

## *Polls and Elections:* Accuracy and Bias in the 2020 U.S. General Election Polls

COSTAS PANAGOPOULOS

*This report examines accuracy and bias in national and state-level preelection polls conducted during the 2020 U.S. general election cycle. Overall, national and statewide polls in 2020 were considerably less accurate than in 2016. In fact, there is evidence the final, national presidential preelection polls were less accurate than in any cycle since 1996. Polls across the board underestimated Republican support in the presidential, U.S. Senate, and gubernatorial races. The results show the pro-Democratic biases reflected in the final 2020 preelection polls were systematic.*

Keywords: 2020 election, elections, poll accuracy, preelection polls, surveys

Pollsters conduct hundreds of preelection surveys during a typical presidential election year. In many respects, 2020 was not a typical year due to the global COVID-19 pandemic and its effects on Americans' daily lives. The pandemic, however, did not dampen the public's demand for preelection polls or the media's usual horserace coverage. Pollsters conducted an impressive number of surveys throughout the election cycle to meet this demand, and they did so against the backdrop of intense scrutiny following the 2016 election and what many viewed as a failure of the polls to forecast Donald Trump's electoral victory. Perceived polling failures in 2016 motivated a self-assessment of election polling (Kennedy et al. 2017), which resulted in methodological changes and a renewed sense of confidence among some pollsters from prominent firms (Skelley and Rakich 2020). In this article, I assess how well the 2020 general election polls performed and situate the accuracy of preelection polling in the 2020 presidential election in historical context.

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Costas Panagopoulos is Professor of Political Science and Chair of the Department of Political Science at Northeastern University. AUTHOR'S NOTE: Kyle Endres and I conducted a preliminary analysis of the final, national, presidential preelection polls in 2020 (Panagopoulos and Endres 2020). I am grateful to Kyle for his collaboration support for the current, expanded study, which benefited enormously from his generous assistance, including some additional data collection and initial analyses. The author is solely responsible for the calculations, interpretations, and conclusions reported in the current study.

Pollsters, campaigns, candidates, and the public all desire accurate electoral polls. Polling has implications for perceived candidate viability (Bartels 1988), the allocation of campaign resources (Huang and Shaw 2009; Shaw 1999), vote choice (Ansolabehere and Iyengar 1994; Blais, Gidengil, and Nevitte 2006), and turnout decisions (Vannette and Westwood 2013). The influence of electoral polling on campaign strategy and voting behavior as well as the sustained appetite for electoral polls by the American people motivate the continued examination of poll accuracy through comparisons with election outcomes (Martin, Traugott, and Kennedy 2005; Panagopoulos 2009; Panagopoulos, Endres, and Weinschenk 2018; Panagopoulos and Farrer 2014; Traugott 2001; 2005). Election outcomes provide a benchmark to gauge the accuracy of preelection polls conducted immediately before election day. Comparisons of final preelection polls and election outcomes often provide insights about common methodology and polling features that may have affected accuracy. Such insights can be used to improve electoral polling in subsequent election cycles.

I evaluate the accuracy of preelection polls conducted the final week before the November 2020 elections using established measures of polling accuracy—Mosteller and colleagues' (1949) M3 and M5 measures, and Martin, Traugott, and Kennedy's (2005) A measure. First, I use these measures to assess how well national, preelection presidential polls performed. Second, I evaluate the accuracy of the final, national, generic congressional vote polls. Third, I assess the accuracy of the final statewide presidential, gubernatorial, and U.S. Senate preelection polls. Using a data set I compiled containing state-level preelection polls conducted in the final week of the election cycle, I also conduct a series of multivariate regression analyses to explain overall levels of poll accuracy and bias. Finally, I place these findings in historical context, comparing the results for 2020 to similar analyses conducted in previous presidential election cycles. I conclude with a discussion of some enduring challenges associated with electoral polling in the United States.

As a preview, I find that most national, preelection presidential polls overestimated support for the Democratic Party's presidential candidate, Joe Biden. On average, the biases in these final polls were statistically significant overall and in 5 of the 14 national polls conducted during the final week leading up to election day. Taken as a whole, the final, national presidential preelection polls in 2020 were among the least accurate preelection presidential polls in the past quarter century. Polls projecting the generic U.S. House ballot as well as state-level polls across the board also favored Democrats systematically in 2020.

## National, Presidential Preelection Polls in 2020

Former Democratic Vice President Joseph R. Biden challenged incumbent Republican President Donald J. Trump in the 2020 general election. A Biden victory appeared likely throughout the election year as the Democratic nominee routinely outperformed Trump in head-to-head matchups. In fact, among the 229 national surveys conducted from January 2020 through election day (and tracked by the poll aggregation website RealClearPolitics.com), Biden trailed Trump in only two of these polls. The last

projection by RealClearPolitics had Biden ahead by an average of 7.2 points (51.2 to 44.0), while its rival aggregator, FiveThirtyEight, listed Biden at an 8-point average advantage (53.4 to 45.4) and projected that Trump had only a 10% chance of winning reelection. Each of the individual polls conducted in the last week before the election that I use to assess poll accuracy had Joe Biden ahead by between 1 and 11 percentage points. Biden was ultimately victorious in the 2020 election, in which he defeated the incumbent president by a margin of 51.3 to 46.8 in the national popular vote.

I assess the accuracy of polling in the 2020 election using all polls available through RealClearPolitics, with data collection ending within seven days of the election (on or after October 27, 2020). In addition, I restrict the analyses to the final poll released by each firm during this one-week period, if multiple polls were made publicly available. These criteria are consistent with polling evaluations conducted following earlier presidential elections (e.g., Panagopoulos, Endres, and Weinschenk 2018), which allows for comparability and direct comparisons to situate the 2020 election in the appropriate historical context.<sup>1</sup>

I analyzed the accuracy and bias of 14 national presidential preelection polls with data collection concluding between October 27, 2020, and election day. Overall, all of these polls projected a Biden popular-vote victory. On average, this set of polls projected Biden would end up with a popular vote margin of 7.6 percentage points, 3.1 percentage points higher than the 4.5 percentage point margin Biden ultimately secured when the ballots were counted. To collectively and individually evaluate poll accuracy further, I use three well-established measures—Martin, Traugott, and Kennedy’s (2005) *A* measure and Mosteller and colleagues’ (1949) *M3* and *M5*. Each of these metrics is routinely relied upon when scrutinizing the accuracy of electoral polling. The *A* metric is calculated using the natural logarithm of the odds ratio of each poll’s outcome and the popular vote (see Martin, Traugott, and Kennedy 2005 for more details). Accuracy can be gauged using the absolute value of the metric, but the *A* measure has the additional advantage that it results in a signed statistic that indicates a pro-Democratic bias when it is negative and a pro-Republican bias when the sign is positive. A score of zero on the *A* metric indicates an absence of bias (Traugott 2005). The *M3* metric is derived from the average of the absolute difference between the poll’s estimate for each candidate and their final share of the vote. *M5* is calculated by taking the absolute value of the difference between the margin separating the two major-party candidates in the poll and the margin separating them in the final election results. Each of these metrics sheds some light on the accuracy of each poll. In addition to accuracy,

The final set of national presidential polls is presented in Table 1, with each poll’s score on all three metrics. The polls are arranged from most accurate to least accurate based on the *A* measure. The two most accurate of the 14 polls—*The Hill*/HarrisX and *Investor’s Business Daily*/TIPP—had Joe Biden ahead by 4 percentage points, and Biden ultimately finished 4.5 percentage points ahead of Trump in the national popular vote.

1. I acknowledge that alternative inclusion criteria may have produced a different or more expansive set of polls. Aggregators using different selection criteria, including FiveThirtyEight.com and the *Economist*, included some polls (e.g., Morning Consult) that were excluded by RealClearPolitics. For consistency, and to maximize comparability with similar analyses conducted in previous cycles (see Panagopoulos, Endres, and Weinschenk 2018), only final polls reported by RealClearPolitics are included in the analyses.

**TABLE 1**  
**Final, National Presidential and U.S. House Preelection Poll Accuracy, 2020**

<i>Rank/Firm</i>	<i>Trump/Rep</i>	<i>Biden/Dem</i>	<i>Sample Size (N)</i>	<i>Mosteller Measure 3</i>	<i>Mosteller Measure 5</i>	<i>Predictive Accuracy (A)</i>
<i>Election Result (President)</i>						
1. <i>The Hill/HarrisX</i>	46.8	51.3	2,359	2.05	0.5	0.007
2. <i>IBD/TIPP</i>	45	49	1,212	1.05	0.5	0.008
3. <i>Reuters/Ipsos</i>	46	50	914	1.25	2.5	-0.053
4. <i>JTN/RMG Research</i>	45	52	1,200	1.55	2.5	-0.056
5. <i>Harvard-Harris</i>	44	51	2,093	1.75	3.5	-0.069
6. <i>Rasmussen Reports</i>	46	54	1,500	1.75	3.5	0.071
7. <i>FOX News</i>	47	48	1,500	1.75	3.5	-0.075
7. <i>SurveyUSA</i>	44	52	1,246	1.75	3.5	-0.075
7. <i>USA Today/Suffolk</i>	44	52	1,265	1.75	3.5	-0.075
7. <i>USA Today/YouGov</i>	44	52	1,000	1.75	3.5	-0.075
10. <i>Economist/YouGov</i>	43	53	1,363	2.75	5.5	-0.117*
11. <i>CNBC/Change Research</i>	42	52	1,880	2.75	5.5	-0.122*
11. <i>NBC News/Wall Street Journal</i>	42	52	1,000	2.75	5.5	-0.122*
13. <i>USC Dornsife</i>	43	54	5,423	3.25	6.5	-0.136*
14. <i>Quinnipiac</i>	39	50	1,516	4.55	6.5	-0.157*
<i>Average</i>				2.19	3.79	-0.069*
<i>Election Result (U.S. House)</i>						
1. <i>NBC News/Wall Street Journal</i>	47.7	50.8	1,000	3.75	1.9	-0.047
2. <i>The Hill</i>	43	48	2,359	4.75	1.9	-0.050
3. <i>Politico</i>	42	47	14,663	2.75	3.9	-0.088*
4. <i>USC Dornsife</i>	43	50	5,413	2.45	4.9	-0.101*
5. <i>YouGov</i>	45	53	1,363	3.45	6.9	-0.151*
6. <i>USA Today</i>	42	52	1,000	5.25	6.9	-0.165*
<i>Average</i>	39	49		3.73	4.4	-0.100*

*Note:* To be consistent with previous years' analyses of poll accuracy, I include poll estimates produced within the final week of the election cycle.  
 \*Statistically significant at  $p < .05$  level.

**TABLE 2**  
Average Errors in Presidential Polls, 1948–2016

<i>Year</i>	<i># of Polls</i>	<i># of Candidates</i>	<i>M3</i>	<i>M5</i>	<i>A</i>
1956	1	2	1.8	3.5	
1960	1	2	1.0	1.9	
1964	2	2	2.7	5.3	
1968	2	3	1.3	2.5	
1972	3	2	2.0	2.6	
1976	3	3	1.5	2.0	
1980	4	3	3.0	6.1	
1984	6	2	2.4	4.4	
1988	5	2	1.5	2.8	
1992	6	3	2.2	2.7	
1996	9	3	1.7	3.6	-0.084
2000	19	3	1.7	3.5	+0.063
2004	19	2	1.7	2.1	-0.024
2008	20	2	1.5	1.5	-0.013
2012	21	2	1.8	2.8	+0.054
2016	14	2	2.4	2.2	-0.024
2020	14	2	2.2	3.8	-0.069
<i>Mean (M3/M5, 1956–2020)</i>			1.9	3.1	
<i>Mean A (1996–2020)</i>					-0.014
<i>Mean Abs(A) (1996–2020)</i>					+0.047

*Note:* Data from the 1956–2004 period were obtained from Traugott (2005, 649), 2008 from Panagopoulos (2009), 2012 from Panagopoulos and Farrer (2014), 2016 from Panagopoulos, Endres, and Weinschenk (2018), and 2020 update compiled by author. The table displays only polls conducted in the last week before the election.

Based on the *A* measure, only these two polls, along with the Rasmussen poll released on November 1, reflected a pro-Republican bias; all of the remaining polls had a pro-Democratic bias. In fact, the average bias in the final, national presidential preelection polls in 2020 taken as a group was  $-0.069$ , indicating a fairly sizable Democratic bias. Assuming a tied election, my estimate of bias implies polls favored Biden by about 1.72 percentage points on average. The standard error associated with the mean value for *A* reported for the full sample of national polls is 0.02, indicating the bias overall was statistically significant at conventional ( $p < .05$ ) levels in 2020. The pro-Democratic bias was also statistically significant for the five polls that performed the worst based on the *A* measure: *Economist/YouGov*, *CNBC/Change Research*, *NBC News/Wall Street Journal*, *USC Dornsife*, and *Quinnipiac*.

The 2020 average for Mosteller's Measure 3 was 2.19, and the average value for Mosteller's Measure 5 was 3.79. To help put the 2020 polling into context, I present the averages for *M3* and *M5*, the number of candidates, and the number of polls during the final week before the election from 1956 to 2020 in Table 2 (see Panagopoulos 2009; Traugott 2005). Based on both of Mosteller's measures, the 2020 polls performed worse than the historical average (1956–2016: *M3* = 1.9 and *M5* = 3.1).

We do not have as lengthy of a time series for the  $A$  measure, but the evidence tells a similar story. Table 2 displays the mean  $A$  measure for the final, national presidential polls since 1996. Polls in 1996, 2004, 2008, and 2016 were biased toward Democratic candidates, whereas 2000 and 2012 polls were biased toward Republicans. Overall during the two decades from 1996 to 2016, the mean level of  $A$  was  $-0.014$ , reflecting a slight pro-Democratic bias. Based on  $A$ , the 2020 polls overall ( $A = -0.069$ ) were among the least accurate in the past quarter-century period and less accurate than in any presidential cycle since 1996.

## National, Generic Congressional Vote Preelection Polls in 2020

In 2020, six polling organizations reported final poll results projecting the national, generic congressional vote in the week before election day. These estimates, displayed in the lower part of Table 2, project the overall share of the U.S. House vote nationally for each party, rather than the share of the vote for candidates within each congressional district. I assess the accuracy of these polls relative to the actual U.S. House vote outcome nationally on election day. Overall, Republican U.S. House candidates secured 47.7% of the vote nationally compared to 50.8% for Democratic candidates. All six of the final, generic ballot U.S. House polls overestimated the Democratic vote in 2020 (based on  $A$ ). The analysis reveals the generic House vote poll conducted by NBC News/*Wall Street Journal* was the most accurate in 2020, while the poll conducted by *USA Today* was the least accurate. The mean value of  $A$  for the polls as a group was  $-0.100$ , confirming the pro-Democratic bias overall. Assuming a tied election, this estimate of bias implies polls favored House Democrats by about 2.5 percentage points on average. These estimates imply the final, U.S. House generic ballot polls in 2020 were considerably less accurate overall than in the 2016 cycle (based on  $A$ , mean =  $-0.0448$ ), in which, assuming a tied election, polls favored Democrats by only about 1.12 percentage points on average (see Panagopoulos, Endres, and Weinschenk 2018 for details). The standard error associated with the mean value for  $A$  reported for the full 2020 sample of national polls was 0.02, indicating the bias overall was statistically significant. In fact, four of the six polls examined (with the exception of the polls conducted by NBC News/*Wall Street Journal* and *The Hill*) were significantly biased toward Democrats. Mean values of  $M3$  and  $M5$  for this set of polls were 3.73 and 4.4, respectively.

## Statewide Preelection Polls in 2020

In addition to assessing presidential and congressional preferences nationally, pollsters also probe state-level preferences for president, as well as U.S. Senate and gubernatorial candidates. Using a data set of state-level polls conducted in the final week of the election cycle (polls completed on October 27, 2020, or later), I examine accuracy and bias in these statewide contests. These observations were obtained from the compendium

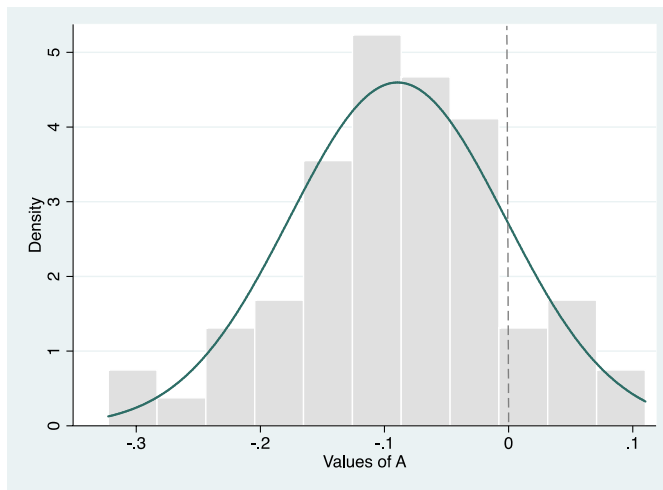


FIGURE 1. Frequency Distribution of  $A$  in Statewide Preelection Polls, 2020.

provided by RealClearPolitics, which is subject to the inclusion restrictions the aggregator site has adopted. To be consistent with previous examinations, the sample is restricted to polls fielded by organizations that conducted at least 10 statewide polls over the course of the 2020 campaign and that polled in multiple (at least three) states.<sup>2</sup> Accordingly, the analyses are restricted to a total sample of 136 statewide polls that examined preferences for president, U.S. Senate, or governor. Forty-seven of these polls were conducted by live phone interviewers, 27 used interactive voice response (IVR) (with either live callers [12] or online polls [15]), 22 were conducted via the Internet, and 36 used mixed modes.<sup>3</sup>

Figure 1 presents the frequency distribution of  $A$  for the individual polls included in the sample. In the absence of overall bias, the distribution is centered on zero. As Figure 1 makes clear, the preponderance of statewide polls reflected a pro-Democratic (negative) bias (density is concentrated below zero). Overall, I observed pro-Democratic biases in 117 of the 136 statewide polls included in the analyses (86%), compared to only 19 polls (14%) that favored Republican candidates. While none of the polls with pro-Republican biases were statistically significant, I observed statistically significant ( $p < .05$ ) biases in about one in three (38) of the polls with pro-Democratic biases. The mean value of  $A$  for the complete sample of polls was  $-0.090$ , suggesting the pattern of pro-Democratic bias detected in the national presidential and congressional generic vote polls also characterizes statewide polls. The standard error associated with the mean level of  $A$  was  $.007$ , which implies the pro-Democratic bias reflected in the statewide polls

2. This is consistent with Martin, Traugott, and Kennedy (2005, 362), Panagopoulos (2009), Panagopoulos and Farrer (2014), and Panagopoulos, Endres, and Weinschenk (2018).

3. IVR surveys in the United States are only allowed to call landline phones due to current legal requirements. Thus, some polling firms will supplement their IVR polls with online polls designed to target cell-phone-only individuals.

**TABLE 3**  
**Mean Predictive Accuracy (*A*) by Poll Characteristics, 2020 Statewide Polls**

<i>Poll Characteristics (Type/Sponsor)</i>	<i>Number of Polls</i>	<i>Mean Predictive Accuracy (A)</i>	<i>Standard Error</i>
Democratic	4	-0.122	0.033*
Republican	18	0.017	0.015
Independent	18	-0.070	0.021*
Media	57	-0.107	0.009*
Academic	39	-0.119	0.013*
Presidential	90	-0.077	0.009*
U.S. Senate	42	-0.106	0.012*
Governor	4	-0.187	0.043*
Phone	47	-0.125	0.011*
IVR/online	15	-0.074	0.016*
IVR/phone	12	-0.030	0.030
Mixed	36	-0.055	0.016*
Internet/online	22	-0.102	0.010*

*Note:* Following Martin, Traugott, and Kennedy (2005) and Panagopoulos (2009), only polling organizations that conducted at least 10 statewide polls over the course of the 2020 campaign in at least three separate states in 2020 are included in the analysis.

\*Statistically significant at  $p < .05$  level.

as a group was statistically significant at conventional ( $p < .05$ ) levels. In fact, assuming all races were perfectly tied, the mean estimate of *A* would translate into a difference (or Democratic overstatement) of 2.25 percentage points on average. This is somewhat lower than the average pro-Democratic bias of 2.75 percentage points detected in the statewide polls in the 2016 cycle, but the bias for these polls as a group in 2016 was not statistically significant at conventional levels (see Panagopoulos, Endres, and Weinschenk 2018).

I further use the *A* measure to investigate the accuracy of polls by common characteristics, including election type, survey mode, sample type, interviewing period, and sponsor. In recent years, polling organizations have adopted methodological refinements to improve poll performance by adjusting their weighting schemes to make polls more representative, and updating their approaches to modeling the electorate (likely voters) (see Erikson, Panagopoulos, and Wlezien 2004). Despite these efforts, error persists, and analyses of poll accuracy can help to reveal approaches and features that are potentially problematic—or at least to confirm that procedures generally produce reasonable (that is to say, accurate or unbiased) results. The analyses below can shed light on these issues.

Table 3 presents the means and standard errors of *A* for subsets of the statewide polls based on the features described above. With the exception of statewide polls conducted by partisan, Republican polling organizations ( $N = 18$ ), all subsets of polls examined reflected pro-Democratic biases. In most cases, these biases were statistically significant at conventional ( $p < .05$ ) levels. Polls conducted by Republican organizations were actually more accurate overall than polls conducted by other types of sponsors. Polls conducted by all other types of sponsors reflected statistically significant ( $p < .05$ ) biases that favored Democratic candidates.



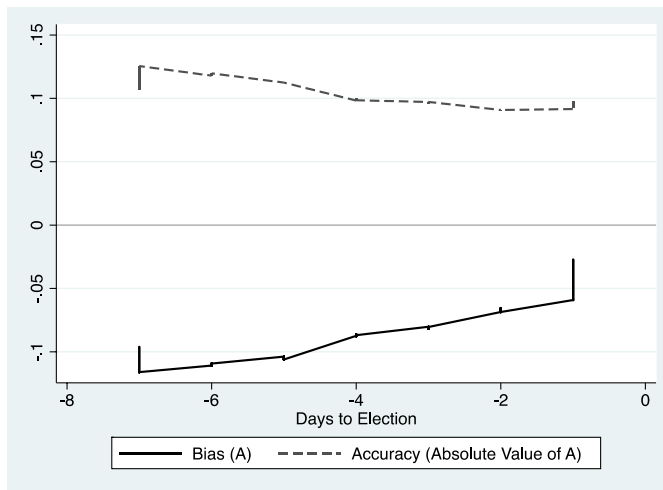


FIGURE 2. Smoothed (Lowess) Levels of Overall Bias (A) and Accuracy (Absolute Value of A) by Period to Election, 2020.

Next, I analyze accuracy and bias by election type. The sample includes 90 statewide, presidential polls, 42 U.S. Senate polls, and four gubernatorial polls. Based on mean values of  $A$ , polls overall at each level reflected biases that favored Democratic candidates, as shown in Table 3. The Democratic biases were statistically significant for all types of races. Statewide presidential polls were the most accurate (mean value of  $A = -0.077$ , S.E. = 0.009), followed by U.S. Senate polls (mean value of  $A = -0.106$ , S.E. = 0.017), and then gubernatorial polls (mean value of  $A = -0.187$ , S.E. = 0.043). Compared to parallel analyses conducted for the 2016 election cycle (Panagopoulos, Endres, and Weinschenk 2018), these results suggest statewide presidential and U.S. Senate polls were somewhat more accurate in 2020, while statewide gubernatorial polls were less accurate overall.

Next I assess accuracy by poll mode. Overall, polls conducted using IVR with live callers were the most accurate (mean value of  $A = -0.030$ , S.E. = 0.030; the bias is not statistically significant). Polls conducted using IVR with online polls (mean value of  $A = -0.074$ , S.E. = 0.016) or mixed modes (mean value of  $A = -0.055$ , S.E. = 0.016) were similarly accurate, followed by polls conducted via the Internet (mean value of  $A = -0.102$ , S.E. = 0.010). Statewide IVR polls fared well in terms of accuracy in the 2008 (when they were the most accurate; see Panagopoulos 2009) and 2016 cycles (compared to Internet-based polls; see Panagopoulos, Endres, and Weinschenk 2018), but they were the least accurate in 2012 (Panagopoulos and Farrer 2014).<sup>4</sup> Polls conducted entirely by phone were the least accurate in 2020 (mean value of  $A = -0.125$ , S.E. = 0.011).

4. Other research has found that IVR polls are as accurate as other polling modes when the results from more traditional modes have been publically released, which suggests that IVR polls may adjust their weighing procedures so their results more closely align with other polls (Clinton and Rogers 2012). This may be one plausible explanation for why significant differences between modes are not detected.

The extant research connecting the poll timing and accuracy is decidedly mixed. Some research argues that polls' predictive accuracy grows as election day approaches (see Crespi 1988; Erikson and Wlezien 2012). Other studies fail to find a statistically significant relationship between the poll timing and accuracy (see Lau 1994; Martin, Traugott, and Kennedy 2005; Panagopoulos 2009; Panagopoulos, Endres, and Weinschenk 2018). In Figure 2, I use longitudinal analysis to assess whether poll accuracy in 2020 improved closer to election day. The dashed line presents the smoothed pattern of the absolute value of  $A$  over the course of the final week of the campaign and suggests accuracy likely improved slightly in the final few days of the election (the absolute value of  $A$  trended toward zero), as it did in the closing days of the 2016 cycle (Panagopoulos, Endres, and Weinschenk 2018). The solid line in Figure 2 plots lowess-smoothed levels of mean predictive accuracy ( $A$ ) over the same period. The pattern suggests statewide polls reflected a stable, pro-Democratic bias overall during the final week of the campaign, and that this bias abated somewhat (values trended toward zero) as election day approached.

Next, I conduct multivariate regression analyses to determine whether any of the poll characteristics systematically affect the accuracy and bias in the statewide polls. I estimate two regression models. Model 1 explains accuracy, while Model 2 explains bias. The independent variables include sample size, the number of days to the election, and indicator variables for race type, poll mode, and sponsor type.

The results for Model 1, estimated using ordinary least squares regression (OLS), are presented in Table 4. The dependent variable in the analysis represents the absolute value of  $A$  and ranges from 0.005 to 0.323. Values closer to zero represent high levels of accuracy, while larger values indicate greater inaccuracy. Model 1 also includes fixed effects for states and specific polling organizations. The results suggest statewide gubernatorial polls were significantly (at the  $p < .05$  level, two-tailed) less accurate, compared to presidential polls (the excluded category) in 2020, but accuracy in statewide U.S. Senate polls did not differ significantly from statewide presidential polls in the cycle, all else equal. None of the other factors considered were significantly related to poll accuracy in 2020 (fixed effects details available upon request).

The second model developed to explain overall bias is estimated using probit regression with a dichotomous dependent variable equal to 1 if the poll reflected a pro-Democratic bias ( $A < 0$ ) and 0 if the poll reflected a pro-Republican bias ( $A > 0$ ). The explanatory variables are identical to Model 1. Data in Model 2 are clustered at the individual polling firm level. Final, statewide U.S. Senate polls in 2020 were, all else equal, significantly (at the  $p < .05$  level, two-tailed) more likely to be biased in a Democratic direction in 2020, compared to presidential polls (the reference category). Polls conducted by all types of sponsors were significantly more biased in a pro-Democratic direction, compared to those conducted by partisan, Democratic sponsors, in 2020, all else equal, and polls conducted via IVR with live callers and using mixed modes were significantly less likely than those conducted by phone (the reference category) to favor Democrats; biases for polls conducted using IVR/online techniques did not differ significantly compared to those conducted by phone.

The multivariate analyses reveal some intriguing findings when compared against similar analyses conducted during the last two election cycles. For example, statewide

**TABLE 4**  
**The Impact of Poll Attributes on Bias and Accuracy in Statewide Preelection Polls, 2020**

<i>Independent Variables: (Poll Characteristics)</i>	<i>Model 1: Accuracy</i>	<i>Model 2: Bias (Pro-Democratic)</i>
U.S. Senate	0.019 (0.013)	1.096*** (0.391)
Governor	0.074** (0.032)	
Sample size	0.000 (0.000)	0.000 (0.001)
Independent	-0.075 (0.166)	-7.762*** (1.119)
Media	0.001 (0.158)	-6.464*** (0.854)
Republican	-0.059 (0.051)	-5.701*** (0.397)
Academic	0.059 (0.263)	-4.356*** (0.472)
IVR/online	-0.079 (0.137)	0.652 (0.913)
IVR/phone	0.078 (0.073)	-2.429*** (0.793)
Mixed	0.050 (0.160)	-2.710*** (0.743)
Internet/online	0.039 (0.057)	
Days to election	-0.002 (0.005)	-0.162 (0.183)
Constant	-0.013 (0.352)	7.381*** (0.936)
N	132	106
R <sup>2</sup> /pseudo- <sup>2</sup>	.62	.46
Log pseudo-likelihood		-26.81

*Notes:* Model 1: OLS. Dependent variable is the absolute value of  $A$ ; includes fixed effects for state and polling organization. Model 2: Probit. Dependent variable = 1 if  $A < 0$ , and 0 if  $A > 0$ . Clustered for polling organizations. Observations with covariate patterns that predict outcome perfectly are excluded from the model, resulting in the smaller number of cases. Standard errors are in parentheses.

\*\*\*Statistically significant at  $p < .01$  level; Statistically significant

\*\*Statistically significant at  $p < .05$  level, two-tailed tests.

U.S. Senate polls have been significantly less accurate in each of the three most recent election cycles, and gubernatorial polls in two (2008 and 2016) of the last three cycles, compared to statewide presidential polls. Gubernatorial polls have also been significantly biased in a pro-Republican direction in the last three election cycles, while U.S. Senate polls, which reflected significant pro-Republican biases in 2008 and 2012, were not significantly biased in a GOP direction in 2016 (Panagopoulos 2009; Panagopoulos, Endres, and Weikschenk 2018; Panagopoulos and Farrer 2014). Furthermore, factors including poll sponsor, mode, sample size, and poll timing did not affect accuracy in 2016, and the 2020 analysis bolsters the same conclusion. Such developments, along with the

accumulation of comparative information, can foster speculation about explanations for persistent patterns (or aberrations), and eventually improvements in polling methodology as well as poll interpretation.

## Conclusion

Overall, 2020 was a lackluster cycle for preelection polling in the U.S. general elections. Based on a variety of common metrics, polls across the board were generally less accurate than in prior cycles, and they tended to reflect systematic biases favoring Democratic candidates. This outcome will likely disappoint many, including survey research and election polling purveyors and prognosticators who scrutinized poll performance in the aftermath of the 2016 presidential election cycle and, in many cases, modified their mechanics to refine their procedures. The 2020 reality also tempers some of the more optimistic interpretations that found at least some polls (namely, national, presidential polls) to be relatively accurate and systematically unbiased in 2016 (Panagopoulos, Endres, and Weinschenk 2018).

Once again in 2020, almost immediately after election day, pollsters and academics began feverishly trying to figure out what went wrong. Some analysts are revisiting the explanation that shy Trump voters may have failed to provide pollsters with honest answers (Claassen and Ryan 2020). Others are suggesting pollsters may not have accounted adequately for late deciders (Mellman 2020), who disproportionately voted for Donald Trump (voters who decided in the final week of the election favored Trump over Biden by a 54-42 margin, according to the national exit poll, compared to a Biden advantage of 51-47 for voters who decided prior to the final week of the campaign).<sup>5</sup> In theory, the possibility that poll accuracy fluctuates as a function of the size of the late-deciding electorate because pollsters are challenged to capture late developments in time to be reflected in their final poll projections is intriguing. Analysis of available data from the American National Election Studies suggests there has been an uptick in the number of voters who reached voting decisions in the final two weeks of the election since 1948, with about one in five voters on average reporting deciding during this period in presidential elections since 1992. While there are some indications that polls may be less accurate when voters delay (or change) their voting decisions (see Panagopoulos, Endres, and Weinschenk 2018), this evidence is generally inconclusive and such a conclusion is likely premature. Nevertheless, it was probed in the 2016 cycle, when exit polls showed 13% of voters reported making their voting decisions in the final week of the election. In 2020, however, only a relatively small percentage (5%) of the voting electorate indicated in exit polls that their minds were made up in the final week of the election, suggesting polls should have been more (not less) accurate in 2020, compared to cycles in which larger shares of the electorate decided relatively late. Similarly low rates of late deciding (last week) were reported in exit polls in 2020 in key battleground states, including

5. Exit poll data on the timing of vote decision in 2020 can be found at the following website: <https://www.cnn.com/election/2020/exit-polls/president/national-results>.

Florida (4%), Georgia (4%), Michigan (4%), Nevada (2%), North Carolina (3%), Ohio (4%), Pennsylvania (6%), and Wisconsin (5%). Nevertheless, this line of inquiry certainly warrants further scholarly investigation.

Other explanations are more technical in nature, including the possibility of differential nonresponse between Trump and Biden voters and challenges with likely voter models (Keeter, Kennedy, and Deane 2020). Correctly predicting which voters will actually cast ballots has perhaps grown more complicated as both parties have doubled down on mobilizing their bases in recent elections (Erikson, Panagopoulos, and Wlezien 2004; Kennedy et al. 2017; see also Panagopoulos 2020). And, of course, election polling is further complicated by the reality that voters' intentions and final decisions on whether or not to vote can change. Voters can even switch preferences at the last minute when they learn they disagree with a candidate on a wedge issue (Endres 2020; Endres and Panagopoulos 2019), like fracking, which Trump vigorously touted during visits to battleground states in the closing days of the campaign in 2020 (Grandoni 2020).

The assessments of poll accuracy and bias reflected in this report underscore the notion that preelection polling is complicated. As analysts and survey researchers grapple with rising costs, declining response rates, and a host of technical and methodological challenges (see Kennedy et al. 2017), continued vigilance and scrutiny of poll mechanics are essential. It is heartening that some pollsters navigated this complicated terrain with great success in 2020, but much work remains to be done to pinpoint optimal procedures that produce accurate and unbiased poll results. In the meantime, the public is wise to consume polling information with caution.

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