

Echo Chambers and Partisan Polarization: Evidence from the 2016 Presidential Campaign

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Abstract

Where do partisans get their election news, and does the availability of partisan sources create the potential for “echo chambers?” To shed light on this question, we track the web browsing behavior of a national sample over the course of the 2016 presidential campaign. We find that exposure to election news has become more polarized, relative to the baseline studies conducted over the past decade. Partisans do gravitate to news sources viewed disproportionately by their co-partisans. Our results indicate modest levels of partisan selective exposure, but two to three times greater than that reported in prior studies. We further show that the partisan divide for election-related news significantly exceeds the divide for non-political news. Importantly, the tendency of partisans to follow like-minded news providers occurs despite only modest differences in the partisan slant of the content offered by the vast majority of news sources visited by our respondents. We provide survey data suggesting that the segregation of the audience is attributable less to the availability of sharply diverging perspectives on the news, but more to the perceptions of partisans—especially Republicans—that most non-partisan news outlets are biased against them.

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Fifty years ago, Americans' held generally centrist political views and party politics did not intrude into encounters with the news media. During this era of weak polarization, three major news outlets—the evening newscasts broadcast by ABC, CBS, and NBC— attracted a combined audience that exceeded eighty million daily viewers (see Iyengar, 2018). These networks provided a largely non-partisan, point-counterpoint perspective. Since their newscasts were nearly identical in content, exposure to the world of public affairs was a uniform—and unifying—experience for voters of all political stripes.

That was the state of affairs in 1970. Forty years later, things had changed dramatically. The parties diverged ideologically, although the movement was more apparent at the elite rather than mass level (for evidence of elite polarization, see McCarty, Poole, and Rosenthal, 2006; Stonecash, Brewer, and Mariani, 2003; the ongoing debate over ideological polarization within the mass public is summarized in Abramowitz and Saunders, 2008; Fiorina and Abrams, 2009). The rhetoric of candidates and elected officials turned more acrimonious, with attacks on the opposition becoming the dominant form of political speech (Geer, 2010; Grimmer and King, 2011; Fowler and Ridout, 2013). Legislative gridlock and policy stalemate occurred on a regular basis (Mann and Ornstein, 2015).

Beginning in the mid-1980s, Democrats and Republicans in the electorate increasingly offered harsh evaluations of opposing party candidates and crude stereotypes of opposing party supporters (Iyengar, Lelkes, and Sood, 2012). Party affiliation had become a sufficiently intense form of social identity to serve as a litmus test for personal values and world view (Mason, 2015; Levendusky, 2009). By 2015, marriage and close personal relations across party lines was a rarity (Huber and Malhotra, 2017; Iyengar, Konitzer, and Tedin, 2018). Partisans increasingly distrusted and disassociated themselves from supporters of the opposing party (Iyengar and Westwood, 2015; Westwood et al., 2017). Out-group prejudice based on party identity exceeded the comparable bias based on race, religion, and other significant social cleavages (Iyengar and Westwood, 2015; Iyengar et al., 2019).

The intensification of partisan sentiment has obvious implications for the study of news audiences. Not only is the period in question associated with heightened polarization, it

also brought about seismic changes in the media environment. First, 24-hour cable news channels emerged as competitors to network news thereby providing partisans their first real opportunity to obtain news from like-minded sources (Fox News for Republicans, and MSNBC later for Democrats). Second, the development of the Internet unleashed a much wider range of media choices, which not only facilitated partisans' ability to obtain political information and commentary consistent with their leanings, but also enabled the apolitical strata to focus on entertainment programming while tuning out all things political (Prior 2007).

In a break with the paradigm of non-partisan journalism, a growing number of outlets, partially motivated by the commercial success of *Fox News*, offered reporting in varying guises of partisan commentary. The political blogosphere, with hundreds of players providing news and analysis—often vitriolic—developed rapidly as a partisan platform, with very little cross-party exposure (Adamic and Glance, 2005; Lawrence, Sides, and Farrell, 2010). The creation of vast online social networks permitted extensive recirculation of news reports, even to those not particularly motivated to seek out news (Bakshy, Messing, and Adamic, 2015). Thus, in stark contrast to the captive audience of 1970, Americans predisposed to follow politics in 2015 enjoyed significant control over their consumption of news.

Here we demonstrate that the enhanced media environment has contributed to an increased partisan divide in news consumption. Our evidence derives from a two-wave panel survey administered before and after the 2016 election that is merged with survey respondents' web browsing behavior during the campaign. Our results indicate that partisans gravitated to news sources read disproportionately by their co-partisans, that this tendency became more pronounced for political than non-political content, and that segregation peaked when coverage conveys a clear partisan slant. Overall, our results suggest that while absolute levels of partisan isolation remain modest, the level of polarized news consumption substantially exceeds that reported in earlier studies of online news. In closing, we note that partisans' preferences for congenial news providers has strengthened despite the continued reliance of the vast majority of news outlets to conventional, non-

partisan journalistic norms. In this sense, the increased polarization of the audience may have occurred not because of the greater supply of biased news, but rather because evaluations of news providers have become increasingly entangled with consumers' partisan loyalties.

Selective Exposure to Information: Theory and Evidence

The availability of more choice in the media environment revived the concept of selective exposure, with the expectation that consumers would turn to news providers perceived as aligned with their party while ignoring those perceived as hostile. The broader argument—that people prefer confirmatory to disconfirmatory information—dates back to well before the onset of “new” media and can be traced to cognitive consistency theories of attitude change from the 1950s (see Abelson et al., 1967). Balance theory (Heider, 1958) and the theory of cognitive dissonance (Festinger, 1957) both stipulated that humans are averse to having their beliefs and attitudes challenged. Such theoretical work suggests consumers of news seek out information and evidence they expect to find consistent or agreeable.

Initial tests of the selective exposure hypothesis, typically using experimental methods, yielded mixed results; only a few studies showed the expected preference for supportive information (for a review of the early evidence, see Sears and Freedman, 1967). Communication researchers concluded that dissonance avoidance was, at best, a weak motivation for the acquisition of information (McGuire, 1968; Sears, 1968). This pattern was replicated in studies focused on political information; partisans did not seem averse to encountering information at odds with their attitudes (Sears and Freedman, 1967).

Stronger evidence for the selective exposure argument emerged from real-world, observational research. Since media coverage of politics in the 1960s was overwhelmingly non-partisan, meaning that the news audience could not access partisan news, scholars focused on exposure to presidential campaigns rather than news sources. Partisan voters reported greater exposure to events and messages from their preferred candidate or party (Lazarsfeld, Berelson, and Gurin, 1948; Schramm and Carter, 1959). In the words of Lazarsfeld and his co-authors, “In recent years there has been a good deal of talk by men

of good will about the desirability and necessity of guaranteeing the free exchange of ideas in the market place of public opinion.... Now we find that the consumers of ideas, if they have made a decision on the issue, themselves erect high tariff walls against alien notions” (Lazarsfeld, Berelson, and Gaudet, 1948, p. 89).¹

In the current era of polarization, debate continues over the extent of partisan selective exposure. In contrast to the earlier era, large-scale and more generalizable web-browsing studies have typically uncovered only limited traces of one-sided news consumption, while experimental studies now show considerable self-selection and audience segregation on the basis of partisanship. In their pioneering analysis of Americans’ web browsing behavior (conducted in 2009), Gentzkow and Shapiro found that online audiences were only slightly more segregated than the audience for network or cable news, and exposure to one-sided information proved infrequent across all media platforms, at least in comparison with residential and inter-personal networks (Gentzkow and Shapiro, 2011). The authors concluded that “Internet news consumers with homogeneous news diets are rare. These findings may mitigate concerns.... that the Internet will increase ideological polarization and threaten democracy” (p. 1831).

A more recent study of web browsing behavior in 2013 obtained generally similar results showing the dominance of ideologically diverse sources of news (Flaxman et al. 2016). This study, however, also found varying levels of audience segregation under different pathways to news sites. When individuals arrived at sites via search engines and links they encountered on social media, both of which feature personalized algorithms, the online news audience became more segregated or politically homogeneous. The most recent study of web browsing behavior (Guess, 2018), drawing on the same data collection procedure used here, also finds only limited evidence of selective exposure in overall web

¹As Freedman and Sears (1967) point out, the Lazarsfeld et al. conclusion on voters’ preference for supportive over non-supportive information is subject to several qualifications including errors in self-reported exposure, different levels of selectivity between Democrats and Republicans, and the failure of most survey studies to adjust for the frequency of messages from one candidate or the other.

browsing, even when individuals are encouraged to seek out politically relevant news with a randomly assigned treatment or due to an emerging political scandal. However, when focusing only on exposure to political content, greater divides in partisan news exposure occur. Given the psychological mechanisms underlying selective exposure, we would expect greater use of selectivity when individuals encounter political content.

Finally, although they did not investigate patterns of web browsing, Lelkes et al. (2016) demonstrated that the diffusion of high-speed Internet access has contributed to polarization. In areas with greater broadband availability, individuals in 2004 and 2008 expressed more hostile attitudes towards out-party presidential candidates. The authors further showed that the broadband-polarization nexus is likely mediated through partisan news exposure; partisans with access to broadband were far more likely to access partisan sites.

In contrast to the evidence from large-scale web browsing studies, recent experimental studies of news selection find considerable partisan segregation. Iyengar and Hahn (2009), for instance, manipulated news organizations' logos across the identical headlines and found that conservatives disproportionately selected Fox News, even when the subject matter in question was non-political. Liberals, on the other hand, displayed a strong aversion to Fox (for similar findings, see Stroud, 2010). In an important extension of this work, Levendusky (2013) showed that the demand for biased news is concentrated among strong partisans. Despite their already strong sense of group identity, partisans exposed to congenial news providers develop even more extreme opinions on the issues and more negative views of their opponents (Levendusky, 2013; also see Garrett et al., 2014). Note that these findings are at odds with evidence from other experiments in which partisans who gravitate to partisan news are already so polarized that news encounters do little to move their views (Arceneaux and Johnston, 2013).²

²On one point micro and macro studies agree: the greater their political involvement, the more likely partisans are to exhibit a preference for supportive information (Iyengar and Hahn 2009; Davis and Dunaway 2016).

De Facto versus Motivated Selectivity

As originally formulated, the theory of dissonance avoidance applied to situations in which individuals could actively choose between different messages that either coincided or diverged from their opinions. Later researchers pointed out, however, that exposure to information could be affected more by situational than by motivational factors. Stock brokers reading the Wall Street Journal for economic analysis might happen to encounter conservative views on the editorial page. Casual dinner party conversations in affluent neighborhoods more frequently conveyed pro-conservative rather than liberal cues. This form of incidental as opposed to intentional exposure to supportive information was dubbed “de facto selectivity” (Sears and Freedman, 1967).

In the current era, there are good reasons to anticipate de facto selectivity in exposure to political information. Interpersonal communication about political matters occurs rarely among individuals with differing political views (Mutz, 2006). Likewise, online social networks, which have emerged as major information providers (Pew, 2016), are politically homogeneous (Messing, 2013) and the partisan slant of news circulating on social media closely matches the partisan composition of the network in question (Bakshy, Messing, and dami, 2015). For social media regulars, therefore, little effort is required to encounter supportive information; indeed, more effort may be needed to avoid such information. As already noted, a recent analysis of web browsing activity confirms that social media use does facilitate audience segregation; there is greater concentration of partisans when individuals visit news sites in response to social media referrals (Flaxman et al., 2016). People seeking news on their own volition, on the other hand, display less partisan selectivity in their browsing behavior suggesting that motivation may be secondary to ease of access (Flaxman et al., 2016).

Finally, we note that selective exposure to information based on partisan preference represents only one form of selectivity. We do not consider others including the tendency of people directly affected by government policies to pay more careful attention to those policy domains, or selection of news content over entertainment content on the basis of one’s political interest. These other genres of selective exposure clearly influence news

consumption (see Iyengar et al., 2008 for evidence on different forms of selective exposure), but in this paper we limit our attention to partisan selectivity in exposure to online news.

Research Design

We examine partisan selective exposure by tracking web browsing behavior in the context of a two-wave panel survey administered during the 2016 general election. The browsing data were generated by an application installed by respondents after they completed the initial wave of the survey. As a third element of the design, we carried out a crowd-sourced content analysis of 55,000 election-related news articles visited by our survey respondents. This multi-pronged design enables a fine-grained examination of differences between Democrats and Republicans in their news consumption as well as variation in partisan selectivity across different genres of news. In the section that follows, we describe each element of the design in greater detail.

Web Browsing

We measure web browsing behavior using the Wakoopa toolbar (<https://wakoopa.com/>). After participating in the first wave of the survey, 1,303 respondents (representing 14% of those who completed the first wave survey) agreed to install this toolbar on their primary web browser.³ For the period between August 1 and November 8, the application passively tracked their web browsing behavior both in terms of the number of visits they made to different web domains and the particular web pages (or URLs) they visited at these domains. All told, respondents made 30 million visits to over 170,000 different web domains. Eventually, 1,076 (83%) of the individuals who installed the toolbar went on to complete the second survey wave. Our analysis focuses on this set of respondents, for

³Respondents received YouGov points for keeping the toolbar active, but did have the option to turn it off if they wished. The analysis provided in Appendix A indicates that once they agreed to use the toolbar, non-compliance was not systematically related to their initial political views.

whom we have both waves of survey data as well as their web browsing behavior.

Directly observing the web browsing behavior of survey respondents is a key advantage of our study. It removes serious concerns about measurement error that would be present if we instead used survey self-reports of media consumption (e.g., see Prior, 2009; Guess, 2015 for a review of these issues). At the same time, this measurement approach raises other concerns that we briefly discuss here and address in more detail later in the paper. Given the low rate of toolbar uptake, one potential issue is that the panelists who installed the toolbar systematically differ from a nationally representative sample in ways that influence our findings. As we document in Appendix A, after employing survey weights the respondents who installed the toolbar differed only slightly from the original nationally representative sample of survey respondents; they tended to be slightly more interested in politics. Given the potentially concerning nature of the selection bias on political interest, we show that our findings on the extent of audience segregation hold up when we apply an alternative set of raking weights based on the level of political interest in the 2016 Cooperative Congressional Election Study.⁴ Another piece of evidence assuaging these concerns is that the measures of aggregate web traffic to various domains among this sample is highly correlated with measures of traffic obtained using other sampling approaches (i.e., ComScore; See Appendix A). While the potential for bias introduced by our focus on individuals who consent to have their browsing behavior measured is a key concern—both for this study and the other examinations of validated web browsing behavior we engage with throughout the paper—the sensitivity checks we later present suggest our findings are largely robust to these issues.

Content Analysis

After receiving the URLs for the web pages visited by panelists, we compiled information about news articles they saw by scraping the URLs they visited from a set of 355 politically focused news domains. This list consists of the top 100 web domains for news

⁴We use this survey, rather than the NES, because its measure of political interest measure is the same one employed in the surveys used here.

based on overall traffic among our panelists and an additional 255 U.S.-based websites included on the Alexa list of most popular news domains, including the websites of mainstream newspaper and television outlets, web aggregators that bring together content from multiple other sources, as well as other online-only sources of news and political commentary.⁵ Across this set of news domains, our respondents registered 1.1 million visits (4% of all their visits) to 212,000 unique news articles on these pages over the course of the campaign. Of these, 55,000 news stories referenced the presidential election.⁶

Following a procedure developed by Budak et al. (2016), we recruited coders from Amazon’s Mechanical Turk to classify the content of the articles dealing with the presidential election that appeared in our respondents’ browsing history. To ensure reliable classification of article content, we developed a coding scheme through an iterative process on a small sample of articles. In our main analysis each of the 55,000 articles is labeled based on the assessment of one coder. However, in developing this coding scheme we also conducted a validation exercise based on a subset of articles rated by multiple coders. This analysis is presented in Appendix B and demonstrates a high degree of inter-coder correspondence in assessments of these articles. We also required coders to complete a political knowledge quiz before evaluating articles and, to limit the influence of any single coder, capped the number of articles that could be rated by one individual at 200.

Coders first labeled the focus or primary topic of each article. This allows us to differentiate between articles about the issue positions of candidates, specific campaign events (e.g., one of the debates), the state of the horse race or some aspect of campaign strategy, or news about a scandal implicating one of the candidates.⁷ Second, coders

⁵Appendix E contains the full website list.

⁶We defined election-related news as stories that mentioned "Clinton" or "Trump" in the first hundred words of the article.

⁷We define scandals as allegations of alleged moral, legal or financial wrongdoing by one of the candidates. The scandals focused on Trump included his comments on a leaked Access Hollywood Tape, his conflict with the Khan family, non-release of his taxes, his involvement in the birther controversy, the description of Mexican immigrants as rapists, and his derogatory reference to Senator McCain’s experience as a POW. Scandals

assessed the overall partisan slant of the article in terms of whether it was more favorable toward either political party.⁸

Panel Survey

We measured survey respondents' sense of partisan identity and a variety of political attitudes through a two-wave panel survey. During the 2016 election, 9,760 individuals completed a pre-election online survey focused on their evaluations of political figures, policy views, and degree of affective partisan polarization. The sample was drawn from the national online panel maintained by YouGov using an algorithm that matches sampled respondents to the voting-age population on key demographic characteristics (see Vavreck and Iyengar, 2011; Rivers and Bailey, 2009).⁹ Following the election, 7,704 of these initial respondents completed a second survey that repeated questions from the first wave. Administration of the first wave was carried out between July 7 and September 26, and YouGov fielded the post-election wave between November 18 and December 7. As noted earlier, we are able to match survey responses to both waves with web browsing activity for 1,076 individuals.

This synthesis of survey and web browsing data with metrics on individuals' exposure to particular categories of news content offers a number of advantages for examining questions about the prevalence of partisan selective exposure and its attitudinal consequences. Most critically, the individual-level survey data allow us to measure the partisan and ideological affiliation of the survey respondents at the start of the general election campaign. The use of behavioral browsing data alleviates concerns about measurement error inherent implicating Hillary Clinton included the attack on the U.S. consulate in Benghazi, her reference to Trump supporters as a "basket of deplorables," her use of a private email server, and the ongoing FBI investigation into her treatment of classified material.

⁸In our sample of twice-labeled articles, coders agreed about the direction of an article's slant in 80% of cases once they labeled the article as non-neutral.

⁹To ensure that the respondents in the panel are as diverse as possible, they are recruited by multiple means, mostly through different forms of online advertising, but also by telephone-to-web and mail-to-web recruitment.

to self-reported media consumption (see e.g., Prior 2009). The content analysis permits investigation of variation in browsing behavior across the particular news articles selected by respondents in addition to their overall domain-level choices. Finally, the panel structure of the survey data permits an examination of the consequences of partisan news consumption for changes in individuals' political attitudes over the final months of the 2016 presidential campaign.

Hypotheses

We have several reasons for expecting elevated levels of selective exposure relative to the extant literature. For one thing, this study occurred in the context of a highly polarized election campaign, in contrast with all prior work that examines web browsing behavior during non-campaign periods. Second, there is ample evidence that Americans have become more polarized, particularly in their feelings toward partisan opponents (see Iyengar et al., 2019 for a review of the evidence), over the past decade. Increased levels of partisan affect create stronger pressures for dissonance avoidance, leading partisans to seek out "friendly" news providers.

(H1) Compared to earlier studies of web browsing, the segregation of news audiences based on partisanship has increased.

We further anticipate variation in the level of audience segregation across different topical areas covered in the news. More specifically, we expect a gradient of increasing partisan selective exposure as news content becomes more political, and more valenced in terms of favoring one candidate over the other. The vast literature focusing on identity threat shows that when the status of a favored group is called into question, members of the group respond with stronger in-group loyalty (Bourhis, Giles, Leyens & Tajfel, 1979; Branscombe, Schmitt & Harvey, 1999) as well as heightened animus directed at the out group (Crocker, Voelkl, Testa & Major, 1991; Branscombe & Wann, 1994). Extrapolating from this evidence, the more threatening the content of the news to individuals' sense of party identity, the more likely they are to rely on supportive news sources. As an illustration, we would expect partisans to experience less anxiety or threat when encountering a

news report describing the preparations for an upcoming debate than a news report focusing on some controversy about their favored candidate’s fitness for office. Accordingly, our expectation is that when the news features valenced or one-sided content (i.e., slant), partisans will be especially motivated to seek out friendly sources (i.e., sources aligned with their views).

(H2) Partisan selectivity is greater for political than non-political content, and peaks when the news focuses on political controversies with the potential to harm the electoral prospects of one of the candidates.

Results: The Extent of Partisan Selective Exposure

We operationalize selective exposure using an indicator of media consumption based on the partisanship of visitors to various political news domains. We then compare this indicator of audience partisanship across categories of news content so as to observe variation in partisan segregation for different types of election-related news. This allows us to test the anticipated gradient of partisan selective exposure (H2). We begin by presenting the partisan composition of popular online news sites, specifically the share of a domain’s overall pageviews from Democrats, Republicans, and independents for the ten most frequently visited news domains (see Table 1). For this analysis we include “leaners” with the party they are closest to, meaning the “independents” category includes only “pure” independents that do not lean towards either party. Strikingly, eight of the ten sites—including venerable mainstream news organizations—have a clearly partisan audience. For example, Fox News has only a 5% Democratic share, and the *Washington Post* has only a 13% Republican share. Among the top ten sites, only Yahoo News and FiveThirtyEight have audiences with approximately equal numbers of Democrats and Republicans.

The partisan divide in online news is, in part, a consequence of greater overall news consumption by Democrats: 53% of all news visits are accounted for by Democrats with 35% coming from Republicans and 12% from independents that do not lean towards one

Table 1: Top Ten News Domains

Domain	Democratic Share	Independent Share	Republican Share	Total Pageviews
drudgereport.com	2%	12%	86%	34,809
foxnews.com	5%	23%	71%	60,102
fivethirtyeight.com	46%	5%	49%	60,573
Yahoo News	40%	12%	48%	55,234
cnn.com	56%	8%	36%	43,835
MSN News	36%	30%	35%	43,566
nytimes.com	69%	4%	27%	75,023
washingtonpost.com	81%	7%	13%	71,592
dailykos.com	85%	8%	8%	36,210
huffingtonpost.com	91%	4%	5%	109,028

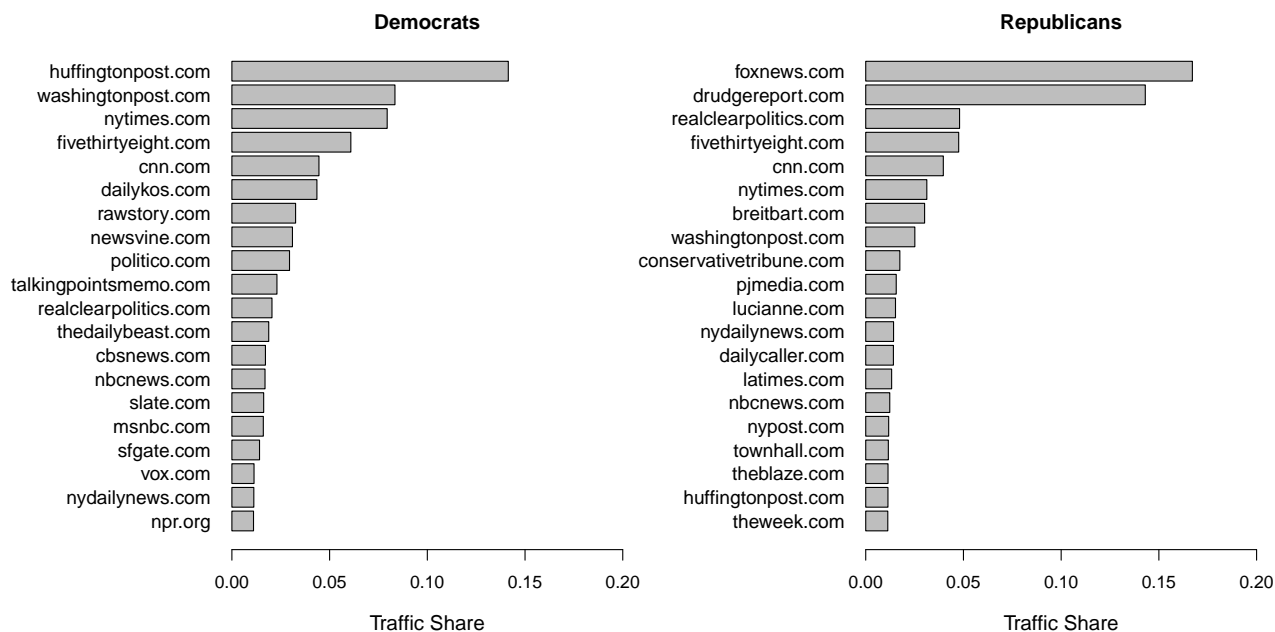
of the parties.¹⁰ But by itself, this difference in total exposure cannot explain the levels of segregation we observe, with popular sites such as Fox News and the *Huffington Post* receiving a minuscule share of their traffic (5% in both cases) from the out-party.

As an alternative measure of audience segregation, we compare the top twenty sites visited by Democrats and Republicans respectively (see Figure 1). Fox News is the premier source for Republicans. Together, Fox News, Drudge Report, and RealClearPolitics—the top three sites frequented by Republicans—account for a third of all Republican news visits. For Democrats, the *Huffington Post* is the leading source of news, followed by the *Washington Post* and the *New York Times*. As with Republicans, these three sites account for a third of Democrats’ news visits. Notably, the top sites for each party—Fox News for Republicans and the *Huffington Post* for Democrats—have cultivated a reputation for partisan commentary, in contrast to the point-counterpoint paradigm of traditional journalism. Moving down the list, however, we find that Democrats are more likely than Republicans to visit the sites of largely non-partisan news sources, including those of major daily newspapers, the three major television networks, and CNN.

Clearly, partisans from both sides of the political spectrum have taken advantage of the availability of friendly news providers. But the subset of plainly liberal sources is not so large, giving Democrats fewer opportunities to engage in selectivity; in practice, therefore, they remain dependent on traditional news organizations—like the *Washington Post*, the

¹⁰This pattern of heavier online news consumption by Democrats is consistent with past studies of web browsing behavior (see, e.g., Flaxman et al., 2016).

Figure 1: Share of Traffic to Individual Sites by Party



New York Times, and CNN—known for point-counterpoint reporting. Republicans, in contrast, have gravitated disproportionately to right-leaning sites, with the top two outlets they frequent considered to have strong ideological orientations.

While our study is the first to focus on news consumption during a presidential campaign, comparing the partisan ordering of these news domain audiences to other benchmarks establishes a close correspondence with previous studies. This offers an indication that our later findings regarding the degree of partisan segregation are not an artifact of differences in the measurement of web traffic or the composition of the web browsing sample considered here relative to prior studies.

The set of news websites with the highest traffic and the ordering of these sites in terms of the partisan composition of their audience both largely parallel prior research on web browsing behavior in non-campaign contexts. For example, six of the websites in Table 1 overlap with the top ten most visited news sites in 2009, as reported by Gentzkow and Shapiro (2011). Focusing on high-traffic websites in our dataset (the 42 news domains visited by at least 300 unique panelists), the 2016 partisan ordering of websites also correlates well with previous orderings of domain-level partisanship ($r=.59$ with the ordering in Flaxman et al., 2016), with alternative approaches to assessing the partisanship of media audiences such as patterns of content sharing on Facebook ($r=.78$

with the ordering in Bakshy et al., 2015) and with our own coder-based ratings of the partisan slant of election news delivered by particular websites ($r=.67$).¹¹

Comparison to 2009 Web Traffic

To benchmark our results relative to Gentzkow and Shapiro (2011) we use the *isolation index*—the average Republican audience share of web visits made by Republicans minus the average Republican audience share of web visits made by Democrats—which captures the partisan divide in exposure to news sources.¹² In the equation below rep_j and dem_j indicate the number of Republican and Democratic visits to web domain j . We refer to the sum of these Republican and Democratic visits as $visits_j$. The terms rep_m and dem_m refer to the total number of web visits made by Republicans and Democrats.

$$\text{Isolation Index} = \sum_{j \in J} \left(\frac{rep_j}{rep_m} \times \frac{rep_j}{visits_j} \right) - \sum_{j \in J} \left(\frac{dem_j}{dem_m} \times \frac{rep_j}{visits_j} \right)$$

This isolation index is bounded between zero and one with intuitive interpretations of these end points. If both partisan groups received all their news from the same source, the index score would be zero, indicating a lack of partisan isolation. Higher scores indicate greater divergence between the news preferences of the two sets of partisans. At the other extreme, an isolation index of one would indicate no common exposure whatsoever.

To ensure a clear comparison with earlier research, we mirror the approach used in Gentzkow and Shapiro (2011). We employ the same level of web traffic aggregation when computing the isolation index by aggregating traffic to the level of the unique daily visit (i.e., an indicator variable for whether or not a panelist visited the news domain at least once on a given day). We utilize the same adjusted version of the isolation index for our primary analysis which corrects for a bias that arises when the number of visitors to a web domain is small to avoid potentially inflating partisan isolation.¹³ Finally, we follow

¹¹We explore this validation exercise further in Appendix B.

¹²When assessing partisan isolation we employ sample weights provided by YouGov to weight our sample back to a nationally representative sample frame.

¹³The formula for this adjusted index is available in Appendix D. Appendix D also

Table 2: Partisan/Ideological Segregation By Domain

Domains	Variable	2009 Isolation Index	2016 Isolation Index
All News Domains	Party	0.07	0.21
Top 10 (2009 list)	Party	-	0.22
Top 10 (2016 list)	Party	-	0.21
All News Domains	Ideology	0.08	0.24
Top 10 (2009 list)	Ideology	-	0.25
Top 10 (2016 list)	Ideology	-	0.26

the same procedure to impute the partisanship of “pure” independents who do not declare a party affiliation by assuming the Republican share among this group when visiting a given outlet is equal to the Republican share among visitors to the outlet that declare a partisan leaning.

During the 2016 election, respondents’ overall news browsing behavior yielded an isolation index of 0.21. Republicans, on average, visited news websites with an average audience share that was 55% Republican, while Democrats visited domains with an audience share of only 34% Republican. Note that this level of isolation represents far from a complete partisan divide in online news consumption. As noted in prior research, the dominance of a few heavily trafficked websites with heterogeneous audiences (e.g., Yahoo News) facilitates considerable overlap in the browsing behavior of partisans.¹⁴

While our measure of audience polarization is some distance away from the maximum, comparing the isolation index in 2016 with the same measure in 2009 reveals a sizable increase in the degree of partisan selective exposure. At 0.21, our estimate of partisan segregation is three times higher than the comparable figure based on web browsing in 2009 (0.07 in Gentzkow and Shapiro 2011, Table VIII). As Table 2 indicates, this finding of substantially increased segregation in domain-level news consumption is stable to several alternative methods for constructing the isolation index, including sub-setting the data to the ten most popular news domains in our panel, using the 2009 list of ten most popular news outlets (from Gentzkow and Shapiro 2011), or basing the isolation index on

 shows that our findings are similar when using the unadjusted isolation index.

¹⁴When isolating only strong partisans this divide is slightly larger at 0.24.

respondent ideology rather than partisanship.¹⁵

Finally, we note that the elevated levels of partisan isolation we observe here appear only partially attributable to our focus on web exposure during an electoral campaign. Among a subset of 609 individuals who continued in the panel following the 2016 election through September 2017, the partisan divide in web exposure after the election (.16) remains similar to the pre-election divide (.14) among these same panelists; these numbers are lower than the divide among the full set of panelists during the election, but are still twice as high as reported in past studies.

Comparison to 2013 Web Traffic

The differences noted above between the 2009 and 2016 results may be driven by an uptick in the general level of mass polarization, by changes in context (our study coincided with the final stages of a closely contested presidential election whereas the 2009 study occurred

¹⁵Another area in which our findings diverge from Gentzkow and Shapiro (2009) concerns the level of partisan homophily in individuals' social milieu. In their analysis, they benchmark partisan segregation in web browsing to segregation at the level of US counties (and zip codes), finding that the isolation index at the level of the county exceeds isolation in web browsing. We do not have a large enough sample to derive stable estimates of segregation at the zip code level. (When we calculate the isolation index based on respondents' place of residence it is only .06 for zip codes and .05 for counties, both considerably lower than the level of isolation in web browsing.) While our dataset is inadequate to provide reliable metrics on partisan homophily within residential areas, there is an abundance of evidence showing that American households have become increasingly homogeneous in their partisanship over the past several decades. For instance, current rates of spousal partisan agreement exceed 80 percent (Iyengar, Konitzer, and Tedin, 2018). If it is appropriate to compare partisan homophily in family and inter-personal relations with the tendency to seek out supportive news reports, we agree with Gentzkow and Shapiro that the former is a more polarizing influence than the latter.

in a non-election period), or by a combination of the two.¹⁶ However, we also find that the level of partisan segregation in 2016 is more pronounced than in 2013, as reported by Flaxman et al. (2016). That study of 2013 browsing patterns differs from ours primarily in its reduced proximity to the electoral calendar.

Instead of the isolation index, Flaxman et al. (2016) report an alternative measure of segregation: the scaled standard deviation of partisan news exposure R_i among members of their sample.¹⁷ This measure classifies the partisanship of political domains based on the composition of their audience and then averages over this measure of domain partisanship for all the visits made by an individual to news domains.

Specifically, for each individual i we compute

$$R_i = \frac{1}{N_i} \sum_{j=1}^{N_i} r(d_{ij}),$$

where N_i is the number of URLs (on news domains) visited by individual i , d_{ij} is the domain of the j -th URL visited by individual i , and $r(d)$ is the Republican share of domain d .¹⁸

Flaxman et al. (2016) report that audience segregation for news websites in 2013 was 0.11. Using the same measure, we find that the level of segregation has reached 0.23 for traffic to all news domains in 2016. That partisan selectivity has more than doubled since 2013 points to the importance of the electoral context; a closely contested presidential campaign may make partisans significantly more motivated to rely on news providers thought to be congenial to their point of view.

Comparisons with the 2013 study also allow us to pursue a further explanation for

¹⁶National survey data indicate some increase in partisan animus post-2008, meaning that the motivation to engage in partisan selectivity may have strengthened post-2009. The feeling thermometer ratings of the political parties in the 2016 ANES, for instance, show more extremity than ratings from 2008.

¹⁷Specifically, the measure is $\sqrt{2\text{Var}(R)}$.

¹⁸For this analysis we follow Flaxman et al. (2016) and use individual visits to a web domain rather than the aggregated daily version used by Gentzkow and Shapiro (2011).

Table 3: Partisan Segregation by News Consumption Channel

Channel	Segregation (2016)	Visit Share (2016)	Segregation (2013)	Visit Share (2013)
Aggregator	0.17	0.01	0.07	0.01
Direct	0.22	0.83	0.11	0.76
Social	0.30	0.08	0.12	0.06
Search	0.21	0.08	0.12	0.13

the increased segregation of news audiences. This explanation concerns the “channel” or routing by which individuals arrive at news sites. Flaxman et al. (2016) examine the level of partisan segregation across four different pathways to the news. First, individuals might be referred to a news site from a news aggregator, such as Google News. Second, individuals might arrive at the site in question directly, without any intermediation. Third, individuals might visit the site because they encountered the link to the site in question in their social media (Facebook and Twitter) news feeds. Finally, some might access news sites through the use of search engines. The extent of segregation across these four distinct pathways to the news is shown in Table 3.

The finding of increased segregation in news audiences holds across all channels. The increase is most pronounced, however, in the case of visits emanating from social media (0.30 during the 2016 election and 0.12 during 2013, compared to an average segregation of 0.20 and 0.10 for the three other channels). While there is increased segregation across time periods, the distribution of visits that stem from each channel shows little change, with small decreases in the use of search engines and similar increases in direct visits and visits via social media. Greater segregation in 2016 does not appear attributable to changes in the general structure of web browsing.

While the prominence of social media as gatekeepers has remained modest over time, the degree of partisan segregation associated with this channel is greater in 2016. It seems unlikely that the partisan homogeneity of individuals’ online social networks, considerable to begin with (Messing 2013), has changed over this period. Instead, we suspect the increased segregation associated with social media stems from the polarizing nature of the 2016 campaign. As we show below, news coverage of the campaign frequently featured

controversies surrounding the two candidates. Given this pattern, partisans had many opportunities in 2016 to exercise selectivity so as to limit encounters with information damaging to their preferred candidate.

Overall, the data on domain-level visits reveal levels of partisan selective exposure during the 2016 election that are two to three times higher than those observed in prior research, though the absolute level of polarization might still be viewed as moderate. These findings are robust to alternative measures of partisan segregation in news consumption and persists when considering different subsets of news websites. Increased segregation during the 2016 campaign does not appear to reflect any change in the cartography of web browsing; instead, the pattern holds up across the multiple pathways to online news reports.

Selective Exposure Across News Content

Thus far we have only considered selective exposure and partisan segregation in terms of visits to particular web domains. This is an incomplete diagnostic test of selective exposure since it glosses over differences in news content. Most major news organizations provide coverage of both political and non-political subject matter and individuals do not necessarily encounter political content when they visit news sites. Even when they are seeking political information, they can typically screen content at the level of individual articles. Accordingly, opposing sets of partisans may gravitate to a different set of stories even when visiting the same news outlet.

Based on the expectation that the partisan divide in exposure to news is likely to widen as news content becomes more valenced—either favorably or unfavorably—toward a political party or candidate, we leverage the content analysis component of the study to examine partisan segregation across different types of election news. The basic intuition, noted at the outset, is that partisans will be especially threatened by (and attempt to avoid) content that is damaging to their favored candidate’s prospects. Conversely, they will seek out news that appears unfavorable toward the opposition.

In the content analysis, coders classified individual news reports into one of several

Table 4: Topics in Election-Related Coverage

Category	No. Articles	Share
Trump Scandal	9,999	18%
Event	8,781	16%
Strategy	8,285	15%
Clinton Scandal	7,589	14%
Issue	3,122	6%

topical categories. *Scandal* coverage focused on allegations of moral, legal or financial wrongdoing by either presidential campaign. Articles on the Trump *Access Hollywood* tape, the clash between Mr. Trump and the Khan family, Mrs. Clinton’s use of a private email server, and her role in the attack on the U.S. consulate in Benghazi all fell into this category. *Policy* coverage focused on the candidates’ issue stances. *Strategy* coverage focused on discussion of political polling and campaign strategy. *Event* coverage examined specific campaign events, such as the debates or a particular rally or stump speech by one of the candidates. Finally, coders placed news stories that did not fit any of these designations into a residual “other” category.

As shown in Table 4, coverage of scandals was the most prevalent category, accounting for 32% of the articles visited by respondents. The fact that there were more than twice as many reports on scandals than reports on any other facet of the campaign reflects the reality of the 2016 contest, in which the major candidates became ensnared in multiple controversies. The prominence of scandal coverage may also reflect market pressures, with controversial content more likely to attract and hold consumer attention.

Reports falling into the event and strategy categories each made up approximately 15% of the coverage. In keeping with prior research (e.g., Iyengar et al., 2008), coverage of “hard news” such as the candidates’ policy stances represented the smallest share of news coverage at only 6% of the articles.¹⁹

Coders also evaluated the net partisan slant of news reports. They used a five-point scale to assess the extent to which content in the report was (1) clearly more favorable to Democrats, (3) even-handed or neutral with respect to the political parties, or (5) clearly

¹⁹The remaining 32% of articles were placed in the “other” category.

Table 5: Slant in Election-Related Articles

Article Slant	No. Articles	Share
Favors Democrats (1)	8,558	15%
(2)	11,815	22%
Neutral (3)	24,920	45%
(4)	6,723	13%
Favors Republicans (5)	3,576	6%

more favorable to Republicans.

As shown in Table 5, the coders rated approximately half (45%) of the election-related stories as neutral. This finding is consistent with prior studies that use crowd-sourced human classification to assess media bias at the level of individual news reports (Budak et al., 2016). However, our respondents also selected a substantial number of articles that coders judged to favor, at least to some degree, one of the political parties or candidates. These valenced articles represent especially fertile subject matter for detecting selective exposure, and we turn next to an examination of audience segregation across the categories of news content.

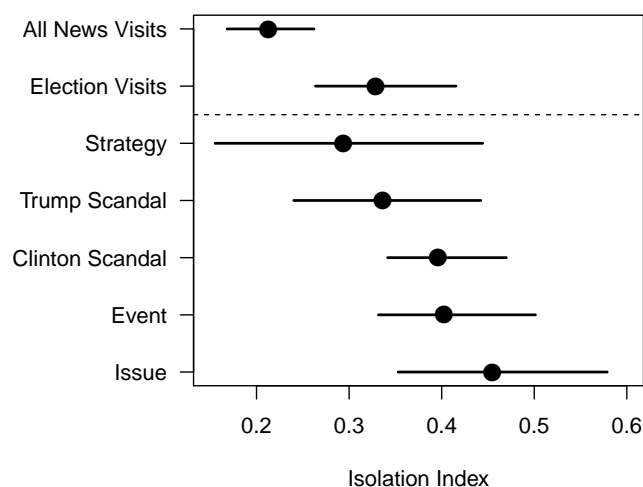
Selective Exposure by Topic

We computed the isolation index for each of the designated content categories, again using the same level of visit aggregation as prior research that employs the isolation index (Gentzkow and Shapiro 2011). In the top panel of Figure 2, we present partisan isolation for two baseline categories: all visits to any of the 355 news domains that appeared in our study, including those only to the home page of a site, and all visits to election-relevant news reports. The latter consists of stories viewed by respondents from this set of news domains that mentioned either of the candidates and were subsequently rated by coders as focusing primarily on the presidential election.²⁰

We then disaggregated the level of isolation within the different election-related topical categories, recomputed the Republican share of site visits, and produced a content-specific

²⁰This consists of stories identified as election-related using a keyword search that are subsequently identified as focusing on the election by coders.

Figure 2: Partisan Divide by Article Content



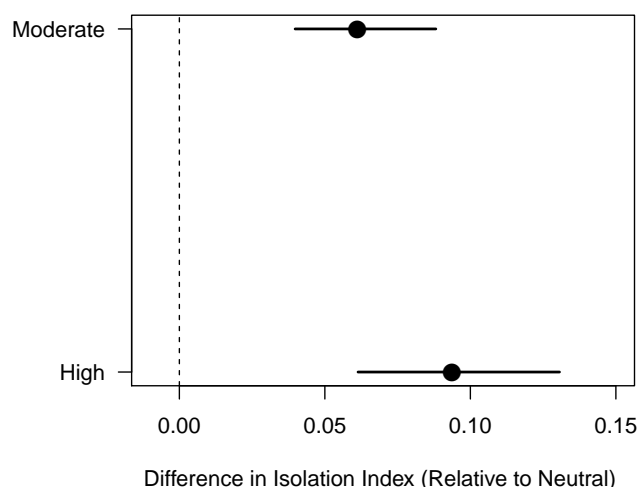
measure of partisan segregation for each news category. We follow prior work by Gentzkow and Shapiro (2011) and compute confidence intervals for the isolation index based on the bootstrap.²¹

As shown in Figure 2, relative to all visits to news sites, partisan isolation increased for exposure to election-focused news. The partisan divide expanded from 0.21 for all news visits to 0.33 for visits to election-focused stories identified in the content analysis. The 12-point difference in the isolation index between these categories (the 95% confidence interval on the difference is [0.03, 0.22]) indicates that when information is relevant to the election, partisans' news choices become more divergent.

Turning to the variation in selectivity across the different types of election-related news, the results proved ambiguous. We had anticipated that coverage of scandals would elicit stronger dissonance among supporters of the candidate implicated in the scandal, leading them to focus on other stories, thereby strengthening the partisan divide. In fact, we did not find a statistically significant difference between scandal news implicating either of the candidates and the baseline of all election-related news. Scandal, strategy, and event-oriented news elicited generally similar levels of partisan segregation; if anything, segregation tended to increase for coverage of political issues. But these estimates are

²¹This is a cluster bootstrap in which we re-sample respondents and use all their visits to re-estimate the isolation index.

Figure 3: Change in Partisan Divide by Partisan Slant



far from precise, making it difficult to draw firm conclusions.²² In one general sense, however, these results conform to expectations: in comparison with news coverage overall, partisan isolation is higher for news reports about the election.

Selective Exposure by Article Slant

Do news consumers behave as partisans when the content of election-related news is slanted explicitly in favor of one party or the other? Figure 3 displays differences in the isolation index for content seen as conveying a *moderate* degree of partisan slant (a 2 or 4 on the scale, 33% of visits) and a *high* degree of partisan slant (a rating of 1 or 5 on the scale, 23% of visits) relative to the set of articles rated as *neutral* by the coders (a 3 on the rating scale, 43% of visits).²³

For neutral articles the isolation index is 0.33. The degree of partisan isolation is 6 points greater for articles with a moderate degree of slant (an isolation index of 0.39) and 9 points greater for articles with a high degree of partisan slant (an isolation index of

²² With the exception of “strategy” articles, the difference in the isolation index between these election news categories and all news visits to these news domains is statistically significant.

²³ These visit share numbers differ slightly from Table 5 as we now focus on total views rather than unique articles.

0.42) relative to this baseline.²⁴ Not surprisingly, isolation is highest when news coverage clearly favors one party over the other.

In documenting the consumption of online news content, we have advanced the literature on selective exposure to news in two important ways. First, we find that partisans' exposure to news coverage of election campaigns is more selective than their exposure to news in general. Second, when we incorporate partisan slant into the analysis, we find the partisan divide in news exposure expands. Partisan divides in news exposure are particularly pronounced for news with a clear partisan slant. However, it is important to point out that the most commonly encountered news report conveys no slant. In the case of the typical election story, therefore, partisans are under less pressure to engage in selective exposure.

Robustness Tests

Before examining the potential attitudinal consequences of these partisan divides in news consumption, we first subject the evidence in the preceding section to several robustness tests. We compare our measures of website traffic to a widely used alternative source, estimate partisan isolation with an alternative set of raking weights that reduce the overall level of political interest in our panel and align it with other surveys conducted during the 2016 election, and consider several alternative explanations for increased partisan isolation.

Comparison to ComScore Data

The patterns of web traffic we observe are closely related to traffic measures from ComScore, an alternative source of browsing data collected through a large national panel. Web traffic patterns among panelists in our study during October 2016 converge with traffic estimates based on individual-level data from ComScore's web panel for the same

²⁴The difference in the isolation index between high and moderate slant articles falls short of statistical significance (3.3 points, 95% CI [-1, 8]).

time period. Focusing on the measure of web traffic used to construct the partisan isolation index—the average daily share of panelists who visited a domain at least once on a given day—the two sources correlate at 0.82 when considering the 500 most-visited sites of any type among our panelists and 0.84 when comparing only the political domains that contribute to estimates of partisan isolation (See Appendix A for further comparisons).

Robustness to Selection Bias

Our sample of panelists was collected using YouGov’s standard procedure—an approach which has been incorporated into a variety of other studies of public opinion.²⁵ As a result we conduct our primary analysis of partisan isolation using weights that adjust for deviations of our final sample from an initial nationally representative sampling frame due to both non-response to the initial survey and non-compliance with the installation of the tracking toolbar after taking the survey.

After applying these weights, the sample closely resembles the composition of two other surveys conducted during the 2016 election—the American National Election Study (ANES) and the Cooperative Congressional Election Study (CCES)—in terms of both respondent demographics and political attitudes (See Appendix A for a detailed analysis). Even after including these weights, however, self-reported political interest is higher in our sample relative to the same measure in the 2016 CCES (3.55 compared to 3.25 on a 4-point political interest scale).

We address this potential source of bias by generating an alternative set of raking weights that weight our sample to match the marginal distributions of age, education, gender, partisan identification, race, region and, importantly, self-reported political interest in the 2016 CCES. If the higher levels of political interest in our sample contribute to the elevated levels of partisan isolation we observe, this re-weighting exercise should pro-

²⁵First, YouGov created an initial target sample of respondents using Census data. Second, members of the YouGov panel were matched to this target sample using proximity matching. Third, YouGov generated survey weights to weight these matched respondents back to the initial target sample.

Table 6: Isolation Index By Trait

Trait	Isolation Index
Race	0.00
Gender	0.03
Education	0.03
Party	0.21
Ideology	0.24

duce a substantial reduction in our estimates of isolation. Instead, these estimates remain stable across the alternative sample weights. The partisan isolation index is 0.21 when using the YouGov weights and 0.22 when using the raking weights that down-weight the overall level of political interest among the panel. In both cases, we continue to observe substantially higher levels of partisan isolation than prior research.

Social Sorting Does Not Explain Partisan Isolation

This increased segregation does not appear to result from a more general pattern of demographic sorting (i.e., that the parties have become more distinct on numerous social cleavages). When we examine differences in browsing behavior based on gender, race and education (see Table 6), we find minimal segregation.²⁶ Partisan segregation in news browsing thus does not seem to be a byproduct of other social dimensions associated with partisan preference.

Finally, we note that our results are also not driven by geographically based demand for local news. When we compare aggregate levels of partisan segregation, we find that local news websites are less segregated (0.06) relative to other news domains (0.24). De facto selective exposure due to reliance on local news sites does not explain our findings.

²⁶Here we follow the same approach used in Gentzkow and Shapiro (2011) for determining segregation in web traffic using a binary coding of these trait variables (e.g., college educated v. non-college educated, white v. non-white, conservative v. liberal).

Attitudinal Consequences of Selective Exposure

We conclude by investigating the consequences of partisan divides in news consumption for political attitudes. Did partisans who encountered a steady diet of partisan news reports change their views about the presidential candidates? Given the time period during which we assess political attitudes, one might expect that partisan news exposure contributes to a familiar pattern from the campaign effects literature in which partisans “return to the fold” and increasingly support their co-partisan presidential nominee in the last months of the campaign (e.g., Gelman and King 1993).

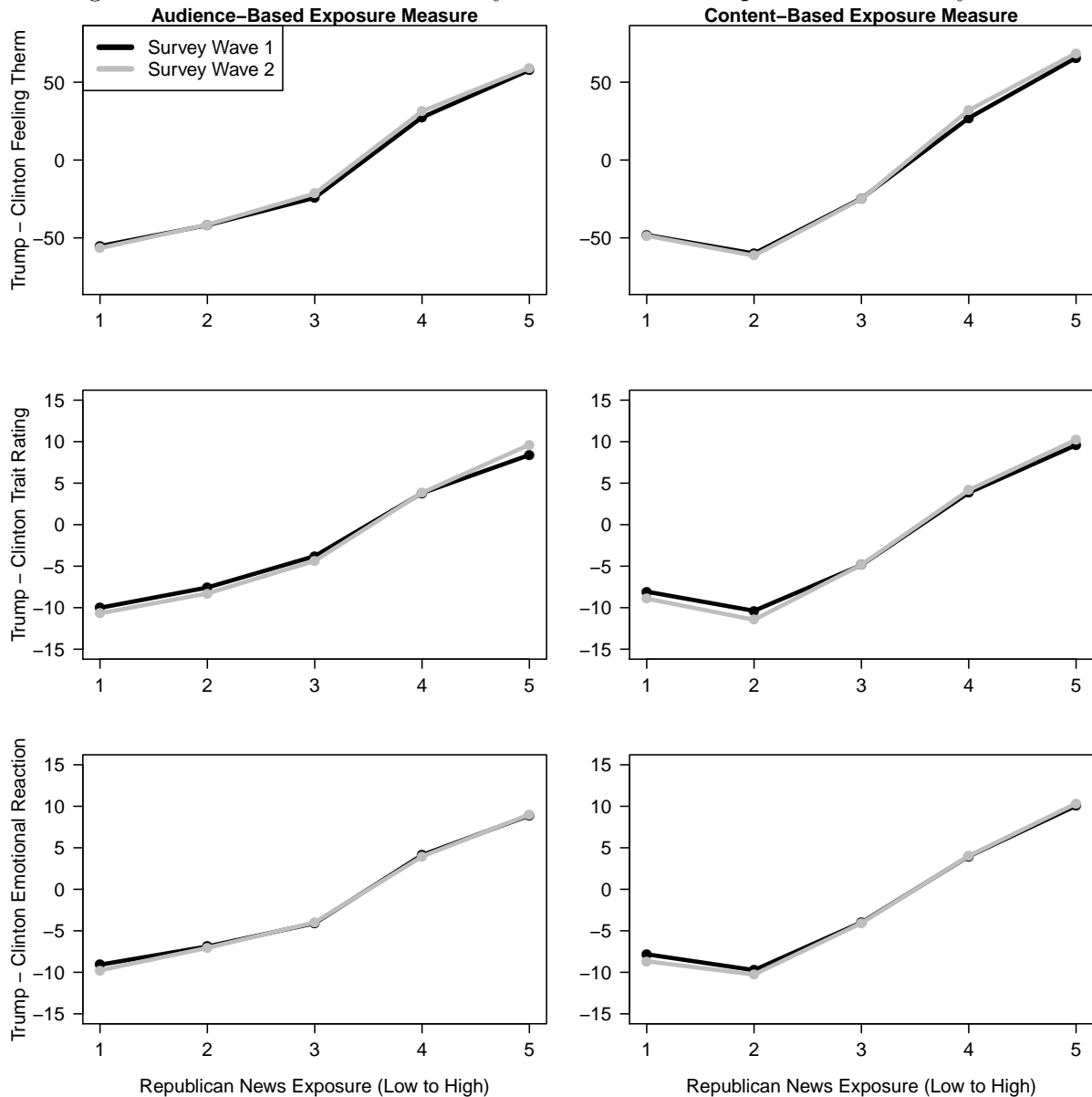
We divide panelists into five evenly sized bins based on the distribution of individual-level partisan news exposure. From low to high, these exposure categories are ordered in terms of either the average Republican audience share of the news visits they made (the left columns of Figure 4) or, using the content analysis, by the average conservative slant of all election-related articles they read (the right columns of Figure 4). In each case these groupings capture divides in news exposure over the course of the campaign.

Each row of Figure 4 displays the relationship between partisan news exposure and a different outcome measure. In presenting these results we orient the outcome measures so that higher values indicate favorable assessments of Donald Trump relative to Hillary Clinton. These outcomes move from the difference in feeling thermometer assessments of Trump and Clinton in the top row, to differences in the two candidate’s trait ratings in the middle row²⁷, to differences in an individual’s emotional reactions to the two candidate in the bottom row of Figure 4.²⁸ Across these sets of indicators we compute the relative ratings of the two candidates (e.g., the difference in a respondent’s feeling thermometer placement of Trump relative to Clinton). These outcomes allow us to observe

²⁷The trait battery consists of seven different traits applied to each candidates: intelligence, trustworthiness, “tells it like it is,” compassion, morality, stability and willingness to compromise. Full question wording for these items is available in the Appendix.

²⁸The measure consists of six emotion ratings directed at each candidate: did the candidate make the respondent feel anger, hopefulness, fear, disgust, pride and inspiration. Question wording for these items is available in the Appendix.

Figure 4: Candidate Evaluations by Partisan News Exposure and Survey Wave



the relationship between media exposure and overall candidate assessments as well as less crystallized elements of candidate evaluation (e.g., ratings of candidate competence) that may be more amenable to media influence.

We display the relationship between the two measures of Republican news exposure—audience-based and content-based—and the three survey outcomes separately for the first survey wave from late August (black lines) and second survey wave conducted after the election (gray lines). If partisan news exposure facilitates polarization in candidate assessments over this time period, we would expect the slope of the gray lines to be substantially steeper than the black lines.

The relative candidate evaluations within each quintile of partisan media exposure move in the expected manner. Individuals who consume election news primarily from domains visited by Democrats (Bin 1) evaluate Clinton much more positively than Trump across all of these outcomes in both the pre- and post-election surveys. Individuals who consume election news primarily from domains visited by Republicans (Bin 5) evaluate Trump much more positively than Clinton.

However, given the overlapping nature of the lines for the first and second survey waves across all of these different indicators of candidate sentiment, there is little indication that more pronounced partisan news consumption contributed to polarization in candidate assessments over the course of the campaign. The initial divides in candidate assessments between individuals with different patterns of news consumption that are present in August persist through the end of the election, but those with one-sided patterns of news consumption do not move further apart over this time period.²⁹

These results raise the possibility that online partisan news exposure did not substantially alter individuals' candidate assessments during the campaign. We note that this possibility is consistent with recent field experiments that find minimal persuasion in general election campaigns (Kalla and Broockman, 2018). It bears emphasis, however, that our data do not allow us to rigorously quantify the causal effects of selective exposure. Nevertheless, we offer three theories that might explain our findings.

One possibility is that individuals may have already made up their minds prior to our initial survey wave, leading us to miss earlier contributions that partisan media exposure made to candidate preferences. This is consistent with evidence that public opinion was already divided at the outset of this study. The percentage of partisans in our sample whose initial thermometer rating of their preferred candidate was less than 75 was only 41 percent. More strikingly, the percent rating the out party higher than 25 was only 10 percent. In this view, partisan news exposure may still contribute to candidate

²⁹While we focus on Figure 4 due to its ease of interpretation, more formal regression analyses also fail to find a significant relationship between changes in candidate assessments between the two survey waves and partisan news exposure.

assessments, but does so prior to the stage of the campaign examined here.

A second possibility is that partisan news exposure may be able to influence an individual's views on issues where media outlets offer widely differing perspectives, but that sites offered insufficient variation in their campaign coverage to do so here. Although those who seek partisan vitriol can find it, our content analysis indicates that the overwhelming majority of online media outlets provided dispassionate, relatively balanced coverage of the campaign. *Fox News* may be the Republican outlet of choice, but this network's online slant score, based on its election coverage from our content analysis, was 3.2, not substantially different from the scores for *USA Today* (2.7), *CBS News* (2.6), or the *New York Times* (2.6). In other words, the relatively muted between-outlet differences in campaign news coverage may have been insufficient to change candidate assessments.

A third possibility is that individuals are selective enough in their news consumption that their media diet can only maintain, but not change, their prior political attitudes. This would mean the divides in consumption observed in the previous section of the paper reflect pre-existing differences in political views, but that individuals are sufficiently discriminating about the news they consume to attenuates any contribution these news sites could make to further polarizing their political views.

Future work is needed to better distinguish these alternatives by examining the relationship between partisan news exposure and political attitudes in other settings with more substantial divides in the content offered by different news sites and where political attitudes are less crystallized than the late-campaign candidate assessments studied here. Approaches that can better isolate exogenous variation in real-world exposure to partisan news from consumption motivated by an individual's pre-existing agreement with perspectives in the news are also needed. However, even given these limitations, we believe our findings make an important initial contribution to understanding the role of partisan media in presidential campaigns.

Discussion

Over the course of the 2016 campaign, Democrats and Republicans differed in their exposure to online news. Republicans relied disproportionately on *Fox News* and a handful of other partisan providers. While Democrats also gravitated to partisan outlets, (e.g. the *Huffington Post*), they continued to receive more of their news from organizations generally viewed as practicing non-partisan journalism.

Given the circumstances surrounding the 2016 campaign, an obvious explanation for Republicans' browsing behavior is their co-partisan candidate's criticism of the mainstream media. From "fake news" to "enemy of the people," Trump made hostility to the press a key ingredient of his appeal to the Republican base. Given what we know about the persuasive effects of elite rhetoric on the rank and file (see Zaller, 1992), one possible explanation of our results is that Republicans avoided non-partisan outlets because they perceived them to be anti-Trump.

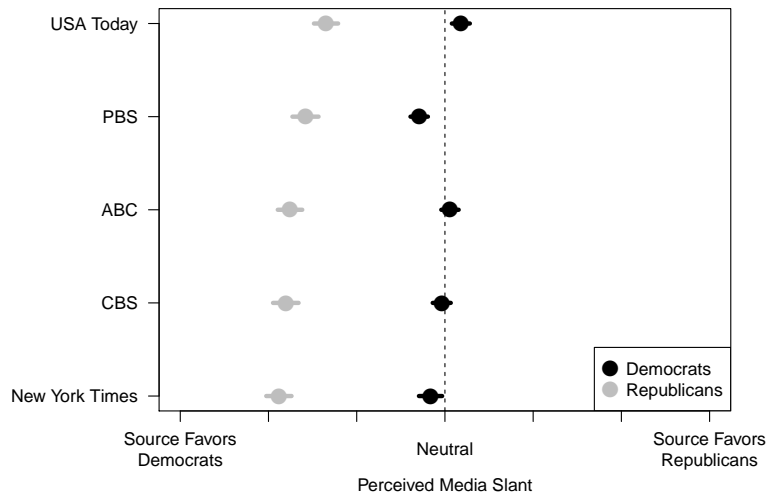
Attractive as the opinion leadership explanation may be, it does not fit the survey evidence on perceived media bias. The partisan divide in evaluations of the credibility of major news organizations predates Donald Trump's presidential campaign by many years. As early as 2004, the Pew Research Center reported sizable gaps between Democrats and Republicans in the "believability" ratings of major news organizations (Pew Research Center, 2004). Republicans typically perceived the mainstream media as pro-liberal.

In 2011, we replicated the Pew study by asking a national sample (also recruited from the YouGov panel) to indicate the extent to which they perceived various well-known mainstream news organizations as biased or unbiased.³⁰ Respondents were asked to use a scale that ranged from (1) "liberal or pro-Democratic bias" to (7) "conservative or pro-Republican bias," with a mid-point of 4 indicating "no bias at all." They applied the scale to the *New York Times*, ABC News, CBS News, *USA Today*, and PBS.

As shown in Figure 5, Republicans placed these news outlets toward the liberal extreme. Averaged across all five outlets, the Republican rating was 2.3. In Republican eyes,

³⁰The 2011 study was funded by a Google Research Award to Yphtach Lelkes (now at the University of Pennsylvania) and Shanto Iyengar.

Figure 5: Perceptions of Media Bias



the mainstream media tilt against them, a classic case of the hostile media phenomenon (Vallone, Ross, and Lepper, 1985). Democrats, on the other hand, viewed these news organizations as unbiased; their average rating was almost exactly 4.0 (3.95). Given that the outcome measure ranges between 1 and 7, the observed partisan divide of 1.6 points is a chasm—representing nearly 30 percent of the maximum possible difference.

The mainstream media have been caught up in the maelstrom of party polarization. Today, source credibility is very much a matter of partisan affiliation with Republicans attributing an anti-conservative bias to most major news outlets. Given the historical context, candidate Trump’s message in 2016 seems unlikely to have changed many Republican minds for he was already “preaching to the choir.”

The intensely polarized state of our politics also makes it more difficult to observe changes in voters’ partisan sentiment over the course of the campaign. Despite the significant divide between Democrats and Republicans in the news sites they visited—and the more moderate differences in the content slant they encountered—browsing behavior was not correlated with changes in candidate evaluations. The presence of two highly controversial candidates in 2016 likely contributed to this finding; we will need to investigate the effects of news consumption on partisan attitudes under different contexts and circumstances before reaching any conclusions about the potential effect of exposure to partisan news on misinformation, partisan animus, and vote choice.

In closing, we return to the question that motivated this analysis: the possibility of increased selective exposure to partisan news. Our results suggest that the segregation of online news audiences has indeed increased, though the absolute level of polarization is still not extreme. We also observe strengthened partisan selectivity in the area of election news, especially when individuals are directed to news stories via social media. The upshot is that notwithstanding partisans' increased exposure to friendly news sources over the past decade, we are yet to observe fully developed online echo chambers. Moreover, based on our evidence, we suspect that the increase in the level of audience segregation is attributable less to the supply of distinctively biased content and more to the politicization of source credibility. Despite the significant changes in the media environment we noted at the outset, the U.S. market for news remains dominated by sources dedicated to conventional journalism. Of the political news domains considered in our study, by our count only 33—representing less than ten percent of all sources—deliver news with an explicitly partisan perspective. On balance, therefore, we suspect that the segregation of the online news audience is more the result of beliefs about outlets' partisan leanings rather than due to the content of campaign news itself.

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Appendix A: Wakoopa Toolbar Uptake and Compliance

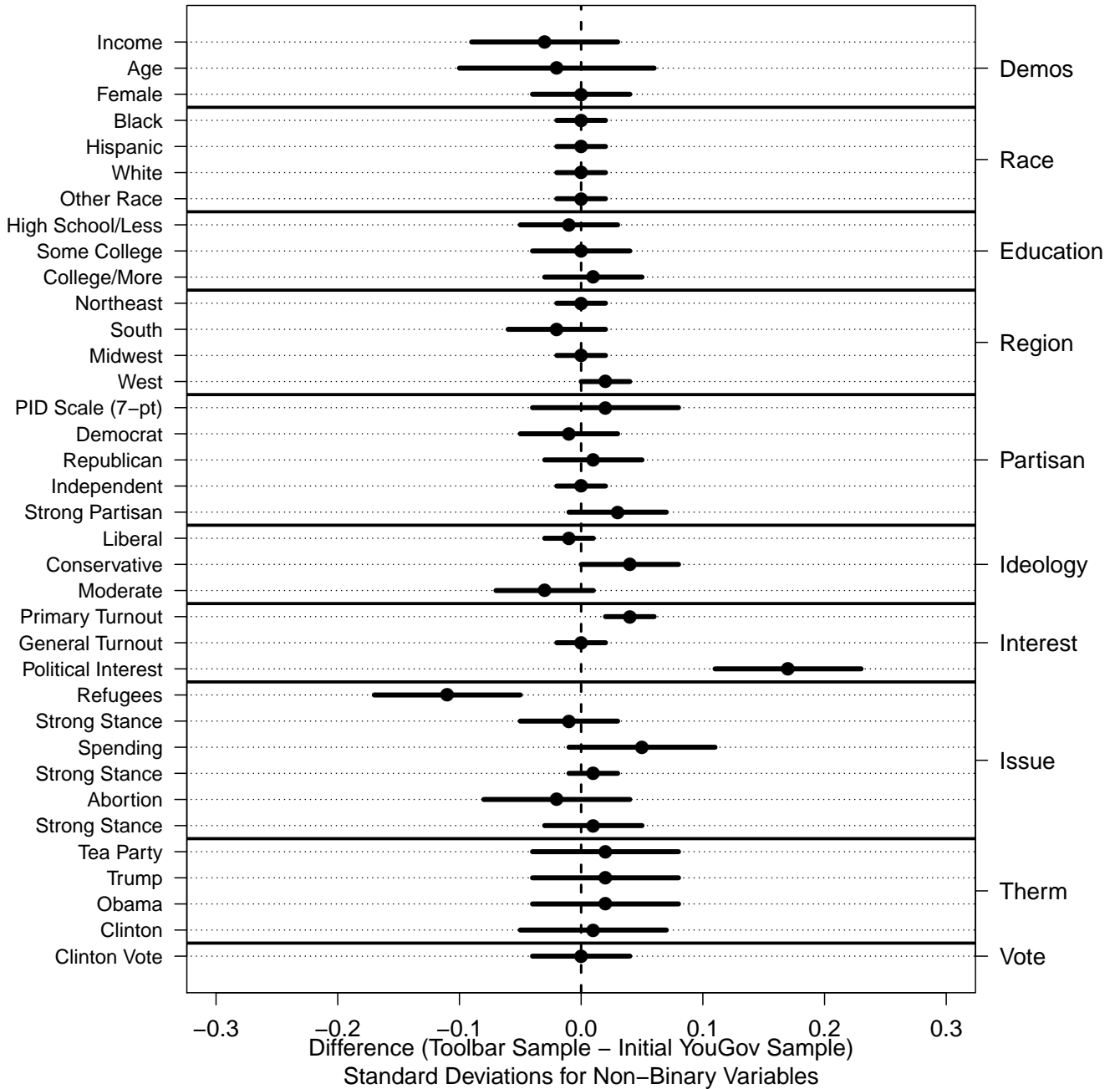
Initial Toolbar Uptake

Figure A1 compares the sample of individuals who installed the toolbar ($n=1,076$) to the overall survey sample ($n=7,704$). In each case we use survey weights provided by YouGov when making these comparisons. This mirrors the approach we use in our analysis when assessing partisan segregation throughout the paper.

The differences between these groups are small across a variety of indicators. The primary exception is that the toolbar sample has a higher degree of political interest than the initial survey sample. Based on this imbalance, we conduct additional robustness checks that re-weight the toolbar sample to reduce this imbalance at the end of this appendix section.

Figure A1: Demographic Differences by Toolbar Installation

Differences in Toolbar Sample Relative to YouGov Sample



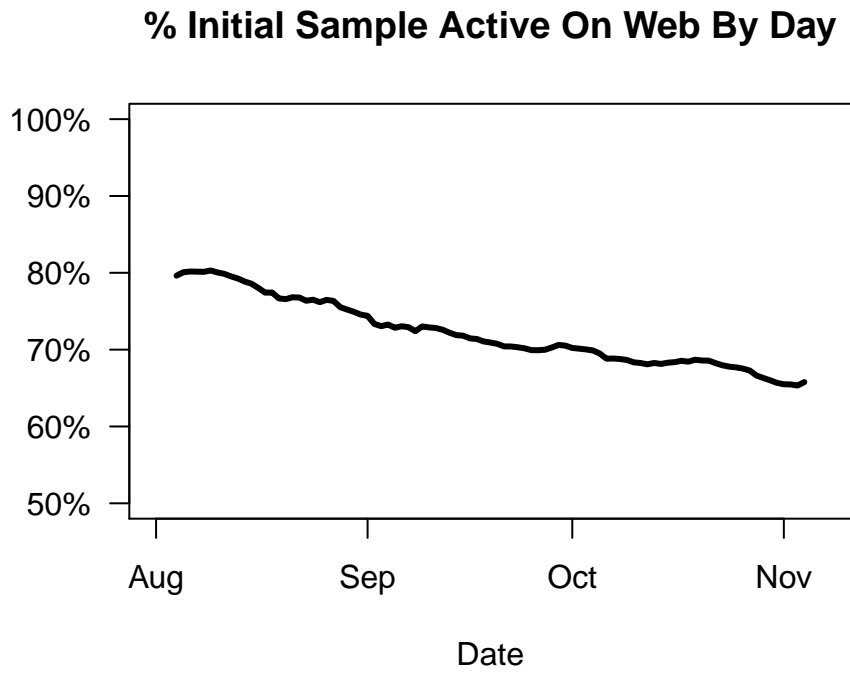
Toolbar Use Over Time

While individuals who installed the toolbar were incentivized to continue using it throughout the study time period, we observed a modest degree of attrition in use of the Wakoopa toolbar over the study. During the first week of data collection, 94% of the individuals we analyze in the toolbar dataset registered at least one site visit. By the final week of

data collection 76% of these respondents visited at least one website during the week.

Figure A2 below displays the percentage of active users by day (based on a 7-day rolling average) over the period of data collection.

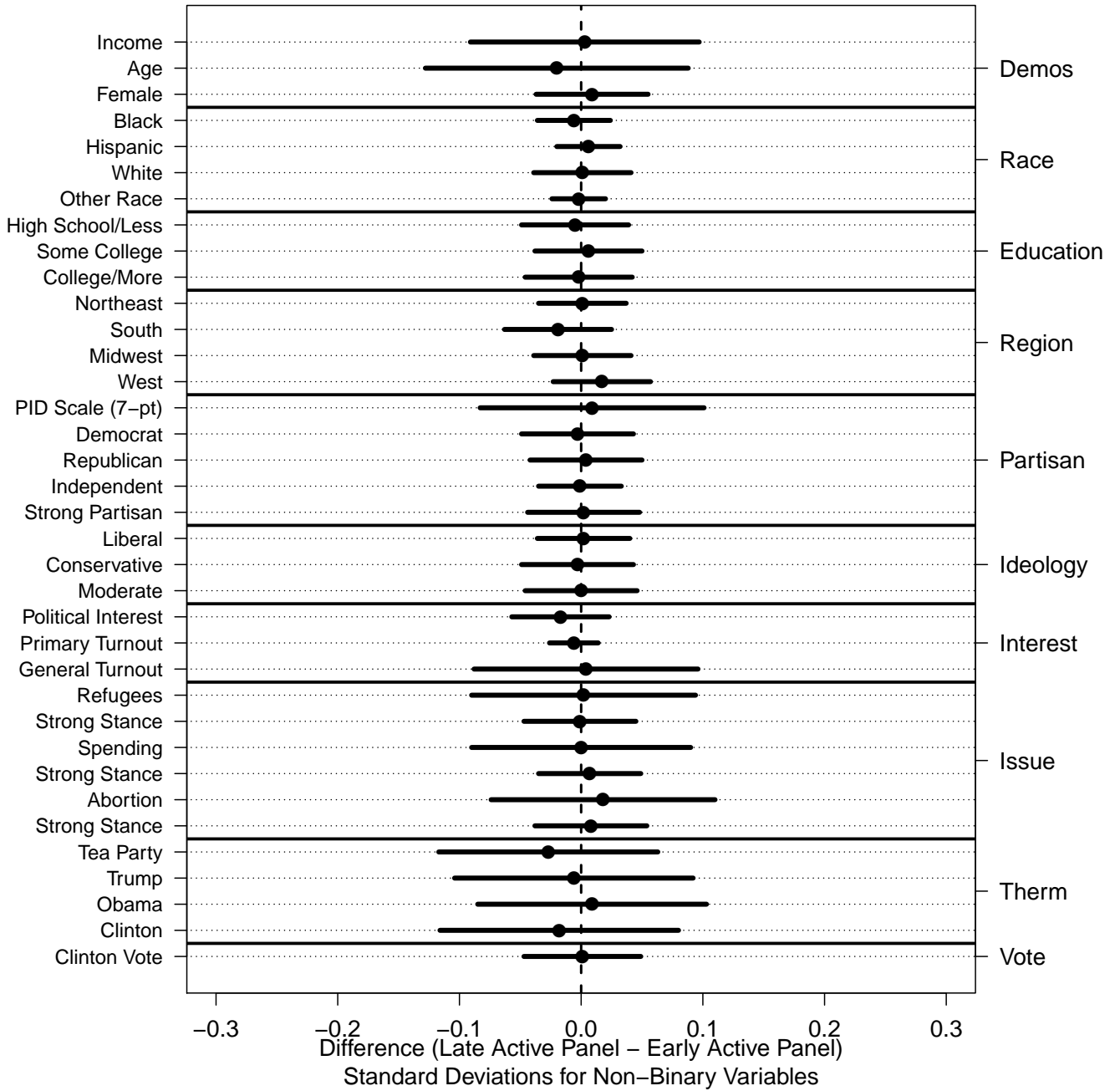
Figure A2: Toolbar Use Over Time



In Figure A3 (see below), we examine differences in the demographic profile of individuals who remained active on Wakoopa upto the last week of data collection (i.e., they have at least one website visit per week during this time period) relative to those who became inactive at this point (i.e., who visit zero sites during this week).

Figure A3: Demographic Differences by Wakoopa Activity

Over-Time Differences in Active Toolbar Sample



The results offer only limited evidence that attrition in toolbar use is systematically linked to these covariates.

Comparison To Other Surveys

We also benchmark the final sample of web panelists we consider to a set of other political surveys that took place during the 2016 election. The next three plots display differences in the sample composition of our toolbar sample after incorporating the sample weights relative to three other studies: 1) the 2016 American National Election Study Face to Face Interviews, 2) the 2016 American National Election Study Online Interviews and 3) the 2016 Cooperative Congressional Election Study (an online-only sample). This enables comparisons across a variety of different demographic and attitudinal characteristics. Because there are differences in the survey items and question format in each of these other surveys, not every toolbar item can be compared to all three other surveys.

These comparisons reveal a high degree of similarity between our sample and these other data sources on important dimensions like partisanship and Presidential vote choice. That being said, even after including these weights two departures stand out. First, self-reported political interest is substantially higher in our sample, even after including the weights, than it is for the 2016 CCES where a comparable 4-pt political interest measure is available (3.55 to 3.25). Second, self-reported turnout in the 2016 Presidential primaries and caucuses is substantially higher among the toolbar sample (76% among our panelists relative to: 40% for ANES Face to Face, 44% for ANES Online, 61% for CCES). Based on this differences, we conclude this section by presenting results which show that our overall findings are not altered by reweighting our data to reduce this discrepancy in political interest.

Figure A4: Trait differences between ANES 2016 Face to Face and Toolbar Sample

Differences in Sample Composition Relative to NES Sample

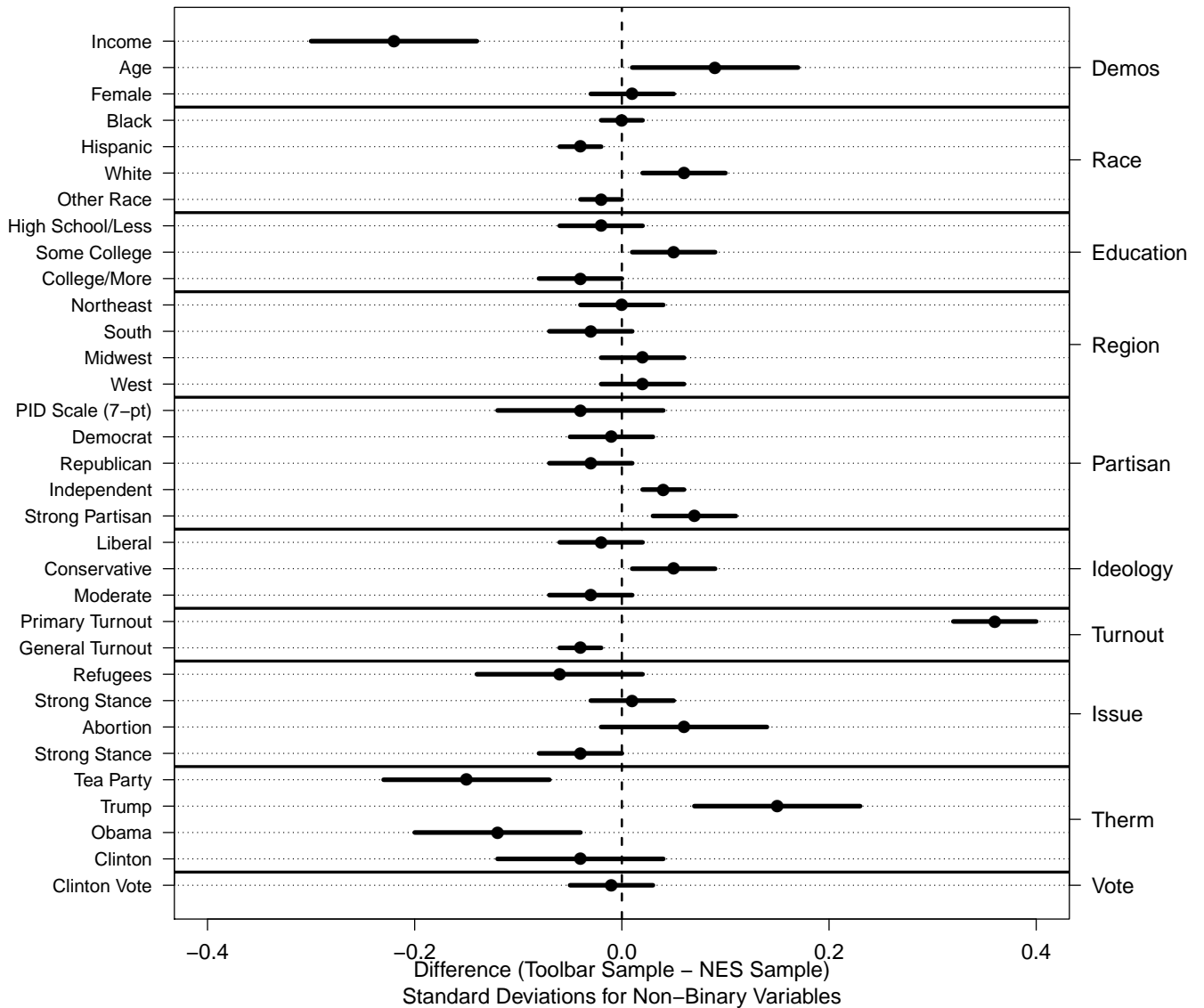


Figure A5: Trait differences between ANES 2016 Online and Toolbar Sample

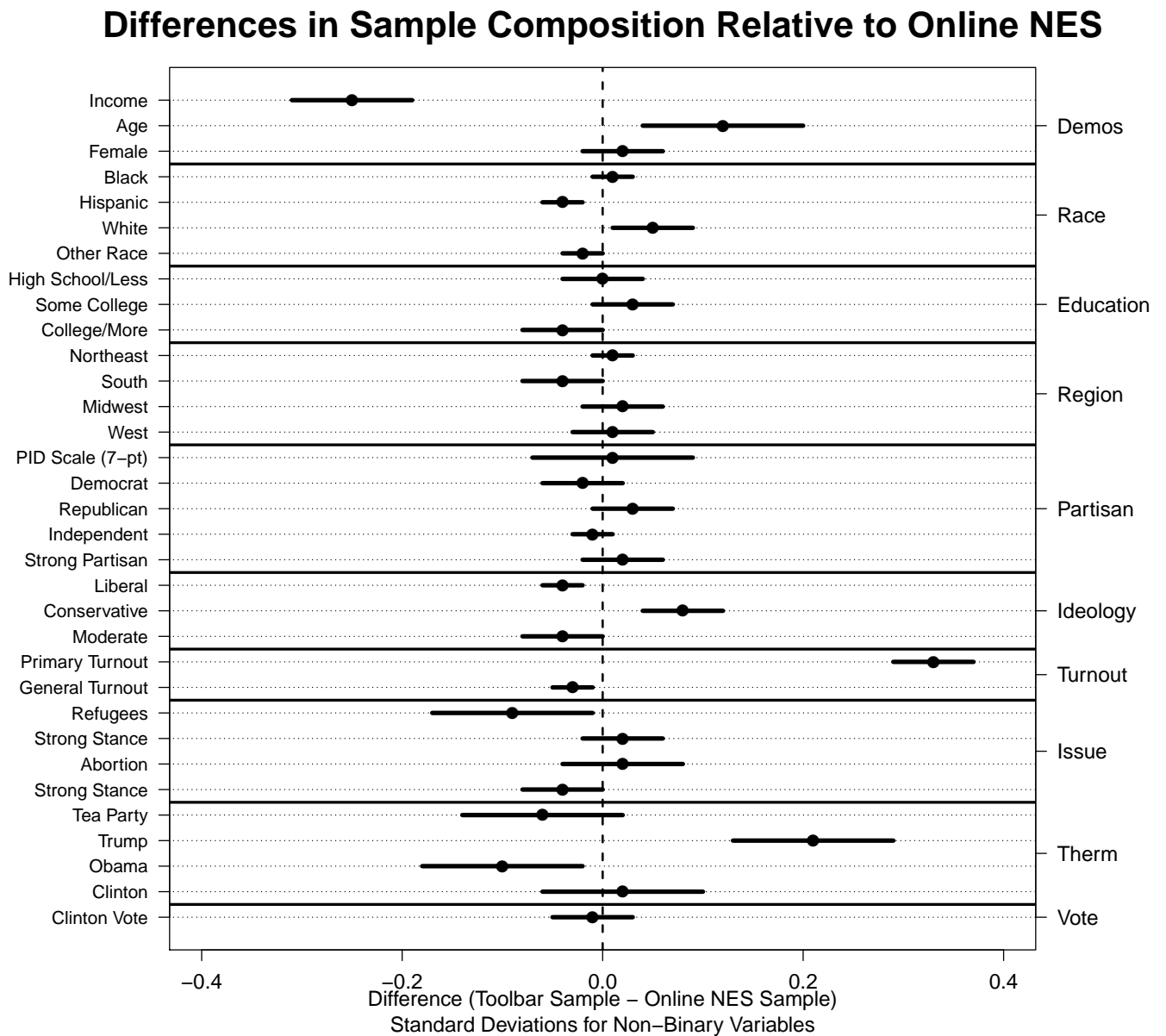
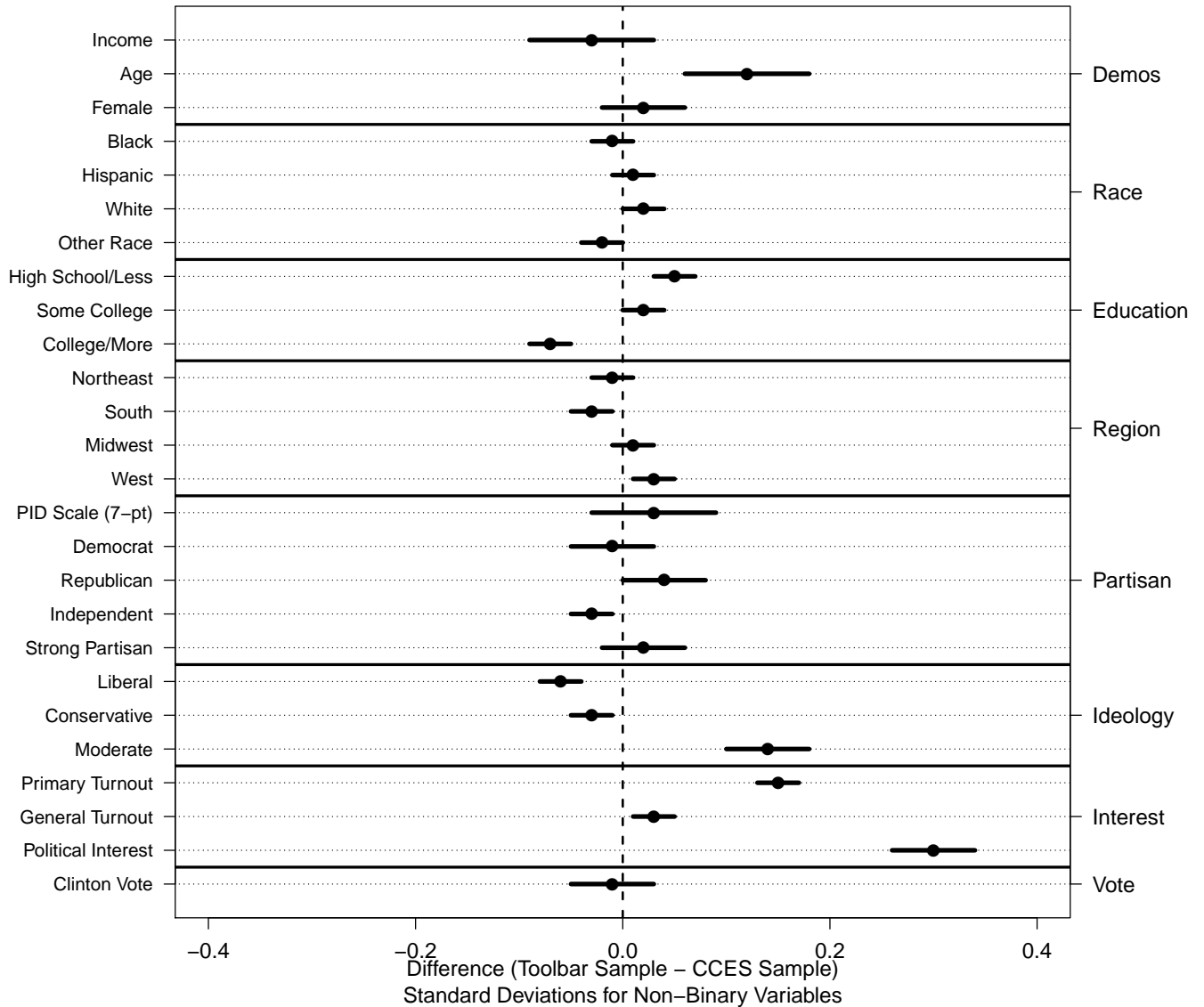


Figure A6: Trait differences between CCES 2016 and Toolbar Sample

Differences in Sample Composition Relative to CCES Sample



Comparison To Other Web Traffic Sources

To compare the web traffic data from Wakoopa panelists to other sources, the table below pairs this traffic data for Wakoopa panelists during October 2016 to estimates of website traffic during this same time period obtained from individual-level data from Comscore’s web panel over the same period of time.

We paired aggregate traffic data from our set of Wakoopa panelists to Comscore traffic data for two sets of websites a) the top 500 websites of any type in the Wakoopa dataset and b) the 255 political websites that are the primary focus of this study. We compared web traffic patterns for three different measures including a) the share of active panelists with at least one visit to a domain on a given day (closest to the approach used in Gentzkow and Shapiro 2011), b) the share of all web traffic to different web domains (closest to the approach used in Flaxman et al 2016) and c) the overall volume of traffic to various web domains. This approach allows us to benchmark our traffic sample to these other data sources.

Table A1: Wakoopa and Comscore Web Traffic Comparison

	Daily Visitor Share (1 or More Visits)	Traffic Share	Visits per Panelist
Top 50 (All Sites)	0.82	0.95	0.95
Top 500 (All Sites)	0.82	0.95	0.95
Top 50 (Political Site List)	0.74	0.55	0.54
Full Political Site List	0.84	0.67	0.67

Across these comparisons the correlation between the share of users visiting a domain at least once on a given day exceeds .8 for the entire website list and .7 when focusing just on political websites. In terms of traffic share there are stronger relationships between the two sources of data for the entire website list (above .9) than when just focusing on the political website list (above .5).

Robustness: Weighting To Account For High Levels of Political Interest

One potential concern raised by these benchmarking exercises is that the evidence of greater levels of partisan isolation in our sample relative to previous research is attributable to the higher levels of political interest in this sample relative to other election surveys. Adding to this concern, when we reestimate partisan isolation separately for

respondents with high and low levels of political interest based on either their survey responses to a political interest question (those who pay attention to politics “A great deal” relative to other panelists) or their amount of browsing on these political news domains (above or below median number of visits to these news domains), panelists with low levels of political interest exhibit lower levels of partisan isolation.

Table A2: Partisan Isolation Index By Political Interest

Trait	Adjusted Isolation Index
2016 (Low Interest-Survey Based)	0.04
2016 (Low Interest-Traffic Based)	0.09
2016 (High Interest-Survey Based)	0.25
2016 (High Interest-Traffic Based)	0.23

We address this concern by reestimating our key comparison with a new set of respondent weights obtained by raking the set of Wakoopa panelists to the population marginal distributions of age, education, gender, partisan identification, race, region and self-reported political interest from the 2016 Cooperative Congressional Election Study. Applying these alternative weights lowers the average political interest of the Toolbar sample from 3.6 when using the YouGov weights to 3.3, matching the distribution of political interest in the CCES sample.

Applying these alternative weights when assessing partisan isolation does not substantially alter partisan isolation index or the substantial increase in partisan isolation relative to prior research. The partisan isolation index is 0.21 when using the YouGov weights – the results presented in the main text – and 0.22 when using these alternative raking weights to downweight the overall level of political interest among the panel. In both cases, we continue to observe substantially higher levels of partisan isolation than prior research.

-

Appendix B: Crowd-Sourced News Article Labels

After identifying news articles that mentioned “Clinton” or “Trump” within the first 150 words of the article, we used crowd-sourced classifications of article content from workers on Amazon’s Mechanical Turk to provide further information about the articles.

Coders were provided with the instructions below when rating the articles.

Figure B1: Rating Instructions

Please categorize the below news article from the 2016 Presidential Campaign based on its **Topic**.

If multiple categories are appropriate, use the topic that **most prominently** appears in the text excerpt.

See the **Definition** below for more details on each category and **Examples**

Topic	Definition	Examples
Clinton Scandal	Alleged moral/legal/financial wrongdoing by Hillary Clinton or Democratic Party. This includes critiques of Clinton's character or personal behavior .	Coverage/Discussion of Hillary Clinton's health after fainting at campaign event. FBI investigation of Clinton's email server. <i>(Press Clinton Scandal button for additional examples)</i>
Trump Scandal	Alleged moral/legal/financial wrongdoing by Donald Trump or Republican Party. This includes critiques of Trumps's character or personal behavior .	Coverage/Discussion of Trump's comments about women on leaked "Access Hollywood" tape. Lawsuit brought against Trump University. <i>(Press Trump Scandal button for additional examples)</i>
Candidate Policy	Policy positions of either candidate.	Trump proposal to increase military spending. Clinton position on Trans-Pacific Partnership trade agreement.
Campaign Strategy	Overall state of the campaign. Includes candidate targeting/outreach efforts, predictions about election outcomes or discussions of polls.	Discussion of Clinton purchasing TV advertising in Florida. News report about a public opinion poll.
Campaign Event	Focus on specific campaign event (e.g., a speech, coverage of a presidential debate, an endorsement for one of the candidates).	Coverage of specific Trump campaign speech. Story about one of the presidential debates. News about an endorsement received by one of the candidates.
Other	Coverage that does not fall into the above categories.	

They then rated the articles using the following interface.

Figure B2: Rating Interface

\$(header)

\$(body)

1) Choose a category:

- Clinton Scandal
- Trump Scandal
- Candidate Policy
- Campaign Strategy
- Campaign Event
- Other
- Unreadable/Garbled Text

2) What type of article is this?

- Descriptive Reporting
- Something Else

3) Is this article generally more positive towards the Democratic Party, more positive towards the Republican Party, or is it neutral?

1 More Positive towards the Democratic Party
2
3 Neutral
4
5 More Positive towards the Republican Party

After selecting a high-level category, they were then presented with several sub-category labels for each article. For instance, “scandal” articles could be labeled as discussing allegations of wrongdoing by the Clinton Foundation or Hillary Clinton’s earnings from speaking engagements among other sub-categories. Similarly, “issue” articles could be labeled as focusing on national security or the economy among other options.

We took several steps to ensure coding reliability. Raters were required to complete a 3-item political knowledge quiz prior to rating any articles and needed to have 95% of their prior HITS approved and more than 500 successful prior HITS. We also limited the amount of work that could be done by an individual rater to 200 total articles so that no individual rater could influence the final results. Finally, We removed ratings from workers who “sped” through assessments in the first round of coding (coders who took an average of less than 20 seconds per article to complete their ratings). These reports were re-labeled in a second round of coding.

Assessing Label Quality

We developed this coding scheme after extensive pilot testing of the labeling process involving iterative labeling from multiple workers. After finalizing our coding scheme we conducted a final pilot test with 1,000 articles assigned to two different workers to assess the inter-coder reliability in article labeling.

In the section below, we present measures of inter-coder reliability from this final pilot for the classification of articles according to both topic and slant.

Article Topics

Our analysis focuses on “Event”, “Issue”, “Strategy”, “Scandal” and “Other” coverage categories. Across all categories, the two coders labeled articles consistently in 56% of the cases. This level of agreement is no different from results reported in prior work that employs crowd-sourced labeling to identify article topics (e.g. Budak et al. 2016 report agreement in 53% of articles).

As a second check we asked 100 coders to classify two news reports that clearly focused on prominent political controversies — the Trump Access Hollywood Tape and Hillary Clinton’s fainting scare. Coding agreement on these “exemplar” cases was high; the correct scandal label was assigned in 88 percent of the cases and the appropriate sub-label (Clinton Health or Trump Tape scandal) in 81 percent of all cases.

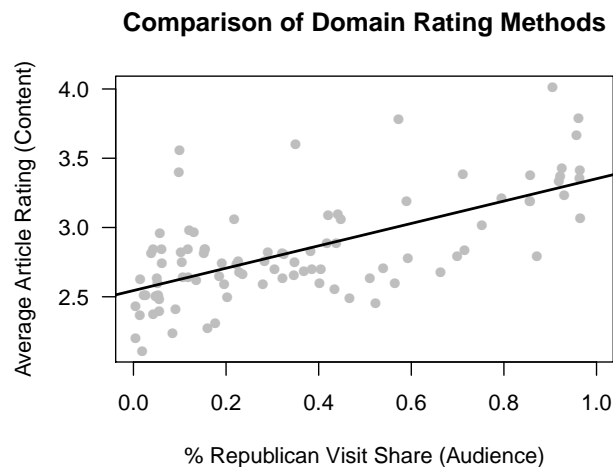
Article Slant

For the article-level slant ratings, we obtained a correlation of .23 between the Rater 1 and Rater 2 assessments. Coders disagreed on the partisan direction of the slant (cases in which one rater coding the article as Pro-Republican and the other as Pro-Democratic) in only 5% of cases (the comparable figure is 3% in Budak et al. 2016). In cases where both raters categorized an article as non-neutral (20% of the pilot articles) they were rated in the same direction 77% of the time.

Appendix C: Comparing Measures of News Domain Partisanship

We follow previous research in using both audience-based and content-based indicators of news slant. Our audience-based measure characterizes the partisanship of different political news domains based on the partisanship of their audience. Our content-based measure is based on assessments of article-level slant made by coders on Amazon’s Mechanical Turk.

Figure C1: Domain Partisanship Ratings



The two measures of slant are strongly correlated, suggesting some degree of convergent validity. Figure C1 displays the relationship between the audience-based indicator of website partisan slant (the share of Republican pageviews) and the content-based rating (the average coder rating of slant for articles on that site). This analysis includes all websites visited by at least 50 panelists (217 domains in our data).

Both measures also correlate well with alternative indicators of news sources’ ideological or partisan leanings. The table below focuses on the 42 most visited websites in our data. These are sources visited by at least 300 panelists and represent the top 20% of websites by traffic in our sample. There are generally strong correlations between our two operationalizations of website slant and these alternative measures used in prior studies.

Particularly strong overlap occurs between the audience measure used in this study and one produced by studying patterns of content sharing on Facebook (Bakshy et al. 2015) and the content measure used in this study with the audience-based measure constructed from users of a web toolbar (Flaxman et al. 2016).

Table C1: Correlation Between Site Partisanship/Ideology Measures

Measure	Audience	Content
Audience(This Study)	-	0.67
Content (This Study)	0.67	-
Audience (Flaxman et al., 2016)	0.60	0.82
Audience (Bakshy et al., 2015)	0.78	0.67

Appendix D: Partisan Isolation - Robustness and Alternative Measures

Formula for Adjusted Isolation Index

To introduce the isolation index measure in the main text, we present the relatively concise formula for the unadjusted isolation index. However, to follow Gentzkow and Shapiro (2011) we employ an “adjusted” isolation index throughout our primary analysis. We do so to avoid inflating partisan isolation due to a small-sample bias that occurs when web domains receive relatively few visitors.

The formula for the adjusted isolation index is presented below.

$$\begin{aligned} \text{Adjusted Isolation Index} &= \sum_{j \in J} \left(\frac{\widehat{rep}_j}{\widehat{rep}_m} \right) \left(\sum_{i \in I_{rep}} w_{ij} \frac{\widehat{rep}_j - x_{ij}}{\widehat{visits}_j - x_{ij}} \right) \\ &\quad - \sum_{j \in J} \left(\frac{\widehat{dem}_j}{\widehat{dem}_m} \right) \left(\sum_{i \in I_{dem}} w_{ij} \frac{\widehat{rep}_j}{\widehat{visits}_j - x_{ij}} \right) \end{aligned}$$

Here \widehat{rep}_j refers to the number of republican daily visitors to outlet j , divided by the share of all daily visitors to outlet j with non-missing partisanship. \widehat{dem}_j is defined the same way for Democratic visits to a domain. The total number of domain visits is defined as $\widehat{visits}_j = \widehat{rep}_j + \widehat{dem}_j$, while the total number of visits made by a partisan group is \widehat{rep}_m for Republicans and \widehat{dem}_m for Democrats.

In this equation x_{ij} refers to a respondent’s YouGov sampling weight times the number of daily visits made by the respondent to outlet j . $w_{ij} = \frac{x_{ij}}{\sum_{k \in I_{rep}} x_{kj}}$ for Republicans and $\frac{x_{ij}}{\sum_{k \in I_{dem}} x_{kj}}$ for Democrats.

Comparing Results Using Adjusted/Unadjusted Isolation Index

The table below displays the partisan isolation index across a variety of sets of websites using both the adjusted isolation index and the unadjusted isolation index measure (the results of which were not presented in the main text). Across a variety of different sets of web domains/content types, these two measures produce similar depictions of partisan isolation. They differ primarily when considering visit patterns to the large number of non-political domains in the data set (“All Web Traffic” and “All Non-Political Domains.”). Because many web domains used in that analysis receive only a small number of visits from the panelists in our data, the unadjusted isolation index is much higher than the adjusted measures.

This table also helps to demonstrate the robustness of the partisan isolation index to a variety of changes. This includes using all traffic to the set of three large political news aggregators (aol.com,msn.com,yahoo.com) instead of focusing just on news-based visits as in the primary analysis (“Political Domains - Include All AOL/MSN/Yahoo Traffic”) or removing all visits of any type to these three sites (“Political Domains - Exclude All AOL/MSN/Yahoo Traffic”).

Table D1: Partisan Isolation Index

Data	Unadjusted Isolation	Adjusted Isolation
All Web Traffic	0.28	0.06
All Non-Political Domains	0.28	0.05
Political Domains - Include All AOL/MSN/Yahoo Traffic	0.22	0.18
Political Domains - Exclude All AOL/MSN/Yahoo Traffic	0.28	0.24
Political Domains - Baseline	0.25	0.21
Political Domains - Top Ten (2016 List)	0.22	0.21
Political Domains - Top Ten (2009 List)	0.24	0.22
All Election Articles	0.36	0.33
Election Articles - Strategy	0.36	0.29
Election Articles - Trump Scandal	0.39	0.34
Election Articles - Clinton Scandal	0.44	0.40
Election Articles - Issue	0.53	0.45
Election Articles - Neutral Slant	0.38	0.33
Election Articles - Moderate Slant	0.43	0.39
Election Articles - High Slant	0.47	0.42

We also present estimates of partisan isolation by various levels of geography using the

full YouGov survey and just those respondents who were also included in the Wakoopa sample where web traffic is available. Like previous research that employs this metric (Gentzkow and Shapiro 2011, Table IV), we observe limited partisan isolation at these levels of geography using the adjusted isolation index.

Table D2: Partisan Isolation Index by Geography

Sample/Geography	Unadjusted Isolation	Adjusted Isolation
Full Yougov - County	0.63	0.05
Full Yougov - Zip Code	0.89	0.06
Wakoopa Panel - County	0.79	-0.03
Wakoopa Panel - Zip Code	0.96	0.04

We also present both the unadjusted and adjusted isolation index for the other traits examined in the main text.

Table D3: Isolation by Other Traits

Trait	Unadjusted Isolation	Adjusted Isolation
Ideology	0.28	0.24
Education	0.07	0.03
Gender	0.07	0.03
Race	0.05	-0.00

Using both the adjusted and unadjusted isolation index, there is substantially more isolation by ideology than these other variables.

Appendix E: Political Website List

Table E1 on the next page contains the list of political websites we focus on in this study. These were determined by examining the top 100 websites offering news coverage by traffic among the Wakoopa panelists and an additional 255 U.S.-based websites included on Alexa’s list of most popular news domains.

For three large websites – aol.com, msn.com, and yahoo.com – we focus on only traffic to their news content in our primary analysis to avoid non-news related web traffic (e.g., individuals checking their email at mail.aol.com, conducting a web search at yahoo.com or playing online video games at zone.msn.com) that would otherwise be included in the analysis if only traffic to the top-level domain was examined. Appendix D shows that alternative approaches to treating visits to these three pages produces largely similar estimates of partisan isolation.

Table E1: List of Political Websites

abcnews.go.com	denverpost.com	lacrossetribune.com	palmbeachpost.com	sun-sentinel.com
abqjournal.com	deseretnews.com	lancasteronline.com	pantagraph.com	suntimes.com
ajc.com	deseretsun.com	lansingstatejournal.com	patch.com	syracuse.com
al.com	desmoinesregister.com	lasvegassun.com	patriotledger.com	talkingpointsmemo.com
altnet.org	detroitnews.com	latimes.com	pbs.org	tallahassee.com
aol.com/news	disinfo.com	ledger-enquirer.com	pe.com	tampabay.com
ap.org	diversityinc.com	lehighvalleylive.com	people-press.org	tbo.com
argusleader.com	drudgereport.com	livemint.com	pewresearch.org	tcpalm.com
arkansasonline.com	duluthnewstribune.com	ljworld.com	philly.com	telegram.com
aspenimes.com	durangoherald.com	lohud.com	phoenixnewtimes.com	telegraph.co.uk
austinchronicle.com	dw.com	lubbockonline.com	pilotonline.com	tennessean.com
azcentral.com	eagletribune.com	lucianne.com	pjmedia.com	theadvocate.com
baltimoresun.com	eastbaytimes.com	marketwatch.com	pjstar.com	theatlantic.com
bbc.co.uk	economist.com	mcall.com	politico.com	theblaze.com
bbc.com	endingthefed.com	mcclatchydc.com	politicususa.com	theconversation.com
beforeitsnews.com	enterpriseneews.com	mediamatters.org	politifact.com	thecrimson.com
bellinghamherald.com	esquire.com	mediapost.com	postandcourier.com	thedailybeast.com
billoreilly.com	factcheck.org	mercurynews.com	postbulletin.com	theday.com
bipartisanreport.com	financialexpress.com	metrotimes.com	poynter.org	thedp.com
bismarcktribune.com	firstknow.com	metrowestdailynews.com	pressdemocrat.com	theepochtimes.com
bizjournals.com	fivethirtyeight.com	miamiherald.com	pressofatlanticcity.com	theeventchronicle.com
bloomberg.com	floridatoday.com	michaelmoore.com	prnewswire.com	theguardian.com
bnd.com	forbes.com	milforddailynews.com	project-syndicate.org	thehill.com
bostonglobe.com	fortune.com	militarytimes.com	providencejournal.com	theledger.com
bostonherald.com	foxbusiness.com	mirror.co.uk	prweb.com	thenewsherald.com
bradenton.com	foxnews.com	mlive.com	qctimes.com	thenewstribune.com
breakingnews.com	freep.com	monroenews.com	rasmussenreports.com	thepoliticalinsider.com
breitbart.com	fresnobee.com	motherjones.com	rawstory.com	therealnews.com
buffalonews.com	frontpagemag.com	msn.com/en-us/news	realclearpolitics.com	theroot.com
burlingtonfreepress.com	gainesville.com	msnbc.com	redding.com	thestar.com
business-standard.com	gannett.com	mysanantonio.com	registerguard	thestate.com
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buzzfeed.com	gazette.com	nationalreport.net	reviewjournal.com	thetimesnews.com
c-span.org	globalissues.org	nationalreview.com	rgj.com	theweek.com
carbonated.tv	good.is	nbcsnews.com	richmond.com	thinkprogress.org
cbn.com	governing.com	newbernsj.com	roanoke.com	time.com
cbslocal.com	grandforksherald.com	newrepublic.com	rollcall.com	timesunion.com
cbsnews.com	greeleytribune.com	news-gazette.com	rrstar.com	townhall.com
centredaily.com	greensboro.com	news-press.com	rt.com	trib.com
chicagoreader.com	greenvilleonline.com	news.com.au	sacbee.com	triblive.com
chicagotribune.com	gregpalast.com	news.yahoo.com	salon.com	truthdig.com
chron.com	guardianlv.com	newsday.com	sandiegoreader.com	tucson.com
citypages.com	harpers.org	newsherald.com	sandiegouniontribune.com	twincities.com
cjonline.com	heavy.com	newsmax.com	sanluisobispo.com	unionleader.com
cjr.org	heraldextra.com	newsobserver.com	santacruzsentinel.com	upi.com
clarionledger.com	heraldnews.com	newsok.com	saukvalley.com	usatoday.com
cleveland.com	heraldtribune.com	newstimes.com	savannahnow.com	usnews.com
cnc.com	host.madison.com	newsvine.com	seattlepi.com	uticaod.com
cnm.com	houstonpress.com	newsweek.com	seattletimes.com	vanityfair.com
columbian.com	huffingtonpost.com	newyorker.com	sfchronicle.com	vcstar.com
commercialappeal.com	hutchnews.com	nhregister.com	sfgate.com	vice.com
commondreams.org	ibtimes.co.uk	niemanlab.org	sfweekly.com	villagevoice.com
conservativetribune.com	idahostatesman.com	nj.com	shelbystar.com	voanews.com
consortiumnews.com	ijr.com	nola.com	sj-r.com	vox.com
courant.com	independent.co.uk	northjersey.com	slate.com	vvdailypress.com
crainsnewyork.com	indystar.com	npr.org	sltrib.com	wacotrib.com
crooksandliars.com	infowars.com	nwfdailynews.com	snopes.com	washingtoncitypaper.com
csmonitor.com	itv.com	nwitimes.com	sourcewatch.org	washingtonexaminer.com
ctpost.com	jacksonville.com	nydailynews.com	southbendtribune.com	washingtonmonthly.com
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dailymail.co.uk	journalhow.com	ocregister.com	starnesonline.com	wn.com
dailynews.com	journalstar.com	omaha.com	startribune.com	wnd.com
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