

Letter

Local News and the Electoral Incentive to Invest in Infrastructure

MEGAN MULLIN *Duke University, United States*

KATY HANSEN *Environmental Policy Innovation Center, United States*

Despite broad public support, investment in US infrastructure has not kept pace with growth, population shifts, and rising exposure to climate change risks. One explanation lies in politicians' electoral incentives: because, in the short term, voters see only the costs of investment and not its benefits, politicians have incentive to pander and spend less than what they or their fully informed constituents would prefer. Local newspapers could help reduce this constraint by increasing politicians' confidence that voters will receive information that justifies higher spending. In a survey experiment, we found that informing US city and county elected officials about news coverage of infrastructure failures increased support for a costly investment for those in competitive electoral settings. When motivated by reelection, politicians need the benefits of investment to be visible in order to justify its costs. Our results demonstrate the political importance of the nonpolitical news covered in local newspapers.

Pipes, rails, roads, and wires connect people to one another and provide a foundation for economic growth. In a political era characterized by extreme partisanship, infrastructure is one of the few government priorities on which Americans widely agree (Newport 2019). Yet despite broad public support, the condition of US infrastructure is in decline. Breached levees from Hurricane Katrina and contaminated water in Flint are the most visible manifestations of a water infrastructure challenge that thousands of communities face. Transit systems are in disrepair, and roads and bridges are becoming more dangerous. Energy grids from Puerto Rico to Texas have been devastated by storms, leaving millions without electricity and preventing the delivery of clean drinking water. Nationwide, infrastructure investment has not kept pace with growth, geographic shifts in population, and increased exposure to climate change risks (Stupak 2017).


Investment in infrastructure maintenance is a form of preventive spending: it entails short-run costs in order to avoid larger costs in the future. Research has long pointed to electoral incentives as a constraint on policies that deliver future benefits. Politicians believe that when voters evaluate incumbent performance, preferences for lower taxes and fees in the short term will override their support for policies with long-term benefits. This belief seems to be supported by voters' behavior, for example in failing to reward politicians

for investments that could reduce disaster harm (Healy and Malhotra 2009). Elected officials have incentive to pander, or to make decisions that are consistent with voters' immediate preferences, even if it means ignoring information about longer-term infrastructure vulnerability (Canes-Wrone, Herron, and Shotts 2001).

What can motivate a politician to support infrastructure investment? If a politician is limiting investments out of concern about electoral backlash, not because of their own policy preferences, they should become more willing to spend if they believe that voters will consent. This belief may be shaped by whether information available to the politician also becomes available to voters. Learning about vulnerabilities in existing infrastructure could shift voters' perceptions about when an investment will pay off. Where vulnerabilities are made visible to the public, for example through newspaper coverage, the benefits of investment are more certain and immediate, allowing a politician to claim credit for solving problems—an important asset for one seeking to be reelected or to hold higher office. The opportunity to be rewarded for problem-solving balances against the electoral punishment the politician expects for the investment's short-term costs. Publicly available information can therefore reduce the constraint on a politician's decision making.

This study focuses on the role of local newspapers in shaping the incentives for elected officials regarding infrastructure investment. We conducted a survey experiment with over 650 elected US local officials to measure the causal effect of news coverage about infrastructure failures on politicians' support for a costly repair project. We found that news coverage increased support for investment, but only for politicians who had faced an opponent in their previous election. When motivated by reelection, politicians

Megan Mullin , Professor, Nicholas School of the Environment, Duke University, United States, megan.mullin@duke.edu.

Katy Hansen , Deputy Director of Water, Environmental Policy Innovation Center (EPIC), United States, hansen.katy@gmail.com.

Received: July 16, 2021; revised: March 12, 2022; accepted: September 27, 2022. First published online: October 20, 2022.

need the benefits of infrastructure investment to be visible to constituents in order to justify its costs.

Our study contributes to the growing literature on the political importance of local newspapers. Studies show that reduced coverage of local politics has consequences for electoral competition, political accountability, and local fiscal performance (Gao, Lee, and Murphy 2020; Hopkins and Pettingill 2018; Martin and McCrain 2019; Rubado and Jennings 2020). We find that coverage of *nonpolitical* news also can have political consequences, in ways that shape electoral representation at the local level (de Benedictis-Kessner 2018; Burnett and Kogan 2017; Payson 2017). Our work complements studies that use survey experiments to examine local elected officials' attitudes on policy questions involving uncertainty (Butler 2020; Sheffer and Loewen 2019) by extending the lens to a policy that is intertemporal (Jacobs 2016).

LOCAL NEWS AND THE INCENTIVE TO PANDER

The incentives created by competitive elections do not always produce the outcomes that politicians or voters would choose. One problem that emerges in electoral relationships is *pandering*, or decision making that follows popular opinion despite a politician's judgment that the decision is not in voters' best interests. As developed in theoretical literature (Canes-Wrone, Herron, and Shotts 2001; Maskin and Tirole 2004), pandering is distinct from responsiveness to voter preferences (Jacobs and Shapiro 2000) because of information asymmetry. In pandering models, politicians share a common interest with voters but know more than voters do about the consequences of a policy choice. Voters have an immediate policy preference that they think corresponds with their interest, but if they had access to information that is available to politicians, their policy preference might change. Yet voters will not have opportunity to learn the information and update their preference before the next election, which would allow the politician to be rewarded for making the right policy choice. Instead, politicians have incentive to choose the immediately popular policy, knowing that it is not the policy that fully informed voters would prefer. Pandering can therefore lead to decisions that are socially inefficient and fail to serve the public interest (Jensen and Malesky 2018).

We propose that the pandering model applies to most local decision making about infrastructure.¹ Local governments operate under tight fiscal constraints; with rare exception, spending must be funded by revenue from local taxes or fees. We assume that politicians and voters share a common interest in setting taxes at a level just high enough to maintain a functioning infrastructure. New infrastructure spending requires voters to pay a tax or fee increase immediately; without

information about infrastructure vulnerability, they would be expected to penalize incumbents at the ballot box for the project's cost (Hansen, Eskaf, and Mullin 2022). Often, elected officials have access to private information revealing that deteriorating infrastructure poses risks to public safety or economic growth. Because the vulnerabilities are not readily visible to the broad public, politicians disregard the information in order to avoid electoral retaliation for raising fees.

The presence of news media can reduce the information asymmetry that undergirds pandering by making it possible for voters to learn more about the state of the world. Even as their audiences and budgets shrink, local newspapers remain a critical source of information about community conditions and events. Newspapers can bring isolated infrastructure failures—a set of potholes, for example, or water gushing from a pipe break—to the attention of the broader community, making it easier for politicians to make politically risky decisions to address the problem. Politicians have less incentive to pander if they believe voters will receive information that justifies an unpopular decision (Ashworth 2012). We hypothesized that local elected officials are more likely to support a fee increase for infrastructure investment when news coverage of infrastructure failure makes the benefits of investment visible to their constituents.

We further predicted that the effect of news coverage would be particularly strong for politicians facing more electoral pressure. Incumbents who face competition have more incentive to pander to voters' immediate preferences (Gordon and Huber 2007), so public information that reduces that incentive should have a larger effect in competitive settings. Competition for local elected office is often absent; a study of nearly 8,000 mayoral elections held between 2000 and 2016 showed that over half were uncontested (Marschall, Lappie, and Williams 2017). Even without competition, incumbents who have ambition to hold higher office still might be motivated by voter preferences (Dynes, Hassell, and Miles 2021). Therefore, we hypothesized that a politician's competitive context and political ambition would moderate their response to news coverage.

METHODS AND DATA

We contracted with CivicPulse to conduct a preregistered survey experiment in spring 2020 with US city and county elected officials from 49 states (Appendix B). Our experimental approach is a departure from the more common observational studies of news media effects, which must rely on plausibly exogenous sources of variation in news coverage (Arceneaux et al. 2016; Snyder and Strömberg 2010). Our design allows direct testing of how news coverage shapes a politician's response to a policy proposal.

The survey experiment used a vignette about a water pipe replacement project that would require rates to increase by one-third for the average household—a rate increase that is not uncommon to fund an infrastructure maintenance project (Appendix A). In the

¹ Our argument applies to investments for infrastructure maintenance and rehabilitation, not major new projects that expand capacity.

vignette (Appendix C), the local government had received information from a consultant that the overdue project would address recent water main breaks. In the experimental element, just over half of the respondents were told that the water main breaks had been featured prominently in the local newspaper. Thus the experiment provided the same private information about a local problem to all respondents and manipulated whether that problem also received news coverage. The vignettes seen by the two groups were otherwise identical, and respondents were given a five-point Likert-type scale to indicate their likelihood of supporting the project. Although it is difficult to capture a complex policy choice in a short vignette, elected officials' responses exhibited considerable variability: three-quarters gave a directional response, with those in support (54%) slightly outnumbering those expressing opposition among those who indicated that they would be either likely or unlikely to support the project and its associated cost (Appendix E).

Our measures of ambition and electoral competition are pretreatment variables that are part of CivicPulse's standard survey content. They are not tied to the news treatment vignette. The competition question asked respondents whether they had faced a general election opponent in their last election, whereas the ambition question asked about interest in holding higher elected office in the future. Our expectation was that these characteristics of elected officials' own political profiles would inform their responses to a hypothetical scenario. Although the measure of competition is based on the previous election, not expectations about future election, this experience shapes politicians' political calculations and also reflects the broader context of elections in their community, which may systematically have low or high rates of contestation (Marschall, Lappie, and Williams 2017).²

We estimated treatment effects with ordinary least squares (OLS) regressions (Mullin and Hansen 2022). To test how the effect of news coverage varies across politicians' competitive context and ambition, we estimated a model including interactions between these two variables and the news treatment, along with interactions for additional control variables to rule out alternative explanations for effect heterogeneity. Our analysis was complicated by missing data for over one quarter of respondents on self-reported covariates that were collected in a set of questions at the end of the survey. There are random and nonrandom components to the missingness. Respondents randomly selected to receive an additional long survey module on an unrelated topic after the water module are disproportionately represented among the observations with missing data on covariates, but attrition among those who received the additional module is not random (Appendix H). To avoid biasing our estimates, we show complete-case results using listwise deletion only for

respondents who did not receive the second module ($n = 375$ for the model with interactions). We also report results for all respondents ($n = 657$), using multiple imputation by chained equations to fill in missing covariate data. Analyses in the appendix demonstrate that results are very similar across a wide range of model specifications and procedures for handling missing data (Appendices G, I, J, K, N).

Random assignment of the news treatment did not produce balance on all the covariates that might be relevant to a respondent's preferences on investment (Appendix D). Namely, those assigned to treatment disproportionately identified as Democrats. Imbalance on partisanship was more pronounced in the full sample than in the sample that viewed the water module only, perhaps because of differential noncompletion of the longer survey. Because of this imbalance, we present analyses including control variables specified in the study's preanalysis plan: partisanship and education of the elected official and population and government type of the city or county. Results are unchanged when including a larger set of controls (Appendices G, I), using alternative procedures for handling missing partisanship data (Appendix K), and estimating treatment effects within partisan subgroups (Appendix D).

RESULTS

The results from the experiment appear in Figure 1. Across all respondents, those who were told that water main breaks had been featured in the newspaper expressed more support for increasing water rates to fund pipe replacement. The effect size is modest—in the complete-case sample, the treatment increased support for costly infrastructure investment by 0.06 on the outcome measure scored 0 to 1—and just outside the standard boundary for statistical significance ($p < 0.06$).

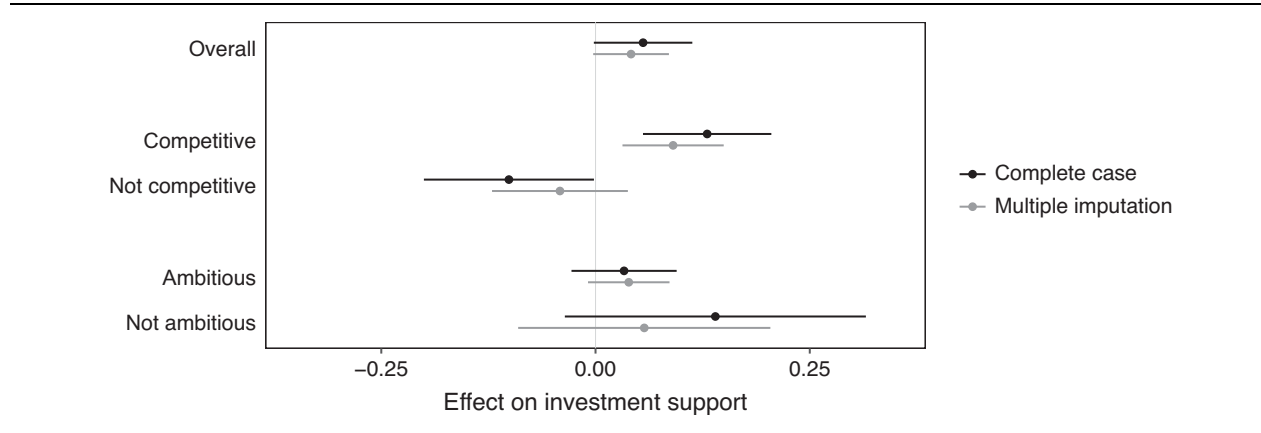
The effect of news differed across electoral contexts. As illustrated in Figure 2, learning that infrastructure vulnerability had been featured in the news clearly increased support for investment among politicians who faced competition, moving them from a position of predicted opposition (0.44 on the 0–1 outcome scale for the complete-case sample) to one of predicted support (0.57). For politicians who had been elected unopposed, the news treatment reduced support for investment, but this effect was smaller and sensitive to sample and modeling choices.³

A descriptive response pattern within the control group offers incidental evidence in support of

² In the Local Elections in America Project (LEAP) dataset of election results from nine states over 18 years, contestation is highly correlated across election cycles (Appendix M).

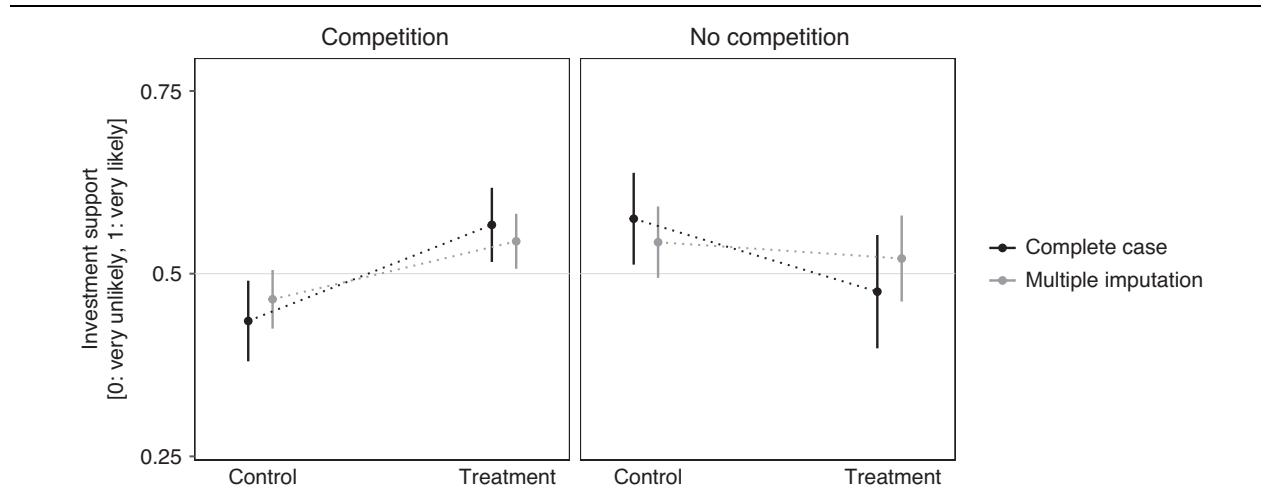
³ The negative treatment effect on investment support for those in uncontested seats is a surprising result not predicted by our theory, although the result is significant only in the complete-case sample and is not robust to including a full set of controls (Appendix G, Model [6]). If it represents a true effect, one possible explanation would be the opportunity for politicians to privately benefit from public works projects (Gailmard and Patty 2019), which may be more common among electorally safe incumbents and might reduce support when the target of spending is subject to public scrutiny.

FIGURE 1. Marginal Effect of News Coverage on Predicted Support for Infrastructure Investment, by Electoral Competition and Ambition



Note: Estimates come from Models (2) and (5) in Tables A4 and A7 (Appendices G, I). The bars show 95% confidence intervals; $n = 375$ (complete case); 657 (imputed).

FIGURE 2. Predicted Support for Infrastructure Investment, by Electoral Competition



Note: Estimates come from Model (5) in Tables A4 and A7 (Appendices G, I). The bars show 95% confidence intervals; $n = 375$ (complete case); 657 (imputed). Respondents facing competition are 62% of both samples.

pandering behavior. Within the control group that did not hear about news coverage, politicians who had faced a competitor reported significantly lower support for investment than did those in uncompetitive contexts. This result is consistent with the theory that the incentives for pandering are strongest under close electoral competition (Canes-Wrone, Herron, and Shotts 2001). Absent electoral constraint, politicians in safe seats are freer to act on their private information. This response pattern in the control group helps rule out the alternative explanation that news coverage causes politicians to perceive water infrastructure as a more severe problem. If the news treatment operated only to increase perceptions of problem severity, then all respondents in the control condition that did not hear about news coverage should have perceived similarly

low problem severity regardless of whether they faced competition. Instead, we found more support for investment within the control group among those whose elections had been uncontested. Those who had more reason for concern about electoral punishment opposed the investment unless newspapers made information about its benefits available to voters.

We found no support for a politician's ambition shaping their response to news coverage. It may be that local officials' plans to pursue higher office are not stable or salient enough to influence their response to a hypothetical vignette (Fox and Lawless 2005). Although 90% of our respondents expressed openness to holding higher office, their likelihood of eventually running is much lower (Einstein et al. 2018). Recent work finds limited effects of ambition on local

politicians' actions related to service provision (Dynes, Hassell, and Miles 2021).

Overall, we show that by providing public information about community conditions, local news can help promote needed investment. News coverage draws a community's attention to a problem, making it easier for elected officials to make difficult political decisions to address it. This effect appears to operate exclusively in the presence of electoral competition. Whereas electoral pressure can sometimes motivate politicians to make decisions contrary to the longer-term public interest, news coverage can provide information that helps build consensus that a problem needs to be solved.

DISCUSSION AND CONCLUSION

Recent political rhetoric has spotlighted the nation's infrastructure crisis, but responsibility for investing in infrastructure lies primarily at the local level. Spending on maintenance and repair has not kept pace with the deterioration of aging facilities and rising exposure to environmental risks, despite widespread public support. We point to one explanation for underprovision of infrastructure: inadequate local news coverage. Without local news to spread information to the broader community about infrastructure conditions, elected officials believe they face electoral risk in raising taxes and fees to fund needed investments. Local news makes the benefits of investment more visible by spreading information about local conditions, such as vulnerabilities in existing infrastructure. Elected officials will be more confident to cast a politically difficult vote if voters receive information that can help justify the decision.

That the effect varies across competitive conditions is clear, but an important limitation to our study is the inability to identify the causal effect of electoral competition on the effect of news. Our estimation strategy controls for effect heterogeneity across respondents' observable characteristics, but we cannot rule out the confounding influence of unobservable characteristics. One possibility is correlation between competition and a more robust local news environment such that respondents in competitive contexts also have more experience with news coverage of local issues and elections (Rubado and Jennings 2020). If that's the case, then the news environment for those in contested seats may be part of the reason for their stronger response to the treatment's news prompt.

The subtle prompt in our vignette may lead us to underestimate the effects of media in real-life policy decisions. In the real world, news coverage would direct the attention of politicians and the public to an issue and follow-up articles might extend and elaborate on the story. All of this would change the nature of public conversation, likely magnifying the effect we estimate here. The normative consequences of this media role deserve attention: although theory predicts that reducing pandering will produce more socially efficient outcomes, it is possible that the agenda-setting power of

the news could induce spending at levels higher than voters prefer or on targets that differ from voters' priorities.

Future research could explore how broadly our results apply across local public goods. We expect that pandering is less applicable for decision making about housing, libraries, parks, and schools, where the benefits of investment are more visible and immediate and public preferences vary more widely. We see a stronger fit for the pandering model with spending that is preventive, or focused on reducing costs or harm (Appendix A). It is on these spending measures where preferences of public officials are likely to be most consistent with the preferences of their constituents. Some preventive spending addresses problems with visible manifestations, such as the water main breaks highlighted in our vignette or street flooding, potholes, and power outages. For other problems, such as a dam at risk of failure, there are no visible indicators of risk. Whether local news would have the same influence under those circumstances requires more investigation.

Our results add to a growing literature on the functions of local newspapers by highlighting the political importance of nonpolitical news. We show that nonpolitical information about the state of the world can have distinct consequences from coverage of politicians' activities: nonpolitical coverage can reduce pandering behavior instead of reinforcing it (Snyder and Strömberg 2010). As newspaper closures and staffing cuts leave communities with less coverage of local problems (Peterson 2021), elected officials may become less willing to address those problems. Local media serves not just as a watchdog on public officials but also as a resource that politicians can draw on for making decisions to protect communities from risks they cannot see.

SUPPLEMENTARY MATERIALS

To view supplementary material for this article, please visit <http://doi.org/10.1017/S0003055422001083>.

DATA AVAILABILITY STATEMENT

Research documentation and data that support the findings of this study are openly available at the American Political Science Review Dataverse: <https://doi.org/10.7910/DVN/YDLYLE>.

ACKNOWLEDGMENTS

We thank Kyle Endres, Sunshine Hillygus, Jonathan Chu, Nathan Lee, Patrick Egan, Vin Arceneaux, Nick Carnes, Liz Gerber, Alicia Cooperman, and Melissa Marschall for helpful feedback at various stages of this research.

FUNDING STATEMENT

This research was funded by a Research Collaboratory grant from Duke University and the Nicholas Institute for Environmental Policy Solutions. Megan Mullin was partially supported in this work by the Carnegie Corporation of New York through the Andrew Carnegie Fellows program.

CONFLICT OF INTEREST

The authors declare no ethical issues or conflicts of interest in this research.

ETHICAL STANDARDS

The authors declare the human subjects research in this article was deemed exempt from review by the Duke University Institutional Review Board.

REFERENCES

- Arceneaux, Kevin, Martin Johnson, René Lindstädt, and Ryan J. Vander Wielen. 2016. "The Influence of News Media on Political Elites: Investigating Strategic Responsiveness in Congress." *American Journal of Political Science* 60 (1): 5–29.
- Ashworth, Scott. 2012. "Electoral Accountability: Recent Theoretical and Empirical Work." *Annual Review of Political Science* 15:183–201.
- Burnett, Craig M., and Vladimir Kogan. 2017. "The Politics of Potholes: Service Quality and Retrospective Voting in Local Elections." *Journal of Politics* 79 (1): 302–14.
- Butler, Daniel Mark. 2020. "Elections and Uncertain Decisions in Politics: A Survey Experiment with US Municipal Officials." *British Journal of Political Science* 50 (3): 1147–53.
- 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): 532–50.
- de Benedictis-Kessner, Justin. 2018. "How Attribution Inhibits Accountability: Evidence from Train Delays." *Journal of Politics* 80 (4): 1417–22.
- Dynes, Adam M., Hans J. G. Hassell, and Matthew R. Miles. 2021. "Political Ambition and Constituent Service: Does Ambition Influence How Local Officials Respond to Electoral and Non-Electoral Service Requests?" *American Politics Research* 49 (6): 646–54.
- Einstein, Katherine Levine, David M. Glick, Maxwell Palmer, and Robert J. Pressel. 2018. "Do Mayors Run for Higher Office? New Evidence on Progressive Ambition." *American Politics Research* 48 (1): 197–221.
- Fox, Richard L., and Jennifer L. Lawless. 2005. "To Run or Not to Run for Office: Explaining Nascent Political Ambition." *American Journal of Political Science* 49 (3): 642–59.
- Gailmard, Sean, and John W. Patty. 2019. "Preventing Prevention." *American Journal of Political Science* 63 (2): 342–52.
- Gao, Pengjie, Chang Lee, and Dermot Murphy. 2020. "Financing Dies in Darkness? The Impact of Newspaper Closures on Public Finance." *Journal of Financial Economics* 135 (2): 445–67.
- Gordon, Sanford C., and Gregory Huber. 2007. "The Effect of Electoral Competitiveness on Incumbent Behavior." *Quarterly Journal of Political Science* 2 (2): 107–38.
- Hansen, Katy, Shadi Eskaf, and Megan Mullin. 2022. "Avoiding Punishment? Electoral Accountability for Local Fee Increases." *Urban Affairs Review* 58 (3): 888–906.
- Healy, Andrew, and Neil Malhotra. 2009. "Myopic Voters and Natural Disaster Policy." *American Political Science Review* 103 (3): 387–406.
- 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.
- Jacobs, Alan M. 2016. "Policy Making for the Long Term in Advanced Democracies." *Annual Review of Political Science* 19:433–54.
- Jacobs, Lawrence R., and Robert Y. Shapiro. 2000. *Politicians Don't Pander: Political Manipulation and the Loss of Democratic Responsiveness*. Chicago, IL: University of Chicago Press.
- Jensen, Nathan M., and Edmund J. Malesky. 2018. *Incentives to Pander: How Politicians Use Corporate Welfare for Political Gain*. Cambridge: Cambridge University Press.
- Marshall, Melissa, John Lappie, and Luke Williams. 2017. "Who Runs for Mayor in America?" Report. Houston, TX: Rice University Kinder Institute for Urban Research. <https://doi.org/10.25611/h97e-nuk1>.
- Martin, Gregory J., and Joshua McCrain. 2019. "Local News and National Politics." *American Political Science Review* 113 (2): 372–84.
- Maskin, Eric, and Jean Tirole. 2004. "The Politician and the Judge: Accountability in Government." *American Economic Review* 94 (4): 1034–54.
- Mullin, Megan, and Katy Hansen. 2022. "Replication Data for: Local News and the Electoral Incentive to Invest in Infrastructure." Harvard Dataverse. Dataset. <https://doi.org/10.7910/DVN/YDLYLE>.
- Newport, Frank. 2019. "The Singular Appeal of a Government Focus on Infrastructure." *Polling Matters* (blog), Gallup. May 2. <https://news.gallup.com/opinion/polling-matters/249326/singular-appeal-government-focus-infrastructure.aspx>.
- Payson, Julia A. 2017. "When Are Local Incumbents Held Accountable for Government Performance? Evidence from US School Districts." *Legislative Studies Quarterly* 42 (3): 421–48.
- Peterson, Erik. 2021. "Paper Cuts: How Reporting Resources Affect Political News Coverage." *American Journal of Political Science* 65 (2): 443–59.
- 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): 1327–56.
- Sheffer, Lior, and Peter John Loewen. 2019. "Accountability, Framing Effects, and Risk-Seeking by Elected Representatives: An Experimental Study with American Local Politicians." *Political Research Quarterly* 72 (1): 49–62.
- 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.