al. (2005) argue that electoral institutions are important to closing the gap but focus primarily on the differences between majoritarian vs. consensual electoral systems in comparative context (see also Farrer and Zingher 2019). Research also indicates the partisan gap appears to operate at multiple electoral levels (Blais and Gélineau 2007; Singh et al. 2012) and lingers across time (Hansen et al. 2019). Our research examines the extent to which confidence in electoral institutions can help close the gap within majoritarian electoral systems specifically, which represent the harder and consequently a more critical set of cases because losers in majoritarian systems frequently are completely excluded from political representation.

Our work is also important because, as Howell and Justwan (2013) point out, “the concrete causal mechanism behind the winner/loser gap in democratic satisfaction is not uncovered yet.” (see also Loveless 2020). Factors that influence the size of the partisan gap include whether the system is presidential (Anderson and LoTiempo 2002), perceptions of electoral fairness (Craig et al. 2006), the extent of extreme ideological polarization (Curini et al. 2012), income inequality (Han and Chang 2016), margin of victory sizes (Howell and Justwan 2013), exposure to media coverage (Banducci and Karp 2003), partisan alignment with governing parties (Ezrow, G. Xezonakis 2011; Delgado 2016; Stecker and Tausendpfund 2016; Ferland 2020; Gärtner et al. 2020), as well as the psychological and emotional status derived when partisans win or lose (Singh et al. 2012; Singh 2014). Thus, based on previous research, the Republican loss of the presidency, and eventually the Senate, in the 2020 U.S. election represents a hard case for closing the partisan gap in winner and loser democratic satisfaction, especially if confidence in electoral institutions is low.

A well-established literature from political psychology on affective polarization underscores the consequences of emotional hostility to opposing partisans (Miller et al. 2015; Westfall et al. 2015; Huddy and Bankert 2017; Kam 2018; Iyengar et al. 2019; Gidron et al. 2020) which can lead to partisan authoritarianism (Luttig 2017) and anti-democratic sentiment, especially when ethnic, racial and social cleavages overlap with political faultlines (Bartels 2020). Traditional news and social media may also amplify those divisions (Lin and Haridakis 2017; Settle 2018; Beam et al. 2018). There may also be a gender gap in democratic satisfaction depending on how well women are represented in electoral outcomes (Williams et al. 2020).

Finally, the mechanisms behind the partisan gap in democratic satisfaction between losers and winners are important because of the potentially pernicious effects that partisan polarization may have on democratic stability (McCoy et al. 2018; Levitsky and Ziblatt 2018; Conway et al. 2019; Graham and Svolik 2020). Confidence in the electoral process is especially important to voter confidence in electoral outcomes (Atkeson et al. 2007; Alvarez et al. 2008). Changes in these mechanisms may also help close the partisan gap and allow the system to recalibrate and renew bipartisan cooperation as has been the case in previous cycles in American politics (Stimson 2018).

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Cognitive Dissonance Theory and Satisfaction with Democracy

Dissonance theory focuses on an individual’s need for consistency between actions and beliefs (Festinger 1957). When an individual performs a task that is at odds with their beliefs, this creates cognitive dissonance, and individuals tend to either change their beliefs in ways that make them seem more compatible with their actions or change actions in ways that make them more compatible with beliefs (reducing cognitive dissonance, increasing cognitive consistency). Voting in an election is an action. Predicting that a preferred candidate will win is an example of a belief. We can assume that partisanship motivates both voting behavior (partisans being more likely to vote), vote choice (partisans will have a strong preference for a co-partisan candidate), and election outcome expectations (partisans will predict/prefer that their co-partisan will win the election). When actions and beliefs do not align, creates dissonance that voters/supporters will attempt to reconcile following the election, either changing their beliefs to reduce dissonance or concealing their actions.

Most research on cognitive dissonance theory has focused on candidate or party evaluations pre-/post-election (Beasley and Joslyn 2001; Mullainathan and Washington 2009; Bølstad et al. 2013; Elinder 2012), but less on evaluations of elections and democracy itself (Grant et al. 2021). We acknowledge the winner-loser effect in the theory section of the manuscript in terms of how cognitive consistency and dissonance avoidance could explain why people who vote for losing candidates might attribute the loss to an unfair election and express greater dissatisfaction with democracy compared to supporters/voters of winning candidates. In the context of the 2020 election, it is more cognitively consistent/less dissonant for strong Republican/Trump supporters/voters i.e. “losers” to blame a loss on the failures of electoral democracy than to acknowledge, as Mitch McConnell might say, that “candidate quality has a lot to do with the outcome”. It is more cognitively consistent to blame a loss on electoral institutions and democracy than it is to reevaluate one’s commitment to a preferred candidate. However, it is entirely cognitively consistent for Democrats/Biden supporters/voters i.e. “winners” to reaffirm the democratic process following a win.

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# Compliance with APSA Principles and Guidelines for Human Subjects Research

Our research was conducted in accordance with 2020 APSA Principles and Guidelines for ethical conduct of research and received IRB approval through our home academic institution. We affirm no power relationship over our respondents; we obtained voluntary informed consent for participation; our research involved no deception; we anticipate no trauma or harm could come from completing our study; we ensure respondent confidentiality; and we abide by all US laws and guidelines about human subject research. Respondents were not paid for their participation in the study because we did not have authorization from our university to use funds for compensation, although the research firm provides modest compensation (<$2 per person) as an incentive to participate in the study.

In addition, in accordance with Covid19 restrictions on face-to-face contact with human subjects, our study was conducted entirely through online sampling with no interpersonal contact of any kind during the data collection process. All respondents completed an IRB-approved consent form at the onset of the study that was written to be clear and accessible to respondents. They must click to affirm consent to move forward with the study. All respondents were also provided with contact information for our IRB director in the consent form and debriefing statement at the end of the survey. We collected no personal identifying information, and respondents are represented by an anonymous identification number in the dataset. We report no incidents of adverse events to the IRB in the data collection process or complaints by respondents to us directly or to the survey research firm, Dynata, which we contracted for recruitment of participants.

Reference

[Principles and Guidance – Human Subjects Research ad hoc Committee (apsanet.org)](https://connect.apsanet.org/hsr/principles-and-guidance/)

# Sampling Methodology

Public opinion research provides invaluable insights into public participation in elections and appraisals of democratic systems and processes (Lasswell 1941; Berelson 1952; Key 1961; Geer 1996; Shapiro 2011), despite occasional shortcomings in predicting electoral outcomes. Public opinion research is increasingly turning to online surveys or mixed-mode designs that involve combinations of random digit dialing (RDD) and online methods. We chose online sampling for its cost-effectiveness and field-tested experience in achieving valid, reliable results comparable to RDD probability sampling methods. Online sampling is especially helpful for gaining access to hard-to-reach minority groups and the elderly, and it avoids some of the problems of social desirability bias due to enumerator effects in RDD and face-to-face sampling methodologies. Hence, we believed online samples would be more forthcoming about their partisan preferences and 2020 presidential vote choice.

Researchers generally agree that both RDD and online probability samples are more representative of the U.S. population than non-probability samples (Malhotra and Krosnick 2007; Chang and Krosnick 2009; Yeager et al. 2011; Kennedy et al. 2016). Studies involving comparisons mode effects of RDD vs. online surveys on political attitudes and behavior report minimal differences between the inferences generated by online vs. phone surveys (Stephenson and Crête 2010; Ansolabehere and Schaffner 2014; Breton et al. 2017; Coppock 2019; Coppock and McClellan 2019). Online survey research itself is in a period of expansion. Pew Research Center, for example, has now moved much of its polling online (Kennedy and Deane 2019; Kennedy and Hartig 2019).

Data collection for our project was conducted by Dynata (formerly Survey Sampling International), which has provided survey data for a wide range of research in political science using online panel surveys (e.g., Kam 2012; Malhotra et al. 2013; Berinsky et al. 2014; Iyengar and Westwood 2015). Dynata recruits participants online to form a panel and then randomly invites panel members to participate in given surveys. We requested that Dynata target on several demographic characteristics to ensure a sample representative of the population of interest; however, we did not impose quotas, and subjects within each demographic category were randomly selected from the panel. The resulting sample is not a strict probability sample in that not every resident of the United States had an equal probability of being sampled, but our sample is representative of national-level diversity in the U.S. with respect to gender, education, age, race, and ethnicity, as well as urban-rural demographics. Moreover, we verify that our results are robust to the use of sampling weights. We anticipate that our results would be easily replicated using alternate sampling modes, and we encourage others to replicate our findings.

U.S. Resident Population Percentages for Weighting (based on 2010 Census)

\* GENDER: Male = 49%, Female = 51%

\* EDUCATION: Bachelor's Degree or Above = 30%, Less than Bachelor’s Degree = 70%

\* AGE: 18 to 34 = 30%, 35 to 54 = 40%, 55 and older = 30%

\* RACE: White = 73%, African American/Black = 15%, Other = 12%,

\* ETHNICITY: Hispanic/Latinx/Spanish Origin = 18%, Other = 82%

Sampling for the study’s first wave was completed between October 27 and November 1, 2020. A total of 955 respondents completed the study. We then invited the same participants back for a follow-up survey after the election. The follow-up survey was completed between November 10 and 23, 2020. We waited to begin the follow-up survey until after the Associated Press called the presidential election, which took several days due to the counting of mail-in ballots in a number of states. Of the original 955 respondents, 504 completed the follow-up survey, yielding a response rate of 52.8%, which is consistent with attrition reported by Behr et al. (2005) in some European household panel surveys (see manuscript Table 2: Robustness Checks for Panel Attrition). Panel attrition does not appear to impact the main findings of our study.

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# Survey Question Wording on Key Variables in the Manuscript

|  |  |  |
| --- | --- | --- |
| Variable | Question Wording | Response Options |
| Satisfaction with democracy | On the whole, are you very satisfied, somewhat satisfied, not very satisfied or not at all satisfied with the following in United States: Quality of democracy | 1 = not at all satisfied  2 = not very satisfied  3 = somewhat satisfied  4 = very satisfied |
| Beliefs about future economy | What about the next 12 months? Do you expect the economy, in the country as a whole, to get better, stay about the same, or get worse? | 1 = get better  2 = stay about the same  3 = get worse |
| Beliefs about future income | Now looking ahead, do you think that a year from now you and your family will be much better off financially, somewhat better off, about the same, somewhat worse off, or much worse off than now? | 1= much better  2= somewhat better  3 = about the same  4= somewhat worse  5 = much worse |
| Emotional battery | When you think about the direction the country is headed today, how does it make you feel? [Angry, Afraid, Sad, Worried, Happy, Proud] | 1 = not at all  2 = very little  3 = somewhat  4 = quite a bit  5 = extremely |
| Satisfaction with elections | On the whole, are you very satisfied, somewhat satisfied, not very satisfied or not at all satisfied with the following in United States: Quality of elections | 1 = not at all satisfied  2 = not very satisfied  3 = somewhat satisfied  4 = very satisfied |
| Elections free/fair | To what extent do you agree/disagree with the following statements?  American elections are free and fair | 1 = strongly disagree  2 = somewhat disagree  3 = somewhat agree  4 = strongly agree |
| Satisfaction with news media | On the whole, are you very satisfied, somewhat satisfied, not very satisfied or not at all satisfied with the following in United States: Quality of news media | 1 = strongly disagree  2 = somewhat disagree  3 = somewhat agree  4 = strongly agree |

# Means and Frequency Distributions on Key Variables in the Manuscript

































# Summary of Variables from Panel Study and Demographics

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | N | Mean | SD | Min | Max |
| Satisfaction with democracy | 503 | 2.57 | 0.89 | 1 | 4 |
| Satisfaction with U.S. elections | 503 | 2.64 | 0.91 | 1 | 4 |
| Agree/Disagree: American elections are free/fair | 501 | 2.86 | 0.90 | 1 | 4 |
| Satisfaction with U.S. news media | 503 | 2.47 | 1.02 | 1 | 4 |
| Future economy prediction | 504 | 2.06 | 0.76 | 1 | 3 |
| Future personal income prediction | 504 | 2.86 | 0.87 | 1 | 5 |
| Index of negative emotional affect | 502 | 3.30 | 1.22 | 1 | 5 |
| Party identification |  |  |  |  |  |
| Democrat | 504 | 0.41 | 0.49 | 0 | 1 |
| Republican | 504 | 0.30 | 0.46 | 0 | 1 |
| Independent | 504 | 0.24 | 0.43 | 0 | 1 |
| Other | 504 | 0.01 | 0.10 | 0 | 1 |
| Don't know | 504 | 0.03 | 0.18 | 0 | 1 |
| Female | 504 | 0.54 | 0.50 | 0 | 1 |
| Age (years) | 491 | 51.5 | 16.9 | 20 | 89 |
| Education | 503 | 3.33 | 1.07 | 1 | 5 |
| Race and Ethnicity |  |  |  |  |  |
| White | 504 | 0.66 | 0.48 | 0 | 1 |
| African American | 504 | 0.17 | 0.37 | 0 | 1 |
| Native American | 504 | 0.02 | 0.13 | 0 | 1 |
| Asian | 504 | 0.10 | 0.30 | 0 | 1 |
| Multiple | 504 | 0.06 | 0.23 | 0 | 1 |
| Latino | 504 | 0.17 | 0.37 | 0 | 1 |
| Born in the United States | 504 | 0.89 | 0.31 | 0 | 1 |
| Evangelical Christian | 504 | 0.25 | 0.43 | 0 | 1 |
| Income assessment | 502 | 2.82 | 0.98 | 1 | 4 |
| 10/11-2020 percent unemployment by state (BLS) | 504 | 7.16 | 1.82 | 3.2 | 14.3 |
| Contracted COVID-19 | 504 | 0.08 | 0.27 | 0 | 1 |
| Family member contracted COVID-19 | 504 | 0.17 | 0.38 | 0 | 1 |
| Know someone who died from COVID-19 | 504 | 0.24 | 0.43 | 0 | 1 |
| Percent new COVID-19 deaths by month/state (CDC) | 504 | 1.54 | 3.87 | -1 | 22 |
| Percent new COVID-19 cases by month/state (CDC) | 504 | 123.05 | 181.35 | 0 | 594 |
| Northeast | 504 | 0.23 | 0.42 | 0 | 1 |
| Midwest | 504 | 0.20 | 0.40 | 0 | 1 |
| South | 504 | 0.37 | 0.48 | 0 | 1 |
| West | 504 | 0.20 | 0.40 | 0 | 1 |
| 2020 primary voter | 504 | 0.70 | 0.46 | 0 | 1 |
| 2020 general election voter | 504 | 0.89 | 0.31 | 0 | 1 |
| Early voter | 504 | 0.52 | 0.50 | 0 | 1 |
| Percent of state’s popular vote for Biden | 504 | 0.52 | 0.09 | 0.30 | 0.92 |
| State flipped from Trump 2016 to Biden | 504 | 0.12 | 0.33 | 0 | 1 |

# Causal Inference from Panel Data (A non-technical discussion)

This section is intended as a non-technical description of the advantages of panel data for readers who are not familiar with panel data designs. Cross-sectional, time-series, or “panel” data provide clear advantages for causal inference compared to cross-sectional data alone. With respect to the 2020 election, if we only had post-election cross-sectional data, any claims regarding the effect of the election on differences we might observe among Republicans, Democrats, and Independents on democratic satisfaction would suffer from a range of potential biases. Even two waves of pre/post-election cross-sectional data alone would still create challenges for causal inference because of potential observed and unobserved biases across the two samples.

The intuition behind panel data designs is that by measuring a response like democratic satisfaction in the same respondents before and after the election, we are controlling for many (though not all) omitted variable biases regarding election effects on democratic satisfaction. Panel data are most effective at controlling for time-invariant sources of bias, including gender, ethnicity, education, age, urban/rural location, race, and other characteristics that do not vary across brief periods, such as from immediately before to after the election. If we believe that the only unobserved factors that could influence changes in democratic satisfaction from before to after the election are time-invariant, then panel data are a powerful tool for causal inference.

To estimate causal effects from panel data, we rely on panel data fixed effects regression. Since we have 504 respondents in our panel sample, panel fixed effects regression treats those 504 individuals as having taken part in 504 separate “before and after” experiments, where we estimate the difference in democratic satisfaction before the election to after the election for each respondent. Fixed effects models compute the variance in democratic satisfaction from before to after the election around each individual’s mean satisfaction and compare that democratic variance to the other relevant time-variant predictor variables in the models (e.g., satisfaction with elections and the news media). In this way, the regression models restrict all the variation between the dependent and independent variable to “within-person” and avoid “between-person” comparisons that could introduce bias due to individual differences on a wide range of observed and unobserved variables.

Although the focus of panel fixed effect regressions is to control for time-*invariant* confounders, it is possible to estimate the effects of time-invariant predictors such as partisanship (assuming it is time-invariant and unlikely to change from before to after the election) on democratic satisfaction by using interaction terms between party id and a dummy variable for the “before-after” effect of the election. Because PID does not change, the fixed effects models cannot estimate the effects of changes in PID on changes in democratic satisfaction as it would with a time-variant independent variable (e.g., satisfaction with elections); however, it can show how changes in democratic satisfaction vary across partisan fixed effects at the individual level, such as a Republican becoming less satisfied with democracy after losing an election or a Democrat becoming more satisfied. This is possible for other time-invariant factors as well.

With respect to time-*variant* predictor variables, variation at the individual level in democratic satisfaction could be caused by any number of time-variant factors in addition to the change from pre-election to a post-election status. These factors could be observed or unobserved. In the manuscript, we analyze several time-variant mediators (i.e., rational, psychological, and institutional mediators) that we believe might explain (or at least moderate) the partisan gap we observe in democratic satisfaction among winners and losers after the election. In this appendix, we report robustness checks for the effect of time-variant factors beyond the changing individual-level political and economic conditions surrounding the election that could affect democratic satisfaction (e.g., exposure to COVID, rising unemployment, and changes in personal income). There also could be biases related to attrition in the panel sample if the respondents dropping out of the second wave of the study are non-random, and we also include a detailed analysis of potential panel attrition effects in the appendix on our results. Finally, we compare results from the panel study (N =504) to our broader two-wave cross-sectional study (N = 1566) to discover what can be uncovered from panel data that might otherwise be obscured by pooled cross-sectional data with different individuals over time.

In summary, panel studies and panel fixed effects regression models are superior to cross-sectional data when examining electoral effects on democratic satisfaction. The results from this type of regression, however, are still potentially subject to the biases of unobserved time-variant omitted variables and selection biases due to panel attrition. We address both issues with the numerous robustness checks that appear below in this appendix.

References:

Bell, Andrew, and Kelvyn Jones. "Explaining fixed effects: Random effects modeling of time-series cross-sectional and panel data." *Political Science Research and Methods* 3, no. 1 (2015): 133-153.

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Nichols, Austin. "Causal inference with observational data." *The Stata Journal* 7, no. 4 (2007): 507-541.

Petersen, Trond. Analyzing panel data: Fixed-and random-effects models. na, 2004.

Wooldridge, Jeffrey M. *Econometric analysis of cross section and panel data*. MIT press, 2010.

# Manuscript Robustness Checks

## Modeling with Vertical/Horizontal Data Structure (long vs. wide format)

With panel data, we had two options to structure the data in *long* format with each person’s pre and post-election observations stacked in separate rows or in *wide* format with each person’s pre and post-election observations in the same row but separate columns. In the manuscript, we rely on wide format, but we utilize long format primarily in the appendix. In the wide format, as utilized in the manuscript, we model the data as discussed in the manuscript:

1. *ΔYit2-it1 = β0 + β1(Party IDi) + Xi + ei*
2. *ΔMediatorit2-it1 = = β0 + β1(Party IDi) + Xi + ei*
3. *ΔYit2-it1 = β0 + β1(Party IDi) + β2(ΔMediator)it2-it1 + Xi + ei*

In *long* format, there are two rows (observations) for each individual in the panel (hence 1000 observations for 500 individuals). We employ the following step models to estimate the effects of the election on changes in partisan satisfaction with democracy:

1. *Yit = β0 + β1(Postelectiont) + β2-3(Postelectiont x Party IDi) + Xit + ei*
2. *Mediatorit = = β0 + β1(Postelectiont) + β2-3(Postelectiont x Party IDi) + Xit + ei*
3. *Yit = β0 + β1(Postelectiont) + β2-3(Postelectiont x Party IDi) + β2(Mediator)it + Xit + ei*

where *Yit* is the dependent variable measuring satisfaction with democracy for individual *i* at time *t*. *Postelectiont* is a dummy variable for the before-after effect of the 2020 election, which is interacted with individual time-invariant *PartyIDi* to capture the effect of the election on changes in partisan democratic satisfaction (the partisan gap). Independents are the comparison group. *Mediator* examines the time-variant mediating effects of proposed rational, psychological, and/or institutional mechanistic variables on changes in democratic satisfaction from before to after the election. *Xit* is a vector of extended controls. All models include individual fixed effects.

We illustrate the differences between approaches below by comparing the manuscript Tables 1-2 in wide format compared to long format. The coefficients on PartyID and standard errors remain unchanged. Stata reports the number of observations on the dependent variable and the number of individual fixed effects. Readers may note an odd N-number in the sample size on several models in the long format. Since every respondent is observed twice, there should be even N numbers in the long format if respondents answered questions both in the pre and post-election study. However, odd numbers are possible if a respondent completed both waves of the sample but there is missing data on one (but not both) waves. Individual fixed effects will not remove the missing value. This is only an issue with the long format and involves only 1 data point in each model (related to negative affect and satisfaction with elections). Our results are robust to the exclusion of this one data point. Individuals with a missing value are excluded in the wide format.

Table 1 (wide format). Partisan Satisfaction with Democracy and Plausible Mediators (OLS Regression)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | *Postelection*  *Partisan Gap*  *(H1)* | *Economic*  *Mechanisms*  *(H2)* | | *Affective*  *Mechanisms (H3)* | *Institutional Confidence*  *Mechanisms*  *(H4)* | | |
|  | (1) | (2.a) | (2.b) | (3) | (4.a) | (4.b) | (4.c) |
| Dependent Variable | Satisfaction  with democracy | Believe  economy  will get worse | Believe personal income  will get worse | Feelings  of anger, fear, sadness,  and anxiety (index) | Satisfaction  with  quality of elections | Agree:  American elections are free and fair | Satisfaction  with news media |
|  |  |  |  |  |  |  |  |
| Republican | -0.240\*\* | 0.112 | 0.127 | 0.389\*\*\* | -0.472\*\*\* | -0.476\*\*\* | -0.189\*\* |
|  | (0.0952) | (0.0872) | (0.0917) | (0.132) | (0.117) | (0.174) | (0.0845) |
| Democrat | 0.238\*\*\* | -0.276\*\*\* | -0.0128 | -0.327\*\*\* | 0.504\*\*\* | 0.694\*\*\* | -0.0198 |
|  | (0.0877) | (0.0868) | (0.0823) | (0.121) | (0.110) | (0.157) | (0.0798) |
| Constant | -0.00694 | 0.0276 | -0.0207 | 4.970\*\*\* | -0.0208 | 0.799\*\*\* | 0.0486 |
|  | (0.0664) | (0.0641) | (0.0681) | (0.0995) | (0.0827) | (0.121) | (0.0626) |
|  |  |  |  |  |  |  |  |
| Observations | 502 | 504 | 504 | 501 | 501 | 500 | 502 |
| R-squared | 0.056 | 0.044 | 0.007 | 0.071 | 0.140 | 0.103 | 0.013 |
| Adj. r2 | 0.0525 | 0.0406 | 0.00304 | 0.0678 | 0.136 | 0.0992 | 0.00874 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 1 (long format). Partisan Satisfaction with Democracy and Plausible Mediators (OLS Regression)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | *Postelection*  *Partisan Gap*  *(H1)* | *Economic*  *Mechanisms*  *(H2)* | | *Affective*  *Mechanisms (H3)* | *Institutional Confidence*  *Mechanisms*  *(H4)* | | |
|  | (1) | (2.a) | (2.b) | (3) | (4.a) | (4.b) | (4.c) |
| Dependent Variable | Satisfaction  with democracy | Believe  economy  will get worse | Believe personal income  will get worse | Feelings  of anger, fear, sadness,  and anxiety (index) | Satisfaction  with  quality of elections | Agree:  American elections are free and fair | Satisfaction  with news media |
|  |  |  |  |  |  |  |  |
| Postelection x | -0.240\*\* | 0.112 | 0.127 | 0.389\*\*\* | -0.473\*\*\* | -0.379\*\*\* | -0.189\*\* |
| Rep. | (0.095) | (0.087) | (0.093) | (0.132) | (0.117) | (0.119) | (0.084) |
| Postelection x | 0.238\*\*\* | -0.276\*\*\* | -0.013 | -0.327\*\*\* | 0.504\*\*\* | 0.469\*\*\* | -0.020 |
| Dem. | (0.088) | (0.087) | (0.082) | (0.121) | (0.109) | (0.106) | (0.080) |
| Postelection | -0.007 | 0.028 | -0.0207 | -0.030 | -0.021 | -0.111 | 0.049 |
| (Ind.) | (0.067) | (0.064) | (0.068) | (0.099) | (0.083) | (0.081) | (0.063) |
| Constant | 2.567\*\*\* | 2.060\*\*\* | 2.855\*\*\* | 3.298\*\*\* | 2.643\*\*\* | 2.863\*\*\* | 2.464\*\*\* |
|  | (0.018) | (0.018) | (0.017) | (0.024) | (0.023) | (0.023) | (0.016) |
|  |  |  |  |  |  |  |  |
| Observations | 1,006 | 1,008 | 1,008 | 1,005 | 1,005 | 1,004 | 1,006 |
| R-squared | 0.057 | 0.049 | 0.007 | 0.073 | 0.141 | 0.113 | 0.013 |
| Number of FEs | 504 | 504 | 504 | 504 | 504 | 504 | 504 |
| Adj. r2 | 0.054 | 0.046 | 0.004 | 0.071 | 0.139 | 0.110 | 0.010 |

Induvial Fixed-effects, Respondent-clustered standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2 (wide format). Mediators of the Post-Election Partisan Gap (OLS Regression)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4a) | (4b) | (4c) | (5) |
| DV = Satisfaction  with democracy | Base model | Rational  mechanisms | Psychological  mechanisms | Institutional  mechanisms | Institutional  mechanisms | Institutional  mechanisms | Combined |
|  |  |  |  |  |  |  |  |
| Republican | -0.240\*\* | -0.230\*\* | -0.213\*\* | -0.105 | -0.178\* | -0.183\*\* | -0.0553 |
|  | (0.0952) | (0.0951) | (0.0946) | (0.0878) | (0.0930) | (0.0905) | (0.0846) |
| Democrat | 0.238\*\*\* | 0.217\*\* | 0.214\*\* | 0.100 | 0.151\* | 0.244\*\*\* | 0.0771 |
|  | (0.0877) | (0.0859) | (0.0870) | (0.0821) | (0.0852) | (0.0836) | (0.0787) |
| Belief economy |  | -0.0692 |  |  |  |  | -0.0188 |
| will get worse |  | (0.0534) |  |  |  |  | (0.0501) |
| Belief income will |  | -0.0225 |  |  |  |  | 0.0215 |
| get worse |  | (0.0541) |  |  |  |  | (0.0529) |
| Feelings of anger, fear |  |  | -0.0718\* |  |  |  | -0.0474 |
| sadness, anxiety |  |  | (0.0381) |  |  |  | (0.0335) |
| Satisfaction with |  |  |  | 0.285\*\*\* |  |  | 0.210\*\*\* |
| quality of elections |  |  |  | (0.0438) |  |  | (0.0437) |
| Agree: American |  |  |  |  | 0.134\*\*\* |  | 0.0650\*\* |
| elections are free, fair |  |  |  |  | (0.0296) |  | (0.0284) |
| Satisfaction with |  |  |  |  |  | 0.300\*\*\* | 0.205\*\*\* |
| news media |  |  |  |  |  | (0.0630) | (0.0577) |
| Constant | -0.00694 | -0.00422 | 0.350\* | -0.00101 | -0.114\* | -0.0215 | 0.172 |
|  | (0.0664) | (0.0667) | (0.199) | (0.0613) | (0.0684) | (0.0620) | (0.182) |
|  |  |  |  |  |  |  |  |
| Observations | 502 | 502 | 501 | 501 | 500 | 502 | 500 |
| R-squared | 0.056 | 0.061 | 0.065 | 0.176 | 0.112 | 0.122 | 0.223 |
| Adj. r2 | 0.0525 | 0.0538 | 0.0592 | 0.171 | 0.107 | 0.116 | 0.210 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2 (long-format). Mediators of the Post-Election Partisan Gap (OLS Regression)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4a) | (4b) | (4c) |
| DV = Satisfaction  with democracy | Base model | Rational  mechanisms | Psychological  mechanisms | Institutional  mechanisms | Institutional  mechanisms | Institutional  mechanisms |
|  |  |  |  |  |  |  |
| Postelection x | -0.240\*\* | -0.230\*\* | -0.213\*\* | -0.105 | -0.169\* | -0.183\*\* |
| Rep. | (0.095) | (0.0949) | (0.0945) | (0.0877) | (0.0934) | (0.0904) |
| Postelection x | 0.238\*\*\* | 0.217\*\* | 0.214\*\* | 0.100 | 0.154\* | 0.244\*\*\* |
| Dem. | (0.0877) | (0.0858) | (0.0869) | (0.0820) | (0.0855) | (0.0835) |
| Postelection (Ind) | -0.00694 | -0.00422 | -0.00907 | -0.00101 | 0.0143 | -0.0215 |
|  | (0.0664) | (0.0666) | (0.0657) | (0.0613) | (0.0637) | (0.0620) |
| Belief economy |  | -0.0692 |  |  |  |  |
| will get worse |  | (0.0533) |  |  |  |  |
| Belief income will |  | -0.0225 |  |  |  |  |
| get worse |  | (0.0541) |  |  |  |  |
| Feelings of anger, fear |  |  | -0.0719\* |  |  |  |
| sadness, anxiety |  |  | (0.0380) |  |  |  |
| Satisfaction with |  |  |  | 0.285\*\*\* |  |  |
| quality of elections |  |  |  | (0.0438) |  |  |
| Agree: American |  |  |  |  | 0.191\*\*\* |  |
| elections are free, fair |  |  |  |  | (0.0439) |  |
| Satisfaction with |  |  |  |  |  | 0.300\*\*\* |
| news media |  |  |  |  |  | (0.0629) |
| Constant | 2.567\*\*\* | 2.773\*\*\* | 2.804\*\*\* | 1.814\*\*\* | 2.018\*\*\* | 1.828\*\*\* |
|  | (0.0183) | (0.169) | (0.127) | (0.115) | (0.126) | (0.156) |
|  |  |  |  |  |  |  |
| Observations | 1,006 | 1,006 | 1,005 | 1,005 | 1,004 | 1,006 |
| R-squared | 0.057 | 0.062 | 0.065 | 0.176 | 0.110 | 0.122 |
| Number of FEs | 504 | 504 | 504 | 504 | 504 | 504 |
| Adj. r2 | 0.0539 | 0.0572 | 0.0616 | 0.173 | 0.107 | 0.118 |

Individual Fixed-effects, Respondent-clustered standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

NOTE: ALL SUBSEQUENT MODELS EMPLOY THE LONG FORMAT UNLESS SPECIFIED AS WIDE FORMAT

Panel fixed effects in Manuscript Table 2 are robust to clustering standard errors at the individual and state level.

Table 2 (long-format). Mediators of the Post-Election Partisan Gap (OLS Regression)

|  |  |  |
| --- | --- | --- |
|  | (1) | (1) |
| VARIABLES | Satisfaction with Democracy | Satisfaction with Democracy |
|  |  |  |
| Postelection x Rep | -0.240\*\* | -0.240\*\*\* |
|  | (0.0951) | (0.0844) |
| Postelection x Dem | 0.238\*\*\* | 0.238\*\*\* |
|  | (0.0877) | (0.0861) |
| Postelection (Ind) | -0.00694 | -0.00694 |
|  | (0.0664) | (0.0613) |
| Constant | 2.567\*\*\* | 2.567\*\*\* |
|  | (0.0183) | (0.0166) |
| SEs | Clustered by  respondent | Clustered by state |
| Regression | OLS | OLS |
| Observations | 1,006 | 1,006 |
| R-squared | 0.057 | 0.057 |
| Number of FEs | 504 | 504 |
| adj. r2 | 0.0539 | 0.0539 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Ordered Probit Estimation (Wide Format)

Results from Manuscript Tables 1 and 2 are robust to Ordered Probit Estimation using the wide format. The Dependent Variable for Negative Affect is treated as continuous.

Table 1 (wide format). Partisan Satisfaction with Democracy and Plausible Mediators (Ordered Probit Regression)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | *Postelection*  *Partisan Gap*  *(H1)* | *Economic*  *Mechanisms*  *(H2)* | | *Affective*  *Mechanisms (H3)* | *Institutional Confidence*  *Mechanisms*  *(H4)* | | |
|  | (1) | (2.a) | (2.b) | (3) | (4.a) | (4.b) | (4.c) |
| Dependent Variable | Satisfaction  with democracy | Believe  economy  will get worse | Believe personal income  will get worse | Feelings  of anger, fear, sadness,  and anxiety (index) | Satisfaction  with  quality of elections | Agree:  American elections are free and fair | Satisfaction  with news media |
|  |  |  |  |  |  |  |  |
| Republican | -0.317\*\* | 0.155 | 0.176 | N/A | -0.499\*\*\* | -0.361\*\*\* | -0.282\*\* |
|  | (0.126) | (0.123) | (0.139) |  | (0.125) | (0.122) | (0.130) |
| Democrat | 0.310\*\*\* | -0.381\*\*\* | -0.0452 |  | 0.515\*\*\* | 0.505\*\*\* | -0.0188 |
|  | (0.117) | (0.122) | (0.125) |  | (0.113) | (0.116) | (0.124) |
| Cutpoint 1 | -2.733\*\*\* | -1.794\*\*\* | -2.304\*\*\* |  | -2.333\*\*\* | -2.173\*\*\* | -2.769\*\*\* |
|  | (0.246) | (0.127) | (0.187) |  | (0.178) | (0.153) | (0.248) |
| Cutpoint 2 | -1.803\*\*\* | -0.923\*\*\* | -1.775\*\*\* |  | -1.532\*\*\* | -1.340\*\*\* | -2.018\*\*\* |
|  | (0.127) | (0.0988) | (0.139) |  | (0.119) | (0.102) | (0.140) |
| Cutpoint 3 | -0.807\*\*\* | 0.841\*\*\* | -1.055\*\*\* |  | -0.616\*\*\* | -0.938\*\*\* | -1.031\*\*\* |
|  | (0.0998) | (0.0979) | (0.112) |  | (0.0960) | (0.0991) | (0.107) |
| Cutpoint 4 | 0.814\*\*\* | 1.731\*\*\* | 0.990\*\*\* |  | 0.656\*\*\* | -0.527\*\*\* | 0.872\*\*\* |
|  | (0.0995) | (0.134) | (0.110) |  | (0.0949) | (0.0940) | (0.105) |
| Cutpoint 5 | 1.868\*\*\* |  | 2.026\*\*\* |  | 1.572\*\*\* | 0.711\*\*\* | 2.026\*\*\* |
|  | (0.128) |  | (0.150) |  | (0.110) | (0.0971) | (0.164) |
| Cutpoint 6 | 2.637\*\*\* |  | 2.938\*\*\* |  | 2.246\*\*\* | 1.262\*\*\* | 2.589\*\*\* |
|  | (0.211) |  | (0.317) |  | (0.147) | (0.108) | (0.253) |
| Cutpoint 7 |  |  |  |  |  | 1.777\*\*\* |  |
|  |  |  |  |  |  | (0.123) |  |
| Cutpoint 8 |  |  |  |  |  | 2.545\*\*\* |  |
|  |  |  |  |  |  | (0.207) |  |
|  |  |  |  |  |  |  |  |
| Observations | 502 | 504 | 504 | 501 | 501 | 500 | 502 |
| Adj.R2 | 0.0233 | 0.0194 | 0.00343 | 0.0510 | 0.0510 | 0.0335 | 0.00586 |
|  |  |  |  |  |  |  |  |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2 (wide format). Mediators of the Post-Election Partisan Gap (Ordered Probit Regression)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4a) | (4b) | (4c) | (5) |
| DV = Satisfaction  with democracy | Base model | Rational  mechanisms | Psychological  mechanisms | Institutional  mechanisms | Institutional  mechanisms | Institutional  mechanisms | Combined |
|  |  |  |  |  |  |  |  |
| Republican | -0.317\*\* | -0.305\*\* | -0.285\*\* | -0.154 | -0.245\* | -0.255\*\* | -0.0896 |
|  | (0.126) | (0.126) | (0.126) | (0.127) | (0.128) | (0.126) | (0.126) |
| Democrat | 0.310\*\*\* | 0.286\*\* | 0.283\*\* | 0.148 | 0.207\* | 0.333\*\*\* | 0.125 |
|  | (0.117) | (0.116) | (0.116) | (0.119) | (0.117) | (0.115) | (0.117) |
| Belief economy |  | -0.0800 |  |  |  |  | -0.0167 |
| will get worse |  | (0.0691) |  |  |  |  | (0.0723) |
| Belief income will |  | -0.0428 |  |  |  |  | 0.0165 |
| get worse |  | (0.0712) |  |  |  |  | (0.0769) |
| Feelings of anger, fear |  |  | -0.0874\* |  |  |  | -0.0623 |
| sadness, anxiety |  |  | (0.0492) |  |  |  | (0.0486) |
| Satisfaction with |  |  |  | 0.393\*\*\* |  |  | 0.298\*\*\* |
| quality of elections |  |  |  | (0.0624) |  |  | (0.0642) |
| Agree: American |  |  |  |  | 0.178\*\*\* |  | 0.0950\*\* |
| elections are free, fair |  |  |  |  | (0.0396) |  | (0.0409) |
| Satisfaction with |  |  |  |  |  | 0.396\*\*\* | 0.291\*\*\* |
| news media |  |  |  |  |  | (0.0831) | (0.0813) |
| Cutpoint 1 | -2.733\*\*\* | -2.735\*\*\* | -3.193\*\*\* | -3.030\*\*\* | -2.724\*\*\* | -2.881\*\*\* | -3.419\*\*\* |
|  | (0.246) | (0.248) | (0.359) | (0.267) | (0.254) | (0.264) | (0.388) |
| Cutpoint 2 | -1.803\*\*\* | -1.807\*\*\* | -2.248\*\*\* | -1.951\*\*\* | -1.720\*\*\* | -1.861\*\*\* | -2.240\*\*\* |
|  | (0.127) | (0.128) | (0.270) | (0.130) | (0.127) | (0.130) | (0.286) |
| Cutpoint 3 | -0.807\*\*\* | -0.813\*\*\* | -1.241\*\*\* | -0.869\*\*\* | -0.689\*\*\* | -0.813\*\*\* | -1.105\*\*\* |
|  | (0.0998) | (0.100) | (0.265) | (0.102) | (0.103) | (0.0988) | (0.273) |
| Cutpoint 4 | 0.814\*\*\* | 0.812\*\*\* | 0.380 | 0.864\*\*\* | 0.983\*\*\* | 0.862\*\*\* | 0.670\*\* |
|  | (0.0995) | (0.0995) | (0.261) | (0.101) | (0.108) | (0.0980) | (0.267) |
| Cutpoint 5 | 1.868\*\*\* | 1.875\*\*\* | 1.440\*\*\* | 1.996\*\*\* | 2.070\*\*\* | 1.955\*\*\* | 1.830\*\*\* |
|  | (0.128) | (0.129) | (0.276) | (0.136) | (0.143) | (0.126) | (0.278) |
| Cutpoint 6 | 2.637\*\*\* | 2.654\*\*\* | 2.217\*\*\* | 2.892\*\*\* | 2.870\*\*\* | 2.775\*\*\* | 2.779\*\*\* |
|  | (0.211) | (0.214) | (0.317) | (0.211) | (0.215) | (0.219) | (0.310) |
|  |  |  |  |  |  |  |  |
| Observations | 502 | 502 | 501 | 501 | 500 | 502 | 500 |
| Adj. r2 | 0.0233 | 0.0254 | 0.0265 | 0.0760 | 0.0475 | 0.0511 | 0.0984 |
|  |  |  |  |  |  |  |  |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Ordered Probit Estimation (Long Format)

Finally, one limitation of the long format is that it is not possible to use ordered probit (xtoprobit) to estimate these models in Stata. Below, we verify that our findings from OLS models are robust to ordered probit estimation. Though it is not possible to estimate ordered probit models using panel fixed effects in Stata, we cluster standard errors by respondent. Independents pre-election are the constant comparison group.

Table 2 (long format). Post-Election Partisan Gap (Ordered Probit Regression, clustered SEs)

|  |  |  |
| --- | --- | --- |
|  | (1) | (1) |
| VARIABLES | Satisfaction with Democracy | Satisfaction with Democracy |
|  |  |  |
| Democrat (pre-election) | 0.262\*\* | 0.213\*\* |
|  | (0.118) | (0.0957) |
| Democrat (post-election) | 0.290\*\*\* | 0.231\*\*\* |
|  | (0.108) | (0.0877) |
| Republican (pre-election) | 0.550\*\*\* | 0.439\*\*\* |
|  | (0.131) | (0.104) |
| Republican (post-election) | -0.310\*\*\* | -0.244\*\* |
|  | (0.118) | (0.0952) |
| Independent (post-election) | -0.00421 | -0.00239 |
|  | (0.0812) | (0.0665) |
| Constant cut1 | -0.903\*\*\* |  |
|  | (0.0997) |  |
| Constant cut2 | 0.124 |  |
|  | (0.0946) |  |
| Constant cut3 | 1.400\*\*\* |  |
|  | (0.106) |  |
| Constant |  | 2.347\*\*\* |
|  |  | (0.0746) |
| SEs | Clustered by  panel respondent | Clustered by  panel respondent |
| Regression | O-probit | OLS |
| Observations | 1,006 | 1,006 |
| R-squared |  | 0.041 |
| adj. r2 | 0.0166 | 0.0361 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Manuscript Table 2 results with institutional moderators (Model 4) are also robust to ordered probit estimation.

Table 2 (long format). Mediators of the Post-Election Partisan Gap (Ordered Probit Regression)

|  |  |  |
| --- | --- | --- |
|  | (1) | (2) |
| VARIABLES | Satisfaction with Democracy | Satisfaction with Democracy |
|  |  |  |
| Democrat (pre-election) | 0.0927 | 0.0667 |
|  | (0.121) | (0.0797) |
| Democrat (post-election) | 0.0320 | 0.0157 |
|  | (0.121) | (0.0802) |
| Republican (pre-election) | 0.503\*\*\* | 0.327\*\*\* |
|  | (0.129) | (0.0850) |
| Republican (post-election) | -0.0223 | -0.0137 |
|  | (0.139) | (0.0912) |
| Independent (post-election) | 0.00478 | 0.00794 |
|  | (0.0909) | (0.0607) |
| Satisfaction with | 0.553\*\*\* | 0.371\*\*\* |
| quality of elections | (0.0655) | (0.0408) |
| Agree: American | 0.135\*\* | 0.0882\*\* |
| elections are free, fair | (0.0587) | (0.0385) |
| Satisfaction with | 0.166\*\*\* | 0.104\*\*\* |
| news media | (0.0564) | (0.0363) |
| Constant cut1 | 0.994\*\*\* |  |
|  | (0.169) |  |
| Constant cut2 | 2.278\*\*\* |  |
|  | (0.186) |  |
| Constant cut3 | 3.811\*\*\* |  |
|  | (0.219) |  |
| Constant |  | 0.951\*\*\* |
|  |  | (0.102) |
| SEs | Clustered by respondent | Clustered by respondent |
| Regression | O-probit | OLS |
| Observations | 1,003 | 1,003 |
| R-squared |  | 0.325 |
| adj. r2 | 0.155 | 0.320 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The mediating effects of electoral satisfaction and belief in free and fair elections are stronger than the effect of news media satisfaction.

Table 2 (long format). Mediators of the Post-Election Partisan Gap (Ordered Probit Regression)

|  |  |  |  |
| --- | --- | --- | --- |
|  | (1) | (2) | (3) |
| VARIABLES | Satisfaction with Democracy | Satisfaction with Democracy | Satisfaction with Democracy |
|  |  |  |  |
| Democrat (pre-election) | 0.188 | 0.250\*\* | -0.0684 |
|  | (0.118) | (0.118) | (0.125) |
| Democrat (post-election) | 0.00700 | 0.0860 | 0.339\*\*\* |
|  | (0.124) | (0.117) | (0.113) |
| Republican (pre-election) | 0.474\*\*\* | 0.505\*\*\* | 0.613\*\*\* |
|  | (0.130) | (0.129) | (0.132) |
| Republican (post-election) | -0.0228 | -0.149 | -0.245\*\* |
|  | (0.141) | (0.132) | (0.124) |
| Independent (post-election) | 0.00394 | 0.0479 | -0.0346 |
|  | (0.0931) | (0.0864) | (0.0830) |
| Satisfaction with | 0.715\*\*\* |  |  |
| quality of elections | (0.0571) |  |  |
| Agree: American |  | 0.493\*\*\* |  |
| elections are free, fair |  | (0.0494) |  |
| Satisfaction with |  |  | 0.482\*\*\* |
| news media |  |  | (0.0522) |
| Constant cut1 | 0.683\*\*\* | 0.375\*\* | 0.0509 |
|  | (0.149) | (0.152) | (0.147) |
| Constant cut2 | 1.952\*\*\* | 1.507\*\*\* | 1.178\*\*\* |
|  | (0.164) | (0.161) | (0.152) |
| Constant cut3 | 3.460\*\*\* | 2.902\*\*\* | 2.577\*\*\* |
|  | (0.193) | (0.180) | (0.173) |
| Regression | O-probit | O-probit | O-probit |
| Observations | 1,005 | 1,004 | 1,006 |
| adj. r2 | 0.144 | 0.0818 | 0.0827 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Formal Mediation Analysis

Ultimately, whether a variable is a moderator or mediator is determined by the specified theoretical mechanisms and pathways. A moderator variable is one that influences the strength of the relationship between an intervention (here, the 2020 U.S. election) and an outcome (satisfaction with democracy). In contrast, a mediator variable *explains* the relationship between an intervention and an outcome variable such that the intervention produces a change in the mediator variable, leading to a change in the outcome variable (Baron and Kenney 1986; Imai et al. 2010; Field-Fote 2019).

To assess mediation effects, we utilize a mediation package developed by Hicks and Tingley (2011) for use in Stata. The following tables report bivariate direct effects of the 2020 U.S. election on democratic satisfaction, the average causal mediating effect (ACME) for each proposed mediator variable, the total effect resulting from the 2020 election + mediation, and the percent of the total effect mediated. Each table also reports the results from sensitivity analysis, which provide an estimate of the likelihood that the mediating effect could be confounded by the inclusion of additional covariate controls. As a rule of thumb, the greater the value of Rho (0 to 1) and the product of the r2 for the mediation and outcome models, the less likely the mediation effect (ACME) would be confounded by an omitted variable.

The three most compelling moderators/mediators of the effect of the 2020 election on partisan changes in satisfaction with democracy are satisfaction with elections, belief that elections are free and fair, and satisfaction with the news media (see Manuscript Table 2). Because the causal mediation package in Stata does not allow factorial variables as mediators, we must analyze the mediation effects on partisans separately. The table and figure below show the ACME of each mediator separately for Republicans and Democrats, while the figure below plots the percent total effect of the 2020 election on democratic satisfaction that is mediated by each item. The figure shows that satisfaction with the quality of American elections provides near total mediation/moderation of the effect of the 2020 election on changes in satisfaction with democracy for both Republicans (99%) and Democrats (94%) without controlling for any other factor in the model. In contrast, the belief that elections are free and fair is a partial mediator/moderator of election effects on partisan changes in democratic satisfaction; the mediation for this belief is stronger for Republicans (73%) than Democrats (45%). In contrast, satisfaction with the quality of the news media is only a weak mediator of election effects for Republicans (18%) and essentially an insignificant mediator for Democrats (4%). We report this to show that the media mediation effects are more important for Republicans than Democrats, who have been shown to have higher satisfaction with the media in general than Republicans. Sensitivity analysis demonstrates that the mediating effects in these models are not likely to be easily confounded by the inclusion of additional unobserved covariate controls, which we will demonstrate further with subsequent robustness checks.

Mediation Analysis of Proposed Institutional Mediators/Moderators of Election Effects

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Satisfaction with | Republicans | |  | Democrats | |  |
| Elections | Mean | CI |  | Mean | CI |  |
| ACME | 0.24 | 0.15 | 0.34 | -0.22 | -0.31 | -0.14 |
| Direct effect | 0.00 | -0.14 | 0.14 | -0.01 | -0.13 | 0.10 |
| Total effect | 0.24 | 0.09 | 0.40 | -0.24 | -0.37 | -0.11 |
| % of tot eff mediated | 0.99 | 0.59 | 2.71 | 0.94 | 0.61 | 2.10 |
| Rho at which ACME = 0 | 0.52 |  |  | 0.50 |  |  |
| R^2\_M\*R^2\_Y\* at which ACME = 0: | 0.27 |  |  | 0.25 |  |  |
| R^2\_M~R^2\_Y~ at which ACME = 0: | 0.18 |  |  | 0.17 |  |  |
| Elections are | Republicans | |  | Democrats | |  |
| Free/Fair | Mean | CI |  | Mean | CI |  |
| ACME | 0.18 | 0.10 | 0.28 | -0.10 | -0.16 | -0.05 |
| Direct effect | 0.07 | -0.08 | 0.21 | -0.12 | -0.24 | -0.01 |
| Total effect | 0.25 | 0.09 | 0.41 | -0.22 | -0.34 | -0.10 |
| % of tot eff mediated | 0.73 | 0.43 | 1.96 | 0.45 | 0.30 | 1.03 |
| Rho at which ACME = 0 | 0.42 |  |  | 0.29 |  |  |
| R^2\_M\*R^2\_Y\* at which ACME = 0: | 0.18 |  |  | 0.09 |  |  |
| R^2\_M~R^2\_Y~ at which ACME = 0: | 0.13 |  |  | 0.07 |  |  |
| Satisfaction with | Democrats | |  | Democrats | |  |
| News Media | Mean | CI |  | Mean | CI |  |
| ACME | 0.04 | 0.01 | 0.09 | -0.01 | -0.04 | 0.03 |
| Direct effect | 0.20 | 0.07 | 0.33 | -0.22 | -0.33 | -0.11 |
| Total effect | 0.25 | 0.11 | 0.38 | -0.23 | -0.35 | -0.11 |
| % of tot eff mediated | 0.18 | 0.12 | 0.40 | 0.04 | 0.02 | 0.08 |
| Rho at which ACME = 0 | 0.40 |  |  | 0.34 |  |  |
| R^2\_M\*R^2\_Y\* at which ACME = 0: | 0.16 |  |  | 0.12 |  |  |
| R^2\_M~R^2\_Y~ at which ACME = 0: | 0.13 |  |  | 0.10 |  |  |

References

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## Mediation Analysis with Generalized Structural Equation Modeling (GSEM)

Below we conduct mediation analysis with the GSEM package in STATA using the following structural equations with Maximum Likelihood estimation. First, we examine direct effects of the election and partisanship on satisfaction with democracy. The following shows the basic effects of the pre/post-election (wave) moderated by party id with interaction terms and standard errors clustered by respondent ID. Model 0 shows that satisfaction with democracy increased among Democrats and declined among Republicans following the election relative to Independents. The second column provides the variance associated with the error term for satisfaction with democracy.



|  |  |  |
| --- | --- | --- |
|  | (0) | (variance) |
| VARIABLES | Satisfaction  With  Democracy |  |
|  |  |  |
| Democrat (pre-election) | 0.213\*\* |  |
|  | (0.0954) |  |
| Republicans (pre-election) | 0.439\*\*\* |  |
|  | (0.103) |  |
| Democrat (post-election) | 0.231\*\*\* |  |
|  | (0.0874) |  |
| Republican (post-election) | -0.244\*\* |  |
|  | (0.0950) |  |
| Independent (post-election) | -0.00239 |  |
|  | (0.0663) |  |
| var(e.Satisfaction with Democracy) |  | 0.736\*\*\* |
|  |  | (0.0320) |
| Constant | 2.350\*\*\* |  |
|  | (0.124) |  |
| Clusters | 504 | 504 |
| Observations | 1,006 | 1,006 |

Robust standard errors clustered by respondent ID in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Next, we examine the indirect effects of the election and partisanship on satisfaction with democracy. We treat pre/post-electoral wave effects and party ID as exogenous variables whose effects on satisfaction with democracy are mediated by endogenous institutional satisfaction variables (satisfaction with elections, belief that elections are free/fair, and satisfaction with the news media). Unlike the SEM package in STATA, GSEM allows interaction terms between pre-post electoral effects and party ID. Standard errors are clustered by respondent ID. Model 1 shows the predicted effect of satisfaction with elections, belief in fairness of elections, and satisfaction with the news media on satisfaction with democracy. Models 2-4 show the predicted effect of exogenous variables (electoral effects and party ID with interaction terms) on the proposed mediators of democratic satisfaction. All decline for Republicans relative to Democrats after the election. Finally, column 5 indicates the variance and covariance among endogenous predictors and the outcome variable.



|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) |
| VARIABLES | Satisfaction  With  Democracy | Satisfaction  with  Elections | Elections  Free and  Fair | Satisfaction  with  news media | Variance  covariance |
|  |  |  |  |  |  |
| Democrat (pre-election) |  | 0.177\* | 0.0801 | 0.728\*\*\* |  |
|  |  | (0.102) | (0.0961) | (0.101) |  |
| Republicans (pre-election) |  | 0.260\*\* | 0.197\* | -0.0133 |  |
|  |  | (0.103) | (0.104) | (0.120) |  |
| Democrat (post-election) |  | 0.490\*\*\* | 0.465\*\*\* | -0.0305 |  |
|  |  | (0.109) | (0.105) | (0.0798) |  |
| Republican (post-election) |  | -0.476\*\*\* | -0.380\*\*\* | -0.194\*\* |  |
|  |  | (0.117) | (0.119) | (0.0843) |  |
| Independent (post-election) |  | -0.0172 | -0.109 | 0.0540 |  |
|  |  | (0.0823) | (0.0808) | (0.0625) |  |
| Satisfaction with | 0.378\*\*\* |  |  |  |  |
| quality of elections | (0.0406) |  |  |  |  |
| Agree: American | 0.0914\*\* |  |  |  |  |
| elections are free, fair | (0.0381) |  |  |  |  |
| Satisfaction with | 0.0788\*\* |  |  |  |  |
| news media | (0.0362) |  |  |  |  |
| var(e.democracy satisfaction) |  |  |  |  | 0.533\*\*\* |
|  |  |  |  |  | (0.0287) |
| var(e.freefair elections) |  |  |  |  | 0.859\*\*\* |
|  |  |  |  |  | (0.0345) |
| var(e.election satisfaction) |  |  |  |  | 0.872\*\*\* |
|  |  |  |  |  | (0.0342) |
| var(e.media satisfaction) |  |  |  |  | 0.916\*\*\* |
|  |  |  |  |  | (0.0403) |
| cov(e.freefair,e.election) |  |  |  |  | 0.514\*\*\* |
|  |  |  |  |  | (0.0326) |
| cov(e.freefair,e.media) |  |  |  |  | 0.414\*\*\* |
|  |  |  |  |  | (0.0339) |
| cov(e.election,e.media) |  |  |  |  | 0.499\*\*\* |
|  |  |  |  |  | (0.0355) |
| Constant | 1.116\*\*\* | 2.510\*\*\* | 2.880\*\*\* | 2.113\*\*\* |  |
|  | (0.0969) | (0.137) | (0.129) | (0.121) |  |
| Clusters | 504 | 504 | 504 | 504 | 504 |
| Observations | 1,006 | 1,006 | 1,006 | 1,006 | 1,006 |

Robust standard errors clustered by respondent ID in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Next, we include a model which specifies both direct and indirect (mediated) effects between exogenous and endogenous variables in the previous model, first separately and then combined. Model 0 is the original direct effect model from above showing the partisan gap increasing in democratic satisfaction following the election. Model 1 shows the mediating effects of institutional mediators (satisfaction with elections, belief that elections are free/fair, and satisfaction with the news media) on the direct effect of the election interacted with party ID. Model 2 shows the predicted effect of the exogenous variables on the mediator(s). The direct effect of the partisan gap is fully mediated by the indirect effect of institutional mediators independently and collectively, with news media satisfaction being the weakest mediator.

Satisfaction with Elections Mediator



Satisfaction with Elections Mediator

|  |  |  |  |
| --- | --- | --- | --- |
|  | (0) | (1) | (2) |
| VARIABLES | Satisfaction  With  Democracy | Satisfaction  With  Democracy | Satisfaction  With  Elections |
|  |  |  |  |
| Democrat (pre-election) | 0.213\*\* | 0.127 | 0.177\* |
|  | (0.0954) | (0.0790) | (0.102) |
| Republicans (pre-election) | 0.439\*\*\* | 0.314\*\*\* | 0.260\*\* |
|  | (0.103) | (0.0865) | (0.103) |
| Democrat (post-election) | 0.231\*\*\* | 0.00201 | 0.492\*\*\* |
|  | (0.0874) | (0.0826) | (0.109) |
| Republican (post-election) | -0.244\*\* | -0.0144 | -0.476\*\*\* |
|  | (0.0950) | (0.0938) | (0.117) |
| Independent (post-election) | -0.00239 | 0.00591 | -0.0172 |
|  | (0.0663) | (0.0626) | (0.0823) |
| Satisfaction with |  | 0.483\*\*\* |  |
| quality of elections |  | (0.0314) |  |
|  |  |  |  |
| Constant | 2.350\*\*\* | 1.138\*\*\* | 2.510\*\*\* |
|  | (0.124) | (0.128) | (0.137) |
| Clusters | 504 | 504 | 504 |
| Observations | 1,006 | 1,005 | 1,005 |

Robust standard errors clustered by respondent ID in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Belief that Elections are Free/Fair Mediator



|  |  |  |  |
| --- | --- | --- | --- |
|  | (0) | (1) | (2) |
| VARIABLES | Satisfaction  With  Democracy | Satisfaction  With  Democracy | Elections  Free  Fair |
|  |  |  |  |
| Democrat (pre-election) | 0.213\*\* | 0.186\*\* | 0.0801 |
|  | (0.0954) | (0.0869) | (0.0961) |
| Republicans (pre-election) | 0.439\*\*\* | 0.367\*\*\* | 0.196\* |
|  | (0.103) | (0.0932) | (0.104) |
| Democrat (post-election) | 0.231\*\*\* | 0.0604 | 0.465\*\*\* |
|  | (0.0874) | (0.0859) | (0.105) |
| Republican (post-election) | -0.244\*\* | -0.106 | -0.378\*\*\* |
|  | (0.0950) | (0.0964) | (0.119) |
| Independent (post-election) | -0.00239 | 0.0369 | -0.109 |
|  | (0.0663) | (0.0640) | (0.0808) |
| Agree: American |  | 0.362\*\*\* |  |
| elections are free, fair |  | (0.0326) |  |
|  |  |  |  |
| Constant | 2.350\*\*\* | 1.308\*\*\* | 2.880\*\*\* |
|  | (0.124) | (0.143) | (0.129) |
| Clusters | 504 | 504 | 504 |
| Observations | 1,006 | 1,004 | 1,004 |

Robust standard errors clustered by respondent ID in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Satisfaction with News Media Mediator



|  |  |  |  |
| --- | --- | --- | --- |
|  | (0) | (1) | (2) |
| VARIABLES | Satisfaction  With  Democracy | Satisfaction  With  Democracy | Satisfaction  With  Media |
|  |  |  |  |
| Democrat (pre-election) | 0.213\*\* | -0.0411 | 0.728\*\*\* |
|  | (0.0954) | (0.0919) | (0.101) |
| Republicans (pre-election) | 0.439\*\*\* | 0.444\*\*\* | -0.0133 |
|  | (0.103) | (0.0955) | (0.120) |
| Democrat (post-election) | 0.231\*\*\* | 0.242\*\*\* | -0.0305 |
|  | (0.0874) | (0.0832) | (0.0798) |
| Republican (post-election) | -0.244\*\* | -0.177\* | -0.194\*\* |
|  | (0.0950) | (0.0906) | (0.0843) |
| Independent (post-election) | -0.00239 | -0.0212 | 0.0540 |
|  | (0.0663) | (0.0617) | (0.0625) |
| Satisfaction with |  | 0.348\*\*\* |  |
| news media |  | (0.0344) |  |
|  |  |  |  |
| Constant | 2.350\*\*\* | 1.613\*\*\* | 2.113\*\*\* |
|  | (0.124) | (0.140) | (0.121) |
| Clusters | 504 | 504 | 504 |
| Observations | 1,006 | 1,006 | 1,006 |

Robust standard errors clustered by respondent ID in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Combined Mediators



|  |  |  |
| --- | --- | --- |
|  | (0) | (1) |
| VARIABLES | Satisfaction  With  Democracy | Satisfaction  With  Democracy |
| Democrat (pre-election) | 0.213\*\* | 0.0667 |
|  | (0.0954) | (0.0794) |
| Republicans (pre-election) | 0.439\*\*\* | 0.327\*\*\* |
|  | (0.103) | (0.0847) |
| Democrat (post-election) | 0.231\*\*\* | 0.0157 |
|  | (0.0874) | (0.0799) |
| Republican (post-election) | -0.244\*\* | -0.0137 |
|  | (0.0950) | (0.0908) |
| Independent (post-election) | -0.00239 | 0.00794 |
|  | (0.0663) | (0.0604) |
| Satisfaction with |  | 0.371\*\*\* |
| quality of elections |  | (0.0407) |
| Agree: American |  | 0.0882\*\* |
| elections are free, fair |  | (0.0383) |
| Satisfaction with |  | 0.104\*\*\* |
| news media |  | (0.0362) |
|  |  |  |
| Constant | 2.350\*\*\* | 0.943\*\*\* |
|  | (0.124) | (0.133) |
| Clusters | 504 | 504 |
| Observations | 1,006 | 1,006 |

Robust standard errors clustered by respondent ID in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Finally, because GSEM does not allow model post estimations of goodness of fit, we turn to a simplified model in SEM but we omit interaction terms. Again pre/post-election effects and party ID are treated as exogenous variables whose effects on satisfaction with democracy are mediated by endogenous institutional satisfaction variables (satisfaction with elections, belief that elections are free/fair, and satisfaction with the news media). Because we are using clustered standard errors on respondent ID to capture panel fixed effects in the data, the only valid goodness of fit statistic is the standardized root mean square residual (SRMS) which is 0.000 - well below the conventional threshold of acceptable model fit (<0.10).



## COVID-19 and Satisfaction with Democracy

The partisan gap we observe in post-election satisfaction with democracy is robust to controls for COVID-19 exposure at the individual and state level. Logit models below show that Republicans are more likely to have personally contracted COVID-19 or had family members contract COVID than Democrats or Independents. Democrats and Republicans are more likely than Independents to report knowing people who died from COVID. However, there is no change in self-reported COVID incidence from before to after the election, and changes in COVID exposure had no impact on changes in satisfaction with democracy.

|  |  |  |  |
| --- | --- | --- | --- |
|  | (1) | (2) | (3) |
| VARIABLES | Contracted  COVID | Family member  contracted  COVID | Know someone  who died  from COVID |
|  |  |  |  |
| Post-election | -0.0288 | -0.0142 | -0.0222 |
|  | (0.240) | (0.168) | (0.149) |
| Republican | 1.216\*\*\* | 0.528\*\* | 0.505\*\* |
|  | (0.330) | (0.221) | (0.204) |
| Democrat | 0.216 | 0.176 | 0.551\*\*\* |
|  | (0.356) | (0.216) | (0.191) |
| Constant | -3.016\*\*\* | -1.811\*\*\* | -1.535\*\*\* |
|  | (0.463) | (0.301) | (0.275) |
| SEs | Robust | Robust | Robust |
| Regression | Logit | Logit | Logit |
| Observations | 1,008 | 1,008 | 1,008 |
| adj. r2 | 0.0377 | 0.00684 | 0.00878 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

We also examine CDC-reported percent increases in COVID-19 cases and deaths at the state level for the first day of our pre- and post-survey data collection periods (October 27, 2020 and November 10, 2020, respectively). The average percent increase in cases by state in October was 91.4% (SD = 145.0), rising to 172.9% (SD=383) in November. The average percentage increase in deaths by state in October was 1.5% (SD = 3.72) and 1.6% (SD =4.98) in November. These averages are illustrated in the figure below with 95% confidence intervals.



Despite the increase in COVID-19 cases and stable death rates, there is no significant moderating effect of individual COVID exposure or changes in macro-level exposure at the state level on partisan satisfaction with democracy, as evidenced in the regression model below. Variance inflation factor post-estimation tests indicate that multi-collinearity among multiple COVID metrics is not a concern for estimating the model.

Covid Effects on Satisfaction with Democracy (OLS Regression)

|  |  |
| --- | --- |
|  | (1) |
| VARIABLES | Satisfaction with  Democracy |
|  |  |
| Post-election x Rep | -0.238\*\* |
|  | (0.0971) |
| Post-election x Dem | 0.239\*\*\* |
|  | (0.0883) |
| Post-election (Ind) | 0.000355 |
|  | (0.0685) |
| Contracted COVID-19 | -0.0855 |
|  | (0.184) |
| Family member COVID-19 | -0.159 |
|  | (0.114) |
| Know someone who died from COVID-19 | -0.00705 |
|  | (0.116) |
| Percent increase in cases | -5.91e-05 |
|  | (9.26e-05) |
| Percent increase in deaths | 0.000205 |
|  | (0.00693) |
| Constant | 2.609\*\*\* |
|  | (0.0428) |
| Regression | OLS |
| Observations | 1,006 |
| Number of FEs | 504 |
| R-squared | 0.062 |
| adj. r2 | 0.0544 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Economic Indicators and Satisfaction with Democracy

We examine additional economic indicators of rational self-interest that could potentially modify the gap between partisan winners and losers in democratic satisfaction. c; however, this measure is prone to underreporting and is time-invariant. To address this issue, we include the following proxy: “Which of these statements comes closest to describing your household income now?” Response options were: 1 = our household income does not cover our expenses, and we face significant difficulties in meeting our needs; 2 = our household income does not cover our expenses, and we face some difficulties in meeting our needs; 3 = our household income covers our expenses without notable difficulties; and 4 = our household income covers our expenses well, and we can save too. Response 3 is the modal category. We include another item to assess the impact of COVID-19 on household income. This question asked: “How concerned are you about the effect of Coronavirus on your household income?” Responses ranged from 1 = not at all concerned to 4 = very concerned. The modal response is “somewhat concerned” and Democrats on average were more concerned than Republicans or Independents before the election (two-sample t-test = 3.26, p<0.0006). We also measure percentages of state-level unemployment from the Bureau of Labor Statistics October and November employment reports as a macro-level indicator. The OLS panel fixed effects model below, however, shows that none of these items has a significant impact on moderating the postelection partisan gap in democratic satisfaction.

|  |  |
| --- | --- |
|  | (1) |
| VARIABLES | Satisfaction with  Democracy |
| Post-election x Rep | -0.231\*\* |
|  | (0.0974) |
| Post-election x Dem | 0.267\*\*\* |
|  | (0.0900) |
| Post-election (Ind) | -0.0188 |
|  | (0.106) |
| Post-election x household income | 0.000798 |
|  | (0.0231) |
| Income assessment | -0.0107 |
|  | (0.0518) |
| COVID-19 effect on income | 0.0355 |
|  | (0.0470) |
| State % unemployment | 0.0306 |
|  | (0.0416) |
| Constant | 2.288\*\*\* |
|  | (0.359) |
| Regression | OLS |
| Observations | 954 |
| Number of FEs | 479 |
| R-squared | 0.065 |
| adj. r2 | 0.0578 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Emotional Affect and Satisfaction with Democracy

We utilize a battery of items to gauge emotional affective responses to electoral wins/losses. We find that responses to four negative affect items (anger, fear, sadness, worry) are highly consistent among respondents. Factor analysis confirms that responses to these items line up on a single dimension, and we thus combine negative affective responses into a common index measuring latent negative affect (Factor 1 Eigenvalue = 2.87, Cronbach’s alpha = 0.92)

Factor analysis/correlation Number of obs = 1,557

Method: principal factors Retained factors = 1

Rotation: (unrotated) Number of params = 4

--------------------------------------------------------------------------

Factor | Eigenvalue Difference Proportion Cumulative

-------------+------------------------------------------------------------

Factor1 | 2.86902 2.89653 1.0769 1.0769

Factor2 | -0.02751 0.02631 -0.0103 1.0666

Factor3 | -0.05382 0.06970 -0.0202 1.0464

Factor4 | -0.12351 . -0.0464 1.0000

--------------------------------------------------------------------------

LR test: independent vs. saturated: chi2(6) = 4471.67 Prob>chi2 = 0.0000

Factor loadings (pattern matrix) and unique variances

---------------------------------------

Variable | Factor1 | Uniqueness

-------------+----------+--------------

angry | 0.8117 | 0.3412

sad | 0.8371 | 0.2993

afraid | 0.8760 | 0.2327

worried | 0.8615 | 0.2578

---------------------------------------

We also run models with positive affect variables below, finding more limited effects of the election on positive compared to negative affect. Model 1 shows the impact of the election on negative affect, which increases among Republicans and decreases among Democrats relative to Independents. For the election’s effect on positive affect, Model 2 shows that happiness decreases among Republicans, and Model 3 shows no movement in feelings of pride. Model 4 reports the basic moderating effects of negative affect on the partisan gap in democratic satisfaction, which is moderate, while the moderating effect of positive emotions (happy, proud) is weaker. We report the stronger negative impact moderators in the manuscript and note the positive affect results here.

Changes in Emotional Affect after the Election (OLS Regression)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) | (5) |
| VARIABLES | Negative  affect | Happy | Proud | Satisfaction  With  Democracy | Satisfaction  With  Democracy |
|  |  |  |  |  |  |
| Post-election x Rep | 0.389\*\*\* | -0.468\*\*\* | -0.224 | -0.213\*\* | -0.211\*\* |
|  | (0.132) | (0.141) | (0.154) | (0.0945) | (0.0972) |
| Post-election x Dem | -0.327\*\*\* | -0.0358 | 0.0828 | 0.214\*\* | 0.242\*\*\* |
|  | (0.121) | (0.129) | (0.137) | (0.0869) | (0.0877) |
| Post-election (Ind) | -0.0295 | 0.132 | 0.0278 | -0.00907 | -0.0164 |
|  | (0.0994) | (0.0976) | (0.104) | (0.0657) | (0.0670) |
| happy |  |  |  |  | 0.0747\* |
|  |  |  |  |  | (0.0410) |
| proud |  |  |  |  | -0.0142 |
|  |  |  |  |  | (0.0442) |
| Negative affect |  |  |  | -0.0719\* |  |
|  |  |  |  | (0.0380) |  |
| Constant | 3.298\*\*\* | 2.497\*\*\* | 2.451\*\*\* | 2.804\*\*\* | 2.415\*\*\* |
|  | (0.0241) | (0.0272) | (0.0292) | (0.127) | (0.0866) |
| Regression | OLS | OLS | OLS | OLS | OLS |
| Observations | 1,005 | 1,005 | 1,004 | 1,005 | 1,004 |
| R-squared | 0.073 | 0.028 | 0.010 | 0.065 | 0.066 |
| Number of FEs | 504 | 504 | 504 | 504 | 504 |
| adj. r2 | 0.0707 | 0.0250 | 0.00679 | 0.0616 | 0.0615 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## The News Media and Democratic Satisfaction

Next, we consider potential drivers of the relationship between satisfaction with the news media and democratic satisfaction. Model 1 reports the basic partisan gap fixed effects model using panel data. Model 2 includes the media satisfaction mediator, which has a mediating effect primarily on Republican satisfaction with democracy. Model 3 illustrates changes in media satisfaction from before to after the election, which decreases among Republicans but not for Democrats or Independents. Finally, Model 4 shows that Republican declines in media satisfaction after the election is mediated partially by distrust in the media. In other words, the election decreased media satisfaction among those who were less trusting of the media, which in turn, reduced satisfaction with democracy.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) |
| VARIABLES | Satisfaction  With  Democracy | Satisfaction  With  Democracy | Satisfaction  With  News Media | Satisfaction  With  News Media |
|  |  |  |  |  |
| Post-election x Rep | -0.240\*\* | -0.183\*\* | -0.189\*\* | -0.138\* |
|  | (0.0951) | (0.0904) | (0.0844) | (0.0816) |
| Post-election x Dem | 0.238\*\*\* | 0.244\*\*\* | -0.0198 | -0.00272 |
|  | (0.0877) | (0.0835) | (0.0798) | (0.0767) |
| Post-election (Ind) | -0.00694 | -0.0215 | 0.0486 | 0.0372 |
|  | (0.0664) | (0.0620) | (0.0625) | (0.0602) |
| Satisfaction with Media |  | 0.300\*\*\* |  |  |
|  |  | (0.0629) |  |  |
| Distrust Media |  |  |  | -0.235\*\*\* |
|  |  |  |  | (0.0597) |
| Constant | 2.567\*\*\* | 1.828\*\*\* | 2.464\*\*\* | 3.062\*\*\* |
|  | (0.0183) | (0.156) | (0.0161) | (0.153) |
| Regression | OLS | OLS | OLS | OLS |
| Observations | 1,006 | 1,006 | 1,006 | 1,005 |
| R-squared | 0.057 | 0.122 | 0.013 | 0.059 |
| Number of pid | 504 | 504 | 504 | 504 |
| adj. r2 | 0.0539 | 0.118 | 0.0102 | 0.0552 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Voting Effects on Democratic Satisfaction

We consider the impact of voting on democratic satisfaction using several items. For all models, we run OLS regression models with panel-fixed effects. In Model 1, we include a dummy variable for individuals voting in the election (interacted with our post-election dummy variable); voting has neither a significant impact on democratic satisfaction nor a moderating effect on the partisan gap. Next, in Model 2, we examine the impact of early voting vs. election-day voting. Within the panel, 41% voted early by mail, 26% voted in person before election day, and 34% voted in person on election day. Comparing individuals who voted in person on election day (the reference category) to persons voting early (in person or by mail), there is no difference in the amount of change in democratic satisfaction. Next, Model 3 shows that states that had higher percentages of the popular vote going to Biden experienced a greater positive change in satisfaction with democracy, while a dummy for states that flipped from Trump in 2016 to Biden in 2020 saw reduced democratic satisfaction.

However, while some of these voting and election outcome indicators are independently correlated with democratic satisfaction, they do not clearly moderate the partisan gap between winners and losers in democratic satisfaction. This leads us to conclude that the satisfaction gap is not exclusive to voters and cannot be explained by state-level differences in the Trump vs. Biden vote or electoral wins/losses at the state level.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) |
| VARIABLES | Satisfaction  With  Democracy | Satisfaction  With  Democracy | Satisfaction  With  Democracy | Satisfaction  With  Democracy |
|  |  |  |  |  |
| Republican x Post-election | -0.267\*\*\* | -0.282\*\*\* | -0.218\*\* | -0.250\*\*\* |
|  | (0.0965) | (0.103) | (0.0952) | (0.0954) |
| Democrat x Post-Election | 0.210\*\* | 0.184\* | 0.244\*\*\* | 0.237\*\*\* |
|  | (0.0882) | (0.0956) | (0.0871) | (0.0873) |
| Post-election (Ind) | -0.110 | 0.0118 | -0.624\*\* | 0.0194 |
|  | (0.113) | (0.0934) | (0.255) | (0.0689) |
| Voted 2020 | 0.138 |  |  |  |
|  | (0.117) |  |  |  |
| In-person Early Voter |  | -0.0670 |  |  |
|  |  | (0.102) |  |  |
| By mail Early Voter |  | 0.120 |  |  |
|  |  | (0.0922) |  |  |
| % state vote for Biden |  |  | 1.165\*\* |  |
|  |  |  | (0.452) |  |
| State Flipped to Biden |  |  |  | -0.190\*\* |
|  |  |  |  | (0.0950) |
| Constant | 2.567\*\*\* | 2.575\*\*\* | 2.566\*\*\* | 2.567\*\*\* |
|  | (0.0183) | (0.0193) | (0.0182) | (0.0183) |
| Regression | OLS | OLS | OLS | OLS |
| Observations | 1,006 | 898 | 1,006 | 1,006 |
| R-squared | 0.059 | 0.074 | 0.072 | 0.062 |
| Number of FEs | 504 | 450 | 504 | 504 |
| adj. r2 | 0.0554 | 0.0685 | 0.0678 | 0.0584 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Trump Voters vs Biden Voters on Democratic Satisfaction

Here, we restrict our sample to only individuals confirming they voted for Trump or Biden in the post-election panel. In direct questions, 60.7% of our sample indicated that they voted for Biden, 36.4% for Trump, and <3% for someone else. Because we were concerned about under-reporting of Trump support following the election, we utilized a list experiment to gauge the sensitivity of Trump voters to direct questions about their vote choice.

The item-count list experiment randomized subjects into two groups. In each group, we asked respondents to indicate how many of the following items were true:

1. I have traveled outside of the U.S.
2. My family helped pay for my first car
3. I was involved recently in a car wreck
4. My home was flooded in the past year

The treatment group includes a 5th item: “I voted for Donald Trump in the 2020 election.” Difference in means estimation (Tsai 2019) indicates that 37.6% of respondents in the survey chose Trump in the 2020 election, compared to 36.4% of the sample when using the direct item.

|  |  |  |
| --- | --- | --- |
|  | (1) | (2) |
| VARIABLES | Delta | Gamma |
|  |  |  |
| Constant | 0.376\*\*\* | 0.748\*\*\* |
|  | (0.0917) | (0.0557) |
|  |  |  |
| Observations | 503 | 503 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

When we compare the direct results, based on party ID, we find that 94% of voting Democrats say directly that they selected Biden, while 5.5% voted for Trump. Among voting Republicans, 81% say they chose Trump and 17% selected Biden. Lastly, among Independents who voted, 55% chose Biden and 36% selected Trump.

We now examine data from the list experiment. Based on the overall results of the list experiment, we predict that 42% of Independents (compared to 36% when using the direct measure) voted for Trump. Among Democrats, the list experiment predicts that essentially no Democrats voted for Trump (0.42 - 0.48), and essentially all Republicans (0.42 + 0.54) voted for Trump. Hence, the list experiment reveals more sensitive variation in responses when controlling for Party ID than in the sample as a whole. Republicans, in particular, may be reluctant to acknowledge having voted for Trump after the election.

|  |  |  |
| --- | --- | --- |
|  | (1) | (2) |
| VARIABLES | Delta | Gamma |
|  |  |  |
| Republican | 0.541\*\* | 0.0720 |
|  | (0.247) | (0.151) |
| Democrat | -0.476\*\* | 0.0827 |
|  | (0.203) | (0.123) |
| Constant (Ind) | 0.416\*\* | 0.695\*\*\* |
|  | (0.163) | (0.0908) |
|  |  |  |
| Observations | 503 | 503 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

When we run our main model with controls for Trump and Biden voters, we find a consistent effect that mirrors the influence of partisanship on the democratic satisfaction gap among winners and losers in general. Model 1 shows the basic partisan gap reported in the main manuscript. Model 2 reports the pre- to post-election change in democratic satisfaction among Biden voters (vs. Trump voters, excluding the 3% not selecting Trump or Biden). Trump voters’ satisfaction sharply declined after the election, while Biden voters’ satisfaction increased to a similar degree.

Satisfaction with Democracy by Vote Choice (OLS Regression)

|  |  |  |
| --- | --- | --- |
|  | (1) | (2) |
| VARIABLES | Satisfaction  With Democracy | Satisfaction  With Democracy |
|  |  |  |
| Republican x Post-election | -0.240\*\* |  |
|  | (0.0951) |  |
| Democrat x Post-Election | 0.238\*\*\* |  |
|  | (0.0877) |  |
| Post-election (Ind) | -0.00694 |  |
|  | (0.0664) |  |
| Biden voter |  | -0.345\*\*\* |
|  |  | (0.0793) |
| Biden voter x Post-Election |  | 0.677\*\*\* |
|  |  | (0.130) |
| Trump voter x Post-election |  | -0.357\*\*\* |
|  |  | (0.114) |
| Constant | 2.567\*\*\* | 2.778\*\*\* |
|  | (0.0183) | (0.0776) |
| Regression | OLS | OLS |
| Observations | 1,006 | 692 |
| R-squared | 0.057 | 0.129 |
| Number of FEs | 504 | 441 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

References

Tsai, Chi-lin. "Statistical analysis of the item-count technique using Stata." The Stata Journal 19, no. 2 (2019): 390-434.

## Satisfaction with Democracy Changes among Crossover Voters

Among respondents in our panel study who voted, 17% of Republicans indicated that they voted for Joe Biden and 6% of Democrats voted for Donald Trump. Few respondents (1 Democrat and 3 Republicans) voted for someone else. The model below shows how pre-election satisfaction with democracy (the constant term) compares across cohorts using interaction terms between pre/post-election time, partisanship, and Trump vs. Biden voters, excluding “someone else” voters.

The model shows that satisfaction with democracy did not change among crossover voters from before to after the election. Pre-election Trump Voters had higher satisfaction than non-Trump voters, but satisfaction only increased after the election among Democrats who voted for Biden and only decreased among Republican Trump voters. Hence, the ability for partisanship to proxy for winners vs. loser effects in an election is conditional to limited crossover voting. However, the presence of crossover voters biases against our main hypotheses of partisan effects on democratic satisfaction. Excluding crossover voters would only strengthen our results.

Satisfaction with Democracy and Crossover Voters (OLS Regression)

|  |  |
| --- | --- |
|  | (1) |
| VARIABLES | Satisfaction  With Democracy |
|  |  |
| Post-Election Democrat Biden Voter | 0.358\*\*\* |
|  | (0.0747) |
| Post-Election Republican Biden Voter | -0.192 |
|  | (0.292) |
| Post-Election Independent Biden Voter | -0.182 |
|  | (0.137) |
| Pre-Election Trump Voter | 0.500\*\* |
|  | (0.252) |
| Post-election Republican Trump Voter | -0.858\*\*\* |
|  | (0.262) |
| Post-Election Democrat Trump Voter | 0.295 |
|  | (0.409) |
| Post-Election Ind. Trump Voter | 0.528 |
|  | (0.374) |
| Constant | 2.390\*\*\* |
|  | (0.0904) |
|  |  |
| Observations | 678 |
| Individual FEs | 432 |
| R-squared | 0.135 |
| adj. r2 | 0.126 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Democratic Satisfaction and Candidate Evaluations

Next, we consider whether our results are moderated by attitudes toward the Democratic and Republican 2020 presidential candidates. Below, we report average feeling thermometer ratings (0-100) for each candidate by party ID before and after the election. The figure shows no discernable effect of the election on those appraisals. Also below, we show that changes in candidate evaluations do not moderate partisan gaps between winners and losers in democratic satisfaction based on OLS regression with panel fixed effects. In other words, the partisan gap is not simply explained by intensity of support or opposition to Trump or Biden.





Satisfaction with Democracy and Candidate Evaluations (OLS Regression)

|  |  |  |  |
| --- | --- | --- | --- |
|  | (1) | (2) | (3) |
| VARIABLES | Satisfaction  With Democracy | Satisfaction  With Democracy | Satisfaction  With Democracy |
|  |  |  |  |
| Republicans x Post-election | -0.219\*\* | -0.260\*\*\* | -0.238\*\* |
|  | (0.0952) | (0.0942) | (0.0942) |
| Democrats x Post-election | 0.245\*\*\* | 0.239\*\*\* | 0.247\*\*\* |
|  | (0.0873) | (0.0877) | (0.0872) |
| Post-election (Ind) | -0.0164 | -0.00971 | -0.0198 |
|  | (0.0655) | (0.0665) | (0.0655) |
| trumptherm | 0.00372\* |  | 0.00390\* |
|  | (0.00224) |  | (0.00223) |
| bidentherm |  | 0.00178 | 0.00210 |
|  |  | (0.00219) | (0.00216) |
| Constant | 2.421\*\*\* | 2.475\*\*\* | 2.305\*\*\* |
|  | (0.0911) | (0.119) | (0.150) |
| Regression | OLS | OLS | OLS |
| Observations | 1,004 | 1,003 | 1,001 |
| R-squared | 0.062 | 0.062 | 0.068 |
| Number of pid | 504 | 503 | 503 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Democratic Satisfaction and Beliefs about Republican Victory

Next, we consider how beliefs about the possibility of a Trump vs. Biden victory (pre-election) and beliefs about the likelihood that Trump or Biden will ultimately become President (post-election) influence democratic satisfaction. The first figure below shows that the vast majority of Republicans and Democrats in the panel (85% vs 91%) unsurprisingly anticipated ahead of the election that their candidate would win; Independents were split but disproportionately expected Biden to prevail.



The second figure shows that, after the election (the panel was conducted Nov 10-23, when the election has been called for Biden by the Associated Press), a majority of Republicans (59%) and many Independents (26%) still believed that Trump ultimately would be reelected.



We regress these predictions against satisfaction with democracy in our panel study. Model 1 shows the basic partisan effects on post-election shifts in democratic satisfaction, while Model 2 examines the influence of pre-election predictions on post-election shifts. Model 2 shows that people who went into the election expecting Biden to win, controlling for their partisanship, have disproportionately higher satisfaction with democracy after the outcome of the election. Among Republicans, anticipating in advance that Biden would win also has a strong mediating effect on post-election declines in satisfaction with democracy; Republicans who expected a Biden victory going into the election are less dissatisfied after the election than Republicans predicting Trump would win. Model 3 shows the mediating effects of a person’s post-election prediction about which candidate would eventually be sworn in on Inaugural Day. Again, we see individuals anticipating Biden becoming president have greater democratic satisfaction post-election than those believing Trump ultimately would prevail, keeping in mind that respondents’ views about which candidate would win are from the second-wave panel and thus after the AP already had called the election for Biden. In both Models 2 and 3, Independents’ satisfaction with democracy declines when controlling for the effect of their beliefs about which candidate would prevail before or after the election. For Democrats, the effects of pre-and post-election beliefs about which candidate would win, in contrast, are more limited because Democrats show almost no shift over time in their expectation that Biden would win. Finally, Model 4 reports that the partisan gap between winners and losers in their support for democracy and the effects of electoral outcome predictions are themselves mediated by the inclusion of institutional mediators related to satisfaction with elections and the news media, which we see as the underlying drivers of both democratic satisfaction and confidence in the electoral victory of Biden over Trump.

Democratic Satisfaction and Beliefs about Biden Victory (OLS Regression)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | (1) | (2) | (3) | (4) |
| VARIABLES | Satisfaction  With  Democracy | Satisfaction  With  Democracy | Satisfaction  With  Democracy | Satisfaction  With  Democracy |
|  |  |  |  |  |
| Republicans x Post Election | -0.240\*\* | -0.0815 | -0.121 | -0.00542 |
|  | (0.0951) | (0.100) | (0.0915) | (0.0874) |
| Democrats x Post Election | 0.238\*\*\* | 0.176\* | 0.181\*\* | 0.0911 |
|  | (0.0877) | (0.0933) | (0.0921) | (0.0816) |
| Post Election (Ind) | -0.00694 | -0.215\*\* | -0.228\*\*\* | -0.111 |
|  | (0.0664) | (0.0860) | (0.0849) | (0.0885) |
| Biden win x Post Election |  | 0.295\*\*\* |  |  |
|  |  | (0.0919) |  |  |
| Biden won x Post Election |  |  | 0.294\*\*\* | 0.126 |
|  |  |  | (0.0881) | (0.0900) |
| Election satisfaction |  |  |  | 0.212\*\*\* |
|  |  |  |  | (0.0449) |
| Free/Fair Election |  |  |  | 0.0788\* |
|  |  |  |  | (0.0422) |
| Media satisfaction |  |  |  | 0.211\*\*\* |
|  |  |  |  | (0.0579) |
| Constant | 2.567\*\*\* | 2.586\*\*\* | 2.573\*\*\* | 1.263\*\*\* |
|  | (0.0183) | (0.0184) | (0.0184) | (0.172) |
| Regression | OLS | OLS | OLS | OLS |
| Observations | 1,006 | 976 | 984 | 981 |
| R-squared | 0.057 | 0.077 | 0.072 | 492 |
| Number of pid | 504 | 489 | 493 | 0.220 |
| adj. r2 | 0.0539 | 0.0731 | 0.0681 | 0.214 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Democratic Satisfaction among Independent Leaners

Approximately 25% of our sample respondents identify as Independents. The survey included a follow-up item asking “Independent” and otherwise unaffiliated respondents if they leaned more toward the Democratic Party (18%), the Republican Party (25%), or neither (57%). The following OLS model examines variation among independent leaners vs. true Independents using panel fixed effects. Despite a reduced sample size, we find that Independents who lean Democratic are more satisfied with democracy after the election compared to independent Republican leaners and true Independents, for which there is no change. Hence, if we were to combine the Democratic and Republican leaners with the self-identified Democrats and Republicans, respectively, we would still observe a partisan gap after the election, compared to true Independents. The model below, however, shows that the partisan gap in democratic satisfaction among winners and losers narrows somewhat when partisan leaners are grouped with self-identified partisans due to the weaker impact of the election on independent Republican leaners compared to self-identified Republicans.

Democratic Satisfaction among Independent Leaners (OLS Regression)

|  |  |
| --- | --- |
|  | (1) |
| VARIABLES | Satisfaction  With Democracy |
|  |  |
| Democratic leaners x Post-election | 0.475\*\* |
|  | (0.196) |
| Republican leaners x Post-election | -0.0729 |
|  | (0.163) |
| True independents x Post-election | -0.0833 |
|  | (0.0925) |
| Constant | 2.334\*\*\* |
|  | (0.0351) |
| Regression | OLS |
| Observations | 255 |
| Individual FEs | 128 |
| R-squared | 0.059 |
| adj. r2 | 0.0473 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Democratic Satisfaction (Longitudinal vs. Panel Sample)

Next, we consider how results from the panel sample compare to the full sample in both waves of the study. In the first model, we report the original Manuscript Table 2 panel fixed effects OLS regressions for reference. In the second model, we see an increased partisan gap in democratic satisfaction in the post-election period that is moderated by satisfaction with elections, belief that elections are free and fair, and satisfaction with the quality of the news media.

Democracy Satisfaction Among Panel Data Respondents (OLS Regression)

|  |  |  |
| --- | --- | --- |
|  | (1) | (1) |
| VARIABLES | Satisfaction with Democracy | Satisfaction with Democracy |
|  |  |  |
| Post-election x Rep | -0.240\*\* | -0.0678 |
|  | (0.0951) | (0.0861) |
| Post-election x Dem | 0.238\*\*\* | 0.0983 |
|  | (0.0877) | (0.0791) |
| Post-election (Ind) | -0.00694 | -0.00265 |
|  | (0.0664) | (0.0588) |
| Satisfaction with elections |  | 0.213\*\*\* |
|  |  | (0.0443) |
| Believe elections free/fair |  | 0.0899\*\* |
|  |  | (0.0419) |
| Satisfaction with media |  | 0.209\*\*\* |
|  |  | (0.0581) |
| Constant | 2.567\*\*\* | 1.234\*\*\* |
|  | (0.0183) | (0.165) |
| Regression | OLS | OLS |
| Observations | 1,006 | 1,003 |
| R-squared | 0.057 | 0.217 |
| Number of FEs | 504 | 503 |
| adj. r2 | 0.0539 | 0.212 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Now, we compare the results using longitudinal data from our full pre-election (N = 955) and post-election (N = 609) surveys in which the panel sample (N = 504) is embedded. We do not use panel fixed effects in these models because many respondents are not included in both pre-and post-election waves. However, we include a dummy control for subjects who were in the panel sample in both waves. All models are estimated with OLS regression.

Model 1 is a simple pre/post-election model with interaction terms for party ID. It shows that Republicans and Democrats in the pre-election survey have greater democratic satisfaction than Independents, who are represented by the constant term. The interactions between survey wave and party ID demonstrate that Republicans’ satisfaction with democracy decreases after the election, while Independents become more satisfied. In the absence of panel fixed effects, there are no changes in democratic satisfaction among Democrats. Hence, the increase in democratic satisfaction after the election is not captured by analyses of the longitudinal data, which do not examine how a given person’s views changed from before to after the election, while this change in satisfaction is visible in the panel survey, demonstrating the added value to the panel survey research design.

Model 2 shows how the effect of our main independent variables on democratic satisfaction is moderated by the inclusion of extended controls. Here, the effect of the election on Independents is fully moderated by the demographic controls, but the effect on Republicans is only partially moderated. Model 3 adds our three institutional moderators, which fully moderate post-election changes in Republican satisfaction with democracy, as was the case in the panel-only regressions reported in the manuscript. In terms of time-invariant controls, which are constant across survey waves and therefore omitted from the panel regressions, Model 2 shows that women are less satisfied with democracy; however, this effect also is moderated by the institutional considerations in Model 3. Controlling for other factors, evangelicals consistently are more satisfied with democracy than non-evangelicals. Increases in a state’s percent unemployment also are positively correlated with satisfaction with democracy, as is COVID-19 exposure, which was not significant in the panel-only analysis, and thus may be due to selection effects over time. Finally, individuals who indicate that they are highly likely to vote in the first wave of the survey are more satisfied with democracy (those who already voted are the comparison group in this item), while states with a higher percentage of the popular vote going to Joe Biden are less satisfied. Post-estimation variance inflation tests find no concerns about multi-collinearity problems driving these results.

Democracy Satisfaction Pre/Post Election, all respondents (OLS Regression)

|  |  |  |  |
| --- | --- | --- | --- |
|  | (1) | (2) | (3) |
| VARIABLES | Satisfaction with Democracy | Satisfaction with Democracy | Satisfaction with Democracy |
|  |  |  |  |
| Republican (pre-election) | 0.535\*\*\* | 0.318\*\*\* | 0.181\*\* |
|  | (0.0760) | (0.0800) | (0.0700) |
| Republican (post-election) | -0.517\*\*\* | -0.286\*\* | 0.0751 |
|  | (0.119) | (0.123) | (0.107) |
| Democrat (pre-election) | 0.336\*\*\* | 0.285\*\*\* | 0.143\*\* |
|  | (0.0704) | (0.0755) | (0.0630) |
| Democrat (post-election | -0.0698 | 0.131 | -0.0141 |
|  | (0.107) | (0.114) | (0.0939) |
| Independent (post-election) | 0.224\*\*\* | 0.0641 | 0.0107 |
|  | (0.0785) | (0.0934) | (0.0754) |
| Satisfaction with elections |  |  | 0.318\*\*\* |
|  |  |  | (0.0342) |
| Believe elections free/fair |  |  | 0.138\*\*\* |
|  |  |  | (0.0314) |
| Satisfaction with media |  |  | 0.120\*\*\* |
|  |  |  | (0.0280) |
| Panel respondent |  | 0.0261 | 0.0403 |
|  |  | (0.0609) | (0.0522) |
| Female |  | -0.119\*\* | -0.0566 |
|  |  | (0.0494) | (0.0421) |
| Age |  | -0.00165 | -0.00181 |
|  |  | (0.00155) | (0.00135) |
| Education |  | 0.0367 | -0.00161 |
|  |  | (0.0231) | (0.0189) |
| African American |  | -0.0108 | -0.0125 |
|  |  | (0.0723) | (0.0594) |
| Native American |  | -0.159 | -0.130 |
|  |  | (0.190) | (0.146) |
| Asian |  | 0.0637 | -0.0193 |
|  |  | (0.0828) | (0.0737) |
| Multiple |  | -0.199\* | -0.131 |
|  |  | (0.104) | (0.0940) |
| Latino |  | 0.00531 | -0.0212 |
|  |  | (0.0723) | (0.0608) |
| Born in U.S. |  | -0.103 | -0.143\* |
|  |  | (0.0877) | (0.0764) |
| Evangelical |  | 0.219\*\*\* | 0.186\*\*\* |
|  |  | (0.0560) | (0.0480) |
| Income |  | 0.0455\* | 0.0179 |
|  |  | (0.0257) | (0.0208) |
| State unemployment level |  | 0.0413\*\* | 0.0433\*\*\* |
|  |  | (0.0178) | (0.0159) |
| Contracted COVID-19 |  | 0.419\*\*\* | 0.205\*\* |
|  |  | (0.101) | (0.0881) |
| Family member COVID-19 |  | 0.00982 | -0.0468 |
|  |  | (0.0735) | (0.0618) |
| Knew COVID-19 victim |  | 0.0528 | 0.00929 |
|  |  | (0.0576) | (0.0536) |
| State % increase in deaths |  | -0.0102 | -0.00563 |
|  |  | (0.00629) | (0.00546) |
| State % increase in cases |  | -2.95e-05 | -3.15e-05 |
|  |  | (7.59e-05) | (6.23e-05) |
| Region: Midwest |  | 0.0623 | 0.0594 |
|  |  | (0.0896) | (0.0772) |
| Region: South |  | 0.103 | 0.0951 |
|  |  | (0.0821) | (0.0708) |
| Region: West |  | -0.00902 | -0.0181 |
|  |  | (0.0759) | (0.0629) |
| Voted 2020 primary |  | 0.0728 | -0.0149 |
|  |  | (0.0560) | (0.0496) |
| Vote: Extremely likely |  | 0.163\*\*\* | 0.168\*\*\* |
|  |  | (0.0555) | (0.0475) |
| Vote: Moderately likely |  | 0.330\*\*\* | 0.373\*\*\* |
|  |  | (0.102) | (0.0831) |
| Vote: Slightly likely |  | -0.0639 | -0.0650 |
|  |  | (0.146) | (0.131) |
| Vote: Neither likely or unlikely |  | 0.0277 | 0.0887 |
|  |  | (0.147) | (0.117) |
| Vote: Slightly unlikely |  | -0.230 | 0.201 |
|  |  | (0.262) | (0.242) |
| Vote: Moderately unlikely |  | -0.268 | -0.0640 |
|  |  | (0.272) | (0.140) |
| Vote: Extreme unlikely |  | 0.0706 | 0.0578 |
|  |  | (0.121) | (0.0928) |
| State % Biden vote |  | -0.659\*\* | -0.790\*\*\* |
|  |  | (0.336) | (0.289) |
| State flipped to Biden |  | -0.0174 | -0.0653 |
|  |  | (0.0785) | (0.0665) |
| Constant | 2.298\*\*\* | 2.131\*\*\* | 1.069\*\*\* |
|  | (0.0550) | (0.288) | (0.246) |
| Regression | OLS | OLS | OLS |
| Observations | 1,561 | 1,407 | 1,398 |
| R-squared | 0.039 | 0.128 | 0.365 |
| adj. r2 | 0.0364 | 0.105 | 0.347 |
| VIF | 2.53 | 1.69 | 1.71 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Panel Data Attrition Analysis

To recap, sampling for the study’s first wave was completed between October 27 and November 1, 2020. A total of 955 respondents completed the study. We then invited the same participants back for a follow-up survey after the election. The follow-up survey was completed between November 10 and November 23, 2020. We waited to begin the follow-up survey until after the Associated Press called the election, which was delayed due to counting mail-in ballots in a number of states. Of the original 955 respondents, 504 completed the follow-up survey, yielding a response rate of 52.7%, which is consistent with attrition reported by Behr et al. (2005) in some European household panel surveys.

It is not clear how much attrition increases with online sampling methodology compared to offline (Lugtig et al. 2014). Frankel and Hillygus (2014) point to the value of experienced enumerators to overcome attrition in face-to-face panel surveys. Online panels have advantages in cost, convenience, and non-obtrusive data collection but have potential disadvantages related to attrition as email and other forms of online invitations to participate can be easily overlooked or forgotten (Callegaro et al. 2014; Lugtig et al. 2014).

Panel attrition analysis is important to identify any non-random patterns in response rates that could potentially bias our results (Rubin 1976; Little and Rubin 2019). Attrition, if not random, could be a function of selection on observables, unobservables, or both within the original panel (Fitzgerald et al. 1998; Satherley et al. 2015; Lynn 2018). A missing-at-random (MAR) approach to analysis treats attrition as effectively random and performs analysis only on those respondents for whom data are available across time (Lynn 2009). Following Frankel and Hillygus (2014), we assess non-random attrition by comparison of means, balance tests, and logit regression analysis across observable variables for “attritors” vs. “non-attritors” in our sample. We also employ survey weights and refreshment samples to evaluate whether our results change when corrected for imbalances due to survey attrition (Deng et al. 2013; Lynn 2018).

First, we provide results of logit regression on key observables in our first wave sample where the dependent variable is coded 0 for “non-attritors” i.e. those who went on to complete the second wave of the panel, and 1 for “attritors” or “drop-outs.” The analysis shows that attrition is not random. In particular, older respondents are less likely to drop out than younger respondents and evangelical Christians are more likely to drop out than non-evangelicals. On race and ethnicity, white people, Latinos, and multiple race/ethnicity respondents are less likely to drop out, while Asians are more likely to drop out than other groups (African Americans are the reference category). Finally, subjects who indicated that they were “extremely likely” to vote in the first wave are more likely to drop out (the comparison group is individuals who had already voted before the election). There appear to be no significant attrition differences by party identification, which is our main independent variable of interest (Democrats are the comparison group in the model) or attrition related to COVID-19 exposure.

Analysis of Panel Attrition vs. Non-Attrition (Logit Regression)

|  |  |
| --- | --- |
|  | (1) |
| VARIABLES | Attritors  (drop-outs) |
|  |  |
| Female | -0.271\* |
|  | (0.162) |
| Age | -0.0339\*\*\* |
|  | (0.00523) |
| Education | 0.0551 |
|  | (0.0763) |
| Income | -0.135\* |
|  | (0.0779) |
| PID: Republican | -0.119 |
|  | (0.192) |
| PID: Independent | -0.344 |
|  | (0.216) |
| PID: Other | 0.699 |
|  | (0.570) |
| PID: Don’t know | 0.261 |
|  | (0.521) |
| Evangelical | 0.603\*\*\* |
|  | (0.171) |
| Race: White | -0.882\*\*\* |
|  | (0.207) |
| Race: Native American | 0.188 |
|  | (0.497) |
| Race: Asian | 0.741\*\* |
|  | (0.314) |
| Race: Multiple | -1.004\*\* |
|  | (0.432) |
| U.S. born | 0.130 |
|  | (0.289) |
| Latino | -0.562\*\* |
|  | (0.261) |
| Contracted COVID-19 | 0.174 |
|  | (0.310) |
| Family member COVID-19 | -0.281 |
|  | (0.242) |
| Knew COVID-19 victim | -0.109 |
|  | (0.186) |
| Region: Midwest | 0.221 |
|  | (0.235) |
| Region: South | 0.163 |
|  | (0.207) |
| Region: West | 0.407\* |
|  | (0.234) |
| Voted 2020 primary | -0.163 |
|  | (0.187) |
| Vote: Extremely likely | 0.348\*\* |
|  | (0.169) |
| Vote: Moderately likely | 0.140 |
|  | (0.390) |
| Vote: Slightly likely | -0.00368 |
|  | (0.566) |
| Vote: Neither likely or unlikely | -0.0185 |
|  | (0.531) |
| Vote: Slightly unlikely | 0.979 |
|  | (0.762) |
| Vote: Moderately unlikely | - |
|  |  |
| Vote: Extreme unlikely | -0.388 |
|  | (0.412) |
| Constant | 1.900\*\*\* |
|  | (0.576) |
| Regression |  |
| Observations | 916 |
| adj. r2 | -548.9 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

We provide additional verification of attrition imbalances using bivariate Kolmogorov-Smirnov balance tests below. Balance tests reveal imbalances in age, income, identifying evangelical Christians, race, and our likely voter instrument.

Balance Tests for Panel Attrition

|  |  |
| --- | --- |
| Variable | Combined K-Smirnov  d statistic |
| Female | 0.02 |
| Age | 0.21\*\*\* |
| Education | 0.06 |
| Income | 0.13\*\*\* |
| Party ID | 0.02 |
| Evangelical | 0.12\*\*\* |
| Race | 0.11\*\*\* |
| Latino | 0.07 |
| Born in U.S | 0.02 |
| Had COVID-19 | 0.01 |
| Family had COVID-19 | 0.00 |
| Family/friends died from COVID-19 | 0.01 |
| Region | 0.07 |
| Primary voter | 0.03 |
| Likely voter | 0.13\*\*\* |

\*\*\* p<0.01

How important are these imbalances to the robustness and interpretation of our main findings about democratic satisfaction? We examine differences in democratic satisfaction in our first-wave survey respondents using OLS regression with extended controls. First, Model 1 shows no correlation between a dummy variable coded 1 for panel respondents (non-attritors) and 0 for attritors (drop-outs). In Model 2, among variables that are strongly correlated with attrition (age, income, evangelicals, race, and likely voters), only being an evangelical Christian and a likely voter (compared to someone who already voted) is predictive of democratic satisfaction. The control for panel non-attritors vs attritors in Model 3 remains uncorrelated with democratic satisfaction.

Democracy Satisfaction and Attrition on Observables (OLS Regression)

|  |  |  |  |
| --- | --- | --- | --- |
|  | (1) | (2) | (3) |
| VARIABLES | Satisfaction  with Democracy | Satisfaction  with Democracy | Satisfaction  with Democracy |
|  |  |  |  |
| Panel | -0.0720 |  | 0.00966 |
|  | (0.0591) |  | (0.0651) |
| Age |  | -0.00207 | -0.00214 |
|  |  | (0.00195) | (0.00199) |
| Income |  | 0.0122 | 0.0120 |
|  |  | (0.0322) | (0.0323) |
| Evangelical |  | 0.312\*\*\* | 0.314\*\*\* |
|  |  | (0.0664) | (0.0670) |
| Race: White |  | 0.0934 | 0.0916 |
|  |  | (0.0796) | (0.0811) |
| Race: Native American |  | -0.287 | -0.287 |
|  |  | (0.231) | (0.231) |
| Race: Asian |  | 0.147 | 0.149 |
|  |  | (0.0971) | (0.0979) |
| Race: Multiple |  | -0.208 | -0.210 |
|  |  | (0.163) | (0.164) |
| Vote: Extremely likely |  | 0.224\*\*\* | 0.225\*\*\* |
|  |  | (0.0686) | (0.0691) |
| Vote: Moderately likely |  | 0.393\*\*\* | 0.394\*\*\* |
|  |  | (0.127) | (0.127) |
| Vote: Slightly likely |  | -0.291\* | -0.291\* |
|  |  | (0.152) | (0.152) |
| Vote: Neither likely or unlikely |  | -0.0608 | -0.0609 |
|  |  | (0.189) | (0.189) |
| Vote: Slightly unlikely |  | -0.358 | -0.355 |
|  |  | (0.311) | (0.312) |
| Vote: Moderately unlikely |  | -0.210 | -0.206 |
|  |  | (0.327) | (0.329) |
| Vote: Extreme unlikely |  | -0.190 | -0.190 |
|  |  | (0.142) | (0.142) |
| Constant | 2.639\*\*\* | 2.434\*\*\* | 2.433\*\*\* |
|  | (0.0437) | (0.142) | (0.142) |
| Regression | OLS | OLS | OLS |
| Observations | 954 | 925 | 925 |
| R-squared | 0.002 | 0.069 | 0.069 |
| adj. r2 | 0.000513 | 0.0549 | 0.0539 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

To further examine potential moderating impacts of attrition among evangelicals, we run our original panel fixed effects model (Model 1), Models 2-3 that includes an interaction term between evangelicals and likely voters and the election. The interaction terms are not significant, and the partisan gap in satisfaction between Republicans and Democrats after the election shows virtually no moderating effects by controls for identifying as evangelical or likely voters. Collectively, these results indicate that imbalances due to non-random attrition in the first wave do not significantly impact our interpretation of a partisan gap in democratic satisfaction from the panel data.

Change in Satisfaction with Democracy Among Evangelicals and Likely Voters (OLS Regression)

|  |  |  |  |
| --- | --- | --- | --- |
|  | (1) | (2) | (3) |
| VARIABLES | Satisfaction  with Democracy | Satisfaction  with Democracy | Satisfaction  with Democracy |
|  |  |  |  |
| Republican x Post-election | -0.240\*\* | -0.247\*\* | -0.249\*\* |
|  | (0.0951) | (0.0970) | (0.100) |
| Democrat x Post-election | 0.238\*\*\* | 0.237\*\*\* | 0.207\*\* |
|  | (0.0877) | (0.0877) | (0.0902) |
| Post-election (Ind) | -0.00694 | -0.0162 | 0.0577 |
|  | (0.0664) | (0.0677) | (0.0803) |
| Evangelical x Post-election |  | 0.0478 |  |
|  |  | (0.0924) |  |
| Vote: Extremely likely |  |  | -0.100 |
|  |  |  | (0.0853) |
| Vote: Moderately likely |  |  | -0.131 |
|  |  |  | (0.144) |
| Vote: Slightly likely |  |  | 0.0553 |
|  |  |  | (0.219) |
| Vote: Neither likely or unlikely |  |  | -0.146 |
|  |  |  | (0.196) |
| Vote: Slightly unlikely |  |  | -0.391 |
|  |  |  | (0.285) |
| Vote: Moderately unlikely |  |  |  |
|  |  |  |  |
| Vote: Extreme unlikely |  |  | -0.0978 |
|  |  |  | (0.161) |
| Constant | 2.567\*\*\* | 2.567\*\*\* | 2.567\*\*\* |
|  | (0.0183) | (0.0183) | (0.0183) |
| Regression | OLS | OLS | OLS |
| Observations | 1,006 | 1,006 | 1,006 |
| R-squared | 0.057 | 0.057 | 0.062 |
| Number of FEs | 504 | 504 | 504 |
| adj. r2 | 0.0539 | 0.0536 | 0.0533 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

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## Representation of Voters vs. Non-Voters in the Panel

In the summary statistics below, we report that when we ask panel respondents (N=504) after the election whether they had voted, 89% indicated that they had and 11% did not. Hence, our panel overrepresents voters relative to non-voters. One possibility is that our question is picking up some social desirability bias, where the number of people claiming to vote is inflated by people who didn’t vote but claim otherwise. Another possibility is that we had attrition of non-voters from the original 955 respondents in the first wave and that voters were more likely to come back and complete the second post-election wave. In the online appendix, we provide an analysis of attrition from the initial sample of 955 respondents to the panel of 504. However, we do not find strong evidence of attrition on non-voters. In the pre-election wave of 955 respondents, we asked them if they were planning to vote in the election and if so, how? 442 (46%) indicated that they had already voted at the time of the study. Of the remaining 513, 83% also indicated that they were extremely likely to vote before or on election day, while roughly 11% indicated that they were unlikely to vote with 6% unsure. Hence, even in the pre-election sample, we have overrepresentation of self-reported early voters and likely voters. The percentage of likely voters and those who already voted matches closely with the post-election panel of 89% voters. Hence, either the entire sample is overrepresented by voters, or there was significant social desirability bias in responses to the voting questions both before and after the election (or some of both). In the appendix section titled Voting Effects on Democratic Satisfaction, we include a dummy variable for whether the respondents voted or not and do not find a significant effect on satisfaction with democracy when taking into account partisanship. We also now include an additional logit regression on the probability of voting using the panel data and find that non-voters are far more likely to be independents, unsure, or unaffiliated with either major party. One advantage of the overrepresentation of voters in the panel is it diminishes concerns that our results could be affected by lack of congruence between partisanship, candidate preferences, and voting behavior. Our study shows that the partisan gap is clearly apparent in partisans, and controls for voting/non-voting did not substantively affect our results.

Probability of having Voting (Post-Election Panel, Logit Regression)

|  |  |
| --- | --- |
|  | (1) |
| DV = 1 voted,  0 not voted | Voted in the 2020 election |
|  |  |
| PID: Republican | -0.544 |
|  | (0.540) |
| PID: Independent | -1.661\*\*\* |
|  | (0.492) |
| PID: Other | -4.748\*\*\* |
|  | (0.886) |
| PID: Don’t know | -2.943\*\*\* |
|  | (0.725) |
| female | -0.311 |
|  | (0.375) |
| age | -0.0191\* |
|  | (0.0111) |
| education | 0.451\*\* |
|  | (0.202) |
| income | 0.399\*\* |
|  | (0.181) |
| Race: White | 0.490 |
|  | (0.503) |
| Race: Native American | -1.256 |
|  | (1.073) |
| Race: Asian | 1.229 |
|  | (0.878) |
| Race: Multiple | 0.123 |
|  | (0.750) |
| Born in U.S. | -0.121 |
|  | (0.517) |
| Evangelical | 1.123\*\* |
|  | (0.566) |
| Latino | 0.449 |
|  | (0.447) |
| Region: Midwest | -0.207 |
|  | (0.543) |
| Region: South | 0.00180 |
|  | (0.467) |
| Region: West | 0.225 |
|  | (0.552) |
| Constant | 37.10\* |
|  | (22.09) |
|  |  |
| Observations | 488 |
| adj. r2 | 0.255 |

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Summary Demographics for Panel, Wave 1, Wave 2, and Pooled Samples

Panel Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | N | Mean | SD | Min | Max |
| Satisfaction with democracy | 503 | 2.57 | 0.89 | 1 | 4 |
| Satisfaction with U.S. elections | 503 | 2.64 | 0.91 | 1 | 4 |
| Agree/Disagree: American elections are free and fair | 501 | 2.86 | 0.90 | 1 | 4 |
| Satisfaction with U.S. news media | 503 | 2.47 | 1.02 | 1 | 4 |
| Future personal income prediction | 504 | 2.86 | 0.87 | 1 | 5 |
| Future economy prediction | 504 | 2.06 | 0.76 | 1 | 3 |
| Index of negative emotional affect | 502 | 3.30 | 1.22 | 1 | 5 |
| Party identification |  |  |  |  |  |
| Democrat | 504 | 0.41 | 0.49 | 0 | 1 |
| Republican | 504 | 0.30 | 0.46 | 0 | 1 |
| Independent | 504 | 0.24 | 0.43 | 0 | 1 |
| Other | 504 | 0.01 | 0.10 | 0 | 1 |
| Don't know | 504 | 0.03 | 0.18 | 0 | 1 |
| Female | 504 | 0.54 | 0.50 | 0 | 1 |
| Age (years) | 491 | 51.5 | 16.9 | 20 | 89 |
| Education | 503 | 3.33 | 1.07 | 1 | 5 |
| Race and ethnicity |  |  |  |  |  |
| White | 504 | 0.66 | 0.48 | 0 | 1 |
| African American | 504 | 0.17 | 0.37 | 0 | 1 |
| Native American | 504 | 0.02 | 0.13 | 0 | 1 |
| Asian | 504 | 0.10 | 0.30 | 0 | 1 |
| Multiple | 504 | 0.06 | 0.23 | 0 | 1 |
| Latino | 504 | 0.17 | 0.37 | 0 | 1 |
| Born in the United States | 504 | 0.89 | 0.31 | 0 | 1 |
| Evangelical Christian | 504 | 0.25 | 0.43 | 0 | 1 |
| Income assessment | 502 | 2.82 | 0.98 | 1 | 4 |
| 10/11-2020 percent unemployment by state (BLS) | 504 | 7.16 | 1.82 | 3.2 | 14.3 |
| Contracted COVID-19 | 504 | 0.08 | 0.27 | 0 | 1 |
| Family member contracted COVID-19 | 504 | 0.17 | 0.38 | 0 | 1 |
| Know someone who died from COVID-19 | 504 | 0.24 | 0.43 | 0 | 1 |
| Percent new COVID-19 deaths by month/state (CDC) | 504 | 1.54 | 3.87 | -1 | 22 |
| Percent new COVID-19 cases by month/state (CDC) | 504 | 123.05 | 181.35 | 0 | 594 |
| Northeast | 504 | 0.23 | 0.42 | 0 | 1 |
| Midwest | 504 | 0.20 | 0.40 | 0 | 1 |
| South | 504 | 0.37 | 0.48 | 0 | 1 |
| West | 504 | 0.20 | 0.40 | 0 | 1 |
| 2020 primary voter | 504 | 0.70 | 0.46 | 0 | 1 |
| 2020 general election voter | 504 | 0.89 | 0.31 | 0 | 1 |
| Early voter | 504 | 0.52 | 0.50 | 0 | 1 |
| Percent of state’s popular vote for Biden | 504 | 0.52 | 0.09 | 0.30 | 0.92 |
| State flipped from Trump 2016 to Biden | 504 | 0.12 | 0.33 | 0 | 1 |

Wave 1 Full Sample (Panel + non-panel)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | N | Mean | SD | Min | Max |
| Satisfaction with democracy | 954 | 2.60 | 0.91 | 1 | 4 |
| Satisfaction with U.S. elections | 953 | 2.66 | 0.92 | 1 | 4 |
| Agree/Disagree: American elections are free and fair | 949 | 2.87 | 0.90 | 1 | 4 |
| Satisfaction with U.S. news media | 950 | 2.53 | 1.03 | 1 | 4 |
| Future personal income prediction | 952 | 2.75 | 0.96 | 1 | 5 |
| Future economy prediction | 952 | 1.98 | 0.76 | 1 | 3 |
| Index of negative emotional affect | 951 | 3.37 | 1.17 | 1 | 5 |
| Party identification |  |  |  |  |  |
| Democrat | 954 | 0.42 | 0.49 | 0 | 1 |
| Republican | 954 | 0.30 | 0.46 | 0 | 1 |
| Independent | 954 | 0.23 | 0.42 | 0 | 1 |
| Other | 954 | 0.01 | 0.10 | 0 | 1 |
| Don't know | 954 | 0.04 | 0.19 | 0 | 1 |
| female | 954 | 0.53 | 0.50 | 0 | 1 |
| Age (years) | 928 | 47.9 | 16.8 | 18 | 89 |
| Education | 951 | 3.38 | 1.08 | 1 | 5 |
| Race and ethnicity |  |  |  |  |  |
| White | 954 | 0.56 | 0.50 | 0 | 1 |
| African American | 954 | 0.22 | 0.41 | 0 | 1 |
| Native American | 954 | 0.03 | 0.16 | 0 | 1 |
| Asian | 954 | 0.15 | 0.36 | 0 | 1 |
| Multiple | 954 | 0.04 | 0.21 | 0 | 1 |
| Latino | 954 | 0.13 | 0.34 | 0 | 1 |
| Born in the United States | 954 | 0.88 | 0.33 | 0 | 1 |
| Evangelical Christian | 954 | 0.30 | 0.46 | 0 | 1 |
| Income assessment | 951 | 2.70 | 1.04 | 1 | 4 |
| 10/11-2020 percent unemployment by state (BLS) | 950 | 7.24 | 1.92 | 3 | 14.3 |
| Contracted COVID-19 | 954 | 0.10 | 0.30 | 0 | 1 |
| Family member contracted COVID-19 | 954 | 0.17 | 0.37 | 0 | 1 |
| Know someone who died from COVID-19 | 954 | 0.23 | 0.42 | 0 | 1 |
| Percent new COVID-19 deaths by month/state (CDC) | 950 | 1.53 | 3.90 | -1 | 22 |
| Percent new COVID-19 cases by month/state (CDC) | 950 | 121.16 | 178.45 | 0 | 594 |
| Northeast | 950 | 0.21 | 0.41 | 0 | 1 |
| Midwest | 950 | 0.18 | 0.39 | 0 | 1 |
| South | 950 | 0.38 | 0.49 | 0 | 1 |
| West | 950 | 0.22 | 0.42 | 0 | 1 |
| 2020 primary voter | 954 | 0.68 | 0.47 | 0 | 1 |
| 2020 general election voter | 954 | 0.47 | 0.50 | 0 | 1 |
| Early voter | 954 | 0.46 | 0.50 | 0 | 1 |
| Percent of state’s popular vote for Biden | 950 | 0.52 | 0.09 | 0.27 | 0.92 |
| State flipped from Trump 2016 to Biden | 950 | 0.12 | 0.33 | 0 | 1 |
| Panel respondents | 954 | 0.53 | 0.50 | 0 | 1 |

Wave 2 Full sample (Panel + non-panel)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | N | Mean | SD | Min | Max |
| Satisfaction with democracy | 607 | 2.62 | 0.88 | 1 | 4 |
| Satisfaction with U.S. elections | 606 | 2.66 | 1.04 | 1 | 4 |
| Agree/Disagree: American elections are free and fair | 607 | 2.80 | 1.01 | 1 | 4 |
| Satisfaction with U.S. news media | 607 | 2.44 | 1.04 | 1 | 4 |
| Future personal income prediction | 607 | 2.85 | 0.89 | 1 | 5 |
| Future economy prediction | 607 | 1.98 | 0.75 | 1 | 3 |
| Index of negative emotional affect | 607 | 3.17 | 1.24 | 1 | 5 |
| Party identification |  |  |  |  |  |
| Democrat | 503 | 0.41 | 0.49 | 0 | 1 |
| Republican | 503 | 0.30 | 0.46 | 0 | 1 |
| Independent | 503 | 0.24 | 0.43 | 0 | 1 |
| Other | 503 | 0.01 | 0.10 | 0 | 1 |
| Don't know | 503 | 0.03 | 0.18 | 0 | 1 |
| Female | 607 | 0.45 | 0.50 | 0 | 1 |
| Age | 588 | 49.7 | 16.8 | 20 | 89 |
| Education | 502 | 3.33 | 1.07 | 1 | 5 |
| Race and ethnicity |  |  |  |  |  |
| White | 603 | 0.67 | 0.47 | 0 | 1 |
| African American | 603 | 0.15 | 0.36 | 0 | 1 |
| Native American | 603 | 0.02 | 0.15 | 0 | 1 |
| Asian | 603 | 0.10 | 0.30 | 0 | 1 |
| Multiple | 603 | 0.06 | 0.24 | 0 | 1 |
| Latino | 607 | 0.17 | 0.37 | 0 | 1 |
| Born in the United States | 607 | 0.74 | 0.44 | 0 | 1 |
| Evangelical Christian | 607 | 0.20 | 0.40 | 0 | 1 |
| Income assessment | 607 | 2.85 | 1.01 | 1 | 4 |
| 10/11-2020 percent unemployment by state (BLS) | 607 | 6.98 | 1.47 | 3.1 | 10.2 |
| Contracted COVID-19 | 607 | 0.09 | 0.29 | 0 | 1 |
| Family member contracted COVID-19 | 607 | 0.17 | 0.38 | 0 | 1 |
| Know someone who died from COVID-19 | 607 | 0.22 | 0.42 | 0 | 1 |
| Percent new COVID-19 deaths by month/state (CDC) | 607 | 2.35 | 5.59 | -1 | 22 |
| Percent new COVID-19 cases by month/state (CDC) | 607 | 280.05 | 531.17 | -2 | 2107 |
| Northeast | 607 | 0.24 | 0.43 | 0 | 1 |
| Midwest | 607 | 0.19 | 0.40 | 0 | 1 |
| South | 607 | 0.36 | 0.48 | 0 | 1 |
| West | 607 | 0.21 | 0.41 | 0 | 1 |
| 2020 primary voter | 607 | 0.58 | 0.49 | 0 | 1 |
| 2020 general election voter | 607 | 0.88 | 0.32 | 0 | 1 |
| Early voter | 503 | 0.52 | 0.50 | 0 | 1 |
| Percent of state’s popular vote for Biden | 607 | 0.53 | 0.09 | 0.30 | 0.92 |
| State flipped from Trump 2016 to Biden | 607 | 0.12 | 0.33 | 0 | 1 |
| Panel respondents | 607 | 0.83 | 0.38 | 0 | 1 |

Pooled Data

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | N | Mean | SD | Min | Max |
| Satisfaction with democracy | 1,561 | 2.61 | 0.90 | 1 | 4 |
| Satisfaction with U.S. elections | 1,559 | 2.66 | 0.97 | 1 | 4 |
| Agree/Disagree: American elections are free and fair | 1,556 | 2.84 | 0.95 | 1 | 4 |
| Satisfaction with U.S. news media | 1,557 | 2.49 | 1.04 | 1 | 4 |
| Future personal income prediction | 1,559 | 2.79 | 0.93 | 1 | 5 |
| Future economy prediction | 1,559 | 1.98 | 0.76 | 1 | 3 |
| Index of negative emotional affect | 1,558 | 3.29 | 1.20 | 1 | 5 |
| Party identification |  |  |  |  |  |
| Democrat | 1,457 | 0.42 | 0.49 | 0 | 1 |
| Republican | 1,457 | 0.30 | 0.46 | 0 | 1 |
| Independent | 1,457 | 0.24 | 0.42 | 0 | 1 |
| Other | 1,457 | 0.01 | 0.10 | 0 | 1 |
| Don't know | 1,457 | 0.04 | 0.18 | 0 | 1 |
| Female | 1,561 | 0.50 | 0.50 | 0 | 1 |
| Age | 1,516 | 48.6 | 16.8 | 18 | 89 |
| Education | 1,453 | 3.36 | 1.08 | 1 | 5 |
| Race and ethnicity |  |  |  |  |  |
| White | 1,557 | 0.60 | 0.50 | 0 | 1 |
| African American | 1,557 | 0.19 | 0.39 | 0 | 1 |
| Native American | 1,557 | 0.03 | 0.16 | 0 | 1 |
| Asian | 1,557 | 0.13 | 0.34 | 0 | 1 |
| Multiple | 1,557 | 0.05 | 0.22 | 0 | 1 |
| Latino | 1,561 | 0.15 | 0.35 | 0 | 1 |
| Born in the United States | 1,561 | 0.82 | 0.38 | 0 | 1 |
| Evangelical Christian | 1,561 | 0.26 | 0.44 | 0 | 1 |
| Income assessment | 1,558 | 2.76 | 1.03 | 1 | 4 |
| 10/11-2020 percent unemployment by state (BLS) | 1,557 | 7.14 | 1.76 | 3 | 14.3 |
| Contracted COVID-19 | 1,561 | 0.10 | 0.29 | 0 | 1 |
| Family member contracted COVID-19 | 1,561 | 0.17 | 0.38 | 0 | 1 |
| Know someone who died from COVID-19 | 1,561 | 0.23 | 0.42 | 0 | 1 |
| Percent new COVID-19 deaths by month/state (CDC) | 1,557 | 1.85 | 4.65 | -1 | 22 |
| Percent new COVID-19 cases by month/state (CDC) | 1,557 | 183.10 | 367.85 | -2 | 2107 |
| Northeast | 1,557 | 0.22 | 0.41 | 0 | 1 |
| Midwest | 1,557 | 0.19 | 0.39 | 0 | 1 |
| South | 1,557 | 0.37 | 0.48 | 0 | 1 |
| West | 1,557 | 0.22 | 0.41 | 0 | 1 |
| 2020 primary voter | 1,561 | 0.64 | 0.48 | 0 | 1 |
| 2020 general election voter | 1,561 | 0.63 | 0.48 | 0 | 1 |
| Early voter | 1,457 | 0.48 | 0.50 | 0 | 1 |
| Percent of state’s popular vote for Biden | 1,557 | 0.52 | 0.09 | 0.27 | 0.92 |
| State flipped from Trump 2016 to Biden | 1,557 | 0.12 | 0.33 | 0 | 1 |
| Survey wave | 1,561 | 1.39 | 0.49 | 1 | 2 |
| Panel respondents | 1,561 | 0.64 | 0.48 | 0 | 1 |

# The Partisan Gap in U.S. Electoral Context

Changes in Democratic Satisfaction Relative to Previous Elections

Below, we compare the partisan gap in satisfaction with democracy between Democrats and Republicans in our study to gaps in democratic satisfaction reported for previous elections in the CSES, Americasbarometer, and NES surveys. These surveys all use a comparable item measuring democratic satisfaction: “In general, would you say that you are very satisfied, satisfied, dissatisfied or very dissatisfied with the way democracy works in the United States?” Response options are on a four-point scale ranging from 1 = very satisfied, 2 = fairly satisfied, 3 =not very satisfied, and 4 = not at all satisfied. The partisan gap in satisfaction is calculated as the percentage difference in satisfaction and dissatisfaction among partisan Republicans (red bars) and Democrats (blue bars). A positive value on red bars indicates that Republicans were more satisfied than Democrats at that particular time. A positive value on blue bars indicates that Democrats were more satisfied. From the CSES data, we can see that the widest partisan gap in the U.S. occurred after the 2004 election. CSES did not ask this question for the 2000 election, and there was no partisan gap after the 1996 election. NES data from Craig et al. (2006) shows no gap in 2000 but a wide gap by the 2002 midterm. The gap we observe in our 2020 data is comparable to the post-Presidential election gap in 2016 and somewhat greater than in 2008 and after the 2012 midterm. Americasbarometer data from 2018 indicate that the gap was wider after that year’s midterm elections than what we find in the immediate aftermath of the 2020 election. In sum, the wide partisan gap in satisfaction with democracy in the United States appears to be a recent development, but the gap does not appear to have widened before or after the 2020 election.

Source: CSES 1-5

Source: Americasbarometer

Source: NES Craig et al. 2006

Reference

Craig, Stephen C., Michael D. Martinez, Jason Gainous, and James G. Kane. "Winners, losers, and election context: Voter responses to the 2000 presidential election." *Political Research Quarterly* 59, no. 4 (2006): 579-592.

Based on the Americasbarometer data, Republican satisfaction declined during the Obama presidency and appears headed for a reset following Trump’s defeat in 2020.

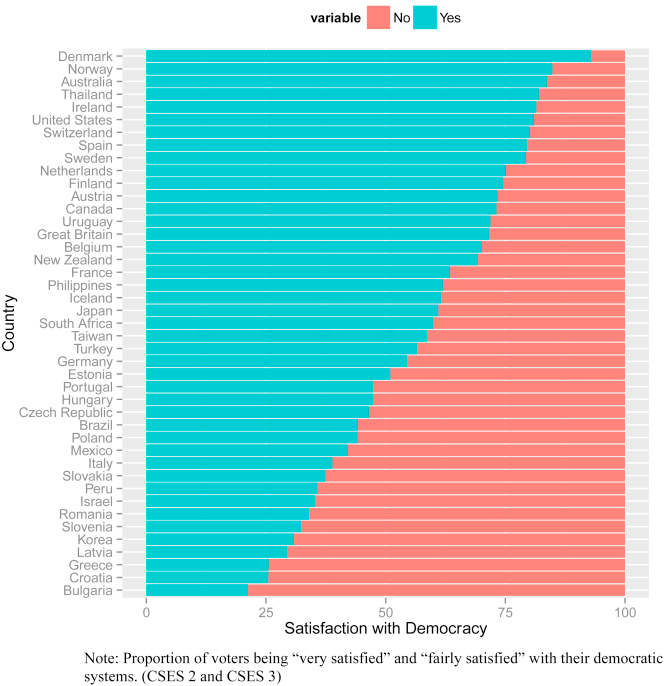
Source: Americasbarometer

Among Democrats, satisfaction with democracy declined during the Obama administration, reaching its lowest point in 2018, before rebounding with Democratic electoral gains in 2018 (The U.S.-wave of the 2018 AmericasBarometer was administered after midterm elections).

Source: Americasbarometer

# Satisfaction with Democracy in the U.S. and Beyond

The figure below from Han and Chang (2016) indicates that the United States ranked highly on democratic satisfaction compared to other CSES countries before 2016. It shows that prior to the 2016 election, levels of democratic satisfaction were higher on average than in other CSES countries.



“On the whole, are you very satisfied, fairly satisfied, not very satisfied, or not at all satisfied with the way democracy works in [country]?”

Satisfaction with Democracy After the 2016 Election

The following chart shows the partisan gap in satisfaction in the United States following the contentious 2016 election. Compared to other countries in the CSES, however, satisfaction among Democrats and Republicans remains higher.

  
Finally, we compare our data to the 2016 CSES U.S. data and average democratic satisfaction scores among all CSES countries in the survey’s fifth (2016-present) wave. We find that the average U.S. democratic satisfaction scores were greater in the among partisan Democrats and Republicans in 2016 compared to the non-U.S. average (t = 12.65, p<0.0000; t = 22.50, p<0.0000 respectively). Satisfaction is higher in our overall 2020 study compared to the non-U.S. average (t =7.29, p<0.0000). Independents, however, are not statistically different from the non-U.S. average for democratic satisfaction.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sample | Source | N | Mean | SD |
| Non-US average 2016 | CSES 2016 | 29907 | 2.44 | 0.87 |
| US 2016 democrats | CSES 2016 | 1055 | 2.72 | 0.70 |
| US 2016 republicans | CSES 2016 | 930 | 2.94 | 0.66 |
| US 2020 all data | Our data | 1561 | 2.61 | 0.90 |
| US 2020 pre-election democrats | Our data | 209 | 2.56 | 0.86 |
| US 2020 post-election democrats | Our data | 208 | 2.79 | 0.84 |
| US 2020 pre-election republicans | Our data | 150 | 2.79 | 0.88 |
| US 2020 post-election republicans | Our data | 150 | 2.54 | 0.89 |
| US 2020 pre-election independents | Our data | 122 | 2.33 | 0.89 |
| US 2020 post-election independents | Our data | 123 | 2.34 | 0.79 |

1. The partisan gap can also apply to referendum outcomes as well (see Brummel 2020). [↑](#footnote-ref-1)