FOR WHOM THE POLL AIRS
COMPARING POLL RESULTS TO TELEVISION POLL COVERAGE

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Abstract Televised election coverage is increasingly dominated by the horse race, a key element of which is poll coverage. How do news outlets decide which poll to air? We know little about the gatekeeping function of news outlets as it pertains to poll coverage, perhaps because this research is plagued by selection bias: By observing only reported polls and not unreported polls, researchers cannot definitively establish that any differences in representativeness are due to bias. Using a novel dataset that includes all prime-time presidential election poll coverage on Fox, MSNBC, CNN, and broadcast television networks during the 2008 election, we compare the universe of polls released each day to the polls actually covered by each news network. We find differences between the distribution of poll coverage and distribution of actual poll results. Our results suggest that both gatekeepers and reporters may have a hand in this distortion.

The horse race, a metaphor for news coverage that frames elections as who is ahead and who is behind, is characterized by a focus on polling (Broh 1980). Polls are advantageous to news outlets because they are both appealing to

viewers (Iyengar, Norpoth, and Hahn 2004) and meet journalistic norms of timeliness, objectivity, and competitiveness with other outlets (Crespi 1980). As this type of coverage proliferates, so too do critiques of how journalists cover polls (Rosenstiel 2005): Journalists' inappropriate or incorrect interpretation of polls may bias coverage, while a focus on polls generally is blamed for lacking coverage of policy and issues. Often left out of this conversation is how decisions to air some polls and not others may distort perceptions of candidate standings. If the distribution of polls covered by television news differs from the distribution of polls fielded in the "real world," this bias shapes information flows (Soroka 2012) that affect elections (Bartels 1993) and policymaking (Baumgartner, Green-Pedersen, and Jones 2013).

Though an important question, studies of media bias typically rely on what researchers can observe rather than the full population of studies (Groeling 2008). Examples of such imperfect measures include endorsements (Ansolabehere, Lessem, and Snyder 2006), editorials (Ho and Quinn 2008), coverage of scandals (Puglisi and Snyder 2008), sources cited (Groseclose and Milyo 2005; Gasper 2011), and name-calling and opinionated content (Jamieson and Cappella 2008; Sobieraj and Berry 2011). Thus, studies of media slant suffer from a selection bias that cannot draw inferences regarding the representativeness of content. To address such issues, Groeling (2008) examines stories of presidential approval, drawing from the population of approval ratings. Using this approach, he finds evidence of gatekeeping bias where Fox News and broadcast networks air some presidential approval results but not others (Lewin 1947), resulting in distortion.

Building on this work, we similarly observe the population of national presidential vote polls for the 2008 election, and examine the polls aired by broadcast networks, CNN, Fox, and MSNBC. The data allow us to avoid issues of selection, while the context provides a perfect testing ground: Nonincumbent candidates and a contentious primary election cycle provided the incentive for news media to cover the polls dramatically and extensively, even though those very same polls suggested the race was not as competitive as anticipated. In this way, we are able to uncover editorial choices that are difficult to observe but that we find contribute significantly to a distorted view of the race.

Guarding the Gates

Gatekeeping refers to the reality that news organizations face on a given day: Infinite amounts of information must be reduced into a few stories presented to a news organization's audience (Stacks and Salwen 1996). Referring originally to an information flow whereby some messages "fall off" as they pass through "gates" (Lewin 1947), the concept was first applied to news in White's (1950) examination of story selection by newspaper editors. Gatekeeping can be extended to other decisions that influence the perceived newsworthiness of a story, such as length, time constraints, geographic proximity, story type,

visual or narrative clarity, journalistic norms, use of graphics, positioning, and the influence of related stories in the broadcast (Donohue, Tichenor, and Olien 1972; Gans 1976; Abbott and Brassfield 1989). These considerations are shaped by economic incentives (Doyle 2013) and newsroom resources (Singer 2010).

The same incentives govern gatekeepers' decisions to cover the horse race in presidential election coverage (Broh 1980; Farnsworth and Lichter 2005). Horse-race journalism generally refers to coverage of who is winning or losing in an election, often using public opinion polls to substantiate claims. Though the news media did not cover polls until the 1960s, when newspapers and then television networks conducted their own polls (Jacobs and Shapiro 1994, 1995; Patterson 2005), the success of cable news turned presidential polling into a growth industry (Rosenstiel 2005). Increased coverage is in part due to characteristics of presidential election polls that make them attractive subject matter for reporters: Results are constantly released, require little newsroom resources, lend an air of objectivity and scientific credibility, and provide an opportunity for time-filling commentary from political analysts (Andersen 2000; Brewer and Sigelman 2002).

The process of gatekeeping is also at play when news organizations decide what polls to cover. News media join consortia that give them access to results from multiple firms over a range of dates. Which polls make the cut for your nightly news broadcast? Just as gatekeepers must cull from the endless stream of messages day to day, presidential election polls are subject to the same "gates." Exploring these gates gives researchers an opportunity to observe differences between the distributions of stories and of possible events. Moreover, we can evaluate the representativeness of media coverage while avoiding the methodological issues related to selection bias and subjective coding decisions. Thus, we can examine the distribution of polls covered and not covered by television news media to reveal potential gatekeepers' biases. First, there is the possibility that poll coverage reflects reality or actual poll results (Hofstetter 1976; Patterson 2005). If this is true, *we might expect the distribution of poll coverage to mirror the distribution of actual poll results (E1).*

While such a reflection of reality might be normatively desirable, given increased competition in the news marketplace, it is unlikely that television outlets will cover the horse race in the same way. In fact, as competition motivates television outlets to cater to niche audiences by varying the tone and ideological content of coverage (Mullainathan and Shleifer 2002; Gentzkow and Shapiro 2006), they are incentivized to select distinct polls to report (Bernhardt, Krasa, and Polborn 2008).

In addition to competition, the political forecasting literature also offers reasons why media outlets may be biased toward extreme results. Tetlock (2005) suggests that political experts are prone to the sort of biased processing that results in extreme—and inaccurate—predictions. Regardless, these same

extreme forecasts are often deemed more newsworthy and this reinforces the credibility of the expert, even if the prediction was incorrect. We can expect gatekeepers to behave similarly in their selection of polls to air: They should also be motivated to select more extreme results. Thus, as an alternative, *we might expect the distribution of poll coverage to differ from the distribution of actual poll results (E2).*

We can add more specificity to this expectation. Other works demonstrate that ideological composition of audience shapes coverage so outlets with mostly moderate viewers, such as broadcast networks and CNN, may cover all or most polls (Larcinese 2009). Additionally, a larger audience means a more heterogeneous viewership; thus, ABC, CBS, and NBC should be motivated to cover a range of polls (Puglisi and Snyder 2008). We expect *the distribution of poll coverage for broadcast networks and CNN to resemble the distribution of actual poll results (E3).*

On the other hand, outlets with partisan audiences are more likely to cover polls that favor the preferred candidate (Larcinese 2009). Indeed, work shows differences in content for MSNBC and Fox News (Feldman et al. 2011), such that partisan media coverage of the horse race is significantly more negative toward the opponent (Smith and Searles 2014). Recent work shows that this bias in coverage extends specifically to poll coverage: During poll coverage of the 2008 election, Fox News was more positive toward McCain and more negative toward Obama, while the reverse was true for MSNBC (Smith and Searles 2014). Beyond tone, previous work shows that news outlets are systematically more likely to cover presidential approval polls in which the front-runner suits their ideological slant (Rhee 1996; Groeling and Kernell 1998; Groeling 2008). Given that the Real Clear Politics polling average had McCain leading Obama on only 10 out of 154 days during the time period examined, we set forth directional expectations for the partisan television outlets: *The distribution of poll coverage for MSNBC will skew more positive than the distribution of actual poll results (E4), and the distribution of poll results reported by the Fox News Network will skew more negative than the distribution of actual poll results (E5).*

Other supply-side considerations that influence poll selection, such as journalistic norms, must also be taken into account (Baron 2006; Gentzkow, Glaeser, and Goldin 2006). In order to maintain high ratings, a news outlet may choose to present only those poll results which show a significant change in standings (Groeling 2008). If gatekeepers prefer the drama and conflict characteristic of a departure from the status quo, *we would expect that changes in poll ratings will predict the airing of poll results (E6).* Similarly, gatekeepers may opt to cover polls that demonstrate a close race, thus heightening the intensity of the horse race. Such coverage will hook both politically interested viewers and casual electoral observers. Given an editorial preference for the drama of a close horse race, *we would expect that poll margins of 0 or +/–1 will predict the airing of poll results (E7).*

Data and Methods

To explore these expectations about gatekeeping, we generated two datasets: one containing the population of national presidential vote polls during the 2008 general election and one containing polls aired by broadcast networks, CNN, Fox, and MSNBC for the same election cycle. Next, we merged these datasets in an effort to explain why news outlets chose to cover some polls.

CREATING A SAMPLE OF ACTUAL POLLS

In order to understand which polls air, we needed to gather data on the 2008 general election cycle defined as June 4, 2008—the date Senator Hillary Clinton withdrew from the Democratic nomination contest—to Election Day on November 4, 2008. We compiled a master list of presidential election polls including the name of the polling firm, percentage of respondents who planned to vote for either Barack Obama or John McCain, and field dates of the survey. This information was first collected from data published on PollingReport.com and verified using data published on Pollster.com (Tom Silver, personal communication, September 15, 2014).[1] When any inconsistencies between the sites emerged, data were verified with a third original source such as news articles from the *New York Times* or the *Washington Post* containing the specific poll results in question. These articles were found by accessing archives of the newspapers for 2008, and determining if the article contained all identifying information necessary to verify individual polls (e.g., survey field dates and individual candidate percentages).

A total of 488 presidential polls were collected and verified during this time period, representing 23 polling firms including ABC/*Washington Post*, American Research Group, AP/Ipsos, AP/Gfk, CBS, CBS/*New York Times*, CNN/Opinion Research, Democracy Corps, Diageo/Hotline, Fox/Opinion Dynamics, GWU, IBD/TIPP, Ipsos/McClatchy, Los Angeles Times/Bloomberg, Marist, NBC/*Wall Street Journal*, *Newsweek*, Pew Research Center, Quinnipiac, Rasmussen, Reuters/Zogby, *Time*, and *USA Today*/Gallup. In addition, we verified our list of active polling firms with the National Council on Public Polls (see appendix B for details). While PollingReport.com and Pollster.com publish a wealth of information on polls, unfortunately, release dates are not included. This is problematic because we need release dates to match polls to poll coverage. We cannot use the end field date because

1. We found that PollingReport.com offered an extensive amount of polling data in terms of the number of polling organizations represented, as well as the number of individual polls included. PollingReport.com also had the more comprehensive list of polls for our time period. In an e-mail exchange, editor Tom Silver described the polling results listed on the website as inclusive of nationwide, live-interviewer telephone polls. These polls are conducted by firms that generally fall into three categories: media organizations (NYT, ABC), universities (Quinnipiac, Harvard School of Public Health), or other (Gallup, Pew Research Center). PollingReport.com excludes partisan polls unless full details can be obtained, as is the case with Democracy Corps, for example.

firms vary in the number of days they wait to release results, though Tom Silver, editor of PollingReport.com, confirmed that most national presidential data is released within 48 hours of completion in the field. Fortunately, we were able to access unpublished entry dates and times for 340 of the 488 polls we identified thanks to data compiled by Mark Blumenthal of Pollster. com (Mark Blumenthal, personal communication, September 25, 2014). We use these entry dates as a proxy for release dates, as polls were entered into the dataset at approximately the same time they were released to the public. To verify the appropriateness of this proxy, when possible, release dates were verified using original source material as well.

In sum, our final sample of actual polls includes all verified polls released between June 4, 2008, and November 4, 2008, with verifiable entry dates ($n = 340$).[2] For each observation, we included variables capturing polling firm, margin, field dates, and entry date. The margin data are coded so negative numbers reflect a McCain lead, positive numbers reflect an Obama lead, and zero reflects a tie.

CREATING A SAMPLE OF POLL COVERAGE

To create our poll coverage dataset, we compiled all news transcripts in LexisNexis that mentioned polls in any iteration (poll, polls, polling) from prime-time coverage on ABC, CBS, NBC, CNN, MSNBC, and Fox News between June 4, 2008, and November 4, 2008. LexisNexis identified 1,749 transcripts aired on cable news networks and 456 transcripts aired on broadcast networks. These transcripts were reviewed to ensure that content warranted membership in the population (details on content analysis procedures in online appendix 1). In addition to be included, each transcript had to meet the following criteria: It had to have aired during prime-time hours (5:00 pm–10:00 pm); the poll was about presidential vote choice; and the poll was conducted at the national or state level. After verifying inclusion, we had a total of 1,172 transcripts (984 cable network transcripts and 188 broadcast transcripts). Coders then content-analyzed each transcript utilizing a detailed instrument that appears in online appendix 2.

The unit of analysis for the dataset was the unique mention of a poll rather than the transcript itself because some sources loaded segments in LexisNexis rather than entire show transcripts. Further, transcripts often included references to several unique polls, an example of which appears in online appendix 1.
The data collection and content analysis took over a year from training coders to reliability testing, documenting the time-intensive nature of analyzing complex coverage. The final dataset included 2,775 unique mentions of polls

2. To ensure that there is no significant selection bias at work in using polls with entry dates, it may be helpful to compare descriptive statistics for polls selected for analysis and polls not selected: The mean margin for polls selected was 4.42, and the mean margin for polls that were not selected was 5.83. The median margin for polls selected was 5, and the median margin for polls not selected was 6.

(755 from MSNBC, 679 from Fox, 1,094 from CNN, 78 from ABC, 95 from CBS, and 74 from NBC). A 10 percent random draw of all first poll mentions was recoded by another coder; detailed information about reliability appears in Appendix A.

Before matching the actual polls to poll coverage data, we narrowed the scope of our polls covered dataset and reformatted variables for comparability. From the population of all unique mentions of polls, we excluded all mentions that were not conducted by firms in our sample of actual polls ($n = 825$).[3] This also removed state, battleground, internal campaign, and aggregated polls ($n = 1084$). This leaves us with 866 unique mentions of national polls attributed to a firm. For these observations, we included variables capturing network, program, date aired, polling firm, and poll margin. Some polls were reported as percentages, and we transformed these into margins by subtracting McCain's projected share of the vote from Obama's such that negative numbers reflect a McCain lead, positive numbers reflect an Obama lead, and zero reflects a tie. Thus, the margin data here were calculated the same way as the actual polls dataset.

MERGING THE DATA

For expectations 1 through 5, which compare the distributions of both actual poll results and poll coverage, we use the full sample datasets for both. However, to test expectations 6 and 7, which examine whether or not characteristics of polls predict their airing, we merge the two datasets.

To merge the two datasets, we matched polls to poll coverage tokens using criteria related to the polling firm, entry date, and margin. For the second criterion, we match poll entry date from the actual poll dataset to a range of poll air dates (entry date plus 5 days) in the polls covered dataset to account for the average duration of the news cycle. For example, if a poll is entered on September 9, it can be matched to poll coverage tokens by poll firm, margin, and air date from September 9 to 14, providing that a poll from the same firm is not released in the intervening days. Therefore, a single poll might be matched to several poll coverage tokens. An observation was poll coverage matched to the original poll. This resulted in 22 perfectly matched observations; this is a conservative test, given that poll coverage is imperfect and often contains missing data. In fact, almost 29 percent ($n = 250$) of the tokens in the dataset of polls covered included no clear mention of a margin at all, either qualitatively or quantitatively.[4] Also,

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3. Note that most of this exclusion is due to coverage that does not reference any firm or source at all. For example, the news segment would reference Obama being ahead in the polls but never provide the sources of said polls.
4. We coded for both numeric references to margins and qualitative references to margins, as in "neck-and-neck." We included qualitative references in our final sample of polls covered only if the qualitative references were explicit, such as "the candidates are tied" or it is a "dead heat." In these cases, the margin was coded as 0 to represent a tie.

margins for poll coverage tokens may refer to demographic breakdowns or may (erroneously) incorporate the margin of error.[5] For these reasons, we additionally match remaining actual polls and poll coverage using poll firm and entry date. These observations with missing margins resulted in another 532 observations, for a total of 554 polls covered matched to polls.[6]

We acknowledge that the final product is not a perfectly complete universe of polls covered, but the merged dataset allows us to tap into gatekeepers' choices about what polls are newsworthy. While a complete dataset may be preferable, it is—as our data collection procedures document above—an unattainable goal. Moreover, as attested by previous work on gatekeeping (Groeling and Kernell 1998; Groeling 2008; Soroka 2012), comparing a sample of characteristics on a set of newsworthy items to a sample of coverage on said items enables us to approximate non-observations, and supplements our understanding of observable news.

MEASURES

For expectations 1–5, the outcome variable is margin, or the difference between the vote share percentage attributed to Obama and the vote share percentage attributed to McCain, where negative numbers reflect a McCain lead, positive numbers reflect an Obama lead, and zero a tie. We also include the air date and the source.

For expectations 6 and 7, we create an outcome variable that represents the number of times each poll result aired. To test whether changes in poll results predict airing, we estimate a moving average of the last four margins covered to create a poll difference variable (E6). To test whether polls with close margins predict airing, we create a binary variable where 1 indicates the margin was a –1, 0, or 1, and 0 indicates any other margin (E7).

Results

LOOKING AT POLL COVERAGE

Before testing our expectations, it is helpful to examine the properties of poll coverage. Our sample of polls covered by the media included 866 unique poll mentions, or about six mentions a day for the 154 days covered. As figure 1 shows, the number of polls mentioned in television coverage varies substantially from month to month, with the highest frequency concentrated in October and November. The bumps in August and September correspond to

5. For discussion on poor practices regarding reporting margins of error, see Paletz et al. (1980) and Rosenstiel (2005).
6. To ensure the reliability of these matching procedures, we went through the entire process of creating each dataset and matching the poll airings to actual poll results by three conditions and then two conditions twice with similar results. We then reverse-matched the counts associated with actual polls to poll airings with the same results.
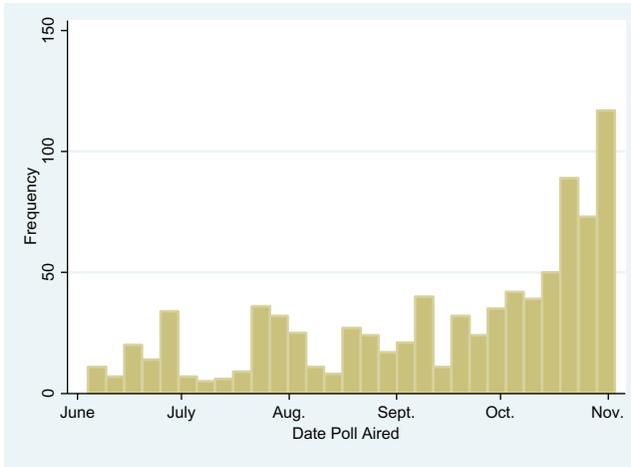
Figure 1. Number of Unique Poll Mentions Aired by Month.

the Democratic and Republican National Conventions, respectively. This is an enormous amount of coverage considering this sample excluded state, trial heat, battleground, internal campaign, aggregated polls, as well as all those that do not attribute a source for their poll.

The mean margin for polls covered was 4.78, with a standard deviation of 9.14. Most polls covered were attributed to CNN/Opinion Research (26.67 percent), Gallup (13.05 percent), Quinnipiac (9.24 percent), Rasmussen (8.55 percent), or *Time* (8.20 percent).[7] Table 1 presents descriptives for the top five polls cited in poll coverage. CNN/Opinion Research was the number-one-cited poll in 2008 presidential election coverage, thanks in large part to coverage of their parent network, with more than 95 percent of coverage occurring on CNN, with just four references on MSNBC. Given MSNBC's predilection for repackaging the news, this is perhaps not entirely surprising (Rosenstiel 2005). The second-most-cited polling firm–Gallup– was more than 100 observations behind CNN/Opinion Research, suggesting that a cable network with access to in-house polling can be a powerful force in shaping perceptions of public opinion.

Of these polls, Quinnipiac had the highest average margin in poll coverage (M = 8.62, SD = 5.05), while CNN/Opinion Research had the lowest average margin (M = 3.32, SD = 9.65). In other words, a politically in-tune viewer may get a very different picture of the race based on what polling firm an outlet is covering. The difference between average margin in coverage for these two polling firms is interesting given their distinct backgrounds: Quinnipiac Polls is supported and housed by Quinnipiac University, while CNN works with Opinion Research Corporation, a for-profit marketing research firm.

7. Polls fielded jointly between *USA Today* and Gallup were coded separately.

Table 1. Descriptive Statistics, Top Polls' Margin Coverage

	Mean	SD	Min	Max
CNN/Opinion Research (*n* = 231)	3.32	9.65	–51	43
Gallup (*n* = 113)	5.78	5.62	–10	27
Quinnipiac (*n* = 80)	8.62	5.05	–17	18
Rasmussen (*n* = 74)	5.46	4.89	–7	19
Time (*n* = 71)	7.90	17.73	–48	66

NOTE.—Includes all tokens from the polls covered dataset created, *N* = 866. Number of observations includes poll mentions for which there was no numeric margin. Mean refers to the average margin for aired poll mentions attributed to the firm in question.

When we delve deeper into the margins data, coverage of CNN/Opinion Research again proves distinct. Over all of the polls covered, 84.76 percent had Obama in the lead, 8.78 percent had McCain in the lead, and only 6.47 percent projected a tie. However, CNN/Opinion Research polls featured in coverage were distributed such that Obama was in the lead 77.06 percent of the time, McCain was in the lead 8.23 percent of the time, and there was a tie 14.72 percent of the time. Taken together, these descriptives strongly suggest that, at least with CNN, the gatekeepers may be incentivized to cover polls that are either surprising or close. This is in line with the qualitative work conducted by Rosenstiel (2005) that implies that poll coverage is subject to newsroom norms and routines, including a preference for an exciting race.

Of these poll mentions, 23.56 percent aired on MSNBC, 34.8 percent aired on Fox News, 40.42 percent aired on CNN, while less than 2 percent of poll mentions belonged to NBC (*n* = 15), CBS (*n* = 17), and ABC (*n* = 16). The difference in the numbers between cable news and network news is not surprising, given the incentives for the former to fill airtime with horse-race coverage.[8] Table 2 presents descriptive statistics for each news outlet. Noteworthy is the modal polling firm for each network. CNN and broadcast networks' reliance on in-house polling is clear. Altogether, each network had a clear favorite poll that was cited most frequently, with distant second- and third-most-cited firms. The one exception is Fox News coverage, which referred to Gallup most often (*n* = 67), but also frequently referred to Rasmussen (*n* = 63) and its in-house polling collaboration with Opinion Dynamics (*n* = 46).

With respect to the average margins, MSNBC poll coverage had the highest average margin (*M* = 5.06, *SD* = 9.097), while NBC had the lowest average margin (*M* = 2.5, *SD* = 4.43). Each broadcast network had few total observations because much of their coverage did not attribute a polling firm, and even fewer included explicit reference to a numeric margin. This deficit in

8. However, it also bears noting that in the original full sample of all poll mentions, nearly half of those aired on ABC, CBS, or NBC did not attributed a polling firm, and thus were not included in this sample. Note that if a broadcaster referred to a poll as "ours" we coded it appropriately; thus, attribution does not require explicit mention of a poll firm.

Table 2. Descriptive Statistics, Poll Coverage Margins

	Mean	SD	Min	Max	Mode
ABC (*n* = 16)	9.4	12.96	–9	42	ABC/*Washington Post*
NBC (*n* = 15)	2.5	4.43	–2	8	NBC/*Wall Street Journal*
CBS (*n* = 17)	4	4.26	0	16	CBS/*New York Times*
Fox (*n* = 264)	4.87	6.34	–45	19	Gallup
MSNBC (*n* = 204)	5.06	9.97	–48	41	Quinnipiac
CNN (*n* = 350)	4.49	10.18	–51	66	CNN/Opinion Research

NOTE.—Includes all tokens from the polls covered dataset created, *N* = 866. Number of observations includes poll mentions for which there was no numeric margin. Mean refers to the average margin for aired poll mentions attributed to the network in question.

observations is telling, given that we coded possessive pronouns (e.g., "our polling"), which suggests much of the missing data can be attributed to poll coverage that does not mention a source of any kind. Of cable networks, CNN had the lowest margin (*M* = 4.49, SD = 10.18), which suggests its coverage included more of McCain in the lead than MSNBC or Fox News.

Overall, these descriptive analyses suggest coverage of the 2008 general election polls differed by network and by polling firm. Next, we examine the "reality," or actual poll results, to determine which polls make it to the airwaves.

LOOKING AT THE POLLS THAT GET COVERED

The entire sample included 340 actual polls, and as figure 2 shows, the number of polls released month to month is far more consistent than the coverage of polls, with an expected increase in the number released in late October and early November. The average margin of these polls is 4.42 (*SD* = 3.68). Of these, 294 polls featured Obama in the lead, 30 featured McCain in the lead, and 16 featured ties. Zogby was the firm most likely to have McCain in the lead (*n* = 5), while Rasmussen was the firm most likely to have Obama in the lead (*n* = 42).

Shifting attention to the properties of polls that make it to the nightly news, 143 polls of the polls in our sample aired a total of 554 times. Of these, the most commonly aired poll was CNN/Opinion Research (*n* = 113), followed by Gallup (*n* = 108), Rasmussen (*n* = 70), Fox/Opinion Dynamics (*n* = 47), and CBS/*New York Times* (*n* = 36). The average margin of polls aired is 5.07 (*SD* = 3.85). The most commonly occurring margin of polls aired was 5 (*n* = 19), followed closely by 7 (*n* = 17), and 6 (*n* = 15). It may also be helpful to note polls that did not air (*n* = 197). The average margin of polls that did not air was 28.36 (*SD* = 13.98), and Rasmussen was the modal firm.

COMPARING COVERED POLLS TO ACTUAL POLL RESULTS

We next test our expectations. We first posit that the distribution of poll coverage will reflect reality or actual poll results (E1). Alternatively, the distribution
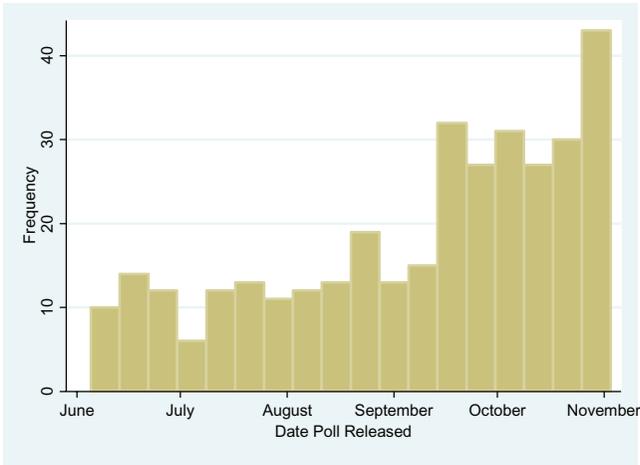
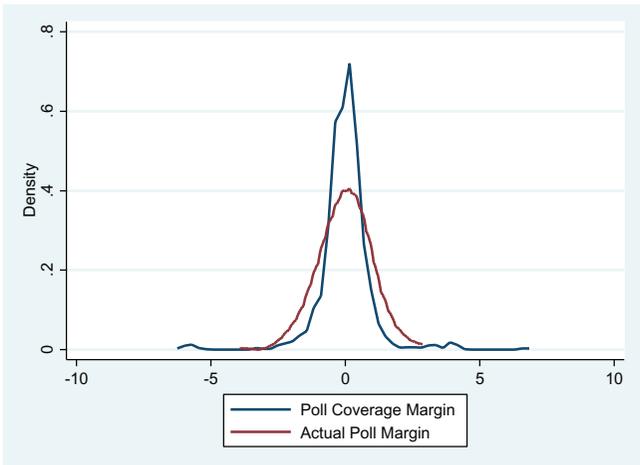**Figure 2. Number of Polls Released by Month.**

Figure 3. Distribution of Standardized Margins for Polls and Poll Coverage. Bandwidth = 0.1414; Epanechnikov kernel density estimates.

of poll coverage will differ from reality or actual poll results (E2). To test for differences, we convert the margins coverage and the actual margins into standard-deviation units to facilitate comparison. The poll margins distributions of both "reality" and coverage are presented in figure 3 as Epanechnikov kernel density estimates. At first glance, it is clear the two distributions are not mirror images, contrary to expectation 1. Of note is the high probability of standardized margins for coverage lying between –1 and 1, while actual poll margins are more normally distributed. Overall, this difference in distributions between real-world and news coverage supports the idea that coverage of polls

is filtered by gatekeepers, lending support to expectation 2. Much like conventional wisdom suggests, poll coverage in the news does not reflect actual polls.

In a more conservative test, we examine the distribution of margins for only those polls that were matched exactly to coverage. In this way, we examine how the distributions of margins for poll coverage and margins for polls that make it on air vary. We expect these two distributions to be more similar, given that we are narrowing the poll margins to only those that make it on air. If differences persist, not only does poll coverage vary from reality, but coverage is not even accurately capturing the polls selected. Figure 4 shows the Epanechnikov kernel density estimates for standardized poll margins and standardized poll margins covered for those observations that were matched. The results are striking: For the poll margins we identified as having aired, coverage is more negatively skewed, favoring McCain, while the actual poll results are more positively skewed, favoring Obama. Similar to the results above, there is a high probability of standardized margins for coverage lying close to the mean, though the distribution is less peaked. Overall, these results suggest that the distribution of margins covered does not align with the distribution of poll margins. In other words, in the aggregate, polls that make it past the gatekeepers do not make it on air untouched—once they become coverage worthy, they take on a different shape.

Expectations 3, 4, and 5 draw contrasts between distributions of poll margin coverage by network. Again, we convert the coverage of poll margins by network into standard deviation units, and figure 5 presents Epanechnikov
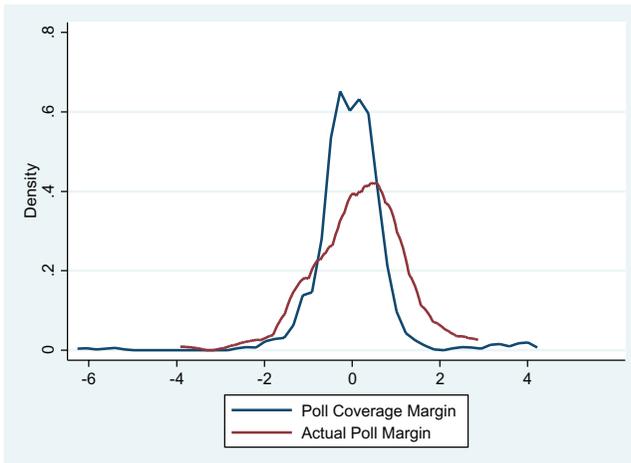

Figure 4. Distribution of Standardized Margins for Matched Polls and Poll Coverage. Bandwidth = 0.1547; Epanechnikov kernel density estimates. Matched implies that the actual poll margin distribution includes only those polls that were identified as aired, and vice versa.
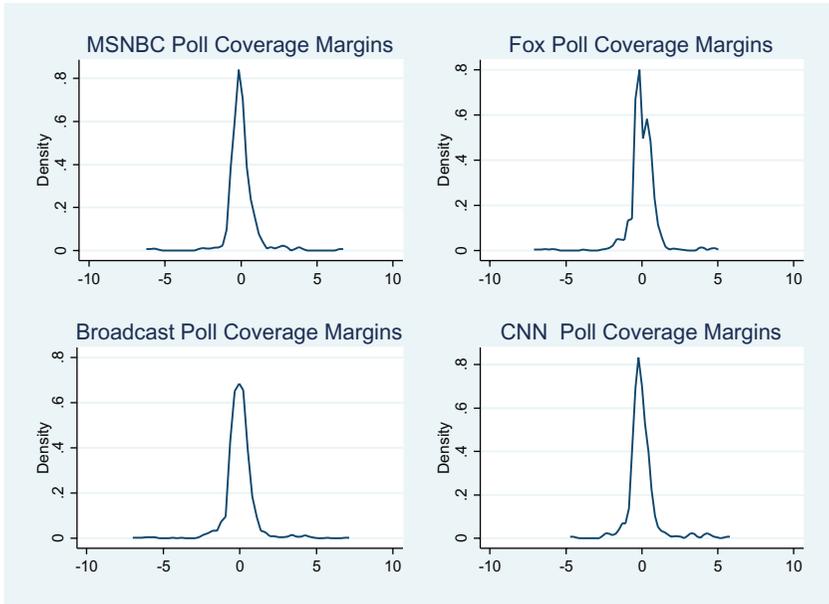
Figure 5. Distribution of Standardized Margins for Poll Coverage by Outlet. From top left to right bandwidth = 0.2180, 0.1307; from bottom left to right bandwidth = 0.2606, 0.1657. Epanechnikov kernel density estimates.

kernel density estimates. We expect the distribution of poll coverage for broadcast networks and CNN to more closely resemble the distribution of actual polls compared to their partisan peers (E3). Upon visual inspection, this expectation was not supported. Both distributions are tightly clustered around the mean, and while the distribution for broadcast coverage is not as peaked, it is far from resembling the distribution of actual polls. We also expect that the distribution of poll coverage for MSNBC and Fox News will be more positive (E4) and negative (E5), respectively, so Fox coverage favors McCain and MSNBC coverage favors Obama. While the skew of neither distribution is dramatic, the distribution for MSNBC is slightly more positive while the distribution for Fox is slightly more negative, offering support for both expectations. Taken together with the descriptives, the data suggest tentatively that not only are gatekeepers at work in poll coverage, but partisan networks cover polls in ways that favor their in-party candidate.

WHICH POLLS AIR?

Finally, to test expectations 6 and 7, we utilize negative binomial count models that estimate the number of airings per poll using significant change in poll

Table 3. Number of Times Poll Aired (negative binomial regression)

	Coef.	SE	P
Poll difference	0.1	0.03	0.004
Close	–0.05	0.31	0.87
Constant	–0.12	0.24	0.63
Dispersion parameter (α)	1.21	0.13	
LR test for $\alpha = 0$ (df = 1)	710.06		0.00
N	336		
Chi^2, p	8.29, $p = 0.02$		

margins (E6) or closeness of poll margins (E7) as predictors.[9] First, results presented in table 3 suggest that poll difference is a significant predictor of the total number of times a poll aired. Recall poll difference captures changes in poll margins using a moving average of the last four margins covered to create a poll difference variable. These results support expectation 6: Significant changes in poll margins make it more likely that it will air. Expectation 7 is not supported: Closeness of margins, a binary variable indicating the margin of a poll story was reported as 0 or +1/–1, does not predict the total number of times a poll aired.

While an inclination toward airing poll results characterized by change is troubling, it may be the case that gatekeepers are selecting such polls because that is indeed an accurate reflection of reality. To examine this possibility, we plot the Real Clear Politics (RCP) poll average over time against the average margin of polls aired over time. In stark relief, figure 6 demonstrates what the results above have implied repeatedly: Characteristics of polls that make it on air and the "true" electoral standings are far from mirror images of each other. Minor shifts in the poll average are met with corresponding dramatic shifts in broadcasted polls. Despite a sustained and steady rise in Obama's margin as Election Day approached, as according to RCP's poll average, news coverage of the polls appeared to be less positive toward Obama and far more erratic.

Discussion

The results presented herein suggest that television media present a picture of the presidential race via coverage of public opinion that differs from the results of polls. We create a dataset that includes all primetime presidential election poll coverage on Fox, MSNBC, CNN, and broadcast television

9. We selected a negative binomial count model after comparing graphical representation of the residuals for each model, the predicted proportion of each count, and AIC and BIC for several possible count models; on each diagnostic, the negative binomial count model outperformed.
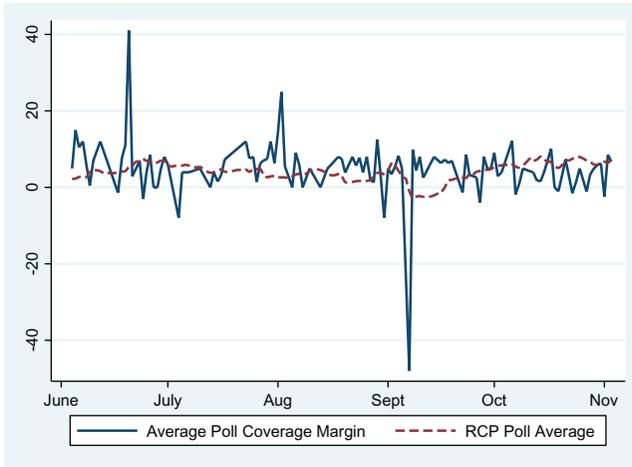
Figure 6. Average Poll Coverage Margins and RCP Poll Average over Time.

networks during the 2008 election, as well as a dataset of the universe of polls released each day. We are able to compare poll results to the polls actually covered by each network and avoid issues related to selection bias. Not only do our results suggest that choices news media make about what to cover matter, but coverage of newsworthy polls is also distinct. If media is the conduit by which the public gauges the state of the race (Mutz 1998), then we are being misled.

Looking at the full sample, there are clear differences between coverage and the polls themselves. This difference suggests that gatekeepers are making decisions that ultimately distinguish poll coverage from polls in reality. The results from our count model suggest that such decisions may be a function of changes in polls, such that gatekeepers may be sensitive to aggregate shifts in the race. Given work in political forecasting that documents political experts' bias toward extreme results, it is perhaps not surprising that gatekeepers gravitate toward polls beyond the norm (Tetlock 2005). Still, as our ordained fourth estate, we entrust editors with airing some reflection of the world outside our minds. If, like forecasters, editors are subject to the same biased processing that privileges inaccurate but exciting results, then our trust might be better guarded. Ultimately, their decisions affect the portraiture of American public opinion, and may ultimately affect viewers' perceptions of the state of the race.

Moreover, when we compare only polls that made it to the airwaves to coverage of those polls, differences persist. If differences between all polls and their coverage suggest that gatekeepers are selecting polls in a way that results in bias, then differences in selected polls and coverage of those polls suggest

that even once polls make it past the gate they are subject to coverage that biases them. The bias in the first reflects the criteria of gatekeepers, while bias in the second reflects the criteria of news-generating processes, or perhaps more pointedly, reporters themselves. To the extent that newsroom norms and routines shape content, when it comes to polls, content seems to be a departure from reality.

This is perhaps not so surprising after a review of the descriptive analyses that suggest distinct views of the race depending on polling firm, outlet, and whether one examines coverage or results. Cable networks were much more likely to cover polls than broadcast networks, with Fox News the leader in overall coverage. Broadcast networks relied on in-house polling, but were also likely to not attribute a firm at all. In addition to having the second-largest coverage overall, CNN along with its in-house polling collaboration was distinct from both other outlets and other polling firms. First, CNN had the lowest average margin, suggesting that even more than Fox News, its coverage favored polls with McCain leading. Second, CNN/Opinion Research was much more likely to cover McCain in the lead despite overall coverage favoring an Obama lead more than 80 percent of the time. Altogether, the data suggest that the combination of a cable news network with a penchant for poll coverage, and access to polls in-house, may not be the best for accurate coverage. At the very least, viewers may want to take CNN coverage of its in-house poll with a grain of salt.

The usual caveats are in order. As we expound above, our datasets are not perfect, and though we venture that it would be impossible to compile a complete universe of polls or poll coverage, we acknowledge that the data collection process is not infallible and may introduce error. Also, these results are perhaps unique to both the 2008 election and the content in question, polls. Reproducing these results with other elections would go a long way toward shoring up our conclusions.

While it would be naïve to believe that poll coverage perfectly aligns with poll results, taken together our findings suggest little reason for optimism. Our unique dataset affords the opportunity to observe polls that do not get reported. More importantly, the data demonstrate that gatekeepers' decisions to cover some polls while not covering others appear to have a significant impact on the nature of poll coverage. Unfortunately, bad news does not stop there. Drawing on either the tenets of media criticism or insights from individuals privy to newsroom processes, criticisms of poll coverage have long lamented inaccurate interpretations, the reliance of frames that exaggerate the horse race at the cost of policy discussion, and the absence of pertinent data such as margins of error (Crespi 1980; Paletz et al. 1980). Our results lend empirical support to these criticisms. One might expect decision-making regarding what is newsworthy and what is not to be somewhat shrouded, but translation of poll results to the air should not be a mystery. That these data suggest such a departure from polls selected for coverage

and coverage of those polls means it may be a long while before quantitative journalism is the crown jewel of a rapidly changing news industry. If nothing else, a discussion is needed among pollsters and journalists alike as to what information is required in a story on polls and appropriate parameters of interpreting those results. Too much of our content poll data could not be verified because key pieces of information, such as the polling firm in question and margins, were missing. We are woe to believe that the picture may be even bleaker if we were to also include information on field dates, sample characteristics, and margin of error. Thus, it may be helpful if news outlets were to decide upon a set of standards for how polls are covered, including qualifications for covering in-house polls versus outside poll firms, and share these standards with the public so as to make at least some of these processes less cloaked.

As the marketing value of polls has become more obvious to newsrooms, routines and norms of the newsroom are likely to be influenced. We suggest that a way to make sure these changes are positive is to reinvigorate discussion on proper reporting of polls, and increase the transparency of poll selection.

Appendices

Appendix A. Reliability Coding

Reliability was informally tested several times during training, and then more formally assessed twice throughout the coding process by one of the authors. Two coders, used the same coding instrument (see online appendix 2), analyzed a random draw of approximately 10 percent of all first poll mentions ($n = 118$). We present several measures of agreement, including percent agreement, Krippendorff's alpha, and Cohen's kappa. Although percent agreement is both standard and intuitive, it also overestimates true intercoder agreement. Krippendorff's alpha and Cohen's kappa are more flexible and can account for multiple coders. Scores that approach 1 are indicative of greater agreement between coders. In most fields, a threshold of .7 is an acceptable score of reliability. However, given that this study is exploratory and both Krippendorff's alpha and Cohen's kappa are conservative measures, prior to reliability testing we set a threshold of .6 for acceptability (Lombard,

Table A1

Content	% Agreement	Krippendorff's alpha (a)	Cohen's kappa (k)
Source	100%	–	–
McCain margins	98.29%	0.97	0.97
Obama margins	95.73%	0.95	0.95

Snyder-Duch, and Bracken 2004). The results indicate that we have far exceeded these expectations by surpassing an even higher standard of .9 for each variable.

Appendix B. Verifying List of Active Polls with NCPP Data

To compare the number of polls fielded during presidential elections, we compiled the number of active polling organizations for each general election using data from the National Council on Public Polls (NCPP) dating back to 1972.[10] In examining the rise in number of polls per election cycle, a sharp increase occurs after the 1992 general election. According to the NCPP, the number of national presidential polls grew from six polls in 1992 to 19 polls in 2008. National polls prior to the 1992 election numbered between four and six in the 1980s, and three during the 1970s. Below is a numerical breakdown of national polls from previous elections:

Table B1. Number of National Presidential Polls per Election Year

1972	3
1976	3
1980	4
1984	6
1988	5
1992	6
1996	9
2000	12
2004	16
2008	19

NOTE.—Data from National Council on Public Polls (NCPP).

Although the NCPP lists 19 national polls being conducted for the 2008 general election, our current study uses data from 23 national polls identified on PollingReport.com. Not included on the NCPP list, but present on PollingReport.com, are polls from *Time*, *Newsweek*, Quinnipac, and Franklin/Hearst. These four polls are national polls but are not included in the totals tabulated by the NCPP, likely because they were not active on the last weekend before Election Day (October 31–November 3). Polling firms may not publish data on the final weekend due to publishing deadlines or related constraints, but because these polls provide regular data throughout the 2008 general election they are used in the present study.

10. Data for election years prior to 1972 are available on the NCPP website, www.ncpp.org.

Supplementary Data

Supplementary data are freely available online at http://poq.oxfordjournals.org/.

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