

As Local News Goes, So Goes Citizen Engagement: Media, Knowledge, and Participation in US House Elections

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We propose a two-stage process to explain the relationship between the local news environment and citizen engagement. Our original content analysis of newspaper coverage in every US House district during the 2010 midterms reveals that districts with uncompetitive races and those served by large-circulation outlets see significantly less, and less substantive, coverage than hotly contested districts and those served by smaller outlets. We then merge the news data with survey data from the 2010 CCES and find that a diminished news environment depresses engagement. Citizens exposed to a lower volume of coverage are less able to evaluate their member of Congress, less likely to express opinions about the House candidates in their districts, and less likely to vote. This is true for people regardless of levels of political awareness, indicating that the deleterious consequences of a decline in local coverage are widespread, not restricted to the least attentive citizens.

A long line of research has shown that the mass media can substantially influence citizens' political engagement.¹ When public affairs reporting is voluminous and substantive, voters learn more about political debates, candidates, and policy issues (e.g., Delli Carpini and Keeter 1996; deVreese and Boomgaarden 2006; Jerit, Barabas, and Bolsen 2006). Exposure to political news can also stimulate participation (e.g., Eveland and Scheufele 2000; Tolbert and McNeal 2003). To the extent that a knowledgeable and participatory citizenry is a marker of a healthy democracy, the quality of the democratic enterprise rests in no small part on the availability of political information in the media.

This relationship has taken on renewed relevance in recent years, as economic and technological upheaval in the US media has roiled the market for local political news. While the national media landscape has expanded dramatically (Prior 2007), smaller news outlets have struggled to stay afloat. Newspapers across the country have folded, reporting resources have been slashed, and most online sites

specializing in local news have failed to gain traction (Pew Research Center 2014a). Amid these developments comes some evidence to suggest that impoverishment of the local news environment reduces political engagement (e.g., Schulhofer-Wohl and Garrido 2011; Shaker 2014).

Although the argument for such a link is logically compelling, the existing literature faces several limitations in developing a comprehensive account of the relationship between local news and citizen engagement. First, few studies have systematically sought to explain variation in the content of political coverage at the local level. Whereas much research examines coverage of presidential (Dalton, Beck, and Huckfeldt 1992; Patterson 1994) or statewide contests (Dunaway 2008; Kahn and Kenney 1999), little focuses on lower profile elections, such as US House races. Yet these relatively low-information races have much to tell us about the wider landscape of local political news. Pinpointing the factors that influence the volume and substance of coverage to which citizens have access is an essential first step in

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1. An online appendix for this article is available at the "Supplements" link in the online edition. The data necessary to reproduce the results are available at <http://home.gwu.edu/~dwh/>.

identifying the conditions under which engagement with local politics is likely to rise or fall.

Second, the evidence for a direct connection between local news and citizen engagement is thin. Most research relies on self-reports of media consumption or structural features of a geographic news market to identify the relationship between local coverage and measures of engagement like voter turnout. But the mechanism presumed to drive such relationships—less coverage leads to lower levels of voter information or participation—is rarely tested. As a result, we have little sense of the magnitude of news effects on citizen engagement. That is, how much does the content of local media matter, above and beyond other features of the political environment such as campaigns, or individual-level factors like interest in politics?

Third, there is theoretical ambiguity about who is most likely to be affected by the diminishment of local news. On one hand, it may be that the biggest losers are the less politically aware, people who are unlikely to seek out political information if they do not encounter it in mainstream media such as local newspapers. Such a dynamic would lead to a growing gap in engagement between the least and most politically aware, analogous to the pattern Prior (2005) documents at the national level. On the other hand, because the local media environment is far less diverse than the national landscape, the effects of a decline in local news may be more uniform. With very few alternatives for local political news, everyone—even the politically aware—may lose out when local coverage in the mainstream media falls away.

In this article, we address these empirical and theoretical limitations by analyzing both the determinants of local news content and its effects on citizen engagement at the individual level. We focus on US House elections, which has several virtues. It allows us to explore coverage across hundreds of localities and exploit significant variation in our variables of interest. We are also able to tie the content of local news directly to individual-level measures of citizen engagement during House campaigns. And although coverage of House races is only one type of local political news, the fact that many congressional contests are low-intensity affairs enables us to draw connections to the thousands of other local elections across the United States that also receive relatively little attention.

We conduct our analysis in two stages. We first draw on an original, detailed content analysis of newspaper coverage in all 435 US House districts during the 2010 midterms to identify key determinants of the volume and substance of news about House races. The results indicate that districts with uncompetitive races and those served by large-circulation outlets see significantly less, and less substan-

tive, coverage than hotly contested districts and those served by smaller outlets. Having identified factors that reduce the availability of local coverage, we then merge the news data with survey data from the 2010 Cooperative Congressional Election Study, which includes unusually large numbers of respondents within each congressional district. We find that citizens exposed to a lower volume of coverage are less able to evaluate their member of Congress, less likely to express opinions about the House candidates in their districts, and less likely to vote. This is true for people regardless of levels of political awareness, indicating that the deleterious consequences of a decline in local coverage are widespread, not restricted to just the least attentive citizens. Placebo tests show that our results are not the product of news content simply reflecting political interest within districts. Ultimately, our analysis suggests that an enrichment of local political news—and an increase in citizen engagement—is likely to come only with a rise in the competitiveness of elections, an uncertain prospect given trends in contemporary American politics.

LOCAL NEWS AND CITIZEN ENGAGEMENT: EMPIRICAL LIMITATIONS AND THEORETICAL EXPECTATIONS

Determining the extent to which local news coverage influences political engagement and identifying the citizens who are most susceptible to its erosion requires two steps. First, it is necessary to develop a sense of the information environment citizens navigate. Understanding what factors drive the volume and substance of local news is an important prerequisite to examining how the information voters have at their disposal affects their behavior. Second, it is essential to link the news environment to citizen engagement. Although these propositions might be straightforward theoretically, they have proven more difficult in practice. Acquiring measures of news content in localities across the United States is time-consuming and labor-intensive, so scholars tend to rely on small-scale case studies or employ proxies for actual content. As a result, what we know about the relationship between the information environment and citizen engagement at the local level is quite limited. By synthesizing research on congressional elections and political communication, however, we can generate expectations about the factors that will affect local news coverage and the citizens whose political knowledge and participation will be most influenced by it.

Factors that Influence Local News Content

Over the course of the last 40 years, only a dozen studies have investigated news coverage in US House elections (Arnold 2004; Clarke and Evans 1983; Fogarty 2013; Gershon

2012, 2013; Goldenberg and Traugott 1984; Larson 1992; Manheim 1974; Orman 1985; Tidmarch and Karp 1983; Vermeer 1987; Vinson 2003). None analyzes coverage in more than 100 districts, and some focus on just one (Larson 1992; Orman 1985).² Many can say little about House coverage specifically because the analyses include Senate races. And several are restricted to specific types of candidates and contests, focusing on incumbents, contested races, or members implicated in scandals (e.g., Fogarty 2013). This has left us with an incomplete understanding of the conditions under which citizens have more or less access to local political news, which is central to explaining when engagement will rise or fall.

Although the research on media coverage of House elections is not especially developed, two findings from the political communication literature are relevant for our purposes. First, several studies have found a strong relationship between electoral competitiveness and the attention journalists devote to a race (Arnold 2004; Clarke and Evans 1983; Gershon 2012; Goldenberg and Traugott 1984; Vinson 2003). Close elections have uncertain outcomes, so they generate more drama and are inherently more newsworthy (e.g., Bennett 2011). They also produce more campaign activity, more conflict between candidates, and more campaign-trail developments for reporters to cover (e.g., Bruni 2002; Dunaway and Stein 2013). And because competition leads to more coverage, competitive contests produce reporting about candidates' issue positions (Kahn and Kenney 1999; Westlye 1991), information that may breed knowledge and participation.

Second, market forces can affect the news. When multiple congressional districts share a media market, for instance, coverage of any one district within that market decreases (Arnold 2004; see also Manheim 1974) because the potential readers of such stories represent just a fraction of an outlet's total audience. The larger a news outlet is, then, the more likely it is that this will occur. As a newspaper's circulation size grows—increasing the likelihood of having readers in multiple congressional districts—the amount of campaign coverage of a district falls (Gershon 2012; Goldenberg and Traugott 1984; Tidmarch and Karp 1983; Vinson 2003). All else equal, larger news outlets should devote less coverage to any one district's race.

2. Snyder and Stromberg (2010) examine the volume of coverage members of Congress received (from 1991 to 2002) across 385 congressional districts in 161 newspapers. But they do not focus on campaigns or campaign coverage. Gentzkow and Shapiro (2010) analyze coverage in 429 newspapers, but they focus exclusively on media "slant," or the similarity between the rhetoric members of Congress use and the language that appears in news articles.

Thus, the literature suggests that these twin factors—electoral competitiveness and the size of a newspaper—should strongly affect the volume and content of House campaign coverage. Both of these expectations are important given trends in the American political and media landscapes. Since the end of World War II, a growing share of US House seats has become safe for one party; incumbent reelection rates have increased, and district polarization has rendered the outcomes of most contests predictable before the campaign even begins. Accompanying the decline in electoral competitiveness is the fact that smaller news outlets in recent years have folded, dramatically cut reporting resources, or scaled back their publishing schedules. The available evidence suggests that this decline in electoral competitiveness, coupled with the fact that larger news organizations have become the paper of record for more citizens, should ultimately carry negative consequences for the availability of political news. But only with a systematic study at the local level can we test what we call the *Competitiveness Hypothesis* and the *Circulation Hypothesis* and determine the extent to which these factors systematically affect the information environment in which voters evaluate and select their representatives.

The Connection between Local News Content and Engagement

A lack of data about the local information environment is not the only factor that has hampered our understanding of the relationship between media coverage and citizen engagement. The two prevailing approaches to linking local news to engagement face significant limitations of their own. One method relies on identifying correlations between citizens' news usage—for instance, reading local newspapers—and various measures of knowledge or participation (e.g., Hoffman and Eveland 2010; McLeod, Scheufele, and Moy 1999). But because of the well-known difficulty of drawing valid causal inferences from self-reported media-use data, such relationships do not persuasively demonstrate that local political news coverage affects engagement. It could be that some third factor—such as political interest—drives reports of both news consumption and engagement. In addition, as Shaker (2014) notes, much of the existing research relies on case studies of single cities or communities, limiting its generalizability.

A second, more generalizable approach has been to examine the relationship between engagement and local media market characteristics. Scholars have studied whether political knowledge and participation vary in response to the size of local television markets (Althaus and Trautman 2008), the closure of a newspaper (Schulhofer-Wohl and

Garrido 2011; Shaker 2014), the occurrence of a newspaper strike (Mondak 1995), diffusion of television (Gentzkow 2006), and the overlap between media markets and political districts (Cohen, Noel, and Zaller 2004; Snyder and Stromberg 2010) or state boundaries (Delli Carpini, Keeter, and Kenamer 1994). The logic is that market characteristics determine how much news content is available to local consumers, which should alter the distribution of knowledge or levels of participation. But by and large, this work has not demonstrated that the availability of news coverage itself is actually the mechanism that drives engagement.³

Besides failing to connect content precisely to behavioral outcomes, the state of the literature also leaves us without a clear sense of the magnitude of the effects of news content on behavior. This is critical because features of the political environment (such as campaign activity), socioeconomic characteristics, and stable traits like political interest explain much of the variation in knowledge and participation (Caldeira and Patterson 1982; Delli Carpini and Keeter 1996; Leighley 1995; Verba, Schlozman, and Brady 1995). Especially in contests where voters may know little more than the incumbent's name (if that), these "fundamentals" could leave little room for news effects. But it is precisely because most local elections are low-intensity affairs that we expect media coverage to play an independent role (Berry and Howell 2007; McCleneghan and Ragland 2002). Even small increases in coverage may have relatively large effects on what citizens know about otherwise anonymous candidates or their likelihood of casting a ballot in a low-profile local contest. In the same way that media content can have its strongest persuasive effects on people without well-articulated attitudes (Zaller 1992), news coverage may affect engagement in local elections because the information environment is fairly anemic. One drop of water hardly makes a ripple in an already-full bucket. But one drop in a thimble can produce a virtual tidal wave.

Theoretical Ambiguity about Who Is Likely to Be Affected

The third central limitation of the literature is that it offers competing expectations about which citizens will be affected by declines in the availability of local political news. A long line of research has shown that the media can pro-

mote political knowledge and stimulate political participation (e.g., Barabas and Jerit 2009; Delli Carpini and Keeter 1996; Jerit, Barabas, and Bolsen 2006; Leighley 1991; Nicholson 2003). But dramatic changes to the media landscape in recent years have raised the prospect of an evolving relationship between political news and citizen engagement.

Prior (2007) argues that in our modern "high-choice" environment—one characterized by access to an expanded array of media choices—people interested in politics will consume large amounts of political news. With nonstop access to national political coverage on cable television and the internet, political junkies can indulge their interest in ways never before possible. At the same time, the less politically interested can more easily avoid political information altogether, spending their free time not with the news, but with entertainment or sports programs. As a consequence, the contemporary media environment contributes to inequality in political knowledge and participation (Prior 2005). The information-rich get richer, and the information-poor get poorer.

Such a dynamic certainly seems plausible at the local level. Reductions in the volume and substance of news content in US House races could prove most harmful to the knowledge and participation of the less politically engaged. Those who are more politically interested may be more insulated from the effects of the erosion of the news because they may be able to acquire relevant information from other sources. Because the effects of an impoverished information environment would be limited to the least politically aware, we call this the *Only the Poor Get Poorer Hypothesis*.

But relatively little work has studied coverage of local contests, so it is not clear that the same dynamic applies in lower salience races. Indeed, we expect to find a different pattern. After all, the vast majority of the information available to voters during congressional campaigns comes from local print media (Graber and Dunaway 2014; Vinson 2003). And unlike with national elections, there are virtually no other widely available outlets to which people can turn for information about local politics. In an analysis of 1,074 local news and information sources in the top 100 US television markets, Hindman (2010) reports that less than 2% of local news websites are unaffiliated with traditional print or broadcast media. In other words, virtually all of the local political news available to consumers comes from mainstream news organizations, like newspapers. Thus, we anticipate that variations in local newspaper coverage are likely to have similar effects among both the most and least politically aware citizens. That is, a reduction in the availability of political news in mainstream media will, of course, depress engagement among people who are not especially

3. One exception is Arnold (2004), who shows that citizens living in districts with less newspaper coverage of incumbents were less knowledgeable about both the incumbent and challenger during the 1994 midterm elections. But as rich as Arnold's analysis is, it includes just 82 congressional districts and does not investigate effects on participation.

interested in politics. But with few other places to turn for information, declines in news content will also affect knowledge and participation among the more politically aware. We call this the *Everyone Gets Poorer Hypothesis*.

In summary, we propose a two-stage process to explain the relationship between local news and citizen engagement. Electoral competitiveness and the size of a local news outlet will affect the volume and substance of news about US House races. That coverage, in turn, will influence political engagement. Residents in districts that receive less news will be less knowledgeable about their local congressional candidates and less likely to participate. And because the outlets for local news are typically scant, declines in newspaper coverage will have similar effects among citizens regardless of their level of political attentiveness.

INVESTIGATING NEWS COVERAGE OF US HOUSE RACES

We begin our analysis with an examination of the media coverage to which voters have access in House elections. To do so, we rely on three types of data. First, we conducted an unusually detailed content analysis of general election coverage in all House districts during the 2010 midterm elections. In each of the 435 congressional districts across the country, we identified the largest circulation local newspaper that we could access through one of several electronic databases or the newspaper's online archives. We collected every newspaper article that mentioned at least one of the two major-party candidates for the House seat and analyzed the content of the coverage in the month leading up to Election Day (October 2 to November 2, 2010).⁴

We focus on three measures that allow us to assess the substance of political coverage: (1) the number of articles published about each House race, (2) the share of stories that mentioned both candidates (in contested races), and (3) the number of mentions of issues in news coverage.⁵ We

4. We analyze local newspapers because there is very little coverage of individual congressional campaigns, or other local races, in national outlets like Fox News and the *New York Times*, and the audiences for political information in many newer venues remain very small. For instance, blog readers constitute just a fraction of the public (Lawrence, Sides, and Farrell 2010), fewer than one in five Americans are on Twitter (Smith and Brenner 2012), and just one-third of social media users say that such sites are "very" or "somewhat" important for learning about politics (Rainie and Smith 2012). Moreover, there is scant coverage of local politics on local television news (Stevens et al. 2006).

5. We recorded references to more than 150 issues associated with a candidate, and we carried out our coding at the level of the individual reference. In other words, we account for *every* time any particular issue was mentioned. This method provides unusual precision in identifying the volume and scope of issue content in the coverage we analyze.

assume that more coverage, coverage that provides information about both candidates, and coverage that includes attention to issues (as opposed to topics like fundraising, campaign strategy, or the horse race) are likely to give voters more useful information about their electoral choices and promote knowledge and participation. In all, we coded 6,003 news stories, editorials, and op-ed columns. Appendix A in the online supplementary information provides a detailed description of the content analysis project and coding procedures, including data on the newspapers and issues we measured (see Tables A1 and A2).

Second, we collected data that allow us to gauge the effects of electoral competition and newspaper size on news coverage. To measure competitiveness, we rely on the *Cook Political Report's* classification of each district as of October 5, 2010. *Cook* rates races on a four-category scale: safe for one party, likely to be won by one party, leaning toward one party, or toss-up.⁶ We also collected information on the size of each newspaper in our data set. The papers range from a circulation of 6,772 to 876,638. Roughly one-third have circulations less than 60,000, one-third between 60,000 and 225,000, and the remaining third more than 225,000. This wide variation allows us to explore whether competitiveness and the size of a news outlet affect the volume and substance of coverage.

Finally, we collected contextual information about each congressional district and the newspaper that serves it. We tracked the district's median income, percentage of college graduates, and racial composition. We accounted for the "market convergence," or level of overlap between a district and a media market (Arnold 2004; Cohen, Noel, and Zaller 2004). And we coded whether the newspaper serving the district was corporately owned, which has been shown to shape local political coverage (Dunaway 2008; Schaffner and Sellers 2003). In the face of such controls, we can be confident that any competitiveness or circulation effects we uncover are not an artifact of other district or newspaper characteristics. (See online Appendix B for the coding and descriptive statistics of the variables included in the newspaper content analysis.)

We begin by presenting bivariate relationships among our key variables. The data suggest that both electoral competitiveness and newspaper circulation affect coverage, and they do so in expected ways. The left side of Figure 1 presents the relationship between the competitiveness of a

6. We also coded whether the race was contested, whether there was an open seat, whether the race featured a quality candidate, and the total amount of candidate spending; each of these variables taps a dimension of the electoral environment that might affect coverage.

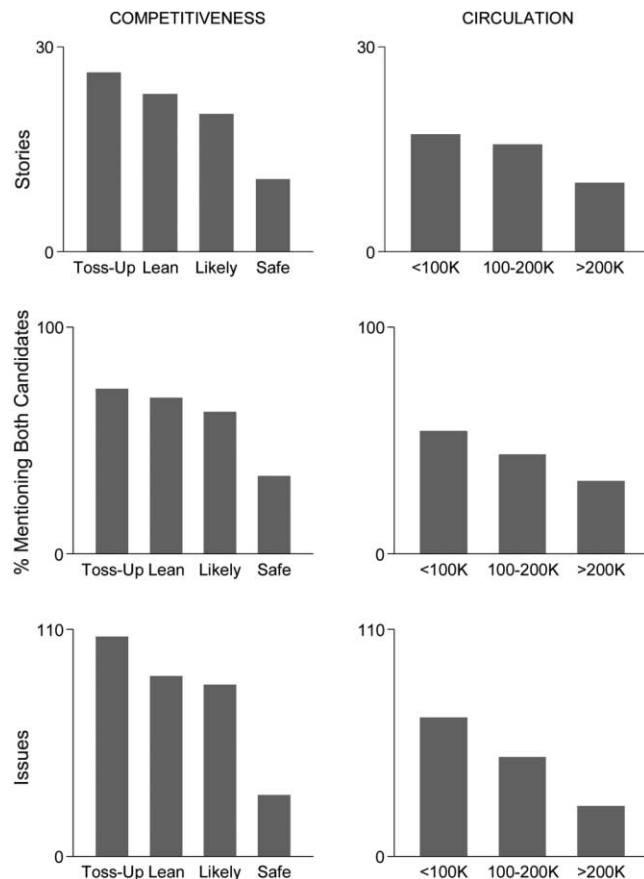


Figure 1. The relationship between electoral competitiveness and newspaper circulation size and House campaign coverage, 2010. News data come from a content analysis of local newspaper campaign coverage (6,003 stories overall) in all 435 House districts from October 2 to November 2, 2010. Competitiveness data are from the *Cook Political Report*, and circulation data were collected by the authors.

House election—as gauged by its *Cook* classification—and the number of stories written about the race, the percentage of articles mentioning both candidates, and the total number of times issues were mentioned in the coverage. Overall, the average number of stories per race was 14.4. In districts with contested races, an average of 44.5% of stories mentioned both candidates. And the average number of issue mentions over a month’s worth of campaign coverage was 48.6.

In each case, lower levels of electoral competitiveness are strongly associated with a lower volume of coverage. For example, congressional races rated toss-up saw an average of 26 stories, districts rated leaning saw 23, and districts rated likely to go for one party received on average 20 stories. But in the 72% of districts rated as safe for one party, the average number of news stories was just 10. The relationship is similarly robust when we consider the percentage of articles about a race that mentioned both candidates and the amount of issue content. Taken together, these data

show that competitive elections produce more coverage and coverage that is more likely to inform voters about both candidates and the candidates’ issue positions.

The right side of Figure 1 illustrates that newspaper circulation is also associated with the volume and substance of political news. Districts served by newspapers with larger circulations see fewer stories overall, a smaller proportion of articles mentioning both candidates, and less attention to substantive issues than do those served by small-circulation papers. For instance, papers with circulations smaller than 100,000 published on average 16 stories about the House race, and newspapers in the 100,000–200,000 range published 15. But the biggest papers published on average just 10 articles.⁷

Moving into a multivariate context, we can provide a more refined test of the extent to which electoral competitiveness and newspaper size shape the information environment in House races. After all, it is important to determine the independent effects of these twin forces controlling not only for one another, but also for politically relevant characteristics of the congressional race and demographics of the district. Thus, we conducted a series of regression equations that include such variables.⁸ Table 1 presents four Poisson count models, each of which predicts a measure of coverage in the House race.⁹

Consider, first, the effects of competitiveness. In every model, the more competitive the race is, the more coverage (or substantive coverage) there is. This is true whether we examine the total number of stories published about a race, the number of stories that mention both candidates, the number of issue mentions across the campaign’s coverage, or the number of different issue topics discussed in the coverage. All are indicators of an information environment that could help inform citizens’ choices, and all are strongly related to the competitiveness of the House race, controlling for a host of other factors that might also plausibly be related to media attention. It is clear that as competitive-

7. The results are similar when we split the circulation numbers into quartiles, as opposed to increments of 100,000. In the regression models, we rely on raw circulation, not this trichotomized measure.

8. In the models that predict whether both candidates are mentioned, the number of issues mentioned, and the number of different issue domains mentioned, we control for the total number of stories published about the race. Races with more coverage overall provide more opportunities for reporters to mention both candidates and their issue positions.

9. We restrict our analyses to the 93% of races that saw at least one news article. Competitiveness, not surprisingly, affects whether a race received coverage; every contest without coverage was designated safe by the *Cook Report*. We find that circulation size does not influence whether a paper published at least one story about the race.

Table 1. Predicting the Volume and Substance of Newspaper Coverage in House Elections, 2010

	Number of Stories	Both Candidates Mentioned	Number of Issue Mentions	Number of Different Issues Mentioned
Competitiveness and News Outlet Size				
Cook rating	0.148* (0.044)	0.156* (0.035)	0.158* (0.042)	0.046* (0.021)
Newspaper circulation	-0.017* (0.004)	-0.011* (0.004)	-0.017* (0.004)	-0.004 (0.002)
Electoral Context				
Open seat	-0.145 (0.138)	0.114 (0.099)	0.076 (0.137)	0.064 (0.071)
Uncontested	-0.252 (0.167)	—	-0.804* (0.230)	-0.283* (0.129)
Quality candidate	0.249* (0.104)	0.147* (0.087)	-0.085 (0.116)	-0.167* (0.057)
Candidate spending	0.008* (0.002)	0.003* (0.002)	0.002 (0.002)	0.001 (0.001)
District and Newspaper Features				
Percent white	-0.002 (0.003)	0.001 (0.002)	0.003 (0.003)	0.004* (0.002)
Median income	0.007 (0.042)	0.011 (0.034)	0.041 (0.050)	0.000 (0.032)
Percent college educated	0.016* (0.006)	0.003 (0.006)	0.012 (0.008)	0.003 (0.005)
Corporate ownership	0.033 (0.099)	-0.128* (0.072)	-0.148 (0.095)	-0.035 (0.058)
Market convergence	0.126 (0.431)	0.851* (0.205)	0.779* (0.310)	0.518* (0.189)
N of stories	—	0.037* (0.002)	0.034* (0.003)	0.016* (0.002)
Constant	2.297* (0.261)	0.891* (0.228)	2.531* (0.288)	0.839* (0.172)
Log likelihood	-2237.484	-1025.353	-5315.758	-840.221
N	405	380	405	405

Note—Cell entries are Poisson coefficients. Robust standard errors clustered on newspaper are in parentheses. Level of significance: * $p < .05$, one-tailed.

ness declines, so does the volume and substance of House campaign coverage. (The *Cook* rating is scaled from least to most competitive; hence the positive sign. For substantive reasons, we emphasize what that tells about *decreases* in competitiveness.)

The regression results also indicate that circulation size affects news content; it is inversely related to the volume and substance of coverage. The coefficient reaches conventional levels of significance in the first three models and has a p -value of 0.07 in the fourth. The death of newspapers around the country may have left many of those that remain with a larger geographic area to serve, and thus more con-

gressional districts to cover. As a result, the quantity and substance of coverage any single district receives declines.

In sum, the results—which emerge from more than 6,000 articles and hundreds of local newspapers, House races, and candidates—are clear: The competitive context and the size of a news outlet serving the district, both of which are reshaping the landscape for local news, are central drivers of election coverage. This is the case across a variety of measures of news content. Given this evidence, we can now turn to an examination of whether and how this coverage affects voters' knowledge about and engagement in the House races in their districts.

THE EFFECTS OF LOCAL NEWS COVERAGE ON CITIZEN ENGAGEMENT

The existing literature has found that socioeconomic status, stable political attributes, and features of the political environment explain much of the variation in citizen engagement. But our content analysis reveals significant differences in the information environment across House districts. Does a reduction in campaign coverage lead to lower levels of political knowledge and participation even if we account for traditional predictors of engagement? And are any effects concentrated among the least politically attentive citizens, or do they also emerge even among people who are more politically interested?

To answer these questions, we analyze data from the 2010 Cooperative Congressional Election Study.¹⁰ The CCES is an ideal survey because of its unusually large sample size (more than 50,000), which allows us to study the behavior of large numbers of respondents within individual congressional districts. Additionally, it includes several measures of political knowledge and participation relevant to understanding local political engagement: whether respondents (1) could offer a rating of their incumbent House member, (2) place the Democratic House candidate in their district on the ideological scale, (3) place the Republican House candidate in their district on the ideological scale, and (4) offer a vote intention in the pre-election survey. We expect that, all else equal, individuals living in districts with more news coverage will be more informed about their incumbent and the House candidates in their district and more likely to participate than will people living in districts where there is less news coverage.

We employ two key independent variables. First, we model the news environment with a measure of the overall volume of coverage (Number of Stories) devoted to the House race in each district. This is not only the most comprehensive measure of the news environment from our content analysis, but it also captures multiple aspects of the information to which citizens have access. As we showed in Table 1, districts with more news coverage overall also saw more substantive coverage.

Second, we create a proxy for citizens' levels of political attentiveness. Although the best measure is factual knowledge about politics (Price and Zaller 1993), the CCES does not include a battery of general knowledge questions that would allow us to create a reliable scale (see Delli Carpini

and Keeter 1996). Instead, we use a variable based on respondents' news consumption habits; people who consume a lot of media are likely to be more politically attentive than those who consume less. Specifically, we use responses to a series of questions about whether a respondent reported watching TV news, reading a newspaper,¹¹ listening to news or talk on the radio, and reading an online blog in the previous 24 hours. We categorize the 43% of respondents who said they consumed news from three or more sources as "high media use" and the remaining 57% as "low media use." We include this dummy variable in all of our models, but its chief purpose is to allow us to test the *Only the Poor Get Poorer* and the *Everyone Gets Poorer* hypotheses. By interacting it with the volume of news coverage in a district, we can examine whether any news effects are moderated by political attentiveness.¹²

From the outset, it is important to recognize that these models present a hard test for news effects. People who are even minimally attentive to politics should be able, for instance, to offer an evaluation of their congressional incumbent and place the House candidates on the ideological spectrum, leaving relatively little room for media influence. Moreover, respondents were interviewed rather late in the campaign cycle, so they presumably already knew quite a bit about the candidates they were asked to evaluate. In addition, respondents to opt-in panels like the CCES tend to be somewhat more knowledgeable about politics and more likely to vote than respondents to face-to-face surveys like the National Election Studies (Malhotra and Krosnick 2007). And finally, the models include variables that capture key features of the campaign environment—including whether the race featured a quality candidate and how much the candidates spent—as well as well-known individual-level correlates of citizen engagement, such as strength of partisanship and education. (See online Appendix C for a description of all of the variables included in the CCES anal-

10. The CCES is a collaborative survey among dozens of academic institutions, conducted by YouGov/Polimetrix. Details about the design, sampling, and other technical information are available at <http://projects.iq.harvard.edu/cces/>.

11. The CCES does not ask respondents to identify the newspaper they read. That means we cannot determine who read a local paper, who read a national paper, like the *New York Times*, and who read both.

12. Because self-reported media consumption is a less than ideal proxy for political attentiveness (Price and Zaller 1993; Prior 2009), we replicated our analyses with several alternative specifications. These included a variable built from both media exposure and an index of self-reported political interest, as well as models in which we used formal education as a proxy for political attentiveness. And instead of dichotomizing respondents into high and low media use, we also constructed a multicategory measure of media exposure ranging from 0 to 4. Each of these alternative specifications produced results very similar to those we report below. So while the "high media use" variable is not perfect, other measures yield virtually identical conclusions.

ysis.) With this extensive battery of controls, we are further stacking the deck against finding news effects.

Before turning to our main results, we need to deal with the possibility of endogeneity. A correlation between news coverage and citizen engagement does not necessarily mean that the former causes the latter. It could, in fact, be that news outlets in districts where people are highly politically engaged will devote more coverage to public affairs. In other words, a relationship between the engagement variables and the volume of campaign news coverage could simply reflect the fact that newspapers cater to their market, not actually cause engagement to rise or fall. To address this, we begin with placebo tests in which we regress our independent variables on two measures of political knowledge that should be only weakly related to the campaign: a respondent's ability to provide a rating of Congress and whether a respondent knows which party controls the House of Representatives. If our news variable does not predict these two measures, then we can have confidence that news volume is not merely a consequence of district-level political knowledge.¹³

The first two columns of Table 2 present the results of the placebo tests. In both cases, Number of Stories fails to predict correct answers, suggesting that campaign news coverage is not simply a product of district-level political knowledge. Not surprisingly, media use—which taps attentiveness to public affairs information generally—and the standard demographic variables are strong predictors. Thus, these results suggest that rating Congress and knowing the House majority are reasonable measures of general political knowledge, but they are unrelated to campaign coverage.

Having shown that the volume of campaign coverage is not simply a function of district-level political knowledge, we can move on to the specific campaign-related measures of engagement. The models presented in the final four columns of Table 2 reveal that the volume of coverage devoted to a race affects a respondent's ability to rate the House incumbent, as well as place the Democratic and Republican candidates on the ideological spectrum. The number of

stories written about a race also influences a respondent's likelihood of expressing a pre-election vote intention.¹⁴

How large is the effect of campaign coverage? We would characterize it as meaningful, though not dramatic. This is in part because of relatively high levels of engagement in the CCES sample. For instance, 81% of respondents offered an assessment of their House incumbent. Holding the continuous variables in the model at their means and ordinal variables at their modes, a shift of two standard deviations in coverage (about 26 stories) increases the likelihood of rating the incumbent by about 1.5 points. Larger shifts in news coverage, of course, produce larger increases. We find the strongest effects on the likelihood of placing the candidates on the ideological scale (which about two-thirds of respondents could do). A positive shift of two standard deviations in coverage increases the likelihood of rating the Democratic candidate by about 2 points, and the likelihood of rating the Republican candidate by about 2.4 points. Finally, a shift of two standard deviations in coverage produces a 1.4 point change in a respondent's probability of expressing a pre-election vote intention.

Although these effects are not enormous, we would not expect them to be. News coverage is just one of many forces that promote or inhibit the acquisition of political knowledge and participation. Individual-level attributes and the various measures of political context also strongly affect engagement. A two standard deviation increase in spending (roughly \$2.3 million) by the Democratic and Republican candidates, for example, boosts the likelihood of a respondent reporting a vote intention by 3.5 points. But in the face of these controls and the relatively high knowledge and participation levels among CCES respondents—which leave even less room for the news to matter—the presence of media effects is remarkable. The finding underscores that the media environment has an important, independent effect on citizen engagement. When local political coverage declines, knowledge and participation do indeed go with it.

The second part of our analysis examines the relationship between news volume and media use to test how the information environment affects the engagement of people with different levels of political attentiveness. Table 3 supplements each of the models we presented in Table 2 with an interaction between the number of news stories and

13. To be sure, these are not unimpeachable placebo tests. Exposure to news coverage of the campaign could in theory increase a respondent's ability to rate Congress and to identify correctly the Democrats as holding the House, especially in a somewhat nationalized election year, as was 2010. But it seems plausible that the placebo test variables are likely to arise principally from general attentiveness to politics, whereas campaign-specific engagement—which our main dependent variables tap—is likely to depend much more heavily on an election's information environment. We think it is thus reasonable to expect that the placebo variables will not be correlated with election news. If that is the case, then we have evidence that campaign coverage is not simply a consequence of district-level citizen engagement.

14. The results are the same when we restrict the analysis to districts with an incumbent seeking reelection, when we control for the length of time the incumbent has served, and when we control for the incumbent's ideology (using DW-Nominate scores). They are also the same when we code the ideological placement variables to create a single dummy indicating whether the respondent (correctly) placed the Democrat to the left of the Republican.

Table 2. Predicting Political Knowledge and Participation in House Elections, 2010

	PLACEBO TESTS					
	Know House Majority	Rate Congress	Rate House Incumbent	Rate Democrat's Ideology	Rate Republican's Ideology	House Vote Intention
Information Environment						
Number of stories	0.001 (0.002)	-0.003 (0.004)	0.007* (0.003)	0.006* (0.003)	0.006* (0.003)	0.004* (0.002)
High media use	0.969*** (0.054)	1.261*** (0.113)	0.812*** (0.059)	0.724*** (0.042)	0.769*** (0.038)	0.794*** (0.042)
Political Context						
Competitiveness	-0.044* (0.027)	0.062 (0.050)	0.062 (0.051)	-0.012 (0.039)	0.162*** (0.044)	0.001 (0.030)
Open seat	-0.112* (0.065)	-0.029 (0.113)	0.262* (0.135)	0.622*** (0.114)	0.260** (0.104)	-0.256*** (0.061)
Uncontested	0.100 (0.078)	-0.025 (0.154)	-0.046 (0.153)	0.372 (0.233)	0.299* (0.146)	-0.581*** (0.094)
Quality candidate	0.015 (0.053)	-0.100 (0.103)	-0.010 (0.118)	0.116 (0.088)	0.208** (0.078)	0.002 (0.063)
Democratic spending	0.004* (0.003)	0.001 (0.005)	0.011** (0.005)	0.015*** (0.005)	0.004 (0.004)	0.011*** (0.003)
Republican spending	0.005*** (0.002)	0.000 (0.002)	0.002 (0.004)	0.006** (0.002)	0.014*** (0.004)	0.001 (0.002)
Market convergence	0.072 (0.226)	0.784* (0.375)	1.211*** (0.386)	0.401 (0.279)	1.263*** (0.310)	0.926*** (0.218)
Democratic incumbent	—	—	—	1.860*** (0.101)	—	—
Republican incumbent	—	—	—	—	1.300*** (0.084)	—
Demographics						
Strength of partisanship	0.265*** (0.019)	0.290*** (0.033)	0.165*** (0.024)	0.197*** (0.020)	0.197*** (0.018)	0.561*** (0.020)
Education	0.336*** (0.016)	0.186*** (0.028)	0.120*** (0.021)	0.140*** (0.014)	0.108*** (0.013)	0.120*** (0.013)
Age	0.031*** (0.002)	0.045*** (0.003)	0.041*** (0.002)	0.025*** (0.002)	0.025*** (0.001)	0.027*** (0.001)
Income	0.112*** (0.007)	0.079*** (0.011)	0.059*** (0.008)	0.048*** (0.006)	0.051*** (0.006)	0.081*** (0.006)
White	0.355*** (0.053)	0.220*** (0.085)	0.360*** (0.070)	0.022 (0.057)	0.168*** (0.052)	0.284*** (0.050)
Constant	-3.244*** (0.125)	-1.460*** (0.184)	-2.201*** (0.154)	-3.890*** (0.162)	-3.623*** (0.162)	-3.024*** (0.109)
Pseudo R ²	0.172	0.147	0.129	0.196	0.141	0.155
Log likelihood	-25570.222	-11750.211	-19549.148	-27858.165	-29371.205	-27064.550
Chi-square	1788.740	788.724	1217.462	1757.935	1300.302	2103.542
N	44,181	44,090	43,740	41,161	43,148	44,247

Note—Cell entries are logistic regression coefficients. Robust standard errors clustered on congressional district are in parentheses. Levels of significance: * $p < .05$; ** $p < .01$; *** $p < .001$; one-tailed.

a dummy for whether a respondent was high or low in media use. If the *Only the Poor Get Poorer Hypothesis* is correct, then we would expect the interaction to be negatively signed. That would indicate that as the amount of news coverage changes, the people most affected by those variations are those who are least attentive to politics. Thus, if news coverage falls, it would have the most deleterious effects on those who are less attentive. On the other hand, if the interaction terms are insignificant, then that would suggest that the effects of variations in news coverage are similar for people at different levels of attentiveness. Such a pattern would support the *Everyone Gets Poorer Hypothesis*, because it would show that declines in news coverage decrease engagement for citizens across the board.¹⁵

Table 3 provides no support for the *Only the Poor Get Poorer Hypothesis* and considerable support for the *Everyone Gets Poorer Hypothesis*. In none of the four models is the interaction between news coverage and high media use negative. We can examine these relationships directly by calculating predicted probabilities for each of the four dependent variables.¹⁶ In Figure 2, we plot lines for high and low media-use respondents separately. In each case, the (dark) line for high media-use citizens is above the (light) line for low media-use citizens. This reflects the fact that people who consume more news are more likely to be engaged. But in three of the four models, we find no substantive difference whatsoever in the effect of news coverage on high and low media users. In other words, when local newspaper coverage declines, everyone gets information poorer, not just the people least attentive to politics. As Hindman's (2010) analysis suggests, this is likely because even politically attentive citizens have few other places to turn for local news.

Consider the nonsignificant interaction terms on the coefficients for rating the House incumbent and rating the Republican candidate's ideology, whose effects are plotted in the left-hand panels of the figure. The slopes of the lines make it evident that the effect of news coverage is the same for citizens at different levels of media use. A comparison of the minimum-maximum effects underscores how simi-

lar the patterns are. In the House incumbent model, a shift from the most news coverage (80 stories) to the least (no stories) results in an identical decline in the likelihood of rating the incumbent by 2.9 points for high and low media users alike. For placing the Republican candidate on the ideology scale, the minimum-maximum shifts in probability are again the same: 6.8 points for both high and low media users.

In the vote intention model, the interaction term is positive and significant. This suggests that variation in news volume has a stronger effect on citizens who are *most* attentive to politics. A closer inspection of the magnitude of the effect, however, indicates that the difference between high and low media-use citizens is modest at best; the slopes of the lines for high and low media users are virtually indistinguishable. The minimum-maximum shift in probability, while statistically significant, is 4.9 points for high media users and 3.3 points for low media users. Strictly speaking, that means that declines in coverage have a stronger effect on high media users, but that difference is not very large. More to the point, it provides no support for the *Only the Poor Get Poorer Hypothesis* and suggests support for the *Everyone Gets Poorer Hypothesis*. High media-use citizens see their engagement levels drop, but only slightly more than those who consume less media.

The one notable difference between high and low media users emerges in the Democratic ideology model. Whereas the minimum-maximum shift in probability for high media users is 8.9 points, it is only 1.9 points for low media users, a pattern that may be a result of the lower quality of the Democratic challengers in 2010. That is, information about more obscure candidates may have a stronger effect among politically attentive citizens than when candidates are better known. This finding suggests that declines in news coverage can in some cases close the gap between the most and least attentive. After all, the knowledge gap between the most and least attentive citizens shrinks from 15 points (at maximum levels of coverage) to 7 points (when there is no coverage of a race). But reducing inequality in engagement happens only by reducing knowledge among the most highly aware, not by boosting it among the least attentive. This is hardly a democratically healthy method to close the gap.

Of course, as important as our results are for shedding new light on the relationship between local news coverage and citizen engagement, they also open the door for future research about the underlying causal mechanism for the effects we uncover. Does the volume of campaign coverage in a district simply prime habitual voters to turn out? Do citizens feel better equipped to exercise their democratic

15. A third possibility is that we find positive and significant interaction terms. This would suggest that all citizens suffer from declines in news coverage but that those effects will be the greatest for the most politically attentive.

16. We ran these simulations with continuous variables set at their mean values and dichotomous variables at their modes. Note that this reflects a scenario where an incumbent is in the race (and, in the ideological placement models, when the Democratic or Republican candidate is an incumbent).

Table 3. Predicting Political Knowledge and Participation in House Elections, 2010, by Media Use

	Rate House Incumbent	Rate Democrat's Ideology	Rate Republican's Ideology	House Vote Intention
Information Environment				
Number of stories	0.006* (0.003)	0.002 (0.003)	0.005* (0.003)	0.003 (0.002)
High media use	0.746*** (0.081)	0.536*** (0.062)	0.723*** (0.055)	0.714*** (0.057)
Number of stories x high media use	0.005 (0.005)	0.014*** (0.004)	0.003 (0.002)	0.006* (0.003)
Political Context				
Competitiveness	0.063 (0.051)	-0.010 (0.039)	0.163*** (0.044)	0.002 (0.030)
Open seat	0.261* (0.135)	0.610*** (0.113)	0.258*** (0.104)	-0.258*** (0.061)
Uncontested	-0.046 (0.153)	0.370 (0.231)	0.298* (0.146)	-0.580*** (0.094)
Quality candidate	-0.010 (0.118)	0.117 (0.087)	0.208** (0.078)	0.002 (0.063)
Democratic spending	0.011** (0.005)	0.015*** (0.005)	0.004 (0.004)	0.011*** (0.003)
Republican spending	0.002 (0.004)	0.006** (0.002)	0.014*** (0.004)	0.001 (0.002)
Market convergence	1.209*** (0.386)	0.392 (0.276)	1.263*** (0.310)	0.926*** (0.218)
Democratic incumbent	—	1.859*** (0.100)	—	—
Republican incumbent	—	—	1.297*** (0.084)	—
Demographics				
Strength of partisanship	0.165*** (0.024)	0.196*** (0.020)	0.197*** (0.018)	0.561*** (0.020)
Education	0.120*** (0.021)	0.140*** (0.014)	0.108*** (0.013)	0.119*** (0.013)
Age	0.041*** (0.002)	0.025*** (0.002)	0.025*** (0.001)	0.027*** (0.001)
Income	0.059*** (0.008)	0.048*** (0.006)	0.051*** (0.006)	0.081*** (0.006)
White	0.361*** (0.070)	0.026 (0.057)	0.168*** (0.052)	0.285*** (0.050)
Constant	-2.189*** (0.154)	-3.837*** (0.164)	-3.608*** (0.165)	-3.004*** (0.110)
Pseudo R ²	0.129	0.197	0.141	0.156
Log likelihood	-19549.148	-27858.165	-29371.205	-27064.550
Chi-square	1210.772	1778.843	1384.701	2198.964
N	43,740	41,161	43,148	44,247

Note—Cell entries are logistic regression coefficients. Robust standard errors clustered on congressional district are in parentheses. Levels of significance: * $p < .05$; ** $p < .01$; *** $p < .001$; one-tailed.

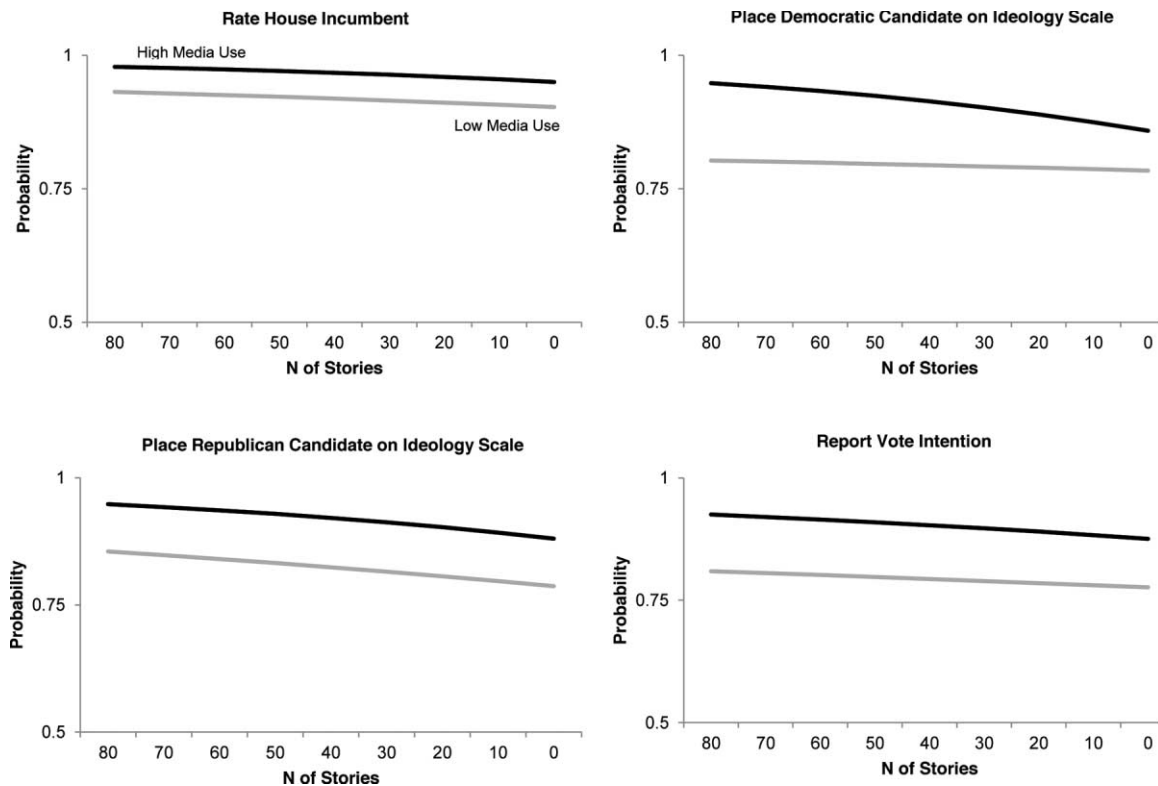


Figure 2. The effects of news coverage on citizen engagement, by media use. Predicted probabilities are based on the regression equations presented in Table 3. All continuous variables are set at their means and dichotomous variables at their modes.

duty when they are exposed to more news coverage about their local elections? Does coverage predominantly mobilize the base, or does it generate campaign interest and stimulate participation by others? We uncover no consistent evidence to suggest that news effects are strongest among people who are the most partisan.¹⁷ But additional research, especially investigations that rely on panel data, can undoubtedly speak to these questions more authoritatively.

CONCLUSION

Together, our results provide strong evidence for a chain that links electoral competitiveness and news outlet size to coverage of US House elections and, subsequently, to citizen engagement. When elections are less competitive and when districts are served by large newspapers, media coverage of US House campaigns is impoverished. Each factor contributes to less, and less substantive, coverage. This diminished news environment, then, depresses political engagement. Citizens in districts with less campaign coverage are less able to evaluate their incumbent and not as capable

of making ideological judgments about the candidates vying for office. They are also less likely to vote in the House election. These effects occur for people regardless of their level of political attentiveness.

The fact that we find effects for everyone—not just the least attentive—illustrates a critical theoretical point about the relationship between the changing media environment and citizen engagement in contemporary American politics. Our findings suggest that the consequences of a “post-broadcast” media environment are contingent on the level of politics we analyze. At the national level, the proliferation of online news outlets, political blogs, and nonstop cable television punditry gives the most politically interested citizens virtually unlimited access to political news. This explosion of news sources, in conjunction with a simultaneous expansion of entertainment options available to those who are not particularly politically interested, has generated a significant gap in knowledge and participation among the public. People who care about politics can become more knowledgeable and engaged than ever before. Those who don’t can opt out almost entirely.

At the local level, however, mainstream news organizations continue to constitute the main—and sometimes only—source of information about House races. This is

17. These results are available from the authors.

surely also the case for the hundreds of thousands of other local-level contests throughout the country. When local news outlets like daily newspapers devote less coverage, and less substantive coverage, to politics—whether it be about a House race, state legislative contest, or municipal election—there are few alternative sources to which citizens can turn. For all the recent efforts to save local news (Abernathy 2014), in the vast majority of US communities, there is no local Politico, no local Talking Points Memo, no local Hot Air. As a result, the quality of information to which all citizens have access—not just the least attentive—is reduced. That, in turn, lowers the prospects for political knowledge and participation for everyone. The consequences that changes to the media environment carry for citizen engagement, therefore, depend strongly on the availability of alternative sources of information. When such outlets proliferate, we are likely to see a growing gap between the most and least attentive. But where those sources of information are sparse, engagement is likely to decline across the board.

Because our results show that engagement depends on the media environment, the question arises: How can the news be enriched? Numerous scholars and observers have suggested various remedies, such as overhauling journalistic practices (Patterson 2013), boosting reporting resources by establishing partnerships with foundations and nonprofits (Downie and Schudson 2009), and finding innovative benefactors with deep pockets (Huffington 2013). Although these efforts could certainly improve political journalism, the biggest driver of the decline in local news in our data is the competitiveness of elections. When elections are uncompetitive, the media ignore them because they simply aren't newsworthy. But when contests are closer, they generate more coverage. Thus, the most effective route to reinvigorating local campaign coverage—and thus improving citizen engagement—is likely a renaissance in the competitiveness of House elections.

But because the decline in competitiveness is principally a product of party polarization (e.g., Abramowitz, Alexander, and Gunning 2006), such a renaissance seems unlikely any time soon. Given the large body of research devoted to the effects of polarization at both the elite and mass levels, it is somewhat surprising that the relationship between polarization and news coverage in congressional elections has been largely overlooked. But our analysis now makes clear that polarization does more than hinder Congress's ability to pass legislation (Binder 2003) or generate ill will between partisans in the public (Iyengar, Sood, and Lelkes 2012). By often producing uncompetitive elections that impoverish the political information environment, it

can also contribute to a decline in local political engagement, even as it promotes engagement at the national level (Pew Research Center 2014b). In this way, polarization chips away at the foundation of democracy by making it more difficult for citizens to gain the information that would help them hold their local elected officials accountable.

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