

Local News Reporting and Mass Attitudes on Infrastructure Investment

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Abstract: A growing body of research documents how shrinking local newsrooms undermine political accountability and local fiscal and policy performance in the United States. We extend this work to examine political impacts from the level of information content in local news, which has been jeopardized by reductions in newsroom staffing. To understand how information content affects public response to news coverage of a local issue, we focus on the case of preventive spending on infrastructure maintenance and repair. Inefficiently low levels of infrastructure investment are often attributed to low public knowledge about the risk of failure events. In a preregistered survey experiment, we test how the level and type of information in a news article affect support for infrastructure investment across two different types of infrastructure risk (repeated nuisance versus catastrophic failure). For both types of risk, we find that more information-rich reporting, whether investigative or event-driven, increases public support for preventive spending and imposes accountability penalties on local leaders who fail to invest in prevention.

Keywords: journalism; local news; voting behavior; electoral accountability; public policy

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Increased investment in infrastructure attracts support from large majorities of Americans in public opinion surveys,¹ but infrastructure spending as a share of the nation’s economic activity has been on the decline (Stupak 2017). Like other forms of preventive spending, the benefits of infrastructure investment can be difficult to observe, while costs are immediate and certain. A growing literature explores how the preferences and risk perceptions of the mass public (Jacobs and Matthews 2017; Friedman 2019; Bechtel and Mannino 2023; Andrews and Ryan 2022) and elected officials (Sheffer et al. 2018), as well as challenges to electoral accountability (Healy and Malhotra 2009; Gailmard and Patty 2019; Andrews, Delton, and Kline 2023; Mullin and Hansen 2023), contribute to spending levels that are less than what a fully informed public might prefer.

Behind many arguments about future-oriented spending is information: information shortfalls among the mass public, and information asymmetries between the public and elected officials. We explore how information shapes public responses to infrastructure investment through a focus on local newspapers. Infrastructure vulnerabilities are often invisible; news coverage can bring vulnerabilities to light and communicate their significance for public health and safety. By helping people “discover, gather, compare, contextualize, and share information” (Knight Commission 2009), local journalism enables communities to coordinate around shared interests and hold public officials accountable for their actions.

Yet news coverage varies in the amount and type of information it provides. Industry-wide staffing cuts have compromised the reporting capacity of local newspapers, contributing to declines in overall news coverage and, correspondingly, newspapers’ impact on the public’s political awareness (Hayes and Lawless 2021; Peterson 2021a, 2021b). Reduced capacity also

¹ Frank Newport, “The Singular Appeal of a Government Focus on Infrastructure,” *Gallup*, May 2nd, 2019.

affects the character of coverage. As journalists stretch to cover multiple beats and geographies (Ali et al. 2020; Ewens, Gupta, and Howell 2022), they are less able to invest time in providing context and background information in their coverage of news events. More cursory, episodic news coverage may not be as effective at increasing voters' knowledge and promoting accountability.

Does more informative news coverage help build political support for government spending to reduce infrastructure failure risks? We conducted a survey experiment with a large U.S. sample to study how the level and type of information provided in a news article affect public support for infrastructure spending and electoral accountability for infrastructure disrepair. We find that exposure to news coverage that provides more information about the context and consequences of infrastructure neglect increases support for infrastructure spending. Informative news coverage also promotes electoral accountability, with voters being more likely to punish incumbents for failure to spend when the consequences of failure are made visible. Differentiating between investigative and event-oriented contextual reporting (Fink and Schudson 2014; see also Iyengar 1990 on thematic versus episodic coverage), we find that both types of reporting have similar effects, suggesting that the level of information provided in news coverage is more important than the information type for shaping readers' preferences and behavior. Our results add to a growing body of evidence about the negative consequences of declining news investment by demonstrating how loss of reporting capacity can affect not only a community's civic infrastructure, but its physical infrastructure as well.

Information and Infrastructure Investment

Even as the recent enactment of the Bipartisan Infrastructure Law (BIL) and Inflation Reduction Act (IRA) bolstered federal contributions to infrastructure improvements for the short

term, the large majority of infrastructure capital and maintenance spending occurs at the state and (especially) local levels (Congressional Budget Office 2018). For local elected officials, infrastructure investment entails political risk, as certain and immediate costs are balanced against uncertain, often invisible benefits. This is especially true of infrastructure maintenance and rehabilitation that does not add new capacity but instead ensures continued performance and protection against disruptive failures.

Political behavior research traditionally ascribes the short time horizons of elected officials to the preferences of voters (e.g., Tufte 1978; Achen and Bartels 2016). Even if public opinion surveys reveal generalized support for a long-term goal like a well-functioning infrastructure, voters' preferences for lower taxes and service fees in the short term will override that goal when they are evaluating incumbent performance. Empirical studies offer some evidence of voters' short time horizons: voters put heavy weight on recent information in their candidate evaluations (Healy and Lenz 2014) and reward politicians more for disaster response than for investments that could reduce disaster harm (Healy and Malhotra 2009; Bechtel and Hainmueller 2011). Responding to an assumed myopia on the part of voters, politicians believe they risk electoral punishment for raising service costs to pay for infrastructure improvements (Hansen and Mullin 2022).

Recent work complicates this story. First, voters do not punish elected officials for raising fees as consistently as politicians might expect (Hansen, Eskaf, and Mullin 2022). Second, survey experiments indicate that voters have limited sensitivity to the time horizon of a spending proposal; their level of trust in the entity delivering the policy is more important (Jacobs and Matthews 2017; Christensen and Rapeli 2021). Voter preferences also may be shaped by misperceptions about the level of risk associated with a hazard (Motta and Rohrman 2021; Slovic et al. 2004; but see Friedman 2019) and the cost of reducing that risk (Andrews and Ryan 2022). To the extent that

voters discount the benefits of infrastructure or preventive spending, it may be attributable to a lack of information about those long-term benefits rather than to myopic preference for short-term payoffs (Bechtel and Mannino 2023). Information constraints also limit voters' ability to assign blame when government fails to prevent disaster (Malhotra and Kuo 2008).

By increasing the information available to voters, news coverage might boost support for preventive spending and promote accountability for prevention failures. Yet local journalism in the United States is enduring a long period of decline. Total circulation for U.S. daily newspapers fell 59 percent between 1990 and 2020 (Pew Research Center 2023), and thousands of newspapers across the country have closed permanently (Abernathy 2020), especially in poorer communities (Napoli et al. 2017; Usher 2021). Surviving newspapers have seen broad reductions in staff, shedding 56 percent of total newsroom employment since 2008 (Pew Research Center 2022). For many outlets, movement towards larger ownership structures have slashed newsroom budgets (Ewens, Gupta, and Howell 2022) and centralized news production ex-locally (Ali et al. 2020), separating coverage from well-defined community or place (Usher 2023). At the extreme, these losses have generated a large number of hollowed-out newspapers that serve primarily as “ghost” outlets for redistributing news content that is produced elsewhere (McChesney and Nichols 2011; Sullivan 2020). Bereft of resources, such outlets routinely fail to provide basic original reporting on important local issues and events.² In the most extreme cases of resource-deprivation, struggling newspapers will simply print ballot language or meeting minutes verbatim as a “story.”

² For example, the *Los Angeles Times* recently noted that the *Salinas Californian*, which was once the “leading newspaper” for the city of 163,000, failed to run a single story on severe flooding in Salinas in January 2022, or any story on the city’s mayoral race that year, “because it employed only one journalist until December. . .when the paper’s last reporter quit.” Indeed, the only original content that the paper now produces are paid obituaries. James Rainey, “The California Newspaper that Has No Reporters Left,” *Los Angeles Times*, March 27th, 2023.

As local outlets and their staffs have dwindled, so has coverage of local issues and politics, which has fallen by more than 70 percent on average among small market newspapers and 60 percent among larger papers (Hayes and Lawless 2021). Both staffroom cuts and corporatization of newspaper ownership structures have contributed to this trend. A newspaper that suffers a typical staffing reduction produces 300 to 500 fewer politics stories per year (Peterson 2021b). The introduction of larger, corporate ownership structures typically results in reduced newsroom staff and shifts coverage away from local governance (Ewens, Gupta, and Howell 2022; Martin and McCrain 2019), in part because national politics is easier to repackage and distribute across a network of outlets (Dunaway 2011).

The vanishing of local news coverage has had broad deleterious effects on local politics. Local political participation and knowledge, split-ticket voting, and electoral competition for local elected offices have all declined as local news outlets have weakened (Darr, Hitt, and Dunaway 2018; Ewens, Gupta, and Howell 2022; Hayes and Lawless 2021; Rubado and Jennings 2020; Moskowitz 2021; Peterson 2021b). These negative effects on the political process can carry over to governance outcomes as well, including poorer fiscal performance in areas that have suffered a recent newspaper closure (Gao, Lee, and Murphy 2020).

Approaches to Covering Local News

Despite their decline, local newspapers remain a critical resource for local communities (Peterson 2021a). When well-resourced, news organizations can provide expertise to interpret events and situate them within a localized context.³ Reporting news not as individual episodes but

³ Local context can be essential for interpreting news events. As we show in Appendix D.1, national coverage of important local stories like the 2016 water crisis in Flint, Michigan, often fails to provide critical details about precipitating factors and government responsibility.

instead through thematic frames shapes how readers assign responsibility, making it more likely that they hold government officials accountable for problems (Iyengar 1990). A key avenue for providing thematic frames is through the investigative report. By devoting newsroom resources to chase down a story of public importance, often over months or even years, news outlets can uncover bad actors, unsavory practices, and urgent community needs. Such endeavors help audiences understand not only what has happened, but also how and why it happened. Investigative exposés frequently shape future elections, prompt new legislation, and offer significant returns to communities through new policy benefits or averted crises (Hamilton 2016). Though now in decline, investigative reporting once was primarily performed by local news outlets (Lanosga 2014). Deficiencies in infrastructure are not an uncommon topic among such exposés—frequently accompanied by pleas to government officials to invest in repairs and upgrades.⁴

A second avenue for thematic frames is contextual reporting. Contextual stories provide context for a newsworthy incident by relating it to other events in the past or future or offering explanation. Over the latter half of the twentieth century, contextual stories became more widespread, replacing many conventional stories that reported single incidents episodically, without reference to others (Fink and Schudson 2014). While less resource-intensive than full-blown investigative journalism, contextual reporting still requires the investment of time, energy, and analysis to situate news events in an appropriate context and connect them to broader trends.

As with investigative reporting, the fundamental challenge for contextual reporting is the declining availability of newsroom staff. News snippets that are episodic and standalone have

⁴ We offer but a few examples here: Len Boselovic, “The nation’s locks and dams, including 23 in region, are on the brink of failure, according to U.S. Army Corps of Engineers,” *The Pittsburgh Post-Gazette*, March 18th, 2012; Dillon Carr, “When the River Rises: An Investigative Report on Flooding in Richland County, Ohio,” *Richland Source*, May 16th, 2016; Christopher Cox, “The Trillion-Gallon Question,” *The New York Times Magazine*, June 25th, 2023; Garrett Ellison, “As the Great Lakes Surge to Record Heights, Coastal Areas Face a Time of Reckoning,” *Mlive.com*, March 28th, 2020.

substantially lower information value, but they are more feasible for skeleton newsrooms to produce quickly and cheaply. Tabloid-style stories that prioritize spectacle over substance can easily (and passively) be repurposed from other outlets or from publicly-available resources such as police reports (Grygiel and Lysak 2021); contextual and especially investigative stories require the attention of newsroom staff that can focus on a beat or story for extended periods of time (Fink and Schudson 2014). Nevertheless, information-rich local politics reporting can compete for eyeballs with tabloid journalism (Belt and Just 2008) and better aligns with the journalism profession's norms and mission (Barnhurst and Mutz 1997; Usher 2018).

We draw on these two models of news reporting to test how information provided in local news affects support for infrastructure spending and accountability for infrastructure failures. Through investigative or contextual reporting, journalists can provide background and explanation that communicate the risks of infrastructure deterioration and situate a spending proposal within a broader political context. When infrastructure failure occurs, the media can draw connections to policy decisions that contributed to that failure. If mass preferences about infrastructure spending proposals are shaped to some extent by informational deficiencies, the activities of local news organizations could help build political will for increased investment.

Hypotheses

Our first two hypotheses address the core research question—that is, whether information-rich news coverage of local infrastructure issues affects public preferences and voting behavior. We examine both investigative reporting, which is often costly and time-consuming, and the more expedient and common contextual reporting that links a news item to other relevant events. We expect that:

H1: Exposure to *investigative reporting on infrastructure neglect* increases **(a)** support for infrastructure spending and **(b)** electoral accountability.

H2: Exposure to *event-oriented contextual reporting on infrastructure failure* increases **(a)** support for infrastructure spending and **(b)** electoral accountability.

While we expect that either type of reporting (investigative or event-oriented) should increase public support for spending and improve electoral accountability, both types can co-occur within the same article. Is the effect of coverage on voting behavior strengthened when a news outlet can point to both evidence of neglect and an actual failure event? We hypothesize that:

H3: Exposure to both *investigative reporting on infrastructure neglect* and *event-oriented contextual reporting on an infrastructure failure* increases **(a)** support for public infrastructure spending and **(b)** electoral accountability, relative to exposure to either element alone.

Next, we consider whether one of these types of reporting—investigative or event-oriented—induces a larger shift in voting behavior. From one perspective, communicating information about infrastructure neglect and demonstrating malfeasance on the part of local elected leaders could serve as a better motivator for pursuing change via the voting booth. From another perspective, publicizing the realization of risks in the form of actual failure events—regardless of elected leaders' foreknowledge—may better demonstrate the need for change and convince voters to support increased spending (Healy and Malhotra 2009; Bechtel and Hainmueller 2011; but see Bechtel and Mannino 2023). Further, the realization of a failure implies that public officials either misjudged the failure risk or chose to ignore it, which may provide motivation for voters to hold them accountable at the ballot box. Whereas an investigative report might prime a reader's analytic thinking about risk, news coverage of a failure event is more experiential and can evoke risk as

feeling (Slovic et al. 2004). Both responses play a role in shaping individuals' risk perceptions and decision making. Our next two hypotheses are therefore formulated as competing expectations:

H4: Exposure to *investigative reporting on infrastructure neglect* increases **(a)** support for public infrastructure spending and **(b)** electoral accountability, more than exposure to *event-oriented reporting on infrastructure failure*.

H5: Exposure to *event-oriented reporting on infrastructure failure* increases **(a)** support for public infrastructure spending and **(b)** electoral accountability more than exposure to *investigative reporting on infrastructure neglect*.

Finally, we examine differences between a catastrophic infrastructure failure (specifically the collapse of a dam) and a more low-level nuisance problem (sewer overflows). As infrastructure declines, both types of events pose time-uncertain risks but are likely to occur eventually; the most obvious difference between them is that catastrophic events bear considerably higher costs. As such, we hypothesize that:

H6: Where the consequences of infrastructure failure are more severe, exposure to *investigative reporting on infrastructure neglect* and/or *event-oriented reporting on infrastructure failure* has larger effects on **(a)** support for public infrastructure spending and **(b)** electoral accountability.

Research Design

To test these hypotheses, we conducted a preregistered survey experiment that manipulated exposure to news coverage about local infrastructure decline.⁵ The study was fielded August 3rd–15th, 2022. We recruited a sample of 3,370 U.S. adults with quota sampling via Qualtrics Panels

⁵ Preregistration materials for this study are available online at <https://osf.io/hbpg9>. The experiment was informed by a large preregistered pilot study, which we detail in Appendix C.

to approximate the U.S. adult population on the dimensions of gender, race and ethnicity, and household income. As per our preregistration, we dropped 60 respondents who failed at least two quality checks, providing a final analysis sample of 3,310 respondents. Appendix B provides additional details regarding the sample composition and exclusion criteria.

Respondents were assigned to read one of eight vignettes via simple random assignment. Each vignette presented respondents with a mock newspaper article from the *Franklin Gazette*, described as “the local newspaper of a fictitious city of roughly 200,000 people located in the United States.” Across all conditions, the article was styled to look like a real news article and described an upcoming municipal election in which voters would be choosing the city’s mayor, as well as voting on a proposed municipal bond that would pay for public improvements to an aging infrastructure system. The article noted that the bond would be funded by a property tax increase (expected to cost the average homeowner \$40 per year) and offered quotes from the incumbent mayor, who opposes the bond, and a challenger candidate, who supports it. Though explicitly fictitious and presented in an artificial setting in which no respondent actually faces the bond measure, the article approximated real local news content and ballot decisions that respondents could realistically face.

The vignettes varied across three dimensions of interest for a 2x2x2 between-subjects design. First, respondents were randomly assigned to a story that focused on either an aging dam, to represent the risk of a single catastrophic failure event, or an aging sewer system, to represent the risk of a repeated nuisance issue. Except where specified, we consider these two parallel scenarios separately.

Within each of the two infrastructure scenarios, respondents were randomly assigned to one of four conditions. The first (the control) represented a conventional news article that presented

the upcoming election as a standalone event: it summarized the decisions that voters would face and noted the age of infrastructure system at issue, but did not reference any broader context surrounding the issue or note a long pattern of neglect. The control article was thus intended to mimic a brief news bulletin that a resource-starved editor could assemble with only a few minutes of work. The control article for the dam scenario is reproduced in Figure 1.

In the second condition, we added *investigative reporting* about incumbent city leaders' neglect of the infrastructure system in question (dam or sewer). Specifically, this *investigative* article uncovers repeated warnings given to Franklin's leaders by state inspectors, who had noted a high risk of failure for years; documents repeated decisions by Franklin's leaders to not invest in infrastructure repairs,⁶ voting down funding to do so several times; and describes the potential damage that a failure event would cause. Reporting of this kind requires significant investment of resources: reporters must scour public records, dig through technical reports, and engage with potentially less-than-willing officials to develop a fuller understanding of the government's neglect of public infrastructure.

In the third condition, we provided *event-oriented contextual* information about a realized infrastructure failure. Whereas the *investigative* condition provided informational depth regarding the history of infrastructure neglect, the *event-oriented* condition instead documented a recent realized failure event and connected it to ongoing concerns about the condition of the relevant infrastructure.⁷ The *investigative* and *event-oriented* conditions thus differed in the degree to which

⁶ This information combined with the incumbent mayor's stated opposition to the bond measure are intended to imply culpability for the city's previous funding decisions. A mayor is typically the most visible face of local government, which encourages voters to link their evaluations of mayoral performance to realized policy outcomes (Healy and Malhotra 2013). Although this this can constitute an error under some municipal structures where the mayor is afforded relatively little power, differences in mayoral authority do not affect retrospective voting in mayoral elections (Hopkins and Pettingill 2018).

⁷ In the dam scenario, the failure event occurs in a neighboring town—ensuring that respondents are still considering preventive rather than reparative spending with respect to the bond proposal. In the sewer scenario, the failure event is situated on a particular street in Franklin and contextualized as indicative of city-wide problems.

they emphasized malfeasance by current elected leaders (which featured more heavily in the *investigative* treatments) and the realization of risk (which featured solely in the *event-oriented* treatments). The final condition presented a *combined reporting* article that included both *investigative reporting* and *event-oriented* reporting, reproducing copy from the *investigative* and

Franklin city council election Tuesday, aging dam repair also on ballot

By James Westin

Published today at 11:34 a.m.

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With Franklin's city elections now just days away, a municipal bond proposal to reconstruct the aging Madison Pond Dam has become a central issue of the campaign.

Originally built in 1940, the old dam that sits above Franklin's historic downtown is often called an eyesore. The city's Public Works director once said the leafy saplings that sprout from the dam's walls look like an old man's bushy eyebrows.

The proposed reconstruction on the ballot would be funded by a property tax increase, and is expected to cost the average Franklin homeowner about \$40 more per year.

In the hotly-contested race for mayor, four-term incumbent Mayor David Garfield is defending his seat against challenger Ben Fontaine. Garfield has urged voters to reject the funding for the dam, taking issue with the tax hike. Speaking to supporters yesterday, Garfield argued that "routine maintenance can extend the dam's usable life, without any new burden on taxpayers." Garfield's challenger, Ben Fontaine, is campaigning in favor of the bond. At a rally Saturday, Fontaine urged his supporters to "vote yes on the bond—we need to invest in our infrastructure before it becomes a danger."

Fig. 1 Displays the control-condition vignette in the dam scenario.

event-oriented vignettes as closely as possible.⁸ This allows us to consider the interactive effect from exposure to both types of information richness. In Appendix B.4, we reproduce all vignettes and provide additional information on the experimental design.

Following the vignette treatment, all respondents answered a series of outcome questions. We evaluated electoral accountability with two measures. First, we asked respondents whether they have a favorable or unfavorable opinion of the two mayoral candidates (in random order), measured on balanced 7-point scales. For each candidate, the favorability question was worded to remind the respondent of that candidate's position on the infrastructure bond and their incumbency status. We measured net challenger favorability by subtracting the incumbent's favorability rating from the challenger's favorability rating. The second accountability measure asked respondents which of the two candidates they would be most likely to support if they were to vote in Franklin's election, measured on a balanced 6-point scale from "Certain to vote for Garfield" (the incumbent) to "Certain to vote for Fontaine" (the challenger). Finally, we evaluated support for public infrastructure spending with a single question asking how likely the respondent would be to support or oppose the proposed bond measure on the ballot, measured using a similar balanced 6-point scale. The full survey questionnaire, including question wording and response options for all questions, is presented in Appendix B.5.

In summary, the three dimensions of variation in our vignette experiment were the infrastructure system at issue in the article (dam or sewer), the presence of investigative reporting on infrastructure neglect, and the presence of event-oriented reporting on a failure event. By randomly exposing respondents to varying types of news information, we are able to estimate the

⁸ To protect against any potential information-ordering effects, respondents assigned to this *combined reporting* condition were randomly treated with one of two versions that placed either the investigative reporting elements or the event-oriented elements before the other.

effect of each type of information on both candidate assessments and support for public spending on infrastructure.

Results

Our motivating hypotheses predicted that *investigative reporting on infrastructure neglect* (H1) and *event-oriented contextual reporting on infrastructure failure* (H2) would engender support for infrastructure spending among the mass public and increase electoral accountability, and that both types of reporting in combination would have a larger effect than either type on its own (H3). To test our first three hypotheses, we estimate the average treatment effect (ATE) of the investigative vignettes, event-oriented vignettes, and combined reporting vignettes (respectively) on each outcome variable via ordinary least squares (OLS) regressions with robust standard errors, analyzed with the statistical program R. As specified in our preregistration, we analyze the dam and sewer scenarios separately (except where noted below), although results are similar when the scenarios are pooled.⁹ For each outcome variable (re-scaled to vary between 0 and 1), the right-hand side includes a binary variable for whether the participant was exposed to the investigative reporting treatment (coefficient of interest for H1), the event-oriented reporting treatment (coefficient of interest for H2), or the combined reporting treatment, with the control condition held as the reference category. Each equation also includes a vector of demographic and political characteristic control variables to improve precision; the unadjusted results without these controls are not substantively different and are reported in Appendix A.2.¹⁰

⁹ This approach alters the analysis to two separate 1x4 experiments, which differs slightly from the 2x2x2 design conceptualized above. We chose and preregistered this approach to improve ease of interpretation of the regression coefficients. We therefore employ linear combination tests instead of evaluating interaction coefficients directly to test several of our secondary hypotheses (H3 to H5). For our final hypothesis (H6), we combine the two separate scenarios to analyze the experiment as a 2x4.

¹⁰ Data and code necessary to replicate the results is publicly available in the *Political Behavior* Dataverse, located at <https://doi.org/10.7910/DVN/DESIU2>.

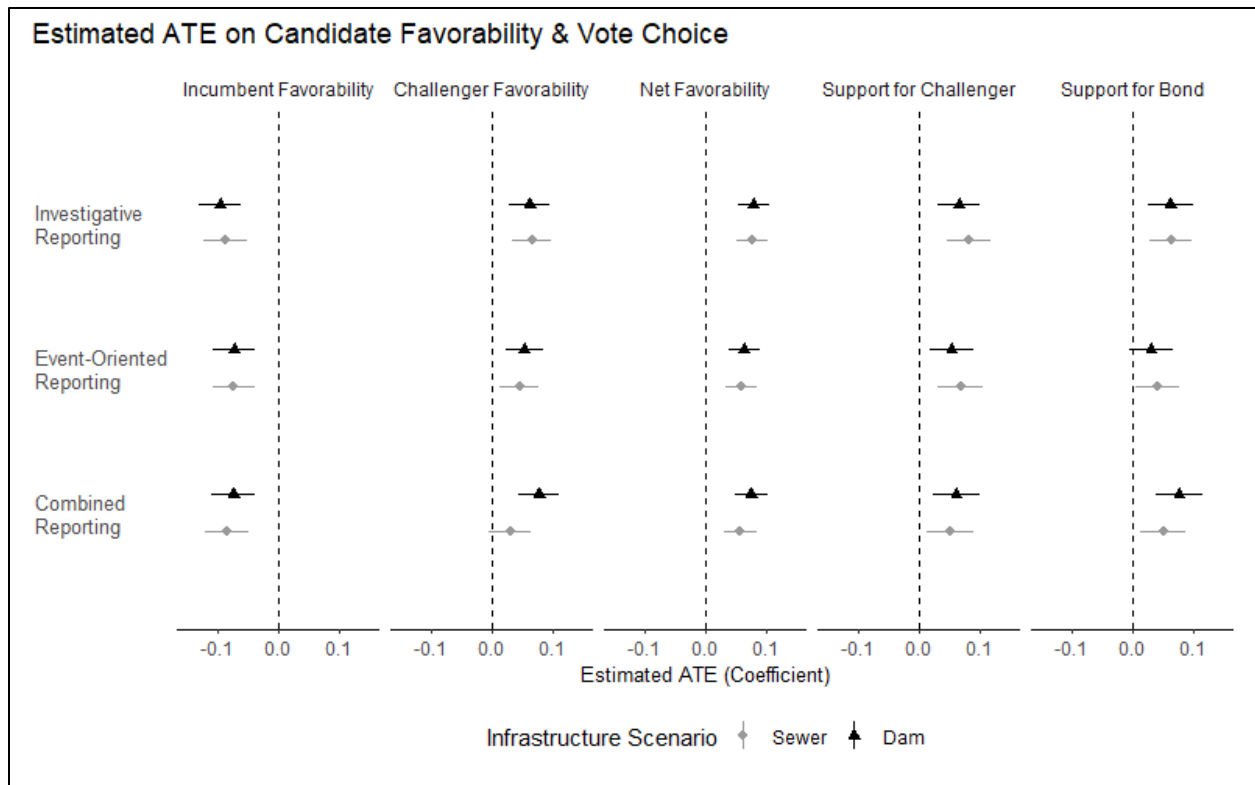


Fig. 2 Displays the estimated ATE by condition and outcome variable, for the dam scenario sample (n = 1,592) and the sewer scenario sample (n = 1,718) respectively. The error bars indicate 95 percent confidence intervals. See Appendix Tables A.1.1 and A.1.2 for full results.

Figure 2 shows the main results of these models (covariate-adjusted).¹¹ The triangles (dam) and dots (sewer) show the estimated ATE of each treatment condition for each outcome, while the bars indicate 95 percent confidence intervals. The top row of Figure 2 presents the estimated ATEs of the investigative reporting vignette relative to the control, broken out by infrastructure scenario. The investigative reporting treatment reduced incumbent favorability and increased challenger favorability, net favorability for the challenger, likelihood of voting for the challenger, and likelihood of supporting the bond measure. In other words, exposure to the investigative reporting article made respondents more willing to hold the incumbent mayor accountable for neglecting

¹¹ The corresponding regression tables are reported in Appendix A.1.

public infrastructure, to support a pro-spending challenger candidate, and to directly support a costly public spending measure. These results support H1's expectations that exposure to *investigative reporting on neglect* would increase support for spending and electoral accountability. These shifts in behavior are substantively meaningful, reflecting movements that range from 5 to nearly 10 percent of the scale for each outcome variable.

We find similar results with respect to H2's expectation that exposure to *event-oriented contextual reporting on infrastructure failure* would have positive effects on spending support and accountability. The middle row of Figure 2 presents the estimated ATEs of the event-oriented vignette relative to the control, again broken out by scenario. As with the investigative vignette, the event-oriented article reduced incumbent favorability and increased challenger favorability, net favorability for the challenger, likelihood of voting for the challenger, and likelihood of voting for the bond measure. These results support H2 by showing that exposure to *contextual reporting on infrastructure failure* can improve support for infrastructure spending and enhance electoral accountability.

Next, we test whether exposure to both of these elements would have an even greater effect on mass attitudes and behavior (H3)—that is, whether local reporting has greater impact when the newspaper can say “we told you so” in the aftermath of a failure event. The bottom row of Figure 2 shows the estimated effects of exposure to the combined reporting article, which includes both investigative and event-oriented elements. The estimated ATEs from this combined treatment look quite similar to the estimated effects of either element alone. We test H3 statistically with linear combination tests that compare the coefficient on the combined-treatment variable against the coefficient on the investigative-treatment variable, or against the coefficient on the event-treatment variable, for each outcome in each scenario; in all cases the null hypothesis is that the coefficients

are equal, and we consider the alternative hypothesis that the coefficient on the combined-treatment indicator is larger. We thus conduct 20 total linear combination tests for H3, which we report in Appendix Table A.4.1. Of these tests, only one is significant in the expected direction, and the overwhelming majority estimate the difference to be near zero and far from conventional levels of significance. We therefore find that the results do not support H3: investigative reporting on neglect alongside event-oriented reporting on failure is no more effective at shifting behavior than either element alone.

Next, we considered whether *investigative reporting* has a greater effect on electoral accountability and support for spending than *event-oriented contextual reporting* (H4), or vice versa (H5). To test these competing hypotheses, we conducted another series of linear combination tests. These tests compare the coefficient on the investigative treatment indicator against the coefficient on the event-oriented treatment indicator, for each outcome in each scenario (10 tests in total). Given our competing hypotheses, we preregistered two-tailed significance thresholds for these tests, against a null hypothesis of equivalent coefficients. None of the 10 tests (reported in Appendix Table A.4.2) approaches conventional two-tailed significance. We therefore conclude that the results do not support either H4 or H5; with respect to electoral accountability and public support for infrastructure spending, the effect of exposure to pre-hoc investigative reporting on neglect and risk is functionally the same as exposure to post-hoc event-oriented reporting on realized failure.

In interpreting these results, we note the high levels of baseline support for the infrastructure investments described in our hypothetical scenarios. Figure 3 shows the unadjusted outcome variable means by treatment condition.¹² Even in the control condition—in which the

¹² We report the means shown in Figure 3 in Appendix A.3.

article characterizes the dam or sewers merely as aging, and not as a potential risk—mean likelihood of supporting investment (the bond) is 0.60 on the 0-1 scale for the dam scenario and 0.65 for the sewer scenario. These levels of support might well be higher than real-world support from voters who would bear the true costs of repairs, despite the \$40 per year cost to homeowners that we advertised in the vignettes. Nevertheless, the control condition’s limited news brief summarizing the key choices in the upcoming election was sufficient for the average respondent in either scenario to have a negative view of the incumbent and a positive view of the challenger. Such responses may speak to the broad public support that infrastructure investments enjoy in the abstract, as frequently expressed in public opinion polling on the subject.

Even starting from these high baselines of support in the control condition, though, exposure to more information-rich reporting meaningfully affected responses. The effects are also not confined to simply strengthening the opinion of those already likely to vote for the pro-spending candidate. To differentiate opinion direction from opinion strength, we collapse the candidate voting measure to a binary variable—0 if more likely to vote for the incumbent, and 1 if more likely to vote for the challenger—and regress it on the treatment indicators.¹³ We find that exposure to the information-rich treatments increases the overall vote for the challenger by 7 to 9 percentage points in the dam scenario and 6 to 12 percentage points in the sewer scenario, from baselines in the control conditions of 60 and 61 percent, respectively. On the bond support question,¹⁴ baseline support in the control condition is considerably higher, at 70 and 76 percent in the dam and sewer scenarios, respectively. Particularly for the sewer scenario, the high baseline of support leaves fewer potential voters to be shifted into the support column, and indeed we find directionally positive but not statistically significant effects of exposure to information-rich

¹³ We report these regressions in Appendix A.5. These analyses were not preregistered.

¹⁴ Again collapsing to a binary variable, coding any level of opposition as 0 and any support as 1.

reporting on (binarized) bond voting in the sewer scenario. In the dam scenario, however, the investigative reporting treatment and combined treatment each significantly increases total vote for the bond by about 8 percentage points.

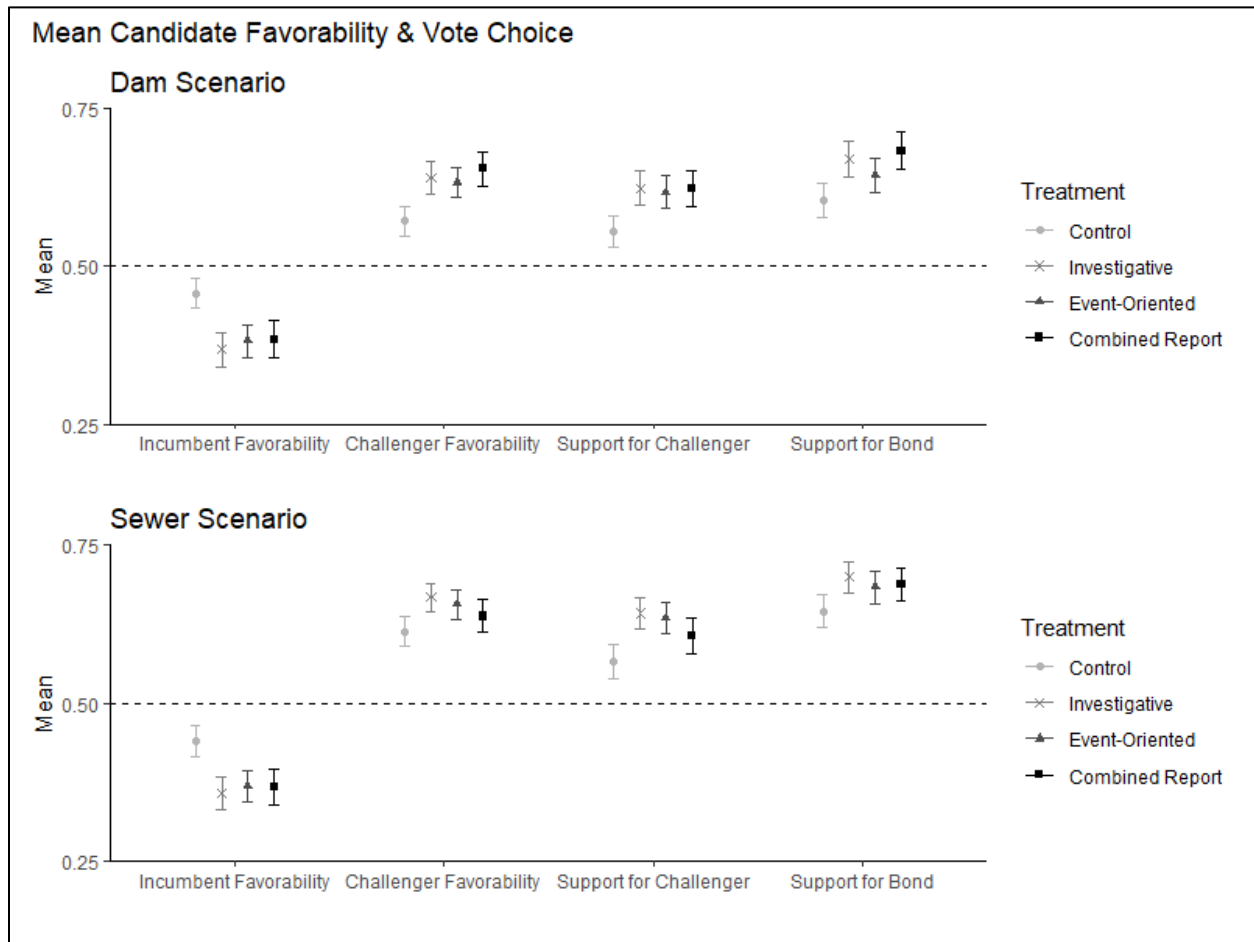


Fig. 3 Displays the sample mean value for each outcome variable (max range 0 to 1) by experimental condition. The upper panel displays mean values for subjects in the dam scenario (n = 1,592). The lower panel displays mean values for subjects in the sewer scenario (n = 1,718). The error bars indicate 95 percent confidence intervals. See Appendix Tables A.3.1 and A.3.2.

To compare differences between the two infrastructure scenarios directly, we pool the entire sample to estimate a covariate-adjusted regression for each outcome that interacts a binary indicator for infrastructure scenario (1 for the dam scenario, 0 for the sewer scenario) with each of

the three treatment indicators.¹⁵ We hypothesized that when the costs of infrastructure failure are more severe—as in the dam scenario—in-depth reporting should have larger effects on electoral accountability and support for public spending (H6). If H6 is correct, the coefficients on the interaction terms should be positive. Figure 4 presents the point estimates and 95 percent confidence intervals for the coefficients on the interaction terms for each outcome variable. As Figure 4 shows, only one of these coefficients is significantly different from zero, and the remaining 14 are all very close to zero. We therefore find that the results do not support H6: the high-stakes nature of the dam scenario does not increase the effectiveness of information-rich reporting for moving mass attitudes and voting behavior.

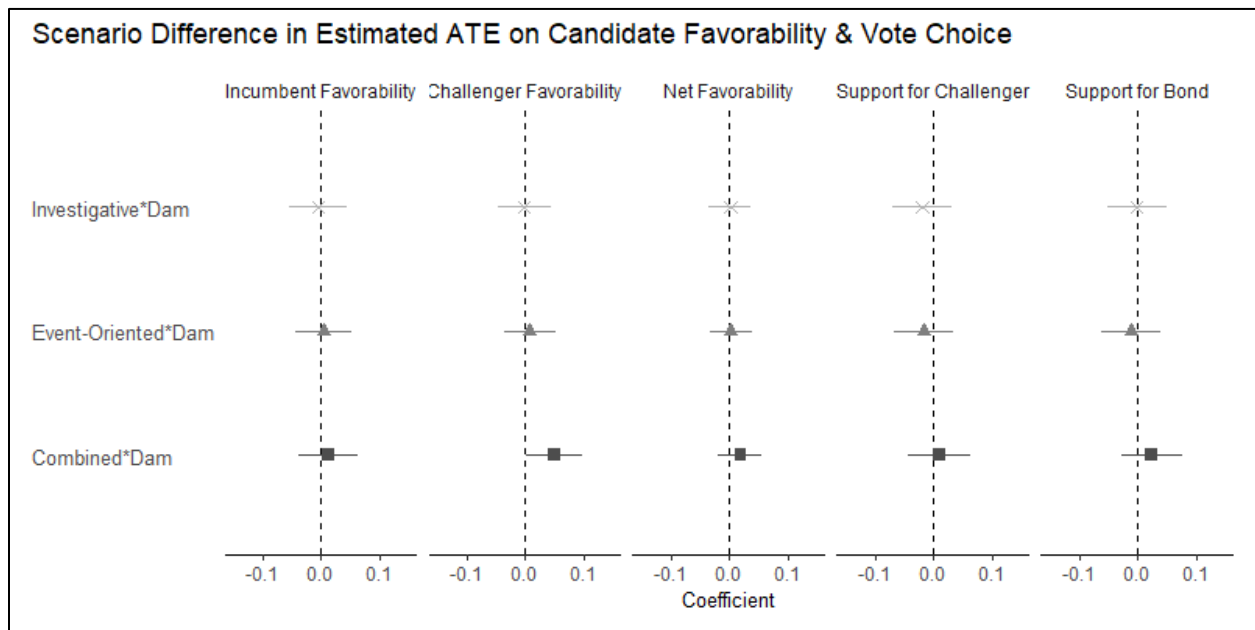


Fig. 4 Displays the difference (across infrastructure scenarios) in estimated ATE for each outcome variable. The error bars indicate 95 percent confidence intervals. Data from the total pooled sample ($n = 3,310$). See Appendix Table A.1.3 for full results.

¹⁵ The corresponding regression tables are reported in Appendix A.1. An equivalent unadjusted regression is reported in Appendix A.2.

Discussion

The challenge of investing in prevention or other future-oriented policies is an enduring puzzle in political research. Prior explanations for underinvestment have focused on preference structures in the mass public that are myopic or otherwise nonrational. Recent work suggests that voters may not be irrational in failing to reward long-term investments—instead, they may be underinformed, producing an accountability gap. If voters can learn about risks and responsibility, they may be more likely to support investments that reduce those risks and hold accountable incumbents who fail to adequately address them.

We examined whether local news reporting can help overcome the information barriers to building public support for infrastructure investments. Using a large national survey experiment, we found that news coverage linking an infrastructure spending proposal to a broader storyline about infrastructure neglect increased support for the spending proposal. Consistent with previous work on thematic media coverage (Iyengar 1990), our treatments also made readers more likely to hold incumbent officeholders responsible for government failures that occurred under their watch. We interpret the negative effect on incumbent support as reflecting a retrospective judgment on city leaders' failure to invest in the past, though it may be a prospective response to the incumbent's campaign platform of comparatively low spending—or some combination of the two.¹⁶

Critically, these salutary effects of news coverage persisted across the partisan divide. In Appendix A.5, we report covariate-adjusted models that interact Republican party identification with the three treatment conditions. While the results are broadly similar across partisanship, these models show that, if anything, Republican identifiers react more strongly to news about infrastructure neglect, at least in the sewer scenario. On average, Republican respondents in the

¹⁶ We note that these assumptions do not necessarily require the incumbent to have opposed previous efforts to increase spending—simply that the incumbent failed to achieve higher spending and currently opposes the bond.

control condition were more skeptical of spending than non-Republicans. But Republicans in the sewer scenario who were exposed to the treatment vignettes were even more persuaded than Democrats to hold the incumbent accountable. Despite increasing gaps between the parties on trust in news at the national level, our experiment suggests that local journalism continues to be credible to members of both parties, as other recent research has shown (Guess, Nyhan, and Reifler 2018).

At face value, our finding that exposure to information about a problem increases voters' willingness to address that problem is not surprising. However, it serves as an important correction to the notion that voters prefer not to spend on benefits that accrue in the future. If they understand those benefits more clearly, their support for prevention rises. The effect of informative news coverage may be particularly strong for infrastructure investments, which are characterized by high information asymmetry and long time horizons: on average, voters know less than policymakers do about the longevity or vulnerability of existing infrastructure, but must judge policymakers on their decisions to incur large, visible short-term costs for less visible long-term gains (Bechtel and Mannino 2023; Gailmard and Patty 2019; Healy and Malhotra 2009). This asymmetry creates an incentive for policymakers to pander to voters' short-term preferences for lower spending, even if fully informed voters would prefer to invest in prevention (Canes-Wrone, Herron, and Shotts 2001; Mullin and Hansen 2023). Whether the results extend to other policy domains where risk status is more visible, or the efficacy of policy response more immediate, is a question for future research. Our study points to the decline of local news as a contributing factor in the decline of American infrastructure, and underscores an urgent public need for reinvestment in—and renewed consumption of—local journalism.

As with any vignette experiment, our results have limited generalizability to real world scenarios. Except for the quotes from the dueling mayoral candidates, our respondents were not

exposed to any competing (or complementary) information about Franklin’s election, candidates, or infrastructure from outside sources, as they might be in an actual information environment. The high baseline levels of support for investment indicate that respondents may have weighed the purported costs of infrastructure investment less than if the increased tax burden truly affected their own pocketbooks. In the real world, too, newspapers can run stories but must hope that someone reads them (Hopkins and Gorton, forthcoming; Trexler 2023); our forced-exposure treatments speak more to the effects of coverage on actual news consumers than on the electorate or the broader public. Yet the substantial effects that we observe in our treatments are encouraging signs of the news media’s role in bridging information gaps in the democratic process.

Further, while our design carefully varies exposure to key pieces of information, our treatments are bundled to some degree, meaning that we cannot determine precisely which piece(s) of information affected our respondents, or by precisely which mechanism. That is, respondents in the *investigative* condition (for example) may have responded to information about degree of risk (risk aversion), or to information about political leaders’ neglect (retrospective punishment), or perhaps both. These mechanisms may also be moderated by the perceived credibility of the source, a local newspaper, relative to other media that could have conveyed the same information (e.g., an advertisement from an interest group or political candidate).

That said, some notable differences between the treatment conditions—specifically, the higher emphasis on malfeasance in the investigative treatments versus the shock value of realized risk in the event-oriented treatments—enable us to make exploratory progress towards identifying mechanisms. By putting heavier emphasis on neglect by city leaders, the investigative treatments had potential to elevate voters’ concerns about inefficient spending (Gailmard and Patty 2019; Andrews, Delton, and Kline 2023). But we found no difference between the investigative and

event-oriented treatments in terms of support for the incumbent or challenger, and levels of support for the bond itself were only marginally higher for the investigative treatment. Information about failure risk, which was emphasized in all treatment conditions, may therefore matter more than information about incumbent performance per se in shaping public support for preventive spending.

Our study's other null results are also quite informative. The effects of exposure to information about infrastructure risk are no different whether an investment is directed at preventing a catastrophic event or a chronic nuisance. One could perhaps view this result as suggesting that people do not much care about the magnitude of risk—only that there is risk to be addressed. But another, more sanguine interpretation is that people care about nuisance issues, too, and want them fixed. The especially high baseline support for the sewer improvements suggests this possibility.

We also found that effects do not differ by the type of information provided by news reporting. On the one hand, we find it meaningful that exposure to investigative reporting can boost support for investment *before* a disaster actually strikes, potentially offering social returns much greater than prevention's upfront costs (Hamilton 2016). On the other hand, less resource-intensive contextual reporting in which journalists harness local expertise and draw connections between related events has roughly the same effects as costly investigative reporting that establishes a pattern of neglect and culpability over time. Either of these two approaches to news coverage boosts support for investment and improves electoral accountability more than the bare-bones news snippets that a skeleton newsroom can produce.

A growing literature demonstrates the importance of local newspapers for upholding local civic and political capacity (Darr, Hitt, and Dunaway 2018, 2021; Gao, Lee, and Murphy 2020;

Hopkins and Pettingill 2018; Mullin and Hansen 2023; Peterson 2021a, 2021b; Rubado and Jennings 2020; Snyder and Strömberg 2010). We demonstrate that newspapers matter for physical capacity as well—capacity to protect communities against growing risks from heat, floods, drought, and fire that are putting new stress on aging and deteriorating infrastructure. Investing in facilities that improve our resilience to climate hazards requires investing in the health of our information environments as well.

References

- Abernathy, Penelope Muse. 2020. "News Deserts and Ghost Newspapers: Will Local News Survive?" Center for Innovation and Sustainability in Local Media. <https://www.usnewsdeserts.com/reports/news-deserts-and-ghost-newspapers-will-local-news-survive/>. Accessed September 7th, 2022.
- Achen, Christopher H., and Larry M. Bartels. 2016. *Democracy for Realists: Why Elections Do Not Produce Responsive Government*. Princeton: Princeton University Press.
- Ali, Christopher, Damian Radcliffe, Thomas R. Schmidt, and Rosalind Donald. 2020. "Searching for Sheboygans: On the Future of Small Market Newspapers." *Journalism* 21 (4): 453-471.
- Andrews, Talbot M., Andrew W. Delton, and Reuben Kline. 2023. "Who Do You Trust? Institutions that Constrain Leaders Help People Prevent Disasters." *The Journal of Politics* 85 (1): 64-75.
- Andrews, Talbot M., and John Barry Ryan. 2022. "Preferences for Prevention: People Assume Expensive Problems Have Expensive Solutions." *Risk Analysis* 42 (2): 370-384.
- Barnhurst, Kevin G., and Diana Mutz. 1997. "American Journalism and the Decline of Event-Centered Reporting." *Journal of Communication* 47 (4): 27-52.
- Bechtel, Michael M., and Jens Hainmueller. 2011. "How Lasting is Voter Gratitude? An Analysis of the Short- and Long-Term Electoral Returns to Beneficial Policy." *American Journal of Political Science* 55 (4): 852-868.
- Bechtel, Michael M., and Massimo Mannino. 2023. "Ready When the Big One Comes? Natural Disasters and Mass Support for Preparedness Investment." *Political Behavior* 45 (3): 1045-1070.
- Belt, Todd L., and Marion R. Just. 2008. "The Local News Story: Is Quality a Choice?" *Political Communication* 25 (2): 194-215.
- Canes-Wrone, Brandice, Michael C. Herron, and Kenneth W. Shotts. 2001. "Leadership and Pandering: A Theory of Executive Policymaking." *American Journal of Political Science* 45 (3): 532-550.
- Christensen, Henrik Serup, and Lauri Rapeli. 2021. "Immediate Rewards or Delayed Gratification? A Conjoint Survey Experiment of the Public's Policy Preferences." *Policy Sciences* 54: 63-94.
- Congressional Budget Office. 2018. "Public Spending on Transportation and Water Infrastructure, 1956 to 2017." October 15th. <https://www.cbo.gov/publication/54539>
- Darr, Joshua P., Matthew P. Hitt, and Johanna L. Dunaway. 2018. "Newspaper Closures Polarize Voting Behavior." *Journal of Communication* 68 (6): 1007-1028.
- . 2021. *Home Style Opinion: How Local Newspapers Can Slow Polarization*. New York: Cambridge University Press.
- Dunaway, Johanna. 2011. "Institutional Effects on the Information Quality of Campaign News." *Journalism Studies* 12 (1): 27-44.
- Ewens, Michael, Arpit Gupta, and Sabrina T. Howell. 2022. "Local Journalism Under Private Equity Ownership." NBER Working Paper 29743. <http://www.nber.org/papers/w29743>
- Fink, Katherine, and Michael Schudson. 2014. "The Rise of Contextual Journalism, 1950s–2000s." *Journalism* 15 (1): 3-20.
- Friedman, Jeffrey A. 2019. "Priorities for Preventive Action: Explaining Americans' Divergent Reactions to 100 Public Risks." *American Journal of Political Science* 63 (1): 181-196.

- Gailmard, Sean, and John W. Patty. 2019. "Preventing Prevention." *American Journal of Political Science* 63 (2): 342-352.
- Gao, Pegjie, Chang Lee, and Dermot Murphy. 2020. "Financing Dies in Darkness? The Impact of Newspaper Closures on Public Finance." *Journal of Financial Economics* 135 (2): 445-467.
- Grygiel, Jennifer, and Suzanne Lysak. 2021. "Police Social Media and Broadcast News: An Investigation into the Impact of Police Use of Facebook on Journalists' Gatekeeping Role." *Journalism Practice* 15 (7): 994-1011.
- Guess, Andrew, Brendan Nyhan, and Jason Reifler. 2018. "All Media Trust is Local? Findings from the 2018 Poynter Media Trust Survey." The Poynter Institute. August 10th.
- Hansen, Katy, Shadi Eskaf, and Megan Mullin. 2022. "Avoiding Punishment? Electoral Accountability for Local Fee Increases." *Urban Affairs Review* 58 (3): 888-906.
- Hansen, Katy, and Megan Mullin. 2022. "Barriers to Water Infrastructure Investment: Findings from a Survey of US Local Elected Officials." *PLOS Water* 1 (8): e000039.
- Hamilton, James T. 2016. *Democracy's Detectives: The Economics of Investigative Journalism*. Cambridge: Harvard University Press.
- Hayes, Danny, and Jennifer L. Lawless. 2021. *News Hole: The Demise of Local Journalism and Political Engagement*. New York: Cambridge University Press.
- Healy, Andrew, and Gabriel S. Lenz. 2014. "Substituting the End for the Whole: Why Voters Respond Primarily to the Election-year Economy." *American Journal of Political Science* 58 (1): 31-47.
- Healy, Andrew, and Neil Malhotra. 2009. "Myopic Voters and Natural Disaster Policy." *American Political Science Review* 103 (3), 387-406.
- . 2013. "Retrospective Voting Reconsidered." *Annual Review of Political Science* 16:285-306.
- Hopkins, Daniel J., and Tori Gorton. Forthcoming. "Unsubscribed and Undemanding: Partisanship and the Minimal Effects of a Field Experiment Encouraging Local News Consumption." *American Journal of Political Science*.
- Hopkins, Daniel J., and Lindsay M. Pettingill. 2018. "Retrospective Voting in Big-City US Mayoral Elections." *Political Science Research and Methods* 6 (4): 697-714.
- Iyengar, Shanto. 1990. "Framing Responsibility for Political Issues: The Case of Poverty." *Political Behavior* 12 (1): 19-40.
- Jacobs, Alan M., and J. Scott Matthews. 2017. "Policy Attitudes in Institutional Context: Rules, Uncertainty, and the Mass Politics of Public Investment." *American Journal of Political Science* 61 (1): 194-207.
- Knight Commission. 2009. "Informing Communities: Sustaining Democracy in the Digital Age," The Aspen Institute. September 1st. <https://knightfoundation.org/reports/informing-communities-sustaining-democracy-digital/>
- Lanosga, Gerry. 2014. "New Views of Investigative Reporting in the Twentieth Century." *American Journalism* 31 (4): 490-506.
- Malhotra, Neil, and Alexander G. Kuo. 2008. "Attributing Blame: The Public's Response to Hurricane Katrina." *The Journal of Politics* 70 (1): 120-135.
- Martin, Gregory M., and Joshua McCrain. 2019. "Local News and National Politics." *American Political Science Review* 113 (2): 372-384.

- McChesney, Robert W., and John Nichols. 2011. "Down the News Hole." In *Will the Last Reporter Please Turn out the Lights*, eds. Robert W. McChesney and Victor Pickard. New York: The New Press, 103–13.
- Moskowitz, Daniel J. 2021. "Local News, Information, and the Nationalization of U.S. Elections." *American Political Science Review* 115 (1): 114-129.
- Motta, Matthew, and Andrew Rohrman. 2021. "Quaking in Their Boots? Inaccurate Perceptions of Seismic Hazard and Public Policy Inaction." *Behavioral Public Policy* 5 (3): 301-317.
- Mullin, Megan, and Katy Hansen. 2023. "Local News and the Electoral Incentive to Invest in Infrastructure." *American Political Science Review* 117 (3): 1145-1150.
- Napoli, Philip M., Sarah Stonbely, Kathleen McCollough, and Bryce Renninger. 2017. "Local Journalism and the Information Needs of Local Communities." *Journalism Practice*, 11: 373-395.
- Pew Research Center. 2023. "Newspapers Fact Sheet." November 10th. <https://www.pewresearch.org/journalism/fact-sheet/newspapers/>
- . 2022. "U.S. Newsroom Employment has fallen 26% since 2008." July 13th. <https://www.pewresearch.org/short-reads/2021/07/13/u-s-newsroom-employment-has-fallen-26-since-2008/>
- Peterson, Erik. 2021a. "Not Dead Yet: Political Learning from Newspapers in a Changing Media Landscape." *Political Behavior* 43: 339-361.
- Peterson, Erik. 2021b. "Paper Cuts: How Reporting Resources Affect Political News Coverage." *American Journal of Political Science* 65 (2): 443-459.
- Rubado, Meghan E., and Jay T. Jennings. 2020. "Political Consequences of the Endangered Local Watchdog: Newspaper Decline and Mayoral Elections in the United States." *Urban Affairs Review* 56 (5): 1327-1356.
- Sheffer, Lior, Peter John Loewen, Stuart Soroka, Stefaan Walgrave, and Tamir Sheafer. 2018. "Nonrepresentative Representatives: An Experimental Study of the Decision Making of Elected Politicians." *American Political Science Review* 112 (2): 302-321.
- Slovic, Paul, Melissa L. Finucane, Ellen Peters, and Donald G. MacGregor. 2004. "Risk as Analysis and Risk as Feelings: Some Thoughts about Affect, Reason, Risk, and Rationality." *Risk Analysis* 24 (2): 311-322.
- Snyder, James M., and David Strömberg. 2010. "Press Coverage and Political Accountability." *Journal of Political Economy* 118 (2): 355-408.
- Stupak, Jeffrey M. 2017. "Economic Impact of Infrastructure Investment." CRS Report 7–5700. Washington, DC: Congressional Research Service.
- Sullivan, Margaret. 2020. *Ghosting the News: Local Journalism and the Crisis of American Democracy*. New York: Columbia University Press.
- Trexler, Andrew. 2023. "The Minimal Effects of Making Local News Free: Evidence from a Field Experiment." OSF Preprints. <https://osf.io/8x46u>
- Tufte, Edward R. 1978. *Political Control of the Economy*. Princeton: Princeton University Press.
- Usher, Nikki. 2018. "Breaking News Production Processes in US Metropolitan Newspapers: Immediacy and Journalistic Authority." *Journalism* 19 (1): 21-36.
- . 2021. *News for the Rich, White, and Blue: How Place and Power Distort American Journalism*. New York: Columbia University Press.
- . 2023. "The Real Problems with the Problem of News Deserts: Toward Rooting Place, Precision, and Positionality in Scholarship on Local News and Democracy." *Political Communication* 40 (2): 238-253.