

The Decline of Local News and Its Effects: New Evidence from Longitudinal Data

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We present the first longitudinal evidence that declining local political news coverage is reducing citizen engagement. Drawing on a content analysis of more than 10,000 stories about US House campaigns in 2010 and 2014, we show that local newspapers over this period published less, and less substantive, political news. We then use panel data from the Cooperative Congressional Election Study to investigate how the news environment influences citizen engagement. Tracking the same individuals over time and simultaneously measuring changes in media content in their communities reveals that reductions in citizens' political knowledge and participation follow declines in coverage about congressional elections. To the extent that the local news environment continues to deteriorate—a likely scenario as the industry continues to struggle—observers' concerns about political engagement in localities across the United States appear very much justified.

The dramatically altered media landscape of the twenty-first century has affected political behavior in numerous ways. Political scientists in recent years have examined the effects of increasing media choice (Aalberg, Blekesaune, and Elvestad 2013; Prior 2007), the rise of ideologically slanted news (e.g., Arceneaux and Johnson 2013), and the influence of media incivility (e.g., Mutz 2015), among other topics linked to the changing national news environment.

Out of view of many political scientists, however, is the steady erosion of local news. As advertising dollars have migrated from print to electronic publications, and as newspaper circulation rates have plummeted, newsrooms in cities and towns across the country have felt the squeeze (Napoli et al. 2017). Between 1995 and 2015 newsroom staffs fell by 39% (Barthel 2016). Scores of newspapers have folded (Kamarck and Gabriele 2015). And despite the hope of many observers, local online news sites have largely failed to fill the void (Pew 2014). Indeed, there are virtually no alternative online sources of local public affairs reporting in the top 100 media markets across the country (Hindman 2011). This increasingly fallow news environment—part of what some describe as a crisis in

American journalism (McChesney and Nichols 2010)—raises the concern that without sufficient information about community affairs (e.g., Waldman 2011), citizen engagement in local politics will wither.

But our understanding of the relationship between the decline of local news and citizen engagement remains hampered by two factors. First, most large-scale content analyses of local political news were conducted well before the upheaval in the local news business (e.g., Arnold 2004; Vinson 2003). Thus, they cannot tell us anything about the last tumultuous decade. One exception is a study of US House campaign coverage from 2010 (Hayes and Lawless 2015). But that analysis of a single year cannot speak to change in the local news environment. Another is an analysis by Peterson (2017), which shows that coverage of local politics in a sample of US newspapers fell between 2004 and 2014. Given that the secular trend animates most observers' concerns, we need more longitudinal data to discern how severe the erosion of local political news has been.

Second, evidence for the presumed causal relationship between local news and citizen engagement is limited. Meth-

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Data and supporting materials necessary to reproduce the numerical results in the article are available in the JOP Dataverse (<https://dataverse.harvard.edu/dataverse/jop>). An online appendix with supplementary material is available at <http://dx.doi.org/10.1086/694105>.

odological difficulties, including endogeneity in self-reports of news exposure, make it difficult to connect media content to political behavior (see Shaker 2014). Several recent studies have made progress on this front, however. By using aggregate data, Schulhofer-Wohl and Garrido (2011) show that voter turnout fell in the wake of the 2007 closure of the *Cincinnati Post*. Shaker (2014) uncovers a decline in various aggregate measures of civic engagement following the death of newspapers in Denver and Seattle. And Hayes and Lawless (2015) find a correlation between House campaign coverage in a district and residents' political knowledge and participation.

But none of this work can tie a decline in the content of news to a decline in civic engagement at the individual level over time. Moreover, studies of shuttered newspapers tell us what happens when a community loses a news outlet but cannot detect the effect of more insidious declines in coverage at surviving papers. And any cross-sectional study is vulnerable to criticism that reported correlations are spurious. This is particularly acute in studies of media effects, where factors like political interest, knowledge, and media exposure are difficult to disentangle from one another. Without longitudinal data, demonstrating that a diminished news environment reduces political engagement is difficult.

In this article, we marry two data sets to investigate the relationship between local news and political engagement in the contemporary environment. We focus on coverage of congressional elections, one important component of local news (e.g., Waldman 2011), and examine the largest circulating paper serving each congressional district. Our original content analysis of more than 10,000 local news articles during the 2010 and 2014 US House campaigns shows that, even during this relatively brief period, newspapers published less, and less substantive, local political news. This is partly due to a decrease in electoral competitiveness, but it also appears to stem from shrinking reporting resources. Then we use panel data from the Cooperative Congressional Election Study over this same period to investigate how the news environment affects citizens' political knowledge and participation. Tracking the same individuals over multiple election cycles and simultaneously measuring changes in news coverage in their communities provides a superior test of the effect of the decline of local news. In the end, we show that local news is indeed eroding, and that the effects on citizen engagement, while modest, are worrisome.

THE INCREASINGLY ANEMIC LOCAL NEWS ENVIRONMENT

Although the literature on media coverage of House elections is not well developed, we know that two factors—

electoral competitiveness and market considerations—affect the volume and content of House campaign coverage (see Hayes and Lawless [2015] for a review). Close elections typically drive up coverage; their outcomes are uncertain, and the contests produce the kind of drama and conflict between candidates that lead the media to pay attention (e.g., Arnold 2004). Market forces, by contrast, often work in the opposite direction. When a newspaper's circulation area encompasses multiple congressional districts, stories about any single district will appeal to a smaller share of the audience (e.g., Vinson 2003). As a result, larger newspapers tend to devote less coverage to individual House races. The growing share of US House seats that has become safe for one party, coupled with the fact that smaller news outlets in recent years have folded, dramatically cut reporting resources, or scaled back their publishing schedules, should ultimately carry negative consequences for the availability of political news.

This is the context in which concerns about citizen engagement in local politics arise. The vast majority of information available to voters during congressional campaigns comes from local print media (Hayes and Lawless 2016; Vinson 2003). And in an environment in which electoral competitiveness is declining and the closure of small newspapers is leaving many readers with larger outlets as the newspaper of record in their community, citizens may have access to less information about their candidates and elected officials. That may reduce political knowledge and participation in ways that could undermine citizens' ability to hold politicians accountable (Snyder and Strömberg 2010). Accountability can of course emerge from many sources, but a central tenet of democratic theory is that an informed and engaged polity improves representation and lends greater legitimacy to the political system.

To determine whether the information environment in which citizens operate is indeed deteriorating, we undertook a large-scale content analysis of local newspaper coverage during the 2010 and 2014 midterms. We first identified in all 435 congressional districts the largest circulation newspaper. We then collected every news story that appeared during the 30 days leading up to the election that mentioned at least one of the two major-party candidates for the House seat. With articles in hand, we conducted a detailed content analysis of the volume and substance of coverage the candidates received. We tracked (1) the number of articles published about each House race, (2) the share of stories that mentioned both candidates (in contested races), (3) the number of mentions of issues, and (4) the number of references to candidates' traits. These are all markers of substantive coverage, the kind of information that could encourage citizen

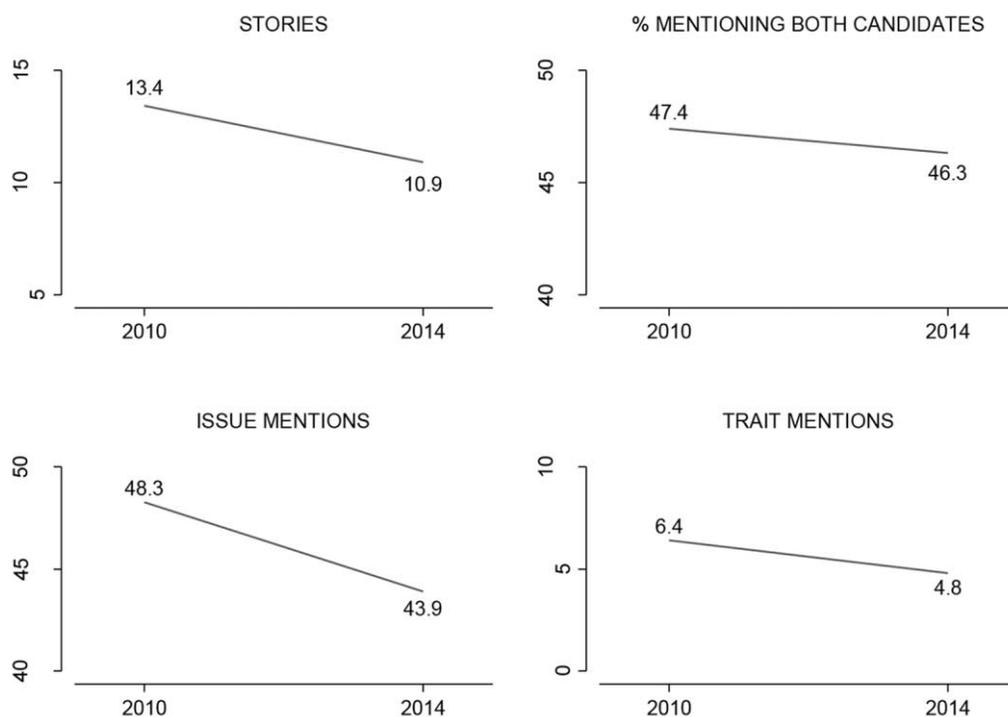


Figure 1. Decline in the volume and substance of US House campaign coverage from 2010 to 2014. The percentage of stories mentioning both candidates includes only contested districts. See the appendix for details about the content analysis of local newspapers, which covers the last 30 days of the 2010 and 2014 midterms.

engagement. Our data set contains 5,851 news stories involving the 787 major-party candidates in 2010 who received at least some coverage, and 4,524 stories about the 763 candidates who received coverage in 2014. The appendix, available online, details the content analysis and coding procedures.

Figure 1 shows that there was, in fact, an erosion of coverage from 2010 to 2014. In 2014, the typical House race saw 2.5 fewer stories in the month leading up to Election Day than in 2010. On average, this means that campaigns were covered roughly every other day in 2010 but only every third day in 2014. In addition, a slightly smaller share of stories about contested races in 2014 discussed both the Democratic and Republican candidates, and there was on average less coverage of issues (by 10%) and traits (by 33%). Local news consumers had access to less information about their House candidates in 2014 than four years earlier.

Some of the decline is due to differences in the political environment. In 2010, the prospect of Republicans flipping the House (which they did) generated a more competitive landscape than in 2014. Indeed, the *Cook Political Report* rated as “safe” 372 districts in 2014, compared to 316 in 2010, and less competitive races received less coverage (see the appendix).¹ But this doesn’t fully account for the dif-

ferences. Even holding competitiveness constant, coverage of House races declined, likely as a function of the reduction in reporting resources. For example, in safe districts, local newspapers in 2010 published on average 9.6 stories about the House race but just 8.9 in 2014. In more competitive districts—those rated leaning, likely, or toss-up—papers in 2010 published 23.5 stories on average, compared to 22.9 in 2014.² These changes are by no means dramatic, but even over a four-year period, we find a measurable reduction of political coverage (see also Peterson 2017).

A DECLINE IN ENGAGEMENT FOLLOWS A REDUCTION IN LOCAL NEWS

To explore how changes in local news affect citizen engagement, we draw on panel data collected in 2010 and 2014 as part of the Cooperative Congressional Election

number of stories between the two years perform as expected: declines in competitiveness between 2010 and 2014 lead to declines in coverage.

2. We present the volume and content of news coverage as a function of competitiveness because competitiveness varied within a district from 2010 to 2014 far more than newspaper circulation or other market forces did. Nonetheless, in both years, competitiveness and circulation are statistically significant predictors of news coverage in models that also control for candidate spending, candidate quality, and the demographics of the district.

1. Difference-in-differences models estimating the effect of a change in competitiveness between 2010 and 2014 on the difference in the

Study.³ The survey includes 9,500 respondents who in the lead-up to both the 2010 and 2014 midterms were asked a series of questions about the House race in their district. These repeated interviews allow us to investigate whether citizens' political knowledge and participation changed in response to the volume of local news coverage we measured in each district. Because the panel data hold key individual-level attributes constant, we eliminate a major threat to causal inference and can measure the effect of local news on citizen engagement with greater precision and confidence.

We conducted a difference-in-differences analysis, estimating the effect of changes in the volume of news coverage on respondents' political knowledge and participation. As measures of local knowledge and participation, we identified whether respondents could—at each point in time—(1) offer a rating of their House incumbent, (2) place the Democratic House candidate to the left of the Republican on an ideological scale,⁴ and (3) offer a vote intention in the preelection survey.⁵ We then created dependent variables that are the difference between the 2010 and 2014 values for each measure. Thus, each variable is coded -1 , 0 , or 1 . For instance, the variable for House vote intention takes a value of $+1$ if a respondent stated a vote preference in 2014 but not 2010. It takes the value of -1 if a respondent stated a vote preference in 2010 but not 2014. And if the respondent did the same thing in both years, the variable is coded as 0 .

Our main independent variable is the change in the number of news stories about the House race in the respondent's district between 2010 and 2014. To correspond with the signs on the dependent variables, negative values indicate more coverage in 2010 than 2014, and positive values indicate more coverage in 2014 than in 2010. We expect a positive relationship between the differenced news coverage variable and our dependent variables: As coverage increases, so will engagement. Statistically, that means that the reverse—and more common—scenario is also true: When coverage declines between 2010 and 2014, so should engagement. We gain leverage from the fact that the characteristics that predict survey respondents' political engagement—for instance, socioeconomic status or general political interest—largely do not change over a four-year period. With those factors held constant, we can examine whether changes in engagement

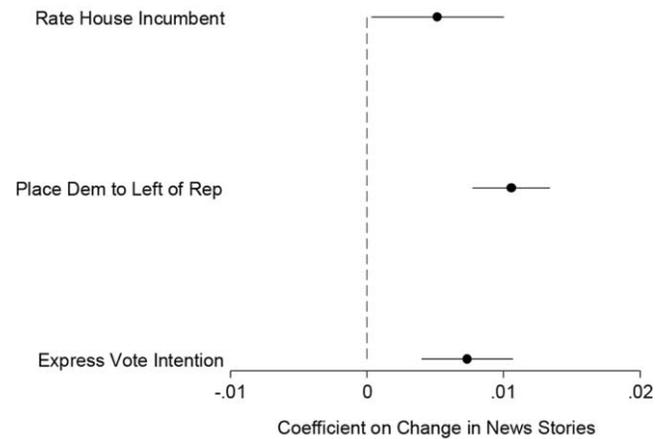


Figure 2. Predicting changes in political knowledge and participation in House elections: a difference-in-differences analysis. Dots represent ordered logistic regression coefficients, with 90% confidence intervals. See the appendix for the full regression equations.

respond to shifts in news coverage in a respondent's district. The models do, however, include two controls: change in the amount of candidate spending in the respondent's district between 2010 and 2014, which accounts for changes in the campaign environment separate and apart from news coverage, and change in the respondent's strength of partisanship.⁶

Figure 2 displays the coefficients and 90% confidence intervals for the change in news coverage from our ordered logit models. Shifts in coverage lead to changes in knowledge and participation in all three cases, although the magnitude of the effect varies.⁷ A one standard deviation increase in coverage (about 14 stories) leads to a 0.5 percentage point increase in the probability that a respondent who could not rate the House member in 2010 could do so in 2014. The key implication of that result, however, is that in most districts in 2014—where coverage declined compared to 2010—respondents were less likely to rate the incumbent. Similarly, the effect of a one standard deviation shift in coverage was about 3.9 points for placing the Democratic candidate's ideology to the left of the Republican's and 1.7 points for expressing a vote intention. Changes in candidate spending mat-

3. Details on the CCES 2010–14 Panel Study are available here: <https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/TOE8I1>.

4. We follow previous work in using this as a measure of political knowledge (e.g., Adams et al. 2017).

5. We use intended vote in the House race because it allows us to tie participation directly to the congressional contest. A broader behavioral measure like validated turnout would not be specific to the House race.

6. Although three-quarters of the sample exhibited no change in partisan strength, the variable is such a strong predictor of engagement that we thought it prudent to include. The results are virtually identical when we drop it. We should also note that redistricting does not compromise our analysis because we are estimating individual-level, not district-level, effects. Our coding ensures that we know what the information environment was like in the district that each respondent lived in in 2010 and 2014. Plus, controlling for change in candidate spending captures the key source of district-level variation that would influence knowledge and participation.

7. Snyder and Strömberg (2010) also report a relationship between the media coverage that House members receive and voter knowledge, but they base their analysis on an indirect measure of news content.

ter in two models as well. But the erosion of news coverage matters above and beyond what the candidates themselves did.⁸ (A cross-sectional analysis in 2014 controlling for lagged dependent variable values in 2010 produces comparable results; see the appendix.)

CONCLUSION

The results from our analyses constitute the best evidence yet that local political news is diminishing in the United States, and that citizen engagement is a casualty. To be sure, the substantive effects are not enormous. But the consistency of the relationships we uncover, under stringent modeling conditions, suggests real change. Moreover, the modest effects we identify emerged from a mere four-year time period. To the extent that the local news environment continues to deteriorate—a likely scenario as the industry continues to struggle—our results are likely harbingers of a longer-term trend. As such, observers' concerns about political engagement in communities across the United States appear very much justified.

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8. The effect of a shift in news coverage remains significant in a difference-in-difference model that controls for a change in political knowledge as a predictor of a change in vote intention. This is consistent with work that finds that media consumption patterns affect voter turnout, even in models that control for political knowledge (e.g., Prior 2007).