Supplementary Materials for

"Public Goods and the Press: Policy Effects of Disparities in Local Political News"

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Contents

A Newspaper Text Corpus

This appendix reports information about the corpus of newspaper text that is used to construct the main variables in the paper. Text data were obtained from two sources: First, I collected full texts of English-language, daily local newspapers in the United States from ProQuest. I then collected a second dataset of text from NewsBank to supplement the ProQuest corpus, prioritizing larger newspapers that were not included in the ProQuest sample and filling in missing years from the ProQuest sample. Where a newspaper-year is included in both samples, I keep the ProQuest data.

The corpus includes 396 unique local newspapers covering 266 Metropolitan Statistical Areas (MSAs) over the period from 1992-2021. In total, it contains 114 million articles and 5,567 newspaper-years. Importantly, these are not a complete sample of all newspapers in the country, nor are they randomly drawn. Large-scale newspaper text datasets of this sort are dependent on individual licenses between newspaper publishers and data vendors, so no database contains a complete universe of local news data.

However, the corpus represents a large swath of the country. Figure A1 shows the geographic distribution of the newspaper data across MSAs (the plots use 2020 MSA boundaries for simplicity). The top figure shows the number of years in which at least one newspaper

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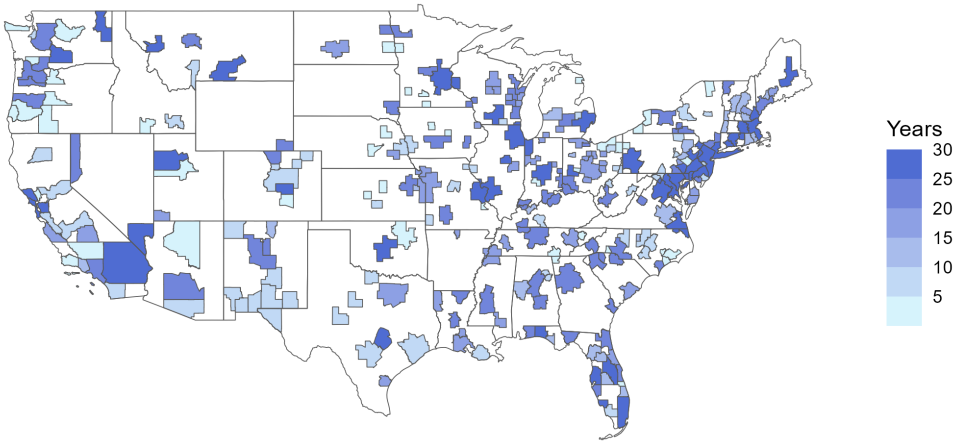
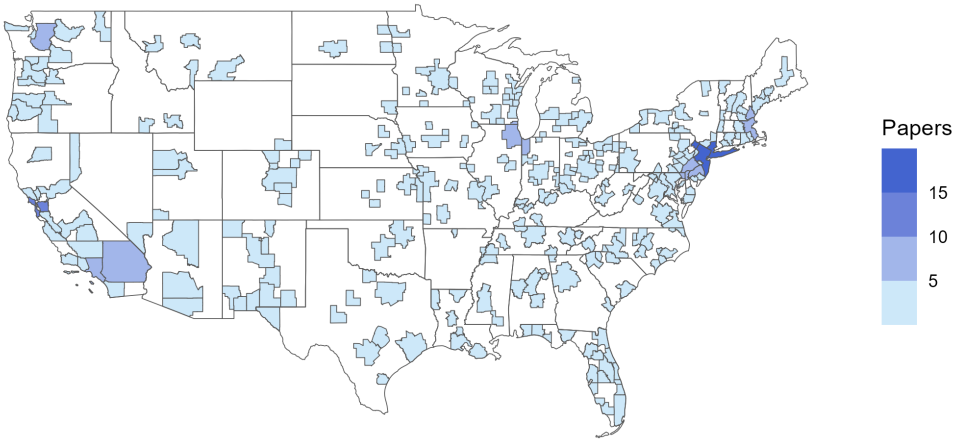
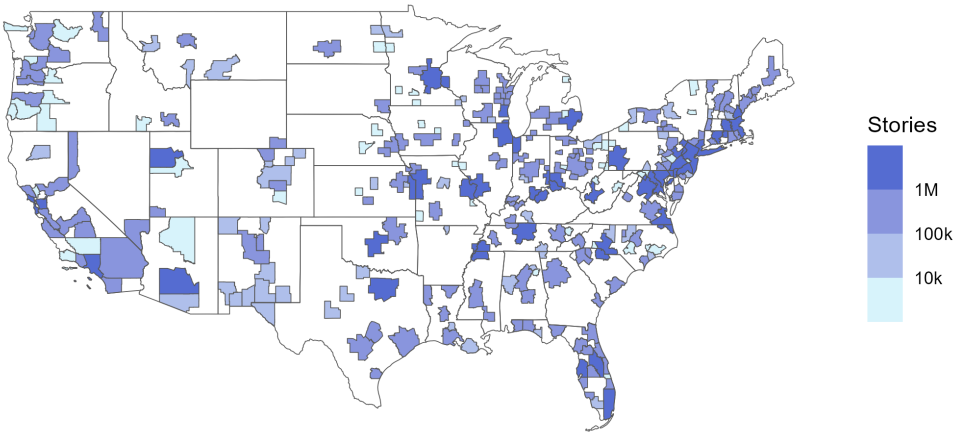
Figure A1: MSA Inclusion in Newspaper Text Corpus



(a) Years with at least one newspaper



(b) Unique newspapers



(c) Total number of news articles

is present for each MSA, and therefore all cities and towns located within the MSA. The middle planel shows the number of unique newspapers in the dataset for each included MSA. Finally, the bottom panel shows the number of news articles included in the full corpus for each MSA.

B Measuring News Coverage

This appendix provides further detail and validation for the two measures of news coverage discussed in the main text: (1) the (logged) number of stories mentioning local government in a particular city or town, and (2) the Coverage measures.

Underpinning both measures is a search-based text analysis procedure that uses a dictionary of terms that includes the names of all municipal governments in the United States. The list of names was obtained from the U.S. Census and excludes unincorporated areas and Census Designated Places that do not have a local government. It was also limited to cities and towns of more than 10,000 residents, as are all analyses presented in the paper.

As described in the main text, the search procedure first identified all cities or towns that were partially or wholly contained within the MSA associated with each newspaper. It then searched all articles published by that newspaper to identify cases where the name of the municipality occurred within 30 characters (in either direction) of key words indicating coverage of local politics. These include: `[city/town/village] mayor`, `manager`, `council*`, `commission*`, `board`, `trustee`, or `alder*`, where `*` indicates a wildcard allowing any characters to follow (e.g., `alderman`, `commissioner`, or `councilwoman`).

B.1 MSAs and Circulation Areas

The text analysis procedure used to measure coverage relies first on identifying which specific local governments lie within the coverage area of each newspaper. Unlike TV stations, local newspapers do not have defined media markets. Instead, I use Metropolitan Statistical Areas (MSAs). These areas are constructed by the Office of Management and Budget to contain sets of counties that share economic and commuting ties, generally centered around major cities.

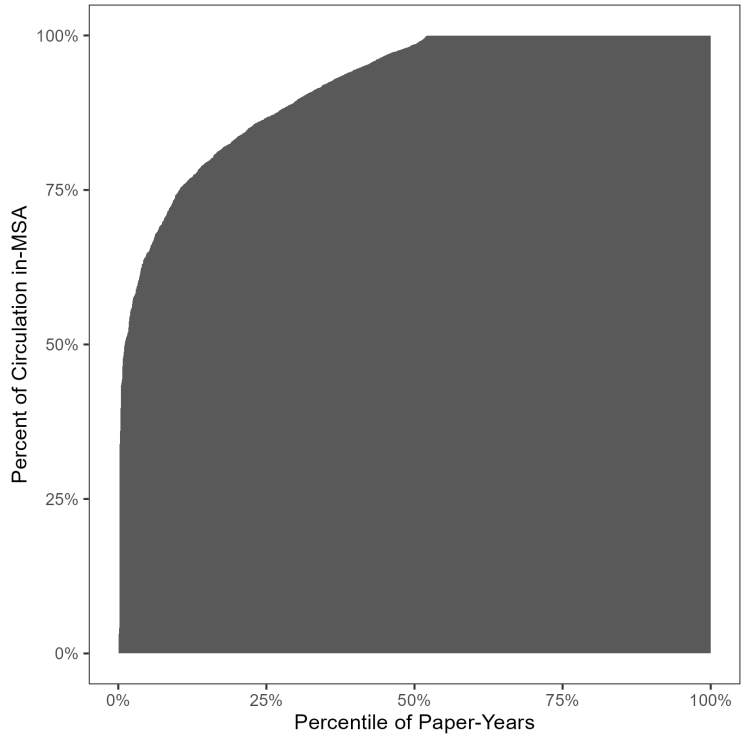
A reasonable alternative would be to use data on newspaper circulation to identify which counties the readers of each newspaper live in, under the assumption that newspapers are likely covering the places where their readers live (e.g., Snyder and Strömberg 2010). However, circulation data are limited. They are not necessarily available for all newspapers, and are not readily available back to 1992 when the text corpus begins.

Nevertheless, my MSA approach captures well the distribution of newspaper readership. Using circulation data from 2008, 2014, and 2018, Figure A2 shows that the vast majority of newspaper circulation is contained within the MSA of newspapers' headquarters cities. County-level circulation data come from the Standard Rate and Data Service (SRDS) *Circulation* handbook and were digitized and shared by Peterson (2021). In the figure, the shaded gray region shows the share of readers living within the MSA, identified at the newspaper-year level. While the underlying data include some newspapers not in my text corpus, this suggests that MSAs are generally well aligned with circulation areas.

B.2 Accuracy of Text Analysis Procedure

This appendix validates a key intuition in the search procedure: that the generic search terms at the municipality level correspond to coverage of actual local politics. Using a list of candidates for mayor and city council (de Benedictis-Kessner et al. 2023), I constructed a

Figure A2: MSA Alignment with Circulation Areas

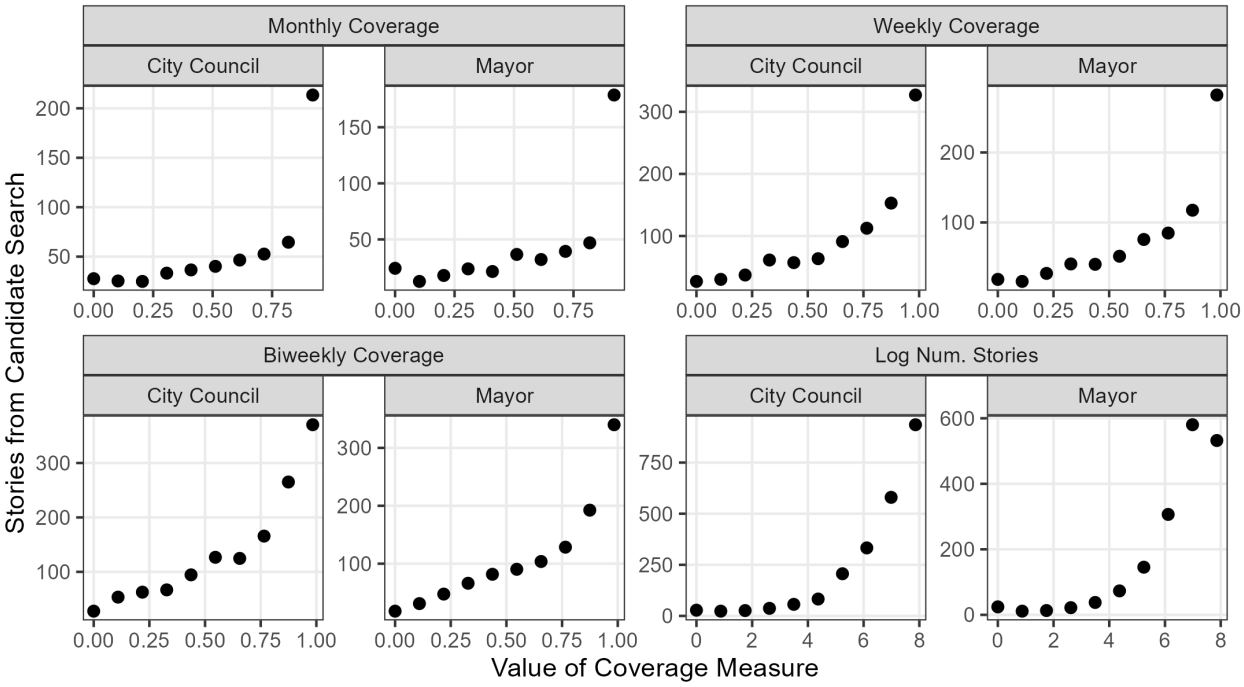


Note: The shaded area shows the percentage of newspaper circulation that is located within the MSA for each newspaper-year in the SRDS *Circulation* dataset.

dictionary consisting of the first and last names for winning candidates in cities and towns located in each newspaper's MSA. I then searched all articles published within four years of the election that the candidates won, as a proxy for which mayors and city councilors were in office at the time.

Figure A3 compares the search results from this candidate-based search with the main measures used in the paper, aggregated to the municipality-newspaper-year level. I find strong correlations across all four measures, using the names of both city council and mayoral candidates. In particular, I find especially high numbers of candidate mentions when the Coverage variables approach their maximum of 1.

Figure A3: Coverage Measure Validation with Candidate Names



Note: Points report binned means of results from the candidate name search at varying levels of the main coverage variables.

C Descriptive Statistics

Below, I report descriptive statistics for variables used in the main analyses in the paper.

Table A1: Descriptive Statistics: Local Politics Coverage Analyses

Statistic	N	Mean	St. Dev.
Any Coverage	110,697	0.50	0.50
Log Num. Stories	110,697	1.21	1.72
Monthly Coverage	110,697	0.24	0.33
Weekly Coverage	110,697	0.14	0.26
Biweekly Coverage	110,697	0.08	0.20
Log Population	110,697	10.36	0.94
Distance (miles)	110,195	24.58	16.95
Paper HQ City	110,195	0.04	0.21
% Black	110,697	0.08	0.13
% Hispanic	110,697	0.20	0.20
Median Inc., $1,000s	110,697	7.58	3.03
% over $150k	110,697	0.06	0.05
% College	110,697	0.23	0.12
% 65 and Older	110,667	0.18	0.06
% Urban	106,841	0.99	0.04

Table A2: Descriptive Statistics: Expenditure and Revenue Analyses

Statistic	N	Mean	St. Dev.
Log Num. Stories	10,551	2.52	1.77
Monthly Coverage	10,551	0.47	0.36
Weekly Coverage	10,551	0.30	0.32
Biweekly Coverage	10,551	0.17	0.27
Operating Expenditure, Per Capita	19,672	132,201.00	1,562,780.00
Policing Expenditure, Per Capita	19,672	15,206.92	95,312.36
Fire Protection Expenditure, Per Capita	19,672	7,865.68	37,679.13
Welfare Expenditure, Per Capita	19,672	15,829.41	344,962.00
Roads Expenditure, Per Capita	19,672	4,756.07	18,281.40
Parks and Rec. Expenditure, Per Capita	19,672	4,643.47	17,318.51
Libraries Expenditure, Per Capita	19,672	1,184.79	6,989.85
Sanitation Expenditure, Per Capita	19,672	8,789.13	38,164.84
Sewer Expenditure, Per Capita	19,672	5,213.89	16,669.22
Financial Admin. Expenditure, Per Capita	19,672	2,953.99	59,693.79
Total Revenue, Per Capita	19,672	158,927.90	1,796,869.00
Own Source Revenue, Per Capita	19,672	124,238.30	1,257,576.00
Tax Revenue, Per Capita	19,672	59,846.92	790,945.30
Intergovernmental Revenue, Per Capita	19,672	34,689.63	554,780.60
County Democratic Vote	19,688	0.51	0.14
Warshaw-Tausanovitch Ideology	12,036	0.03	0.19

D Robustness of Coverage Results

This section reports robustness tests and alternative specifications for the results on frequency of coverage.

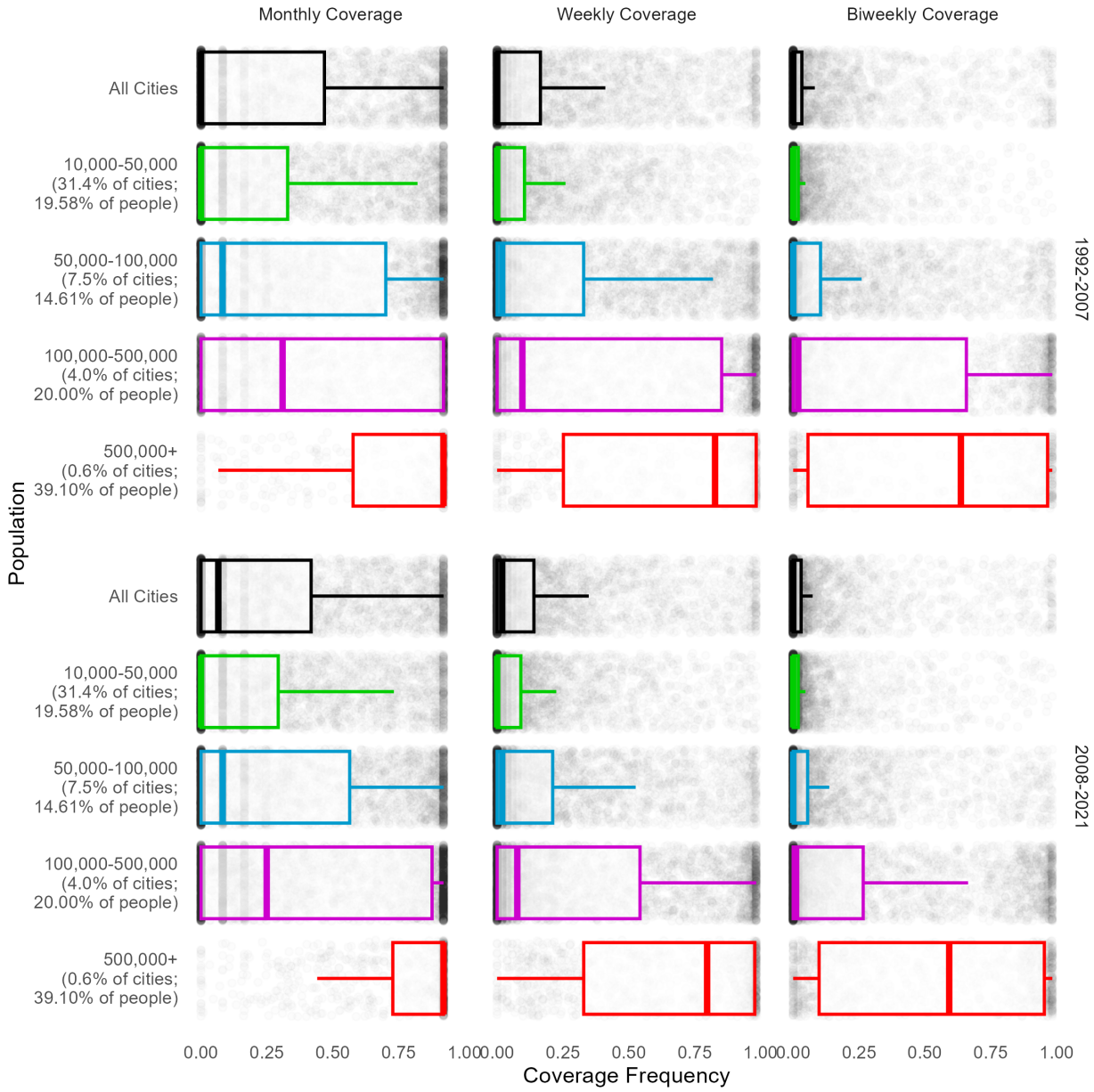
D.1 Results over Time

Figure A4 shows how the Coverage varies across population bins over time. Because the local news industry has experienced significant retrenchment since 2008, we might expect to see dramatic reductions in coverage frequency in more recent years. While the figure confirms that Coverage was generally higher in the period from 1992-2007 as compared to 2008-2022, these differences are not so dramatic. Indeed, high-frequency beat-type coverage has always been rare. This suggests that the results from Figure 2 in the main paper are not driven by over-time variation and rather by differences in coverage frequency within newspaper-years.

Tables A3 and A4 confirm these intuitions, replicating the regression results from the main text, broken out by time period. These results confirm many of the intuitions of the models in the main text that pool time periods: Local politics coverage increases with population and proximity to the newspaper's headquarters (Hypotheses 1 and 2). Likewise, local newspapers are less likely to cover local politics in cities and towns with more Black residents (Hypothesis 4).

However, the results are less consistent when it comes to household income. In the more recent time period, I confirm the findings from the main text that local governments are more likely to be covered in communities with higher incomes (Hypothesis 3). In the 1992-2007 period, I do not find that this is the case.

Figure A4: Local Politics Coverage by Municipality Size and Time Period



Note: This plot summarizes the distribution of Monthly, Weekly, and Biweekly Coverage of municipalities in the newspaper text dataset. Coverage is measured as the share of rolling windows that meet the coverage threshold for a given municipal government in a given newspaper in a given year, as described in the main text of the paper. Points in the background are a random sample of 5,000 observations.

Table A3: Predictors of Local Politics Coverage, by Time Period

	1992-2007			2008-2021		
	Log Num. Stories	Weekly Coverage	Biweekly Coverage	Log Num. Stories	Weekly Coverage	Biweekly Coverage
	(1)	(2)	(3)	(4)	(5)	(6)
Population (log)	0.40**	0.07**	0.05**	0.39**	0.06**	0.04**
	(0.01)	(0.003)	(0.002)	(0.01)	(0.002)	(0.001)
Distance (miles)	−0.03**	−0.004**	−0.002**	−0.03**	−0.004**	−0.002**
	(0.002)	(0.0002)	(0.0001)	(0.001)	(0.0001)	(0.0001)
Paper HQ City	1.33**	0.26**	0.36**	1.77**	0.40**	0.47**
	(0.05)	(0.01)	(0.01)	(0.03)	(0.01)	(0.01)
Municipality Ctrls.	X	X	X	X	X	X
Municipality FEs	X	X	X	X	X	X
Observations	37,039	37,039	37,039	73,156	73,156	73,156
Adjusted R^2	0.65	0.61	0.60	0.66	0.67	0.69

Note: Coefficients from least-squares regressions where the outcomes are measures of local political reporting frequency at the municipality-newspaper-year level. Standard errors, in parentheses, are clustered at the newspaper level. $^{*}p < 0.05$; $^{**}p < 0.01$.

Table A4: Race and Income Effects on Local Politics Coverage, by Time Period

	1992-2007					
	Log Num. Stories	Weekly Coverage	Biweekly Coverage	Log Num. Stories	Weekly Coverage	Biweekly Coverage
	(1)	(2)	(3)	(4)	(5)	(6)
Med. Income	−0.02	−0.004	−0.001			
	(0.02)	(0.003)	(0.002)			
% Over $150k				−0.93	0.03	0.0004
				(0.90)	(0.17)	(0.12)
% Black	−0.92**	−0.24***	−0.13**	−0.89**	−0.23***	−0.12***
	(0.37)	(0.07)	(0.05)	(0.37)	(0.06)	(0.05)
% Hispanic	−0.50	−0.07	−0.02	−0.50	−0.05	−0.01
	(0.40)	(0.06)	(0.04)	(0.38)	(0.06)	(0.04)
Municipality Ctrls.	X	X	X	X	X	X
Municipality FEs	X	X	X	X	X	X
Observations	37,179	37,179	37,179	37,179	37,179	37,179
Adjusted R^2	0.93	0.92	0.91	0.93	0.92	0.91
	2008-2021					
	Log Num. Stories	Weekly Coverage	Biweekly Coverage	Log Num. Stories	Weekly Coverage	Biweekly Coverage
	(1)	(2)	(3)	(4)	(5)	(6)
Med. Income	0.03***	0.003**	0.002*			
	(0.01)	(0.001)	(0.001)			
% Over $150k				2.24***	0.20***	0.07
				(0.42)	(0.06)	(0.05)
% Black	−0.17***	−0.03***	0.001	−0.22***	−0.03***	0.0003
	(0.06)	(0.01)	(0.01)	(0.07)	(0.01)	(0.01)
% Hispanic	0.01	−0.05	−0.07**	−0.04	−0.06	−0.08**
	(0.27)	(0.04)	(0.03)	(0.28)	(0.04)	(0.03)
Municipality Ctrls.	X	X	X	X	X	X
Municipality FEs	X	X	X	X	X	X
Observations	69,632	69,632	69,632	69,632	69,632	69,632
Adjusted R^2	0.90	0.91	0.90	0.90	0.91	0.90

Note: Coefficients from least-squares regressions where the outcomes are measures of local political reporting frequency at the municipality-newspaper-year level. Municipality-level controls are described in the main text. Standard errors, in parentheses, are clustered at the newspaper level. $^{*}p < 0.05$; $^{**}p < 0.01$

E Robustness of Public Good Provision Results

This section reports robustness tests and alternative models for the main results on local government expenditure.

E.1 Main Effects with Alternative Coverage Frequencies

Table A5 replicates the main expenditure results for the Monthly Coverage frequency. Table A6 replicates the results relating to municipal revenues using the Monthly Coverage variable.

E.2 Logged Spending Models

Appendix E.2 reports the effects of Weekly and Biweekly Coverage on logged per-capita spending. This alternative specification generally replicates the findings reported in the main paper.

E.3 Results by City Population

Figure A5 reports the results of the main results, using subsets of cities and towns by population. Larger cities are covered more frequently, and may also systematically spend on different public goods, or do so at different levels (de Benedictis-Kessner and Warshaw 2016). The main results reported in the paper control for logged population as well as population bins (quintiles). The results in Figure A5 further confirm that the main findings are robust across population levels. Although smaller sample sizes, especially in the largest cities, lead to wider standard errors, the results are all direcitonally consistent with those reported in the text and in many cases remain statistically significant even among these small subsets.

E.4 Results over Time

The table below shows the effects of Weekly and Biweekly Coverage on Total Operating Expenditure in the periods from 1992-2007 and from 2012-2022. I break the sample at this point to correspond to pre- and post-Great Recession periods when the local news industry faced dramatic contraction. For ease of comparison, I also repeat the estimate for the full sample from the main text. In both periods, the effects of coverage on municipal spending are positive. However, in the more recent period, the effect is lower in magnitude and is not statistically significant at the 95% level.

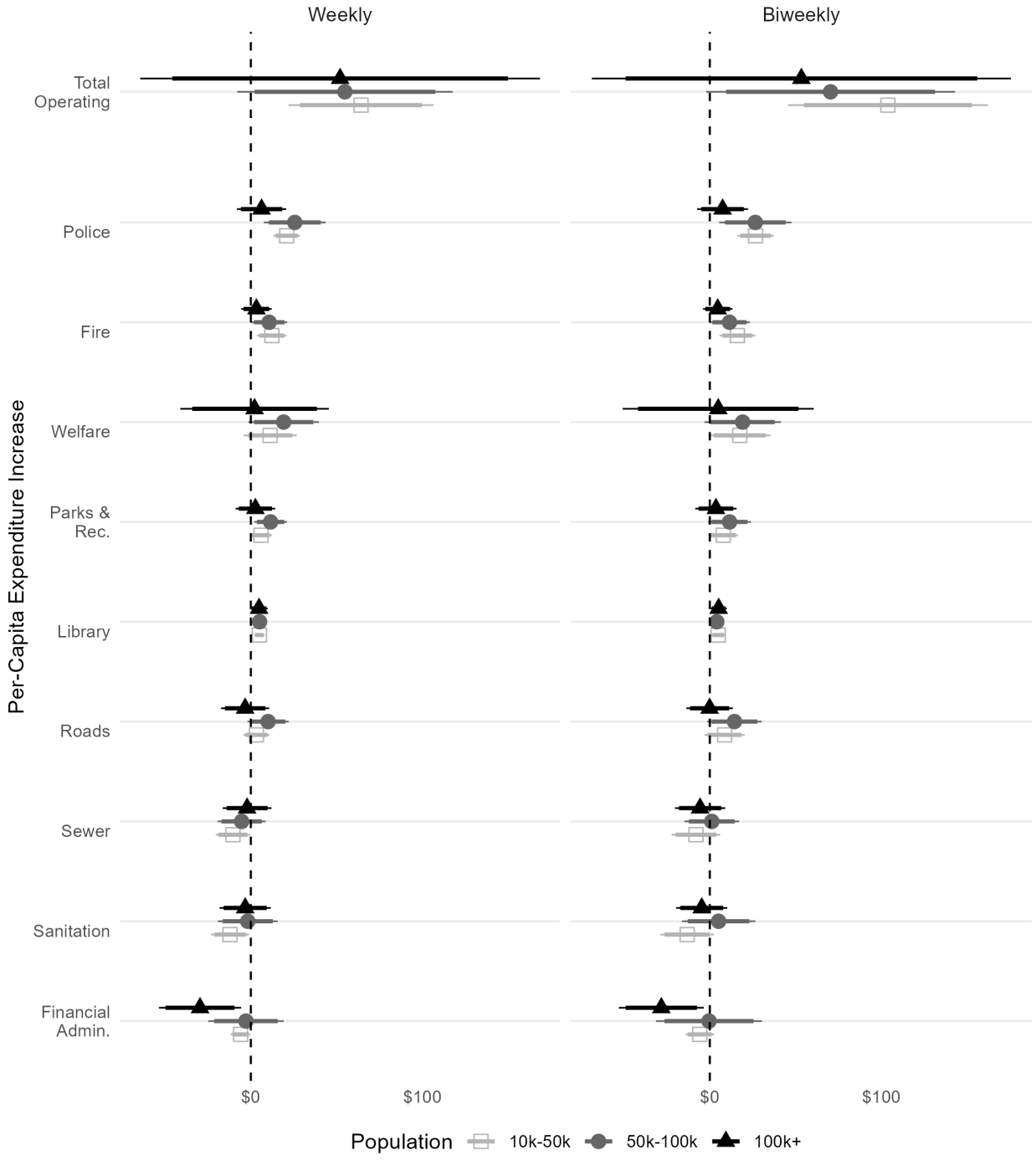
These results are consistent with a diminished effect of the news media as readership and coverage resources have declined (e.g., Peterson 2021). Nevertheless, the point estimates remain substantively large in this later period.

Table A5: Effect of Monthly Coverage on Municipal Spending

	Total Operating	Police	Fire	Parks & Rec.	Library	Roads	Welfare	Sanitation	Sewer	Financial Admin.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Monthly	39.13*	13.15**	6.78*	3.70	3.88**	1.22	7.65	−6.02	−4.42	−7.56**
	(16.28)	(2.60)	(3.44)	(2.24)	(0.98)	(2.35)	(5.96)	(3.73)	(3.40)	(2.54)
Spending (lag)	0.34**	0.29**	0.20	0.15*	0.11	0.04	0.72**	0.12*	0.01	0.31**
	(0.09)	(0.05)	(0.12)	(0.07)	(0.06)	(0.03)	(0.22)	(0.05)	(0.05)	(0.11)
Municipality Ctrls.	X	X	X	X	X	X	X	X	X	X
Municipality FEs	X	X	X	X	X	X	X	X	X	X
Observations	10,231	10,050	8,320	9,399	4,802	9,928	7,211	8,982	7,721	9,046
Adjusted R^2	0.86	0.79	0.76	0.75	0.82	0.51	0.85	0.61	0.55	0.35

Note: Coefficients from least-squares regressions where the outcomes are per-capita spending levels (in 2012 dollars). Municipality-level controls are described in the main text. Standard errors, in parentheses, are clustered at the municipality level. $^{*}p < 0.05$; $^{**}p < 0.01$.

Figure A5: Coverage Effects on Municipal Expenditure, by Population



Note: Points report the effect of Weekly or Biweekly Coverage from linear regression models fit on subsets of cities and towns based on population. Error bars correspond to 95% (thin bars) and 90% (thick bars) confidence intervals from municipality clustered standard errors.

Table A6: Effect of Monthly Coverage on Municipal Revenue

	Total Revenue (1)	Own Source (2)	Taxes (3)	Intergov. (4)
Monthly	−33.75	−21.35	−11.79	−10.63
	(25.30)	(22.45)	(11.05)	(9.31)
Revenue (lag)	0.28**	0.24**	0.30**	0.26**
	(0.07)	(0.08)	(0.06)	(0.05)
Municipality Ctrls.	X	X	X	X
Municipality FEs	X	X	X	X
Observations	10,216	10,216	10,209	10,138
Adjusted R^2	0.84	0.80	0.86	0.84

Note: Coefficients from least-squares regressions where the outcomes are per-capita revenues (in 2012 dollars). Municipality-level controls are described in the main text. Standard errors, in parentheses, are clustered at the municipality level. $^{*}p < 0.05$; $^{**}p < 0.01$.

E.5 Ideological Representation Results with Alternative Coverage Frequencies

Figures A6 and A7 report the marginal effects of Monthly and Biweekly Coverage, interacted with ideology. As with the Weekly Coverage results in the main paper, ideology is set to the 20th and 80th percentiles.

Table A7: Effects of Beat Reporting on Spending: Logged Outcome

	Total Operating	Police	Fire	Parks & Rec.	Library	Roads	Welfare	Sanitation	Sewer	Financial Admin.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Weekly	0.04**	0.07**	0.05	0.03	0.07	0.06	0.04	−0.04	0.01	−0.16**
	(0.02)	(0.02)	(0.03)	(0.03)	(0.05)	(0.03)	(0.06)	(0.03)	(0.04)	(0.04)
Spending (lag)	0.04**	0.14**	0.20**	0.17**	0.13**	0.08**	0.14**	0.17**	0.13**	0.16**
	(0.01)	(0.05)	(0.04)	(0.02)	(0.05)	(0.02)	(0.02)	(0.03)	(0.04)	(0.02)
Municipality Ctrls.	X	X	X	X	X	X	X	X	X	X
Municipality FEs	X	X	X	X	X	X	X	X	X	X
Observations	10,335	10,050	8,320	9,399	4,802	9,928	7,211	8,982	7,721	9,046
Adjusted R^2	0.79	0.80	0.83	0.79	0.85	0.52	0.65	0.74	0.72	0.55

(a) Weekly Coverage

	Total Operating	Police	Fire	Parks & Rec.	Library	Roads	Welfare	Sanitation	Sewer	Financial Admin.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Biweekly	0.06**	0.08**	0.07*	0.04	0.09	0.09*	0.06	−0.03	0.03	−0.15**
	(0.02)	(0.02)	(0.03)	(0.04)	(0.05)	(0.04)	(0.07)	(0.04)	(0.04)	(0.05)
Spending (lag)	0.04**	0.14**	0.20**	0.17**	0.13**	0.08**	0.14**	0.17**	0.13**	0.17**
	(0.01)	(0.05)	(0.04)	(0.02)	(0.05)	(0.02)	(0.02)	(0.03)	(0.04)	(0.02)
Municipality Ctrls.	X	X	X	X	X	X	X	X	X	X
Municipality FEs	X	X	X	X	X	X	X	X	X	X
Observations	10,335	10,050	8,320	9,399	4,802	9,928	7,211	8,982	7,721	9,046
Adjusted R^2	0.79	0.80	0.83	0.79	0.85	0.52	0.65	0.74	0.72	0.55

(b) Biweekly Coverage

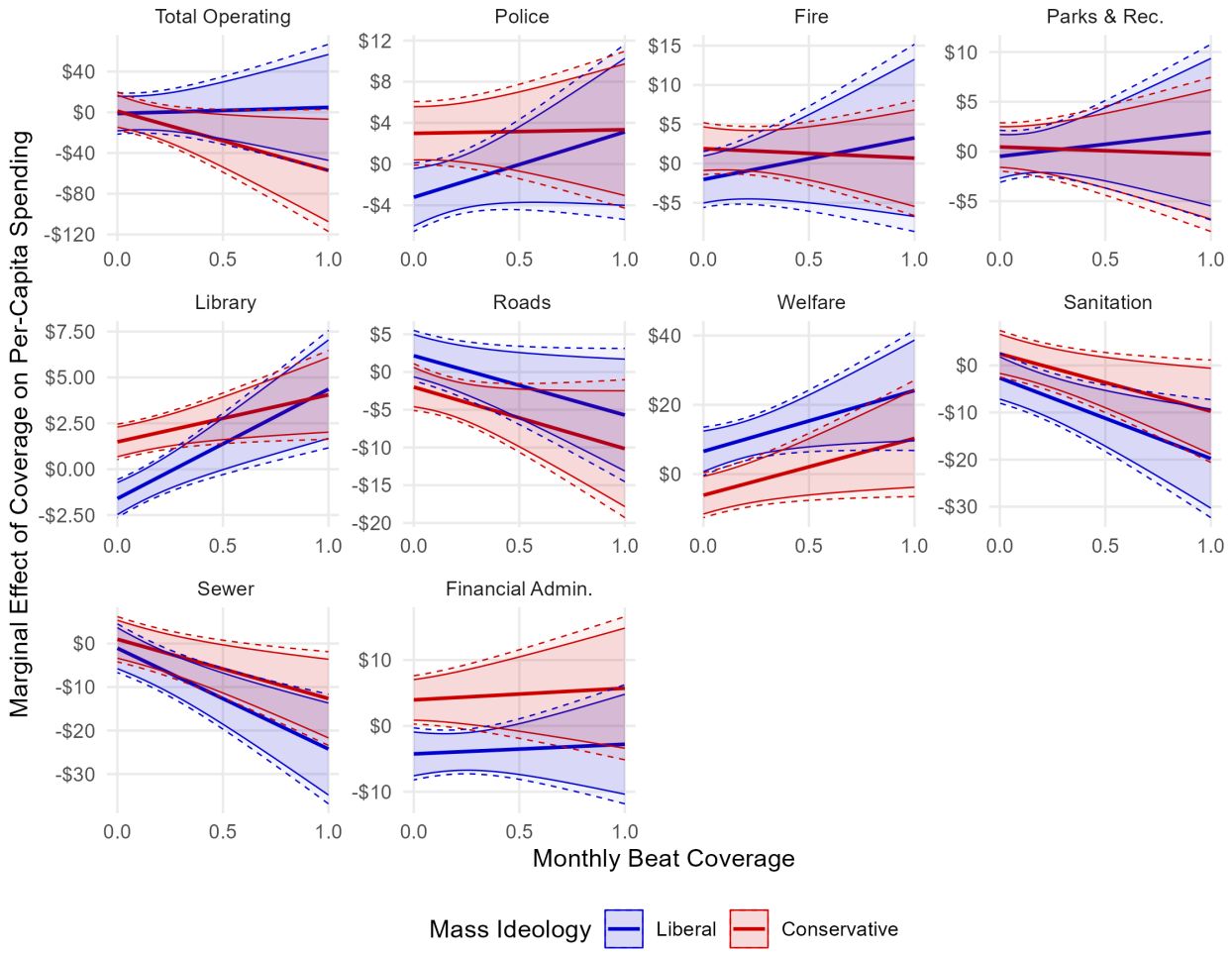
Notes: Coefficients from least-squares regressions where the outcomes are logged per-capita spending levels (in 2012 dollars). Municipality-level controls are described in the main text. Standard errors, in parentheses, are clustered at the municipality level. $^{*}p < 0.05$; $^{**}p < 0.01$.

Table A8: Effect of Coverage on Spending, Over Time

	All Years		1992-2007		2012-2022	
	(1)	(2)	(3)	(4)	(5)	(6)
Weekly	74.76**		91.03**		23.69	
	(20.25)		(34.78)		(43.58)	
Biweekly		110.62**		158.72**		68.53
		(28.08)		(41.95)		(60.25)
Spending (lag)	0.34**	0.34**	0.12	0.12	−0.13	−0.13
	(0.09)	(0.09)	(0.09)	(0.09)	(0.17)	(0.17)
Municipality Ctrls.	X	X	X	X	X	X
Municipality FEs	X	X	X	X	X	X
Observations	10,231	10,231	4,550	4,550	5,681	5,681
Adjusted R^2	0.86	0.86	0.86	0.86	0.89	0.89

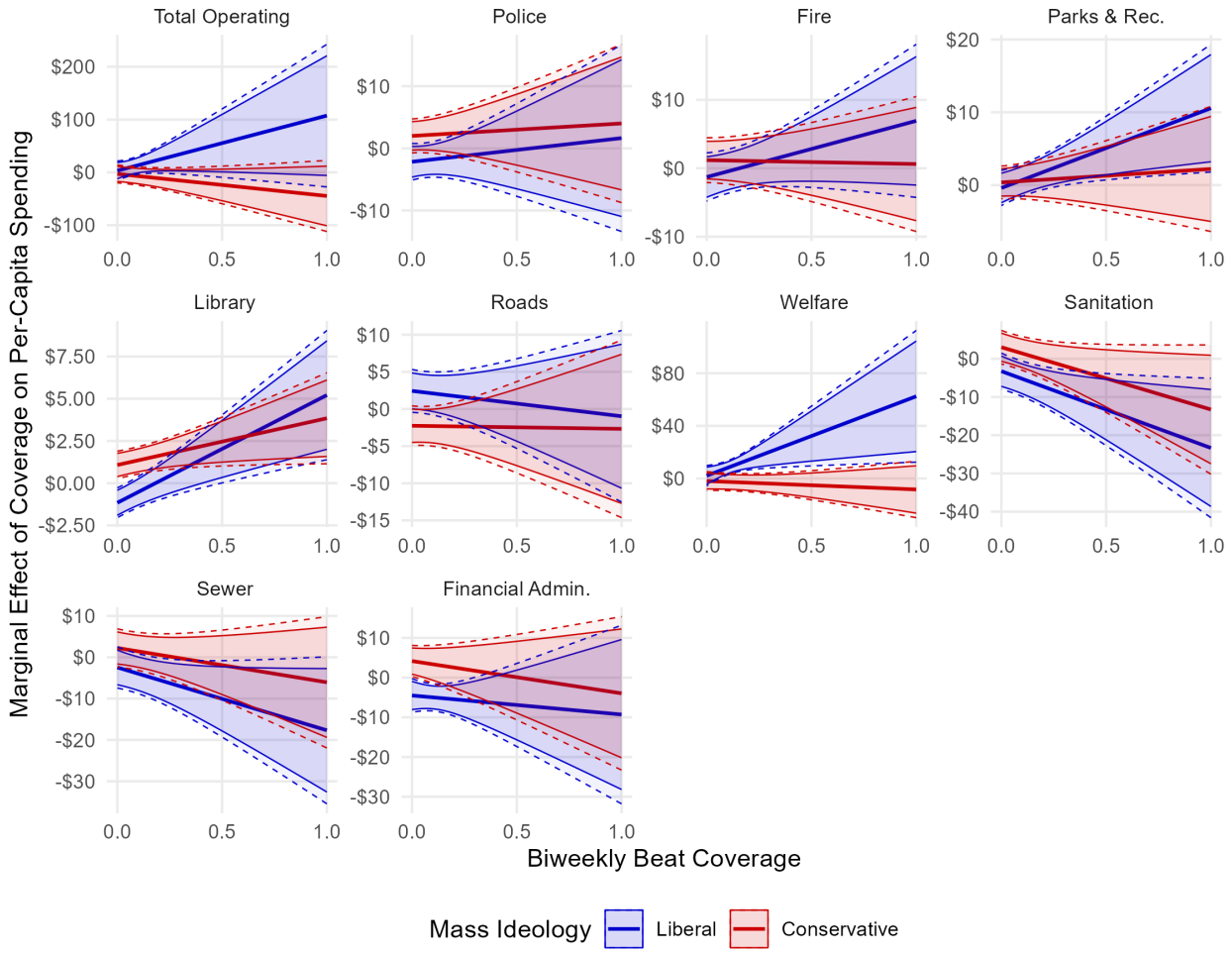
Note: Coefficients from least-squares regressions where the outcomes are per-capita spending levels (in 2012 dollars). Municipality-level controls are described in the main paper. Standard errors, in parentheses, are clustered at the municipality level. $^{*}p < 0.05$; $^{**}p < 0.01$.

Figure A6: Effect of Monthly Beat Reporting by Ideology



Note: Plots show the marginal effects of news coverage on spending from linear models described in the main text. All models include municipality fixed effects. Shaded regions report 90% and 95% confidence intervals, estimated with municipality clustered standard errors.

Figure A7: Effect of Biweekly Beat Reporting by Ideology



Note: Plots show the marginal effects of news coverage on spending from linear models described in the main text. All models include municipality fixed effects. Shaded regions report 90% and 95% confidence intervals, estimated with municipality clustered standard errors.

References

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