

# The Long-Term and Geographically Constrained Effects of Campaign Advertising on Political Polarization and Sorting

American Politics Research

1–23

© The Author(s) 2017

Reprints and permissions:

[sagepub.com/journalsPermissions.nav](http://sagepub.com/journalsPermissions.nav)

DOI: 10.1177/1532673X17721479

[journals.sagepub.com/home/apr](http://journals.sagepub.com/home/apr)



Travis N. Ridout<sup>1</sup>, Erika Franklin Fowler<sup>2</sup>,  
Michael M. Franz<sup>3</sup>, and Kenneth Goldstein<sup>4</sup>

## Abstract

Scholars agree that there has been an increase in polarization among political elites, though there continues to be debate on the extent to which polarization exists among the mass public. Still, there is general agreement that the American public has become more sorted over the past two decades, a time during which political ad volumes have increased and ads have become more negative. In this research, we explore whether there is a link between the two. We take advantage of variation in the volume and tone of political advertising across media markets to examine the link between advertising and three dependent variables: issue polarization, affective polarization, and sorting. We focus on the impact of both recent ad exposure and cumulative ad exposure across several election cycles. Ultimately, we find little impact of advertising on polarization or sorting, both overall and among subgroups of the population.

---

<sup>1</sup>Washington State University, Pullman, USA

<sup>2</sup>Wesleyan University, Middletown, CT, USA

<sup>3</sup>Bowdoin College, Brunswick, ME, USA

<sup>4</sup>University of San Francisco, CA, USA

## Corresponding Author:

Travis N. Ridout, Department of Political Science, Washington State University, 816 Johnson Tower, Troy Lane, Pullman, WA 99164-4880, USA.

Email: [tnridout@wsu.edu](mailto:tnridout@wsu.edu)

**Keywords**

political advertising, polarization, negative campaigns, sorting

There is a solid consensus among scholars and other observers of modern American politics that there has been an increase in polarization among political elites (Bond & Fleisher, 2000; Hetherington, 2001; McCarty, Poole, & Rosenthal, 2016). For example, when it comes to Congress, there are virtually no liberal Republicans or conservative Democrats and very few members, no matter the scoring methodology employed, falling in the middle of the ideological distribution of the body. By contrast, there has been extensive debate among scholars on the extent and, even, the existence of polarization among the mass public (Abramowitz & Saunders, 2008; Fiorina & Abrams, 2008). Even though the debate about polarization in the mass public has occasionally turned a tad acrimonious, there is general agreement that the American public has become more sorted. Liberals and conservatives alike are increasingly aligning themselves with the “correct” party.

Similarly, when it comes to the study of political advertising, there are areas of scholarly agreement and disagreement. Over the past couple of decades, although scholars have agreed that levels of negativity in campaign advertising have risen, they have disagreed on the impact that advertising has had on a variety of democratic outcomes, including voter turnout. In other words, although there has been scholarly disagreement about the effect of advertising, in general, and of so-called negative advertising on political participation (Ansolabehere, Iyengar, Simon, & Valentino, 1994; Jackson, Mondak, & Huckfeldt, 2009; Krupnikov, 2012), in particular, there is agreement on the fact that the volume of advertising has increased and its tone has turned more negative (Fowler, Franz, & Ridout, 2016; Geer, 2006).

Without wading into the particular areas of disagreement in each of these prominent fields in political science, we explore whether there is a link between the two. We explore whether the tone and intensity of political advertising, often blamed for many of the ills that plague American democracy, has had an impact on the potential polarization and certain sorting that has occurred among the mass public.

From a research design perspective, establishing a link between the two trends is difficult; that two trends increase over time could be explained by a variety of factors. Fortunately, however, there is a way to gain some leverage on the question of whether there is a link between campaign negativity and mass polarization. Namely, because most political advertising is purchased at the level of the media market, there is both substantial geographic variation in the volume of advertising to which people are exposed and the tone of that

advertising. We take advantage of this considerable variation in the volume and tone of political advertising across media markets to examine the link between advertising and sorting, focusing on both the impact of recent ad exposure and cumulative ad exposure across several election cycles.

Specifically, we examine whether polarization (both on issues and affectively) and sorting at the mass level vary with how much political advertising people are exposed to and how much of that advertising is negative. Because mass polarization and sorting are processes that seem to take many years, we believe it makes strong theoretical sense to account for advertising over time and the potential for cumulative effects. Accordingly, we examine the impact of exposure to not only one campaign's worth of advertising but to advertising over several election cycles. This produces even more variation across individuals in the volume and negativity of the advertising they viewed. Because reception and acceptance of political messages may vary with levels of political sophistication, we also examine whether the impact of advertising on sorting might vary depending on the receiver's level of political knowledge. Finally, because partisan messages may have different impacts on different partisan identifiers—and because there is evidence that polarization has been asymmetrical (Mann & Ornstein, 2016; Ura & Ellis, 2012)—we examine whether advertising may have had a differential impact on Republicans and Democrats.

## **Political Polarization and Sorting**

Research on polarization in the United States focuses, by and large, on policy preferences. At the elite level, there is strong evidence that Democrats and Republicans in Congress are further apart than they once were—that there are few centrists anymore (Bond & Fleisher, 2000; Hetherington, 2001; McCarty et al., 2016). There is less agreement, however, on the extent to which the American mass public has become polarized over the past few decades. Some suggest that the American public, by and large, is centrist. The bimodal distribution of opinion seen in Congress is not mirrored in the mass public (Fiorina & Abrams, 2008). Yet, that fact does discount the possibility that there are more people at the extremes than in the past. Indeed, there is some evidence of this type of pattern. Abramowitz and Saunders (2008) find that the differences between Democrats and Republicans in terms of their issue positions are much more stark than in the 1970s. Levendusky (2009a) also finds evidence of some, though not large, individual-level conversion—Democrats moving to the left on issues and Republicans moving to the right.

For others, such a pattern is not evidence of polarization—that people are moving away from the center to take more extreme positions—but rather

evidence of party-driven sorting (Baldassarri & Gelman, 2008; Fiorina & Abrams, 2008; Hetherington, 2009; Levendusky, 2009b). That is, as the parties have become more ideologically polarized at the elite level, people with conservative issue positions now identify as Republicans and people with more liberal issue positions identify as Democrats. In other words, there is much more alignment nowadays between issue positions and party identification. This process of party-driven sorting may be largely determined, though, by those who are sophisticated enough to understand the positions of party elites (Layman & Carsey, 2002).

More recent research has examined outcomes beyond ideology or issue positions. Research on social polarization, for instance, examines such factors as partisan identity, affect toward political objects and political bias (Mason, 2015). The evidence in favor of social polarization—similar to the affective polarization described by Iyengar, Sood, and Lelkes (2012)—seems to be stronger than the evidence in favor of issue polarization. And, thus, even though issue polarization has been constrained—and there remain many centrists—the United States is still bitterly divided when it comes to its affective responses to the Democratic and Republican parties.

## **Role of Media and Campaigns**

One big question driving research on sorting is the media's role in the process, and most especially, the role of partisan news sources. There is mounting evidence that people are moving to news sources most likely to be friendly to their own points of view (Hollander, 2008). People prefer to hear about candidates with which they expect to agree (Stroud, 2011).

There is speculation that selective exposure to like-minded media sources could further sort news audiences (Iyengar & Hahn, 2009). Levendusky's (2013) experimental work backs this expectation, as exposure to like-minded news moved those people on the ends of the ideological spectrum and made them even more extreme. Still, Arceneaux and Johnson's (2013) work suggests that those tuning into partisan cable outlets are already polarized and that typically polarization occurs only when people are forced to watch partisan media opposed to one's own views.

Little research has examined specifically the role of the campaign in leading to sorting. One exception is the work of Iyengar et al., (2012). They suggest that the information environment can make partisan identities more salient, which can lead to affective polarization. They make a case for this in a few different ways. First, they find that affective polarization, measured in terms of people's favorability toward the political parties, increased over the course of the 2008 campaign. Second, they found more affective polarization

in battleground states—those presumably receiving more messages that heighten partisanship—in the 2004 and 2008 campaigns. Finally, they found that the volume of negative advertising in a state in 2004 was positively related to affective polarization in that state.

## **Social Identity, Learning, and Polarization**

Social identity theory (Tajfel & Turner, 1979) suggests that an important component of people's self-conceptions is the groups to which they belong. Most individuals belong to several groups at the same time, but the strength of people's identities with each of these groups can vary depending on whom they are associating with or the social context. As Tajfel (1981) explains, social identity requires both knowledge of membership within a social group and for that membership to have emotional significance. When one identifies with a group, that group becomes an in-group and other groups become out-groups. This identification can lead to social comparisons in which one engages in "us versus them" thinking. To maintain one's esteem, in-group members typically favor the in-group over the out-group and inflate their perceptions of differences between the in-group and the out-group.

Partisanship is one social identity (Campbell, Converse, Miller, & Stokes Donald, 1960; Green, Palmquist, & Schickler, 2002) that is held by a vast majority of Americans. Intense campaigns may heighten one's social identification as a partisan, that is, as a Democrat or a Republican. Thus, if people's partisanship is made more salient through watching a political advertisement, they may be more likely to think in terms of their membership in that group when answering questions about politics. When it comes to issue positions, then, those for whom partisanship is made salient are more likely report that they agree with the position of their party (favoring the in-group over the out-group) than those whose partisanship is not salient. And, when it comes to affective polarization, people for whom partisanship is salient are more likely to report positive affect toward an in-group and negative affect toward an out-group.

What is the relationship between exposure to advertising and polarization? Social identity theory might posit first that exposure to more political advertising increases the salience of a voter's identity as a member of a partisan team. Many political ads are emotion laden, designed to increase enthusiasm for the sponsoring candidate and party or to create anger toward or anxiety about the opposition candidate and party (Brader, 2006). Thus, if advertising leads people to think as members of a party in-group, then citizens may be more likely to adopt the issue positions of their own party and to favor their own party over the other party. In other words, to the extent that

advertising bolsters social identities, issue polarization, sorting, and affective polarization may increase as a function of campaign advertising.

There is, however, a second possible mechanism linking advertising exposure with polarization and sorting. Advertising may also inform one about differences between the parties. There is research suggesting that political advertising is informative. More specifically, exposure to more advertising led to more accurate ideological placement of presidential candidates in 2000 (Freedman, Franz, & Goldstein, 2004) and led to more accurate answers about candidates' issue positions (Ridout, Shah, Goldstein, & Franz, 2004). If advertising informs people about party differences, then people may be better able to express opinions consistent with the positions of their own political parties, which are highly distinct in today's political environment (Levendusky, 2009b). And, this additional knowledge may help them identify the party that they agree with most on the issues, leading to better sorted voters.

Thus, both social identity theory and the literature on political advertising's ability to inform voters suggest the following hypothesis:

**Hypothesis 1:** Greater exposure to political advertising is positively associated with greater issue polarization, greater sorting, and greater affective polarization.

If more advertising does lead to more polarization and sorting, then certain types of ads—namely, negative and contrast ads—should be more likely to have an impact. This is because they are more likely to increase the salience of partisan identities than positive ads, which are often biographical and speak of consensual issues. As Iyengar and colleagues (2012) state, “greater exposure to the harsh rhetoric of political campaigns is one potential explanation of affective polarization” (p. 408). Although much research examines only the impact of negative ads, we believe it makes sense to lump contrast ads—those that mention both competing candidates—with negative ads in this context. Indeed, contrast ads may be even more likely than negative ads to heighten the salience of partisan identities as—at least in the general election context—they explicitly make comparisons between candidates aligned with the Democratic and Republican parties. One additional reason negative and contrast ads may have more impact is because the news media tend to amplify the negative messages coming from campaigns much more than the positive messages (Fowler & Ridout, 2009; Geer, 2012; Ridout & Smith, 2008). Thus, negative and contrast advertising may increase partisan salience—or, at the very least, perceptions of differences between candidates from opposing

parties—simply by increasing the amount of coverage of negativity in advertising. In addition, positive ads are less likely to focus on issues than are negative ads (Geer, 2006), and thus, negativity may do a better job of educating voters about where their own party stands. This research suggests a second hypothesis:

**Hypothesis 2:** Exposure to negative advertising will lead to more issue polarization, sorting, and affective polarization than will exposure to positive advertising.

In addition, certain types of people may be more open to polarization because of their exposure to political advertising. We suggest, first, that people with attachments to the different parties may respond differently to advertising; advertising from the party one is affiliated with is more likely to result in polarization as one is more likely to find claims made by a candidate from one's own party more credible (Jerit & Barabas, 2012; Turner, 2007), and thus more likely to have an impact on one's perceptions. More concretely, a Democrat may take claims in a Republican-sponsored ad about "extreme" Democratic positions with a grain of salt, while that same Democrat may unquestioningly adopt claims about "extreme" Republican positions in a Democratic-sponsored ad. We thus hypothesize the following:

**Hypothesis 3:** Exposure to advertising from one's own party will lead to more issue polarization, sorting, and affective polarization than will exposure to advertising from the other party.

Second, if there is link between advertising and polarization, then some literature suggests that the more politically sophisticated should be more polarized by their exposure to political advertising. As Valentino, Hutchings, and Williams (2004) argue, those who are the most politically sophisticated are best able to draw inferences about candidates based on what they see in political advertising and, thus, learn more from advertising. Thus, those with more political knowledge may watch a candidate ad and connect the message, whether implicit or explicit, to party positions, whereas those with less political knowledge may fail to make those connections. This strain of the literature then suggests a fourth hypothesis:

**Hypothesis 4:** Those with greater political knowledge will experience more issue polarization, sorting, and affective polarization than will those with less political knowledge.

## Data and Method

To measure our key concepts, we draw on data from a Pew Research Center survey fielded January 23 through March 16, 2014.<sup>1</sup> We use this survey for several reasons. First, the sample size is quite large (10,013), which increases the number of respondents from each media market and gives us sufficient statistical power to identify even small effects and to examine specific populations. Second, the Pew study was designed with the express purpose of studying polarization, and thus, questions tapping different aspects of polarization—including affective and issue polarization—are present. Third, the study is high quality, with a nationally representative sample of U.S. adults, half of whom were interviewed by cell phone and half of whom were interviewed by landline. The data we analyzed included respondents from 207 of the 210 media markets in the United States,<sup>2</sup> with an average of 48.3 respondents in each. The range is from one respondent (in Alpena, Michigan, and Glendive, Montana) to 605 respondents in New York City.

We created measures of the three main concepts involved in this debate: issue polarization, sorting, and affective polarization. In thinking about issue polarization, our interest is “the degree to which people consistently align themselves with one side or another” (Lelkes, 2016, p. 394), and thus, conceptually we align more with Abramowitz and Saunders (2005, 2008) than with Fiorina, Abrams, and Pope (2005), who are focused more on the extent to which ideological difference exists. We adopt a measure similar to the one used by Abramowitz and Saunders (2008), which relies upon a series of 10 questions in which respondents were asked to choose between two competing positions. For example, respondents were asked which of the two statements comes closest to their view, “This country should do whatever it takes to protect the environment” or “This country has gone too far in its efforts to protect the environment.”<sup>3</sup> Following the same procedures used by Pew, we selected 10 of these questions about specific policies that separate liberal and conservative ideologies and created a summed measure of the number of times respondents agreed with conservative positions (coded as 1 while the liberal position or those answering “both equally” were both set to 0) and vice versa for liberal positions.<sup>4</sup>

This results in a measure that ranges from 0 to 10, with pure liberals on one end and pure conservatives on the other end. To create a measure of polarization, with pure liberals and pure conservatives treated the same as both being polarized, however, we need to fold the scale. Thus, those who agreed completely with the liberal or conservative issues positions were given a score of 4 (*the most polarized*), those who agreed with liberal or conservative positions on nine items were given a score of 3, those who agreed

with liberal or conservative positions on eight items were given a score of 2, those who agreed with liberal or conservative positions on seven items were given a score of 1, and those who agreed with liberal or conservative positions on six or fewer items were given a score of 0 (*the least polarized*). The mean score on this measure is 1.36, with a standard deviation of 1.37.

Our sorting measure builds off our issue polarization measure, but here we also take into account the party of the respondent. Thus, Democrats who agreed with the liberal issue positions on all 10 items were given a score of 5, as were Republicans who agreed with the conservative position on all 10 items. Democrats who agreed with the liberal position on nine items were given a score of 4, as were Republicans who agreed with the conservative position on nine items, and so on. The mean score on this measure was 1.43, with a standard deviation of 1.46.

We follow Iyengar et al. (2012) in measuring affective polarization through respondents' answers to a question about cross-party marriage. The question wording was as follows:

First, how do you think you would react if a member of your immediate family told you they were going to marry a [Republican/Democrat]? Would you be generally happy about this, generally unhappy, or wouldn't it matter to you at all?

We recode *unhappy* responses to 1, *happy* responses to -1, and *doesn't matter* responses to 0, again excluding *don't knows*. We then found the difference between each individual's response to a child marrying a Republican (-1, 0 or 1) and a child marrying a Democrat (-1, 0 or 1) and then took the absolute value of that difference. The result is that those who are "happy" with one type of partisan match but "unhappy" with the opposing partisan match are coded as 2s (the most polarized), those who are happy or unhappy with one match but not bothered by the other are coded as 1s (somewhat polarized), and those who are uniformly happy, unhappy, or not bothered by both matches are coded as 0s (the least polarized). Seventy-two percent of respondents scored 0, 17% scored 1, and 11% scored 2.

For our key independent variables, we capitalized on the advertising data from the Wisconsin Advertising Project and the Wesleyan Media Project's collections, spanning the period from 1998 to 2012.<sup>5</sup> Both rely on data from Campaign Media Analysis Group (CMAG) tracking. Using the advertising data, we created several measures at the media market level, including the total volume of advertising and the total volume of negative and contrast advertising.<sup>6</sup> Only presidential and federal ads (U.S. Senate and U.S. House) for or on behalf of the two major party candidates were included in these

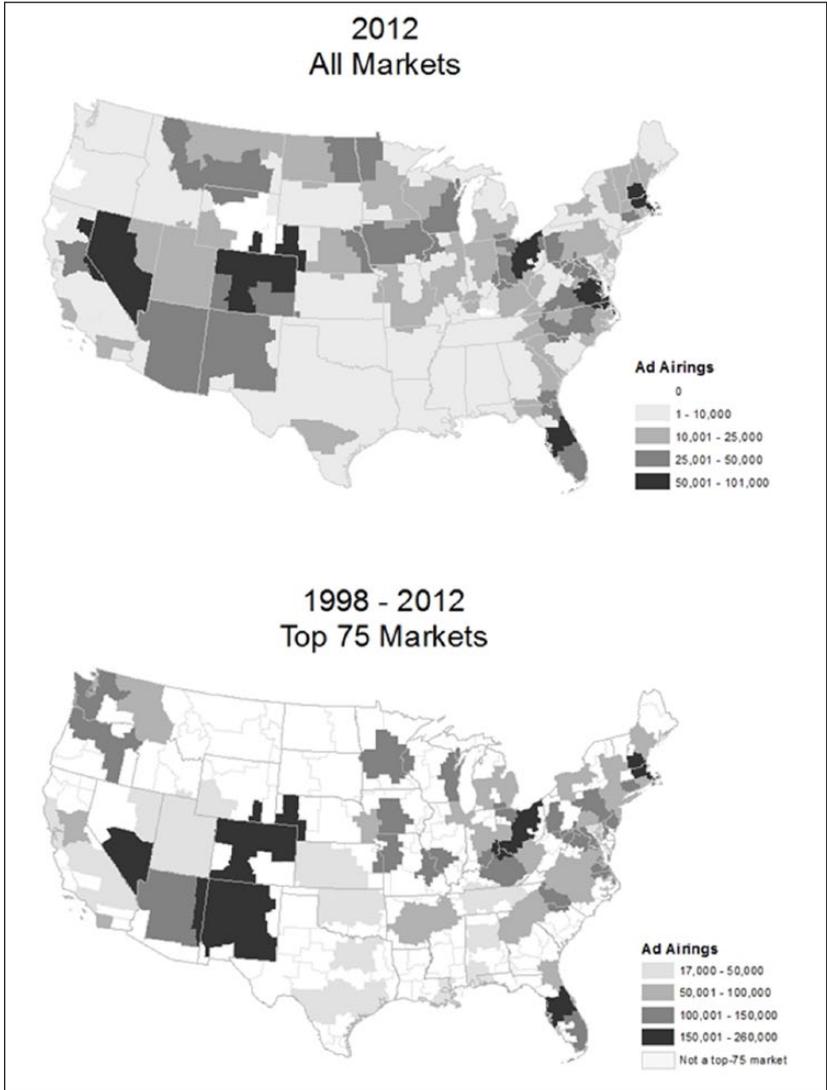
measures. One of our independent variables contains only advertising aired in 2012, while the other contains ads aired between 1998 and 2012. (All totals count ads aired in the election year itself, excluding the small number of airings in off years. This also ensures consistency, as the Wisconsin and Wesleyan data include off-year airings for some cycles but not others.) The latter measure was modified using an exponential decay function of 0.5, such that each cycle's worth of ads is weighted less than the more recent period's volume to account for the fact that more recent advertising should factor more heavily in influencing opinion.<sup>7</sup> Because ad tracking data were only available for the 75 largest media markets in the country in 1998 and 2000, we limit analyses relying on counts of ads from 1998 to 2012 to only those respondents living in those 75 media markets—about 80% of the U.S. population. Several survey questions were also used to control for respondents' partisanship, attention to politics, age, sex, educational level, and race (measured as an indicator for White). See the question wording in the online appendix.

We estimate three sets of models predicting (a) the issue polarization measure, (b) the sorting measure, and (c) the affective polarization measure. For each dependent variable, we estimate one model that includes 2012 advertising only and one that includes advertising from 1998 to 2012 (with a decay function) for the top 75 markets only. We also examine specifications that take account of ad tone: one set that includes the count of negative and contrast ads as a predictor and another set that includes the percentage of ads that are negative or contrast as a predictor. In addition, we estimate separate models for Democrats, Republicans, and independents and for those with high and low political knowledge. We measured political knowledge by people's ability to answer three factual questions.<sup>8</sup> We placed the 42.7% of respondents who answered all questions correctly into the "high knowledge" category, placing the remainder in the "low knowledge" category.<sup>9</sup>

Because our dependent variables are ordered scales, we used ordered probit models. For all models, we clustered at the media market to account for nonindependence of observations.

## Results

There is great variation in the volume of campaign messages that people are exposed to depending on where they live. Thus, there is real potential for variation in how much partisan identities are made salient—and thus, how much polarization may take place. The top panel of Figure 1 shows a map of the United States, with the shades identifying the volume of federal ads that aired in each media market in 2012. The ad total ranges from 0 in four media



**Figure 1.** Distribution of ads by market (1998-2012 totals and 2012).

markets, including Eugene, Oregon, and Cheyenne, Wyoming, to more than 100,000 ads in Las Vegas. The median market received 7,840 federal ad airings in 2012. The bottom panel of the figure displays the total ad volume in

**Table 1.** Association of Advertising Volume with Measures of Polarization and Sorting.

	2012		1998-2012	
	Coefficient	SE	Coefficient	SE
Issue polarization				
Total ad count	-0.038	0.079	-0.102	0.108
Sorting				
Total ad count	-0.110	0.099	-0.264	0.116**
Affective polarization				
Total ad count	-0.265	0.136*	-0.329	0.178*

Note. Ad volume rescaled to units of 100,000. Control variables not shown.

\* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

federal races from 1998 to 2012 for the 75 largest media markets in the United States. Again, the range is quite large—from 17,500 ad airings across those eight election cycles in San Francisco to almost 260,000 ad airings in Las Vegas. Clearly, some markets are being inundated with advertising year after year, whereas other markets are largely ignored.

But does that variation in ad volumes lead to increased political polarization and sorting? The model estimates in Table 1 lend no support to that expectation. The volume of advertising as measured in 2012 is unrelated to issue polarization or sorting, and it is negatively related to affective polarization. And, the volume of advertising from 1998 to 2012 (weighted more heavily in more recent elections) is negatively related to the degree to which people are sorted and affectively polarized. In other words, with other basic correlates held constant, an increase in advertising between 1998 and 2012 correlates with less sorting and less unhappiness about a member of their family marrying someone affiliated with the other political party. We find no evidence here backing the hypotheses that increased advertising volumes, either in the 2012 election or across many election cycles, is associated with more polarization or sorting.

But perhaps it is not the volume of advertising that matters most but its tone. We speculated earlier that negative and contrast advertising, which serve to highlight differences between the political parties, might drive polarization much more than positive advertising, which often focuses on the personal characteristics of the candidates. The estimates reported in Table 2, however, lend no support for this idea. The volume of negative and contrast ads, instead of increasing polarization, was associated with less polarization in three instances: increased negative and contrast advertising from 1998 to

**Table 2.** Association of Negative Advertising with Measures of Polarization.

	2012		1998-2012	
	Coefficient	SE	Coefficient	SE
Issue polarization				
Vol Neg-Contrast	-0.065	0.098	-0.136	0.139
% Neg-Contrast	-0.066	0.085	0.103	0.256
Sorting				
Vol Neg-Contrast	-0.150	0.123	-0.336	0.148**
% Neg-Contrast	-0.072	0.105	0.106	0.339
Affective polarization				
Vol Neg-Contrast	-0.303	0.165*	-0.452	0.259*
% Neg-Contrast	0.069	0.145	0.124	0.428

Note. Ad volume rescaled to units of 100,000. Control variables not shown. Vol = Volume; Neg = Negative.

\* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

2012 correlates with decreases in sorting and in our measure of affective polarization, and increased negative and contrast advertising in both models was associated ( $p < .10$ ) with less affective polarization. In no other models was the volume of negative and contrast advertising a significant predictor of polarization. Our other measure of negativity—the percentage of total ads that were negative and contrast—was unrelated to either of our polarization measures or sorting. A more negative tone, then, appears not to highlight party differences to the extent that citizens respond by polarizing or sorting.

We also sought to investigate the association of the partisanship of the receiver and the partisanship of the message source on our measures of polarization and sorting. Our expectation was that Democratic advertising might have more influence on Democrats and Republican advertising might have more influence on Republicans, as partisans might discount messages from the other party. Table 3 shows the results of several models showing the separate association of both the volume of Democratic and Republican advertising in 2012 on the measures of polarization and sorting for those who identify as Democrats, Republicans, and independents.

First, we find that there were few effects of advertising overall; in only two instances did ad counts predict the dependent variables. Second, those most influenced by advertising were independents. The degree to which independents were polarized on issues increased ( $p < .10$ ) with increases in Democratic advertising, but decreased ( $p < .10$ ) with increases in Republican advertising. Evidence that advertising relates to polarization and sorting,

**Table 3.** Association of Ad Volume in 2012 with Measures of Polarization and Sorting Among Democrats, Republicans, and Independents.

	Democratic ad count		Republican ad count	
	Coefficient	SE	Coefficient	SE
Issue polarization				
Democrats	0.504	0.852	-0.603	0.895
Independents	1.030	0.533*	-1.069	0.585*
Republicans	0.533	0.723	-0.566	0.781
Sorting				
Democrats	0.374	0.780	-0.872	1.610
Independents				
Republicans	-0.027	0.792	-0.179	1.600
Affective polarization				
Democrats	0.672	1.094	-1.717	2.280
Independents	1.263	1.249	-3.393	2.504
Republicans	2.284	1.707	-5.144	3.486

Note. Ad volume rescaled to units of 100,000. Control variables not shown.

\* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

even when we look at specific partisan subgroups and break down advertising by source, is extremely thin. Still, one might wonder why independents polarized when partisans did not. Although we hesitate to infer too much of the findings and cannot offer any definitive answers, one possibility is that independents are more open to messages from both sides whereas partisans reject the message of the “other” party and have already internalized the message of their own party.<sup>10</sup>

Might political knowledge condition the degree of polarization? To examine this question, we estimated our models separately for those high and low in political knowledge (Table 4). In short, there were only two instances in which the volume of political advertising had an impact: Among high-knowledge individuals, increases in ad volumes in 2012 and across the entire time span were associated with lower levels of affective polarization.

One potential objection to our findings is that we are not accounting for the possibility that campaigns are deciding how many ads to buy in response to the degree of polarization within a media market. For instance, one might hypothesize that campaigns would advertise more in less polarized districts because there might be more persuadable voters in those districts. We think this is unlikely, however, because ad volumes are driven, in large part, by the general competitiveness of the race (Goldstein & Freedman, 2002), not the

**Table 4.** Impact of Ad Counts on Measures of Polarization and Sorting Among High- and Low-Knowledge Individuals.

	2012		1998-2012	
	Coefficient	SE	Coefficient	SE
Issue polarization				
High knowledge	-0.029	0.160	0.102	0.177
Low knowledge	-0.046	0.135	0.067	0.171
Sorting				
High knowledge	-0.048	0.174	0.032	0.209
Low knowledge	-0.084	0.180	-0.015	0.220
Affective polarization				
High knowledge	-0.287	0.155*	-0.412	0.199**
Low knowledge	-0.288	0.209	-0.295	0.270

Note. Ad counts rescaled to units of 100,000. The impact of control variables is not shown.  
 \* $p < .10$ . \*\* $p < .05$ . \*\*\* $p < .01$ .

raw number of undecided voters. Nonetheless, we tested the idea by using our three measures of polarization to predict the volume of advertising that aired in each media market in 2016, finding no statistically significant relationships.<sup>11</sup> In short, levels of polarization do not predict the volume of advertising aired in a media market.

## Discussion and Conclusion

Several strains of research support the idea that vast differences in the volume of advertising across media markets could vary with levels of polarization and sorting. In this analysis, we investigated whether people living in areas that are bombarded with ads each election cycle might be more polarized and sorted. As outlined above, the literature suggests that the barrage of advertising may make partisanship more salient—and as a consequence, partisans may be more likely to adopt views consistent with their party—and that being bombarded with advertisements might help people learn what the parties stand for, allowing them to find the “best” party and, thus, become better sorted. We found no evidence to support these ideas, no matter whether we examined just that advertising that aired in 2012 or whether we included all advertising that aired across the entire 1998 to 2012 time span. Furthermore, we examine whether greater volumes of negative and contrast advertising, which are more likely to highlight party differences, would similarly result in greater polarization. We found no evidence in favor of this hypothesis either,

as greater volumes of negative and contrast advertising were associated with less sorting and less affective polarization.

Similarly, when we broke down the analysis by the partisanship of the respondent and the party being endorsed by the ad, we found few significant relationships. In total, in all but one of the instances in which we found an effect of advertising, its impact was to decrease polarization and sorting, not increase it. Our evidence then makes it difficult to “blame” advertising for recent political polarization in the United States.

Maybe this should not be too much of a surprise given that most political ads in the United States are candidate focused, not explicitly mentioning a political party. In 2012, for instance, only about 11% of Senate ad airings and 12% of House airings mentioned a party label,<sup>12</sup> and Motta and Fowler (2016) show that ideological (liberal or conservative) and party mentions in congressional general election advertising from 2006 through 2014 have never exceeded 17% and have been as low as 5% of all advertising. Thus, the assumption that television advertising heightens the salience of one’s partisanship seems less certain in the face of evidence about advertising content. Even though candidates run under party labels, their advertising does not draw attention to their party or ideological label, and therefore, seeing an ad about a particular candidate may not immediately draw to mind the political parties either.<sup>13</sup> Moreover, evidence suggests that exposure to political advertising may not always lead to greater voter knowledge about where the parties stand on issues. Lipsitz (2013) demonstrates that when parties talk about the same issues in their ads, it sometimes clarifies the positions of the parties, but other times it causes confusion.

There are other possibilities as well. One is that the impact of advertising is fleeting and that the effects of a dose of advertising wear off quickly (Gerber, Gimpel, Green, & Shaw, 2011; Hill, Lo, Vavreck, & Zaller, 2013). Although Iyengar, Sood, & Lelkes, (2012) find evidence of polarization over the course of an election campaign, their research does not investigate how long those effects endure. In our research, polarization was measured over a year after Election Day 2012 in the spring of 2014, suggesting that any effects of advertising on polarization and sorting are not enduring effects—and thus, cannot explain the long-term trend toward more polarization. Perhaps if polarization had been measured in November of 2012, then some short-term impacts of advertising might have been evident.

Another important caveat is that our measures of advertising included only federal ads—those aired in presidential, Senate, and U.S. House races. Although we believe this is a defensible approach—congressional and presidential races, we believe, highlight partisanship much more than races for state supreme court, state senate, or city council—it still might be worth

examining the impact of advertising in other types of races. Unfortunately, data on advertising in these other races are not available consistently over the time span that we examine.<sup>14</sup>

One of the major concerns of political scientists and policymakers is the recent rise of outside group spending in federal campaigns (Franz, 2013) and the barrage of negativity and issue agendas that come with it (Franz, Fowler, & Ridout, 2016). This has led to a situation in which Americans living in a small number of media markets with competitive races are seeing massive amounts of political advertising, whereas those who live in place with uncompetitive races are seeing little to no advertising. At the same time, political scientists and policymakers worry about the increased polarization in the United States. Yet, our research is fairly clear that the rise in the volume of political advertising—and negative advertising, in particular—is, by and large, not responsible for today’s highly polarized political environment.

In the end, we find little link between the volume or tone of advertising and measures of sorting. By and large, political advertising, though much reviled by the public (Mattes & Redlawsk, 2015), is not responsible for the political polarization (if it exists) or even the sorting that characterizes American politics today.

### **Acknowledgments**

We thank Wesleyan Media Project’s Laura Baum for research assistance and Ashley Muddiman and the participants of the 2015 Political Communication Pre-Conference for comments on an earlier version.

### **Declaration of Conflicting Interests**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### **Funding**

The author(s) received no financial support for the research, authorship, and/or publication of this article.

### **Notes**

1. More information about the survey’s design, sampling procedures, and response rates is available at <http://www.people-press.org/2014/06/12/about-the-surveys-25/>
2. In three very small media markets, there were no respondents in Pew’s sample.
3. One potential downside of this “forced choice” is that it might overstate the degree of polarization because individuals who only lean in a particular direction are not able to pick an intermediate category. Although this is a valid concern,

highly polarized individuals are still relatively rare in our data. For instance, only 6.54% of respondents are ideologically pure liberals, with another 7.31% agreeing with the liberal position nine out of 10 times. Only 3.16% of respondents are ideologically pure conservatives, with another 6.21% agreeing nine out of 10 times. Indeed, the majority of respondents are not very polarized at all; 55.71% agreed with the conservative position between 3 and 7 times.

4. The online appendix provides the full list of questions and an indicator of which issues positions are conservative and which are liberal.
5. Goldstein, Franz, & Ridout (2002); Goldstein & Rivlin (2005); Goldstein & Rivlin (2007); Goldstein, Niebler, Neiheisel, & Holleque (2011); Fowler, Franz, & Ridout (2014); Fowler, Franz, & Ridout (2015); Fowler, Franz, & Ridout (2017).
6. Because the Pew survey lacks an individual-level measure of exposure to television, we are not able to create individual-level measures of ad exposure (e.g., Freedman & Goldstein, 1999). Thus, our measure of advertising exposure contains some slippage. In a media market in which 1,000 ads aired, a respondent who watches television heavily, especially one who watches the programs during which many ads air, may see 500 of those ads. Another respondent who watches very little television may see only five of those 1,000 ads. Still, on average, respondents in the media market in which 1,000 ads aired will have seen more ads than respondents in a media market in which only 100 ads aired. One consequence of not having individual-level measures of ad exposure is that we may be underestimating the impact of advertising. To investigate this possibility further, we created a proxy measure of television ad exposure in which we multiplied ad volumes by respondents' reported attention to politics, a measure often used in health communication research (Niederdeppe, 2014). We then reestimated the models using this exposure measure; however, we retain the variable "attention to politics" as a separate predictor in the model. In Table 1, all coefficients retain their same signs, though some become statistically insignificant. In Table 2, there are no changes to the signs or the statistical significance of the variables. In Table 3, all signs remain the same; the coefficient on one variable, however, does become statistically significant at  $p < .10$ . In Table 4, all coefficients in the new models have the same sign, though one that was statistically insignificant becomes borderline statistically significant. In short, using an arguably better measure of exposure to advertising does nothing to change our story.
7. Specifically, we set the exponential decay rate at 0.5 such that advertising from the previous cycle factors into the total count at roughly 60%, and ads from two cycles back are factored in at 37%, and so forth. We also reestimated the models in Table 1, Table 2, and Table 4 using a slower decay rate of 0.25. In no instance did our substantive conclusions change.
8. The three questions were "Which political party has a majority in the U.S. House of Representatives?" "Which political party has a majority in the U.S. Senate?" and "Which political party is more in favor of raising taxes on higher income people?"
9. Because the "raising taxes" question was not asked of the subsample of respondents who were asked the affective polarization question, we used a measure of

political knowledge based on the first two questions in the affective polarization models. Those respondents who answered both questions correctly (47.2%) were classified as “high knowledge.”

10. We replicated the analyses shown in Table 3 using Democratic and Republican advertising from 1998 to 2012 (with a decay) as the key independent variables. We found no statistically significant impacts of either Democratic or Republican advertising.
11. This analysis was conducted at the level of the media market. We averaged across respondents within each media market to create measures of market-level issue polarization, sorting, and affective polarization. Because averages calculated with a small number of respondents might not be reliable, we limited our analyses to those media markets with at least 30 respondents, which left us with 96 media markets. We then estimated a separate ordinary least squares (OLS) regression model for each measure, using the volume of ads that aired in 2016 within that media market (based on Wesleyan Media Project data) as the sole predictor. In none of the three models was polarization a significant predictor of the number of ads aired.
12. Percentages based on an analysis of data from the Wesleyan Media Project’s 2012 election data set (Fowler et al., 2015).
13. We also tested whether exposure to general election presidential ads—in which the partisanship of the candidate should be immediately clear to most people even in the absence of a party label—had an impact on political polarization and sorting. We reestimated the models reported in Table 1, using presidential general election ads in 2000, 2004, 2008, and 2012 as the key independent variable. In only one of the six models was this a significant predictor, and instead of being positive, the sign on the coefficient was negative.
14. We did, however, estimate the models in Table 1 using all ad airings from 2012, including ads aired in nonfederal races. We found no significant impact of ad volumes on issue polarization or sorting, or affective polarization. In short, our substantive results do not change if we include nonfederal ads in the totals.

## References

- Abramowitz, A. I., & Saunders, K. L. (2005). Why can’t we all just get along? The reality of a polarized America. *The Forum*, 3, 1-22.
- Abramowitz, A. I., & Saunders, K. L. (2008). Is polarization a myth? *Journal of Politics*, 70, 542-555.
- Ansolabehere, S., Iyengar, S., Simon, A., & Valentino, N. (1994). Does attack advertising demobilize the electorate? *American Political Science Review*, 88, 829-838.
- Arceneaux, K., & Johnson, M. (2013). *Changing minds or changing channels? Partisan news in an age of choice*. Chicago, IL: The University of Chicago Press.
- Baldassarri, D., & Gelman, A. (2008). Partisans without constraint: Political polarization and trends in American public opinion. *American Journal of Sociology*, 114, 408-446.

- Bond, J. R., & Fleisher, R. (Eds.). (2000). *Polarized politics: Congress and the president in the partisan era*. Washington, DC: CQ Press College.
- Brader, T. (2006). *Campaigning for hearts and minds: How emotional appeals in political ads work*. Chicago, IL: The University of Chicago Press.
- Campbell, A., Converse, P. E., Miller, W. E., & Stokes Donald, E. (1960). *The American voter*. New York, NY: John Wiley.
- Fiorina, M. P., & Abrams, S. J. (2008). Political polarization in the American public. *Annual Review of Political Science*, 11, 563-588.
- Fiorina, M. P., Abrams, S. J., & Pope, J. C. (2005). *Culture war?* New York, NY: Pearson Longman.
- Fowler, E. F., Franz, M., & Ridout, T. N. (2014). *Political advertising in 2010* (Version 1.2). Middletown, CT: Wesleyan Media Project.
- Fowler, E. F., Franz, M., & Ridout, T. N. (2015). *Political advertising in 2012* (Version 1.1). Middletown, CT: Wesleyan Media Project.
- Fowler, E. F., Franz, M., & Ridout, T. N. (2016). *Political advertising in the United States*. Boulder, CO: Westview Press.
- Fowler, E. F., Franz, M., & Ridout, T. N. (2017). *Presidential political advertising in 2012* (Version 1.0). Middletown, CT: Wesleyan Media Project.
- Fowler, E. F., & Ridout, T. N. (2009). Local television and newspaper coverage of political advertising. *Political Communication*, 26, 119-136.
- Franz, M. M. (2013). Interest groups in electoral politics: 2012 in context. *The Forum*, 10(4), 62-79.
- Franz, M. M., Fowler, E. F., & Ridout, T. N. (2016). Loose cannons or loyal foot soldiers: Toward a more complex theory of interest group advertising strategies. *American Journal of Political Science*, 60, 738-751.
- Freedman, P., Franz, M., & Goldstein, K. (2004). Campaign advertising and democratic citizenship. *American Journal of Political Science*, 48, 723-741.
- Freedman, P., & Goldstein, K. (1999). Measuring media exposure and the effects of negative campaign ads. *American Journal of Political Science*, 43, 1189-1208.
- Geer, J. G. (2006). *In defense of negativity: Attack ads in presidential campaigns*. Chicago, IL: The University of Chicago Press.
- Geer, J. G. (2012). The news media and the rise of negativity in presidential campaigns. *Political Science & Politics*, 45, 422-427.
- Gerber, A. S., Gimpel, J. G., Green, D. P., & Shaw, D. R. (2011). How large and long-lasting are the persuasive effects of televised campaign ads? Results from a randomized field experiment. *American Political Science Review*, 105, 135-150.
- Goldstein, K., Franz, M., & Ridout, T. (2002). *Political advertising in 2000* (Combined File [dataset]. Final release). Madison: Department of Political Science, University of Wisconsin-Madison.
- Goldstein, K., & Freedman, P. (2002). Lessons learned: Campaign advertising in the 2000 elections. *Political Communication*, 19, 5-28.
- Goldstein, K., Niebler, S., Neiheisel, J., & Holleque, M. (2011). *Presidential, congressional, and gubernatorial advertising, 2008* (Combined File [dataset]. Initial release). Madison: The University of Wisconsin Advertising Project, The Department of Political Science, University of Wisconsin-Madison.

- Goldstein, K., & Rivlin, J. (2005). *Political advertising in 2002* (Combined File [dataset]. Final release). Madison: The Wisconsin Advertising Project, The Department of Political Science, University of Wisconsin–Madison.
- Goldstein, K., & Rivlin, J. (2007). *Presidential advertising, 2003-2004* (Combined File [dataset]. Final release). Madison: The University of Wisconsin Advertising Project, The Department of Political Science, University of Wisconsin–Madison.
- Green, D., Palmquist, B., & Schickler, E. (2002). *Partisan hearts and minds*. New Haven, CT: Yale University Press.
- Hetherington, M. J. (2001). Resurgent mass partisanship: The role of elite polarization. *American Political Science Review*, 95, 619-631.
- Hetherington, M. J. (2009). Review article: Putting polarization in perspective. *British Journal of Political Science*, 39, 413-448.
- Hill, S. J., Lo, J., Vavreck, L., & Zaller, J. (2013). How quickly we forget: The duration of persuasion effects from mass communication. *Political Communication*, 30, 521-547.
- Hollander, B. A. (2008). Tuning out or tuning elsewhere? Partisanship, polarization, and media migration from 1998 to 2006. *Journalism & Mass Communication Quarterly*, 85, 23-40.
- Iyengar, S., & Hahn, K. S. (2009). Red media, blue media: Evidence of ideological selectivity in media use. *Journal of Communication*, 59, 19-39.
- Iyengar, S., Sood, G., & Lelkes, Y. (2012). Affect, not ideology: A social identity perspective on polarization. *Public Opinion Quarterly*, 76, 405-431.
- Jackson, R. A., Mondak, J. J., & Huckfeldt, R. (2009). Examining the possible corrosive impact of negative advertising on citizens' attitudes toward politics. *Political Research Quarterly*, 62, 55-69.
- Jerit, J., & Barabas, J. (2012). Partisan perceptual bias and the information environment. *Journal of Politics*, 74, 672-684.
- Krupnikov, Y. (2012). Negative advertising and voter choice: The role of ads in candidate selection. *Political Communication*, 29, 387-413.
- Layman, G. C., & Carsey, T. M. (2002). Party polarization and "conflict extension" in the American electorate. *American Journal of Political Science*, 46, 786-802.
- Lelkes, Y. (2016). Mass polarization: Manifestations and measurements. *Public Opinion Quarterly*, 80(Suppl. 1), 392-410.
- Levendusky, M. (2013). *How partisan media polarize America*. Chicago, IL: The University of Chicago Press.
- Levendusky, M. S. (2009a). The microfoundations of mass polarization. *Political Analysis*, 17, 162-176.
- Levendusky, M. S. (2009b). The partisan sort: How liberals became Democrats and conservatives became Republicans. Chicago, IL: The University of Chicago Press.
- Lipsitz, K. (2013). Issue convergence is nothing more than issue convergence. *Political Research Quarterly*, 66, 843-855.
- Mann, T. E., & Ornstein, N. J. (2016). *It's even worse than it looks: How the American constitutional system collided with the new politics of extremism*. New York, NY: Basic Books.

- Mason, L. (2015). "I disrespectfully agree": The differential effects of partisan sorting on social and issue polarization. *American Journal of Political Science*, 59, 128-145.
- Mattes, K., & Redlawsk, D. P. (2015). *The positive case for negative campaigning*. Chicago, IL: The University of Chicago Press.
- McCarty, N., Poole, K. T., & Rosenthal, H. (2016). *Polarized America: The dance of ideology and unequal riches*. Cambridge, MA: MIT Press.
- Motta, M. P., & Fowler, E. F. (2016). The content and effect of political advertising in U.S. campaigns. *Oxford Research Encyclopedia of Politics*. Retrieved from <http://politics.oxfordre.com/view/10.1093/acrefore/9780190228637.001.0001/acrefore-9780190228637-e-217>.
- Niederdeppe, J. (2014). Conceptual, empirical, and practical issues in developing valid measures of public communication campaign exposure. *Communication Methods and Measures*, 8, 138-161.
- Ridout, T. N., Shah, D. V., Goldstein, K. M., & Franz, M. M. (2004). Evaluating measures of campaign advertising exposure on political learning. *Political Behavior*, 26, 201-225.
- Ridout, T. N., & Smith, G. R. (2008). Free advertising how the media amplify campaign messages. *Political Research Quarterly*, 61, 598-608.
- Stroud, N. J. (2011). *Niche news: The politics of news choice*. Oxford, UK: Oxford University Press.
- Tajfel, H. (1981). *Human groups and social categories: Studies in social psychology*. Cambridge, UK: Cambridge University Press.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-47). Monterey, CA: Brooks/Cole Publishing Co.
- Turner, J. (2007). The messenger overwhelming the message: Ideological cues and perceptions of bias in television news. *Political Behavior*, 29, 441-464.
- Ura, J. D., & Ellis, C. R. (2012). Partisan moods: Polarization and the dynamics of mass party preferences. *Journal of Politics*, 74, 277-291.
- Valentino, N. A., Hutchings, V. L., & Williams, D. (2004). The impact of political advertising on knowledge, Internet information seeking, and candidate preference. *Journal of Communication*, 54, 337-354.

## Author Biographies

**Travis N. Ridout** is a Thomas S. Foley distinguished professor of Government and Public Policy in the School of Politics, Philosophy and Public Affairs at Washington State University and co-director of the Wesleyan Media Project. His broad areas of research include political communication, voting, elections and campaigns, political participation and presidential nominations.

**Erika Franklin Fowler** is an associate professor in the Department of Government at Wesleyan University and co-director of the Wesleyan Media Project. Her research focuses on the content and effect of local media (both advertising and news) in both campaign and health policy settings.

---

**Michael M. Franz** is a professor of Government and Legal Studies at Bowdoin College and co-director of the Wesleyan Media Project. His research focuses on interest groups and campaign finance.

**Kenneth Goldstein** is a professor of Politics at the University of San Francisco and Faculty Director of the USF in DC Program. His research focuses on political advertising, voter turnout, survey methodology, presidential elections, Israeli politics and news coverage.