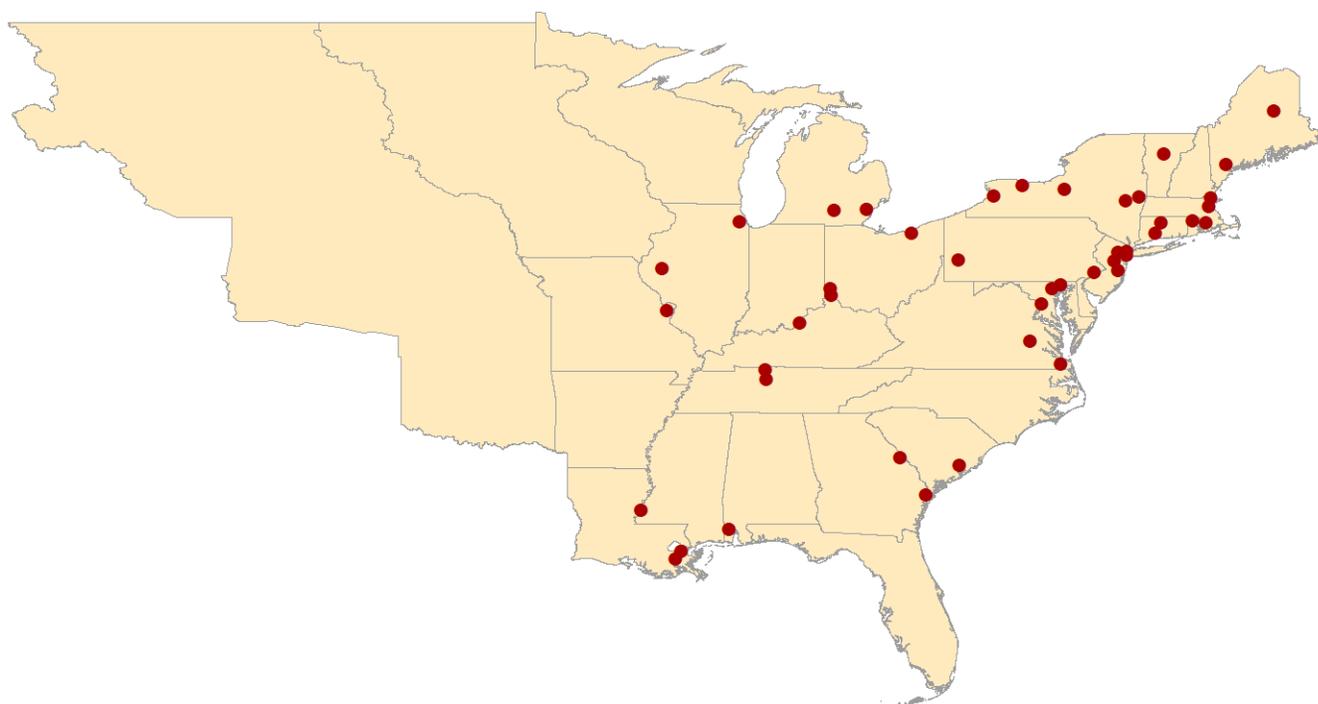


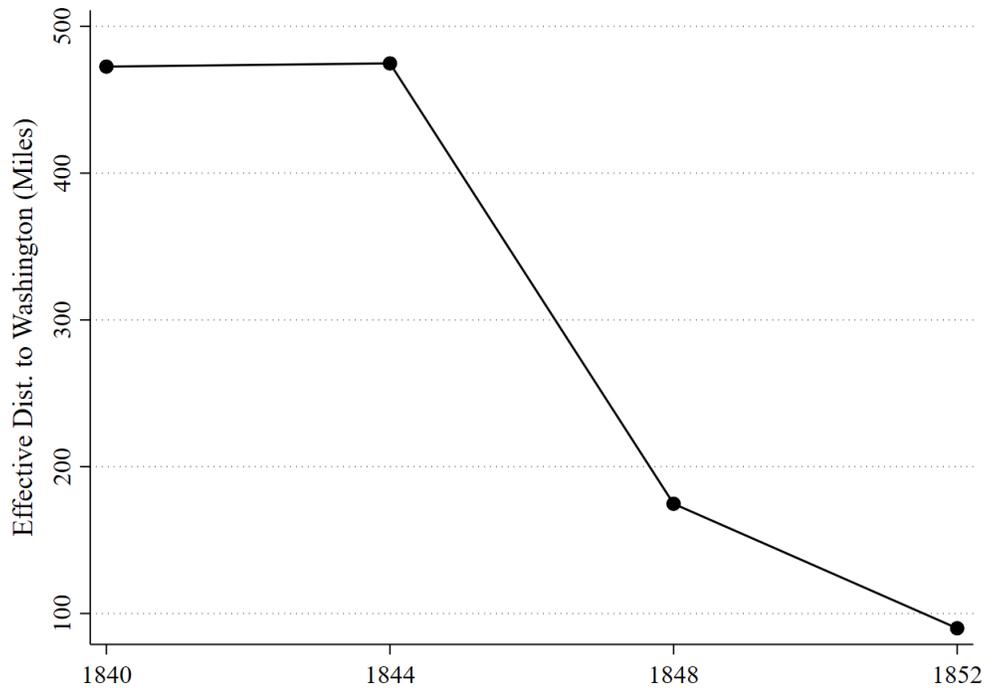
Appendix A: Supplemental Figures and Tables

Figure A.1: Locations of Daily Newspapers in 1840



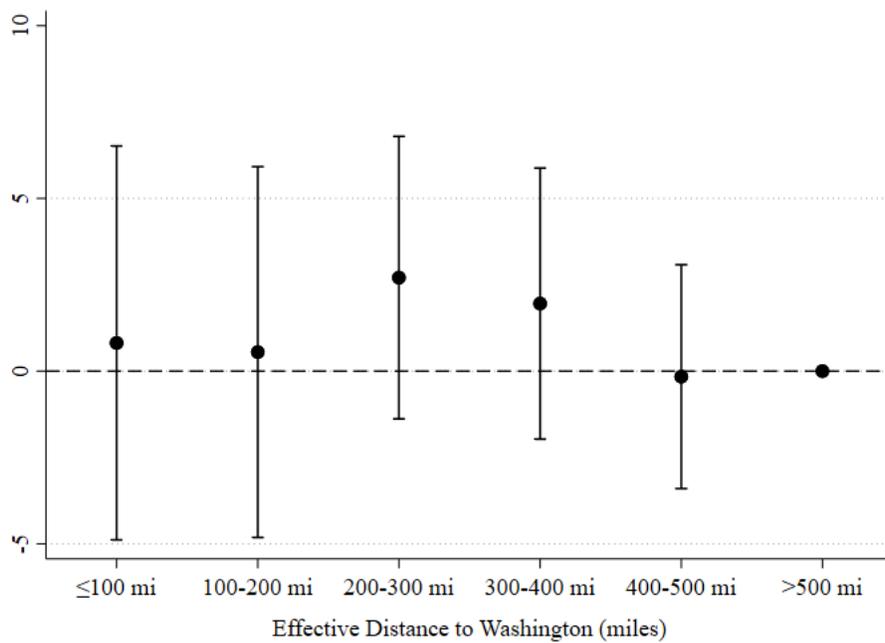
Notes - This figure maps the locations (county centroids) of daily newspapers in 1840. The locations of daily newspapers come from the 1840 *Census of Manufactures*.

Figure A.2: Average Effective Distance to Washington, 1840-1852



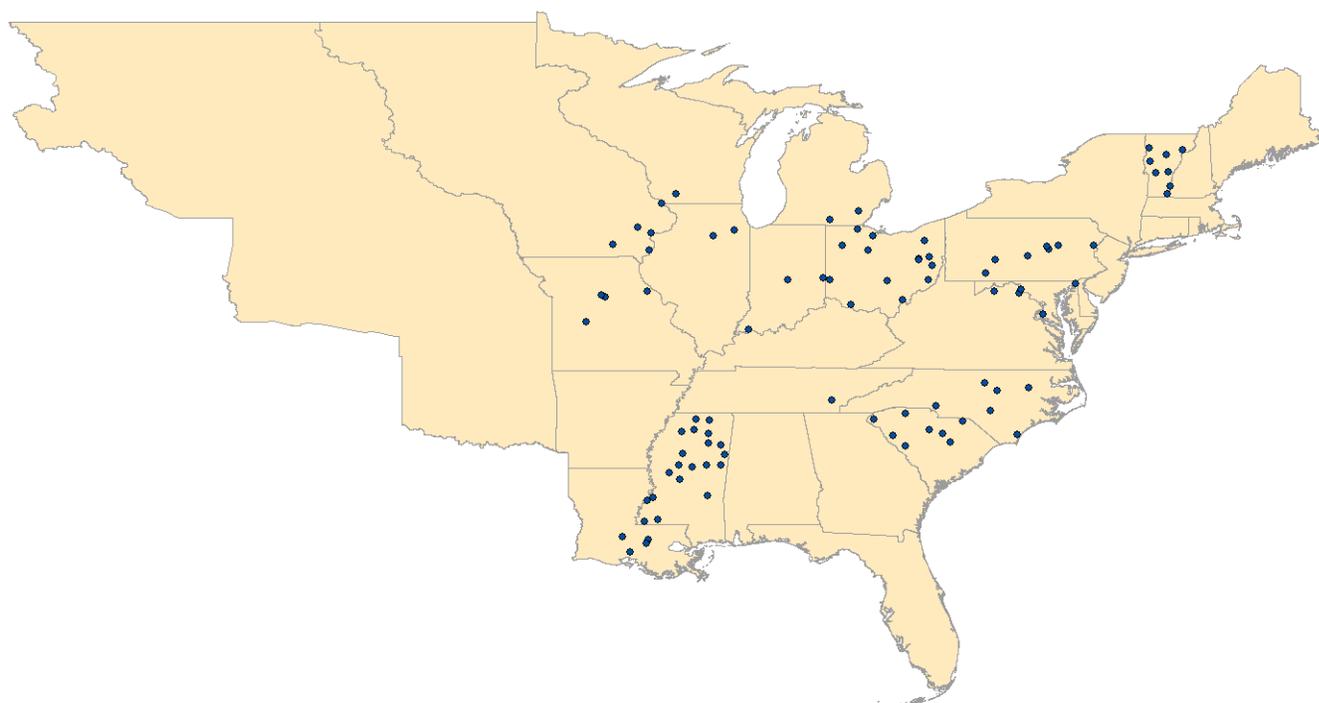
Notes - The figure shows the average effective distance to Washington (in miles) across counties in each presidential election year during the period 1840-1852.

Figure A.3: Effective Distance to Washington and House Election Turnout



Notes - The figure shows the estimated effects of access to telegraphed news from Washington on House election turnout during 1840-1852. It follows the same specification as in Panel B of Figure 5 except the sample also includes the county-years in which a major party or a leading third party appeared on the ballot only in the presidential but not in the House election.

Figure A.4: Locations of the Small-Town Newspapers in My Sample



Notes - This figure maps the locations (towns) of the small-town newspapers in my sample. The newspapers are obtained from the *Chronicling America* database.

Table A.1: Summary Statistics of Voting Analysis

	(1)	(2)	(3)	(4)	(5)
	N	Mean	SD	Min	Max
Panel A. County-level variables					
Presidential election turnout	4,659	69.78	15.71	0	99.97
House election turnout	3,892	68.09	16.55	0	99.51
% Votes for Democrats (Pres.)	4,654	49.79	14.98	0.700	100
% Votes for Whigs (Pres.)	4,654	47.55	14.85	0	99.30
% Votes for Democrats (House)	3,886	49.23	22.25	0	104.8
% Votes for Whig (House)	3,886	44.53	21.62	0	100
Effective dist. to Washington (100 miles)	4,659	2.986	2.586	0	10.74
Total population	4,659	16,474	23,443	561	575,171
% Urban	4,659	3.861	12.82	0	100
% White	4,659	80.72	22.10	8.975	100
% White males above 20 years old	4,659	18.52	5.697	3.424	47.13
% Slaves	4,659	17.72	21.50	0	90.94
Had newspaper in 1840	4,659	0.369	0.483	0	1
Number of newspapers in 1840	4,595	1.168	3.176	0	68
Had periodical in 1840	4,659	0.0653	0.247	0	1
Δ number of newspapers, 1840-50	1,162	0.363	2.346	-7	52.05
Δ number of dailies, 1840-50	1,170	0.0827	0.815	-18	8
Δ number of weeklies, 1840-50	1,163	0.266	2.203	-7	48.03
Δ number of semi-/tri-weeklies, 1840-50	1,171	0.0137	0.521	-6	8
Panel B. Congressman-level variables					
DW-Nominate score (1 st dimension)	1,643	-0.0626	0.351	-1.063	0.965
DW-Nominate score (2 nd dimension)	1,643	0.000657	0.533	-1.273	1.227
Number of bills sponsored	1,603	1.847	4.972	0	110

Notes - The table shows the summary statistics of the variables used in my main analysis. House election turnout has fewer observations because of missing values of some counties. Effective distance to Washington is defined as distance to the nearest daily newspaper with the latest Washington news. By construction, the effective distance to Washington before the introduction of the telegraph (i.e., in 1840 and 1844) is equal to the actual distance to Washington, and after the introduction of the telegraph (i.e., 1848 and 1852) it is equal to the distance to the nearest daily newspaper with telegraphic connection to Washington.

Table A.2: Robustness to Alternative Ways of Adjusting Standard Errors

Cluster at state level	Outcome: Presidential Election Turnout					
	Conley S.E. with different distance cutoffs					
	50 miles	100 miles	200 miles	300 miles	400 miles	
(1)	(2)	(3)	(4)	(5)	(6)	
Eff. Dist. to Washington (100 miles)	-1.224** (0.573)	-1.224*** (0.415)	-1.224*** (0.435)	-1.224*** (0.383)	-1.224*** (0.340)	-1.224*** (0.390)

Notes - The table shows the baseline estimates (column 2 of Table 1) based on alternative ways of adjusting for standard errors. Column 1 shows the estimate when I cluster the standard errors at the state level, while columns 2-6 apply Conley (1999) standard errors with different distance cutoffs. *** p<0.01, ** p<0.05, * p<0.1

Table A.3: Controlling for 1840 County Characteristics Interacted with Year Dummies

	(1)	(2)
	Outcome: Voter Turnout	
	Presidential Election	House Election
Eff. Dist. to Washington (100 miles)	-1.053*** (0.404)	-0.00365 (0.597)
Observations	4,498	3,756
R-squared	0.923	0.837
County FE	Yes	Yes
State-by-Year FE	Yes	Yes
1840 County Characteristics \times Year Dummies	Yes	Yes
Mean of Dep. Var.	69.99	68.06
Std. Dev. of Dep. Var.	15.56	16.49

Notes - The table shows the robustness of the baseline results to controlling for preexisting county characteristics interacted with year dummies. Specifically, I control for each of the following 1840 county characteristics interacted with year dummies: total population (in natural log), percent urban, percent white, percent slaves, percent illiterate white population above 20 years old, number of colleges, percent employed in commerce, percent employed in agriculture, percent employed in manufacturing, and capital in manufacturing (in natural log). Each regression also controls for county fixed effects and state-by-year fixed effects and is weighted by the voting eligible population proxied by the population of white males above 20 years old. Standard errors are corrected for clustering at the county level.*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.4: Constructing Effective Distance to Washington Using Telegraphic Connections More Than 100 Miles Away

	Outcome: Voter Turnout			
	Presidential Election		House Election	
	(1)	(2)	(3)	(4)
Eff. Dist. to Washington (100 miles)	-1.013*** (0.357)	-0.847*** (0.289)	0.148 (0.540)	0.276 (0.525)
Observations	4,400	4,400	3,737	3,737
R-squared	0.908	0.916	0.818	0.829
County FE	Yes	Yes	Yes	Yes
State-by-Year FE	Yes	Yes	Yes	Yes
Demographic controls	No	Yes	No	Yes
Mean of Dep. Var.	70.01	70.01	68.41	68.41
Std. Dev. of Dep. Var.	15.54	15.54	16.30	16.30

Notes - The table shows the robustness of the baseline results when exploiting only the variation from telegraphic connections more than 100 miles away from the county. Specifically, when measuring a county's effective distance to Washington, I only use telegraphic connections by daily newspapers more than 100 miles away and ignore any connection by nearby dailies. The specifications follow those in Table 1, except here the effective distance to Washington is constructed based on telegraphic connections by daily newspapers further away. *** p<0.01, ** p<0.05, * p<0.1

Table A.5: Effects Controlling for the Winners' Margins of Victory

	Outcome: Voter Turnout			
	Presidential Election		House Election	
	(1)	(2)	(3)	(4)
Eff. Dist. to Washington (100 miles)	-1.204*** (0.421)	-1.244*** (0.344)	-0.438 (0.605)	-0.596 (0.543)
Observations	4,648	4,648	3,858	3,858
R-squared	0.918	0.926	0.855	0.864
County FE	Yes	Yes	Yes	Yes
State-by-Year FE	Yes	Yes	Yes	Yes
Demographic controls		Yes		Yes
Mean of Dep. Var.	69.78	69.78	68.22	68.22
Std. Dev. of Dep. Var.	15.69	15.69	16.42	16.42

Notes - The table shows the robustness of the baseline results when controlling for the winners' margins of victory in elections. The specifications follow those in Table 1, except here I also control for the county-level winner's electoral margin of victory. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.6: Taking into Account Special House Election Rules

	Outcome: House Election Turnout			
	Drop at-large elections		Drop multi-round elections	
	(1)	(2)	(3)	(4)
Eff. Dist. to Washington (100 miles)	0.0802 (0.638)	-0.0718 (0.566)	0.399 (0.607)	0.0985 (0.565)
Observations	3,459	3,459	3,784	3,784
R-squared	0.828	0.837	0.800	0.807
County FE	Yes	Yes	Yes	Yes
State-by-Year FE	Yes	Yes	Yes	Yes
Demographic controls		Yes		Yes
Mean of Dep. Var.	67.06	67.06	68.65	68.65
Std. Dev. of Dep. Var.	16.30	16.30	16.15	16.15

Notes - The table shows the estimated effects on House election turnout when taking into account special House election rules during the study period. The specifications follow those in Table 1 examining House election turnout, except here columns 1-2 drop the state-years which held House elections on a statewide (at-large) basis instead of at the congressional district level, and columns 3-4 drop the five New England states that held multi-round House elections. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.7: Robustness to Using the Same Sample of Counties for Presidential and Congressional Election Turnout

	Outcome: Voter Turnout			
	Presidential Election		House Election	
	(1)	(2)	(3)	(4)
Eff. Dist. to Washington (100 miles)	-1.365*** (0.446)	-1.456*** (0.380)	0.0247 (0.619)	-0.0999 (0.552)
Observations	3,742	3,742	3,742	3,742
R-squared	0.924	0.931	0.831	0.840
County FE	Yes	Yes	Yes	Yes
State-by-Year FE	Yes	Yes	Yes	Yes
Demographic controls	No	Yes	No	Yes
Mean of Dep. Var.	71.72	71.72	67.96	67.96
Std. Dev. of Dep. Var.	15.03	15.03	16.32	16.32

Notes - The table shows the robustness of the baseline results to restricting the sample to the common subset of counties that reported both presidential and congressional election turnout. The specifications follow those in Table 1, except here the sample only consists of counties that have non-missing values for both presidential and congressional election turnout. *** p<0.01, ** p<0.05, * p<0.1

Table A.8: Robustness to Using a Balanced Panel of Counties

	Outcome: Voter Turnout			
	Presidential Election		House Election	
	(1)	(2)	(3)	(4)
Eff. Dist. to Washington (100 miles)	-1.320*** (0.410)	-1.397*** (0.327)	-0.511 (0.680)	-0.578 (0.604)
Observations	4,280	4,280	2,656	2,656
R-squared	0.926	0.934	0.825	0.836
County FE	Yes	Yes	Yes	Yes
State-by-Year FE	Yes	Yes	Yes	Yes
Demographic controls	No	Yes	No	Yes
Mean of Dep. Var.	69.97	69.97	68.24	68.24
Std. Dev. of Dep. Var.	15.26	15.26	16	16

Notes - The table shows the robustness of the baseline results to using a balanced panel of counties. The specifications follow those in Table 1, except here the sample only consists of counties that are observed in every presidential election year during the study period (1840-1852). *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.9: Robustness to Interpolating Intercensal Voting Population Log-Linearly

	Outcome: Voter Turnout			
	Presidential Election		House Election	
	(1)	(2)	(3)	(4)
Eff. Dist. to Washington (100 miles)	-1.147*** (0.431)	-1.182*** (0.351)	-0.00205 (0.621)	-0.0929 (0.554)
Observations	4,629	4,629	3,865	3,865
R-squared	0.917	0.924	0.824	0.832
County FE	Yes	Yes	Yes	Yes
State-by-Year FE	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes
Mean of Dep. Var.	70.64	70.64	69	69
Std. Dev. of Dep. Var.	15.70	15.70	16.64	16.64

Notes - The table shows the robustness of the baseline results to interpolating the intercensal voting population log-linearly. The specifications follow those in Table 1, except here the voting population used to calculate voter turnout is interpolated log-linearly (instead of linearly) between Census years. *** p<0.01, ** p<0.05, * p<0.1

Table A.10: Access to Telegraphed News from Washington (Based on Effective Travel Time) and Voter Turnout, 1840-1852

	Outcome: Voter Turnout			
	Presidential Election		House Election	
	(1)	(2)	(3)	(4)
Effective Travel Time to Washington (Hours)	-0.0960*** (0.0289)	-0.102*** (0.0226)	0.0652 (0.0449)	0.0475 (0.0437)
Observations	4,636	4,636	3,890	3,890
R-squared	0.919	0.926	0.826	0.835
County FE	Yes	Yes	Yes	Yes
State-by-Year FE	Yes	Yes	Yes	Yes
Demographic controls	No	Yes	No	Yes
Mean of Dep. Var.	69.89	69.89	68.10	68.10
Std. Dev. of Dep. Var.	15.60	15.60	16.54	16.54

Notes - The table shows the estimated effects of access to telegraphed news from Washington (based on effective travel time) on voter turnout for the period 1840-1852. Each column represents the results from a separate OLS regression, where each observation is a county-year. The outcome variables are presidential election turnout in column 1 and 2 and House election turnout in column 3 and 4. The explanatory variable is the effective travel time to Washington, which is the estimated travel time (in hours) to the nearest daily newspaper with telegraphic connection to Washington taking into account the road, railroad and river transportation networks during the study period. Online Appendix B provides details on the construction of the effective travel time. Each regression controls for county fixed effects and state-by-year fixed effects. Column 2 and 4 further control for county demographics including the natural log of population, the population share of whites, share of urban population, share of white males above 20 years old, and share of slaves. Each regression is weighted by the voting eligible population as proxied by the population of white males above 20 years old in 1840. Standard errors are corrected for clustering at the county level. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.11: Access to Telegraphed News from Washington (Based on Effective Travel Distance) and Voter Turnout, 1840-1852

	Outcome: Voter Turnout			
	Presidential Election		House Election	
	(1)	(2)	(3)	(4)
Effective Travel Distance to Washington (100 miles)	-0.833*** (0.281)	-0.927*** (0.217)	0.336 (0.429)	0.249 (0.406)
Observations	4,636	4,636	3,890	3,890
R-squared	0.919	0.926	0.826	0.835
County FE	Yes	Yes	Yes	Yes
State-by-Year FE	Yes	Yes	Yes	Yes
Demographic controls	No	Yes	No	Yes
Mean of Dep. Var.	69.89	69.89	68.10	68.10
Std. Dev. of Dep. Var.	15.60	15.60	16.54	16.54

Notes - The table shows the estimated effects of access to telegraphed news from Washington (based on effective travel distance) on voter turnout for the period 1840-1852. Each column represents the results from a separate OLS regression following equation (1), where each observation is a county-year. The outcome variables are presidential election turnout in column 1 and 2 and House election turnout in column 3 and 4. The explanatory variable is the effective travel distance to Washington, which is the estimated travel distance (in 100 miles) to the nearest daily newspaper with telegraphic connection to Washington taking into account the road, railroad and river transportation networks during the study period. Online Appendix B provides details on the construction of the effective travel distance. Each regression controls for county fixed effects and state-by-year fixed effects. Column 2 and 4 further control for county demographics including the natural log of population, the population share of whites, share of urban population, share of white males above 20 years old, and share of slaves. Each regression is weighted by the voting eligible population as proxied by the population of white males above 20 years old in 1840. Standard errors are corrected for clustering at the county level. *** p<0.01, ** p<0.05, * p<0.1

Table A.12: Heterogeneous Effects on Voter Turnout by 1840 Whig Vote Share

	Outcome: Voter Turnout			
	Presidential Election		House Election	
	(1)	(2)	(3)	(4)
Eff. Dist. to Washington (100 miles)	-1.249*** (0.345)	-1.385*** (0.332)	-0.101 (0.548)	-0.178 (0.539)
Eff. Dist. to Washington × 1840 Whig vote share above median	-0.156 (0.137)		-0.0148 (0.170)	
Eff. Dist. to Washington × 1840 Whig vote share above 75th percentile		0.0822 (0.126)		0.199 (0.222)
Observations	4,532	4,532	3,721	3,721
R-squared	0.929	0.929	0.837	0.837
County FE	Yes	Yes	Yes	Yes
State-by-Year FE	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes
Mean of Dep. Var.	70.02	70.02	68.34	68.34
Std. Dev. of Dep. Var.	15.53	15.53	16.24	16.24

Notes - The table explores the heterogeneity in the baseline effects on voter turnout by the county's 1840 Whig vote share. Each column represents the results from a separate OLS regression, where each observation is a county-year. The outcome variables are presidential election turnout in columns 1 and 2 and House election turnout in columns 3 and 4. The main explanatory variable is the effective distance to Washington measured in hundred miles. In columns 1 and 3, effective distance to Washington is interacted with a dummy variable that equals 1 if the county's 1840 Whig vote share was above median; in columns 2 and 4, the interaction is with a dummy variable that equals 1 if the county's 1840 Whig vote share was in the top quartile. Each regression controls for county fixed effects, state-by-year fixed effects, and county demographics including the natural log of population, the population share of whites, share of urban population, share of white males above 20 years old, and share of slaves. Each regression is weighted by the voting eligible population as proxied by the population of white males above 20 years old in 1840. Standard errors are corrected for clustering at the county level. *** p<0.01, ** p<0.05, * p<0.1

Table A.13: Effects on the Winners' Margins of Victory

	Outcome: Winner's Margin of Victory			
	Presidential Election		House Election	
	(1)	(2)	(3)	(4)
Eff. Dist. to Washington (100 miles)	0.100 (0.577)	0.122 (0.494)	-0.0431 (0.828)	-0.276 (0.808)
Observations	4,645	4,645	3,230	3,230
R-squared	0.826	0.830	0.692	0.693
County FE	Yes	Yes	Yes	Yes
State-by-Year FE	Yes	Yes	Yes	Yes
Demographic controls		Yes		Yes
Mean of Dep. Var.	21.48	21.48	21.63	21.63
Std. Dev. of Dep. Var.	19.19	19.19	21.23	21.23

Notes - The table shows the effect of access to telegraphed Washington news on the winners' margins of victory in elections, conditional on having both major parties on the ballot. The specifications follow those in Table 1, except here the outcome is the winner's margin of victory in each county, and the sample consists of county-years that had both major parties on the ballot. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table A.14: Access to Telegraphed News from Washington and Congressmen Ideology, 26th-32nd Congress

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Outcome: DW-Nominate Scores (Standardized) of the House Representative							
	1 st dim.	2 nd dim.	1 st dim.	2 nd dim.	1 st dim.	2 nd dim.	1 st dim.	2 nd dim.
Eff. Dist. to Washington (100 miles)	-0.0321 (0.0229)	-0.00946 (0.0659)	-0.0338 (0.0853)	0.134 (0.0909)	0.00251 (0.0180)	-0.0121 (0.0336)	0.0127 (0.0230)	0.0452 (0.0301)
Observations	1,643	1,643	1,643	1,643	1,008	1,008	1,008	1,008
R-squared	0.893	0.773	0.320	0.272	0.998	0.991	0.994	0.979
Party FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State-by-Congress FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Individual FE					Yes	Yes	Yes	Yes

Notes - The table shows the estimated effects of access to telegraphed news from Washington on House representatives' positions on roll call votes during the 26th-32nd Congress. Each column represents the results from a separate OLS regression, where each observation is a House representative in a Congress. The outcome variables are the first dimension of a representative's DW-NOMINATE score in a given Congress in columns 1 and 5, the second dimension of the score in columns 2 and 6, and their absolute values in columns 3-4 and 7-8, all standardized. The explanatory variable is effective distance to Washington, which is the distance (in hundred miles) from the centroid of each congressional district to the nearest daily newspaper with the latest Washington news. Each regression controls for party fixed effects and state-by-Congress fixed effects. Columns 5-8 further control for individual (Congressman) fixed effects. Standard errors are corrected for clustering at the state level. *** p<0.01, ** p<0.05, * p<0.1

Table A.15: Access to Telegraphed News from Washington and Number of Bills
Congressmen Sponsored, 26th-32rd Congress

	Outcome: Number of Bills Sponsored	
	(1)	(2)
Eff. Dist. to Washington (100 miles)	0.168 (0.294)	-0.0860 (0.682)
Observations	1,603	969
R-squared	0.080	0.593
Party FE	Yes	Yes
State-by-Congress FE	Yes	Yes
Individual FE		Yes
Mean of Dep. Var.	1.847	2.544
Std. Dev. of Dep. Var.	4.972	6.130

Notes - The table shows the estimated effects of access to telegraphed news from Washington on House representatives' number of bills sponsored during the 26th-32rd Congress. Each column represents the results from a separate OLS regression, where each observation is a House representative in a Congress. The outcome variable is the number of bills sponsored by a House representative in a given Congress. The explanatory variable is effective distance to Washington, which is the distance (in hundred miles) from the centroid of each congressional district to the nearest daily newspaper with the latest Washington news. Each regression controls for party fixed effects and state-by-Congress fixed effects. Column 2 further controls for individual (Congressman) fixed effects. Standard errors are corrected for clustering at the state level. *** p<0.01, ** p<0.05, * p<0.1

Table A.16: List of the Small-Town Newspapers in My Sample and Their Locations

Title	Place	State	Title	Place	State
The Illinois free trader.	Ottawa	Illinois	The Yazoo Democrat.	Yazoo	Mississippi
Juliet signal.	Juliet	Illinois	The Yazoo City Whig.	Yazoo	Mississippi
Indiana State sentinel.	Indianapolis	Indiana	Saturday morning visitor.	Warsaw	Missouri
The Evansville journal.	Evansville	Indiana	Boon's Lick times.	Glasgow	Missouri
Richmond palladium.	Richmond	Indiana	Salt River journal.	Bowling Green	Missouri
Burlington hawk-eye.	Burlington	Iowa Territory	The North-Carolinian.	Fayetteville	North Carolina
Iowa territorial gazette and advertiser.	Burlington	Iowa Territory	Tarboro' press.	Tarboro	North Carolina
Weekly miners' express.	Dubuque	Iowa Territory	The Charlotte journal.	Charlotte	North Carolina
Iowa capitol reporter.	Iowa City	Iowa Territory	Wilmington journal.	Wilmington	North Carolina
Bloomington herald.	Bloomington	Iowa Territory	The Hillsborough recorder.	Hillsboro	North Carolina
Baton-Rouge gazette.	Baton Rouge	Louisiana	The North-Carolina standard.	Raleigh	North Carolina
The Planters' banner.	New Iberia	Louisiana	Democratic standard.	Georgetown	Ohio
Southern sentinel.	Plaquemine	Louisiana	Carroll free press.	Carrollton	Ohio
The St. Landry whig.	Opelousas	Louisiana	The Lancaster gazette.	Lancaster	Ohio
The Cecil Whig.	Elkton	Maryland	The Cadiz sentinel.	Cadiz	Ohio
Port Tobacco Times	Port Tobacco	Maryland	Maumee City express.	Maumee	Ohio
Hillsdale Whig standard.	Hillsdale	Michigan	Meigs County times.	Pomeroy	Ohio
Ypsilanti sentinel.	Ypsilanti	Michigan	The spirit of democracy.	Woodfield	Ohio
Piney Woods planter.	Liberty	Mississippi	Portage sentinel.	Ravenna	Ohio
Liberty advocate.	Liberty	Mississippi	The Kalida venture.	Kalida	Ohio
Jeffersonian Democrat.	Kosciusko	Mississippi	Lower Sandusky freeman.	Lower Sandusky	Ohio
Kosciusko chronicle.	Kosciusko	Mississippi	The Ohio Democrat.	Dover	Ohio
Central register.	Kosciusko	Mississippi	Anti-slavery bugle	Carrollton	Ohio
Attala register.	Kosciusko	Mississippi	The Democratic pioneer.	Upper Sandusky	Ohio
Mississippi Democrat.	Carrollton	Mississippi	The mountain sentinel.	Ebensburg	Pennsylvania
The Whig creed.	Carrollton	Mississippi	The Columbia Democrat.	Bloomsburg	Pennsylvania
The Southern Pioneer	Carrollton	Mississippi	Lewistown gazette.	Lewistown	Pennsylvania
The hornet.	Carrollton	Mississippi	Jeffersonian Republican.	East Stroudsburg	Pennsylvania
Western statesman.	Carrollton	Mississippi	Sunbury American.	Sunbury	Pennsylvania
Southern patriot.	Houston	Mississippi	The Somerset herald.	Somerset	Pennsylvania
Port-Gibson herald.	Port Gibson	Mississippi	Lewisburg chronicle.	Lewisburg	Pennsylvania
The Port-Gibson correspondent.	Port Gibson	Mississippi	The Abbeville banner.	Abbeville	South Carolina
Whig Republican.	Lexington	Mississippi	Farmers' gazette.	Cheraw	South Carolina
Lexington union.	Lexington	Mississippi	Edgefield advertiser.	Edgefield	South Carolina
True Democrat.	Paulding	Mississippi	The Camden journal.	Camden	South Carolina
The Rodney telegraph.	Rodney	Mississippi	Keowee courier.	Walhalla	South Carolina
The organizer.	Oxford	Mississippi	The Spartan.	Spartanburg	South Carolina
The Democratic Whig.	Columbus	Mississippi	The Sumter banner.	Sumter	South Carolina
Columbus Democrat.	Columbus	Mississippi	South Branch intelligencer.	Romney	Virginia
Southern Argus.	Columbus	Mississippi	Spirit of Jefferson.	Charles Town	Virginia
The Mississippi Creole.	Canton	Mississippi	The Middlebury galaxy.	Middlebury	Vermont
Holly Springs banner.	Holly Springs	Mississippi	The Caledonian.	St Johnsbury	Vermont
The guard.	Holly Springs	Mississippi	Burlington free press.	Burlington	Vermont
Holly Springs gazette.	Holly Springs	Mississippi	Rutland herald.	Rutland	Vermont
The weekly independent.	Aberdeen	Mississippi	Vermont watchman and State journal.	Montpelier	Vermont
Southern tribune.	Aberdeen	Mississippi	Vermont phoenix.	Bellows Falls	Vermont
Macon intelligencer.	Macon	Mississippi	Windham County Democrat.	Brattleboro	Vermont
The Weekly register.	Panola	Mississippi	The spirit of the age.	Woodstock	Vermont
The Ripley advertiser.	Ripley	Mississippi	The voice of freedom.	Rutland	Vermont
Woodville Republican.	Woodville	Mississippi	Green-Mountain freeman.	Montpelier	Vermont
Louisville messenger.	Louisville	Mississippi	Wisconsin tribune.	Mineral Point	Wisconsin Territory

Notes - The table lists the small-town newspapers in my sample that were used for the text analysis. The newspapers are obtained from the *Chronicling America* database.

Table A.17: Summary Statistics of Word Frequency for the Newspaper Text Analysis

	N	Mean	SD	Min	Max
	(1)	(2)	(3)	(4)	(5)
“Congress”	4,882	30.81	27.89	0	242
Presidents’ last names	4,882	14.48	18.49	0	191
Presidential candidates’ last names	1,429	99.19	103.4	0	785
Pres. & Vice Pres. candidates’ last names	1,429	114.4	117.8	0	884
Town name	4,882	80.40	74.49	0	520
County name	4,882	58.05	71.29	0	748
State capital name	4,882	20.46	37.12	0	313
State name	4,882	61.07	57.61	0	475
Governor name	4,882	21.58	24.05	0	214
European country names	4,882	28.87	28.16	0	349
“slavery”	4,882	13.78	39.10	0	435
“texas”	4,882	13.93	23.40	0	410
“annex”	4,882	7.706	13.01	0	198
“tariff”	4,882	9.770	15.97	0	281
“mexic”	4,882	34.42	52.88	0	559
“vote”	4,882	37.86	34.14	0	354
“telegraph”	4,882	2.664	4.290	0	57
“abolition”	4,882	5.868	12.75	0	218
“free soil”	4,882	1.209	6.084	0	166
“liberty party”	4,882	0.771	4.396	0	87
“wilmot proviso”	4,882	0.856	3.354	0	75
“plantation”	4,882	3.331	6.249	0	59
“rally”	1,429	2.159	2.418	0	23
“meeting”	1,429	23.83	22.02	0	179
“speech”	1,429	14.47	13.47	0	99
“orator”	1,429	2.761	4.298	0	100
“gathering”	1,429	1.327	1.787	0	14
“invite”	1,429	10.30	9.618	0	65
“assembl”	1,429	10.78	11.26	0	143
Campaign-related words combined	1,429	65.63	48.11	0	348

Notes - The table presents summary statistics of the words used in the newspaper text analysis. The newspapers are obtained from the *Chronicling America* database. The frequency of each word is based on my newspaper sample for the period 1840-1849. Presidents’ last names consist of the last names of the U.S. presidents that were in office in each year. Presidential candidates’ last names include all presidential candidates from the two major parties (Whigs and Democrats) and the leading third party in each presidential election year during 1840-1848. Pres. & Vice Pres. candidates’ last names further include the last names of the vice presidential candidates in election years. European country names consist of the following: “Britain,” “United Kingdom,” “France,” “Austria,” “Prussia,” “Russia,” “Italy,” “Portugal,” “Greece,” “Belgium,” “Switzerland,” “Netherland,” “Sweden,” “Poland,” and the word “Europe.” Campaign-related words combined is the sum of the following words: “rally,” “meeting,” “speech,” “orator,” “gathering,” “invite,” and “assembl”.

Table A.18: Access to Telegraphed Washington News and Newspaper Mentioning of “Telegraph”

	Outcome: ln(“telegraph”)			
	(1)	(2)	(3)	(4)
Eff. Dist. to Washington (100 miles)	-0.122*** (0.0125)	-0.0785*** (0.0231)	-0.0760*** (0.0243)	-0.115*** (0.0307)
Observations	4,882	4,882	4,882	4,882
R-squared	0.165	0.554	0.555	0.608
Newspaper FE		Yes	Yes	Yes
Month-by-year FE		Yes	Yes	Yes
Demographic controls			Yes	Yes
Newspaper-specific linear time trend				Yes

Notes - The table shows the estimated effects of access to telegraphed news from Washington on the mentioning of the word “telegraph” in my sample of newspapers from the 1840s. Each column represents the results from a separate OLS regression following equation (3), where each observation is a newspaper-year-month. The outcome variable is the natural log of the frequency of the word “telegraph.” The explanatory variable is effective distance to Washington measured in hundred miles. Column 1 includes no controls. Column 2 adds newspaper fixed effects and month-by-year fixed effects. Column 3 adds county demographics including the natural log of population, the population share of whites, share of urban population, share of white males above 20 years old, and share of slaves. Column 4 adds newspaper-specific linear time trends. Standard errors are corrected for clustering at the newspaper location (town) level. *** p<0.01, ** p<0.05, * p<0.1

Table A.19: Access to Telegraphed News from Washington and Mentioning of Words Related to Slavery in Newspapers

	(1)	(2)	(3)	(4)	(5)	(6)
	ln("Slavery")	ln("Abolition")	ln("Free Soil")	ln("Liberty Party")	ln("Wilmot Proviso")	ln("Plantation")
Panel A. Sample: All Newspapers in Sample						
Eff. Dist. to Washington (100 miles)	-0.102*** (0.0361)	-0.0773*** (0.0269)	-0.0162 (0.0241)	-0.0173 (0.0134)	-0.0542 (0.0369)	-0.0351 (0.0257)
Observations	4,882	4,882	4,882	4,882	4,882	4,882
R-squared	0.632	0.462	0.701	0.641	0.573	0.594
Panel B. Sample: Northern Newspapers						
Eff. Dist. to Washington (100 miles)	-0.137** (0.0519)	-0.109** (0.0436)	-0.0220 (0.0374)	-0.0404 (0.0256)	-0.115*** (0.0203)	-0.0227 (0.0247)
Observations	2,780	2,780	2,780	2,780	2,780	2,780
R-squared	0.686	0.493	0.731	0.645	0.575	0.292
Panel C. Sample: Southern Newspapers						
Eff. Dist. to Washington (100 miles)	-0.0278 (0.0592)	-0.00211 (0.0430)	0.00342 (0.0338)	0.000662 (0.00350)	0.0169 (0.0739)	-0.0232 (0.0495)
Observations	2,102	2,102	2,102	2,102	2,102	2,102
R-squared	0.548	0.516	0.687	0.127	0.626	0.541
Newspaper FE	Yes	Yes	Yes	Yes	Yes	Yes
Month-by-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes	Yes	Yes

Notes - The table shows the estimated effects of access to telegraphed news from Washington on the mentioning of words related to slavery. Each column of each panel represents the results from a separate OLS regression following equation (3), where each observation is a newspaper-year-month. The explanatory variable is effective distance to Washington measured in hundred miles. The outcome variables are the frequencies of words related to slavery, all measured in natural logs. Panel A includes all newspapers in my baseline analysis. Panels B focuses on the sample of newspapers from the North, while Panel C focuses on newspapers from the South. Each regression controls for newspaper fixed effect, month-by-year fixed effects, and county demographics including the natural log of population, the population share of whites, share of urban population, share of white males above 20 years old, and share of slaves. Standard errors are corrected for clustering at the newspaper location (town) level. *** p<0.01, ** p<0.05, * p<0.1

Table A.20: Robustness of the Newspaper Text Analysis to Dropping Mississippi Newspapers from the Sample

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A.	Mentioning of “Congress” and Presidents’ & Presidential Candidates’ Last Names					
					ln(Pres. Cand. Name)	
		ln(President	ln(Pres. Name)		P. Cand	P. & V.P.
	ln(“Congress”)	Name)	Pres. Year	Off Year	Only	Cand
Eff. Dist. To Washington (100 miles)	-0.0398 (0.0352)	-0.0640* (0.0326)	-0.120** (0.0530)	-0.0495 (0.0396)	-0.113** (0.0512)	-0.0874* (0.0449)
Observations	3,912	3,912	1,173	2,737	1,173	1,173
R-squared	0.484	0.495	0.552	0.500	0.624	0.635
Panel B.	Mentioning of Local, State-Specific, and European Nation Names					
	ln(Town Name)	ln(County Name)	ln(State Cap- ital Name)	ln(State Name)	ln(Governor Name)	ln(European Nation Name)
Eff. Dist. To Washington (100 miles)	0.0821** (0.0332)	0.0274 (0.0330)	0.0636* (0.0377)	0.00209 (0.0295)	0.00579 (0.0260)	0.0220 (0.0386)
Observations	3,912	3,912	3,912	3,912	3,912	3,912
R-squared	0.810	0.733	0.700	0.662	0.616	0.492
Panel C.	Mentioning of Issues of National Importance					
	ln(“Slavery”)	ln(“Texas”)	ln(“Annex”)	ln(“Tariff”)	ln(“Mexic”)	ln(“Vote”)
Eff. Dist. To Washington (100 miles)	-0.0854* (0.0433)	-0.0636* (0.0362)	-0.0283 (0.0331)	-0.0293 (0.0358)	-0.0117 (0.0339)	-0.0289 (0.0274)
Observations	3,912	3,912	3,912	3,912	3,912	3,912
R-squared	0.637	0.610	0.608	0.534	0.745	0.506
Newspaper FE	Yes	Yes	Yes	Yes	Yes	Yes
Month-by-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes	Yes	Yes

Notes - The table shows the estimates from Table 7 after dropping all newspapers in my sample from Mississippi. *** p<0.01, ** p<0.05, * p<0.1

Table A.21: Robustness of the Newspaper Text Analysis to Controlling for North-South Region Dummies Interacted with Year-Month Fixed Effects

Panel A.	(1)	(2)	(3)	(4)	(5)	(6)
	Mentioning of “Congress” and Presidents’ & Presidential Candidates’ Last Names					
	ln(“Congress”)	ln(President Name)	ln(Pres. Name)		ln(Pres. Cand. Name)	
Pres. Year			Off Year	P. Cand Only	P. & V.P. Cand	
Eff. Dist. To Washington (100 miles)	-0.0497 (0.0306)	-0.0567** (0.0284)	-0.142** (0.0556)	-0.0510 (0.0362)	-0.158*** (0.0591)	-0.133** (0.0524)
Observations	4,882	4,882	1,427	3,451	1,427	1,427
R-squared	0.487	0.523	0.577	0.536	0.643	0.653

Panel B.	Mentioning of Local, State-Specific, and European Nation Names					
	ln(Town Name)	ln(County Name)	ln(State Capital Name)	ln(State Name)	ln(Governor Name)	ln(European Nation Name)
Eff. Dist. To Washington (100 miles)	0.0325 (0.0292)	-0.00533 (0.0272)	0.00629 (0.0289)	-0.0290 (0.0255)	-0.0296 (0.0202)	0.00782 (0.0308)
Observations	4,882	4,882	4,882	4,882	4,882	4,882
R-squared	0.794	0.722	0.678	0.630	0.594	0.503

Panel C.	Mentioning of Issues of National Importance					
	ln(“Slavery”)	ln(“Texas”)	ln(“Annex”)	ln(“Tariff”)	ln(“Mexic”)	ln(“Vote”)
Eff. Dist. To Washington (100 miles)	-0.100*** (0.0346)	-0.0482* (0.0283)	-0.0333 (0.0270)	-0.0183 (0.0290)	-0.000381 (0.0294)	-0.0341 (0.0220)
Observations	4,882	4,882	4,882	4,882	4,882	4,882
R-squared	0.654	0.608	0.621	0.536	0.748	0.509
Newspaper FE	Yes	Yes	Yes	Yes	Yes	Yes
North/South × Month-by-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes	Yes	Yes

Notes - The table shows the estimates from Table 7 after controlling for the interaction between a North-South region dummy and year-month fixed effects. *** p<0.01, ** p<0.05, * p<0.1

Table A.22: Robustness of the Newspaper Text Analysis to Controlling for Census Region Dummies Interacted with Year-Month Fixed Effects

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A.	Mentioning of “Congress” and Presidents’ & Presidential Candidates’ Last Names					
			ln(Pres. Name)		ln(Pres. Cand. Name)	
	ln(“Congress”)	ln(President Name)	Pres. Year	Off Year	P. Cand Only	P. & V.P. Cand
Eff. Dist. To Washington (100 miles)	-0.0110 (0.0523)	0.0121 (0.0319)	-0.115 (0.0728)	0.0433 (0.0426)	-0.116 (0.0814)	-0.0985 (0.0736)
Observations	4,882	4,882	1,427	3,451	1,427	1,427
R-squared	0.523	0.560	0.606	0.574	0.675	0.684
Panel B.	Mentioning of Local, State-Specific, and European Nation Names					
	ln(Town Name)	ln(County Name)	ln(State Capital Name)	ln(State Name)	ln(Governor Name)	ln(European Nation Name)
Eff. Dist. To Washington (100 miles)	0.0581 (0.0522)	0.0489 (0.0440)	0.0115 (0.0471)	-0.00668 (0.0396)	-0.00462 (0.0324)	0.0392 (0.0450)
Observations	4,882	4,882	4,882	4,882	4,882	4,882
R-squared	0.815	0.742	0.707	0.664	0.647	0.531
Panel C.	Mentioning of Issues of National Importance					
	ln(“Slavery”)	ln(“Texas”)	ln(“Annex”)	ln(“Tariff”)	ln(“Mexic”)	ln(“Vote”)
Eff. Dist. To Washington (100 miles)	-0.0772* (0.0453)	-0.0340 (0.0405)	-0.0259 (0.0423)	0.0262 (0.0400)	0.0216 (0.0492)	0.0256 (0.0355)
Observations	4,882	4,882	4,882	4,882	4,882	4,882
R-squared	0.683	0.633	0.646	0.579	0.766	0.554
Newspaper FE	Yes	Yes	Yes	Yes	Yes	Yes
Region × Month-by-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes	Yes	Yes

Notes - The table shows the estimates from Table 7 after controlling for the interactions between Census region dummies (indicators for the Northeast, Midwest, Southeast, and South Central regions) and year-month fixed effects. *** p<0.01, ** p<0.05, * p<0.1

Table A.23: Robustness of the Newspaper Text Analysis to Controlling for Newspaper-Specific Linear Trends

	(1)	(2)	(3)	(4)	(5)	(6)
Panel A.	Mentioning of “Congress” and Presidents’ & Presidential Candidates’ Last Names					
					ln(Pres. Cand. Name)	
		ln(President Name)	ln(Pres. Name)		P. Cand	P. & V.P.
	ln(“Congress”)		Pres. Year	Off Year	Only	Cand
Eff. Dist. To Washington (100 miles)	-0.0920*** (0.0279)	-0.0477 (0.0446)	-0.176 (0.118)	-0.0756 (0.0564)	-0.0655 (0.100)	-0.0395 (0.0867)
Observations	4,882	4,882	1,427	3,451	1,427	1,427
R-squared	0.557	0.567	0.668	0.581	0.728	0.737
Panel B.	Mentioning of Local, State-Specific, and European Nation Names					
	ln(Town Name)	ln(County Name)	ln(State Capital Name)	ln(State Name)	ln(Governor Name)	ln(European Nation Name)
Eff. Dist. To Washington (100 miles)	0.0400 (0.0436)	-0.0276 (0.0378)	0.0283 (0.0517)	-0.0214 (0.0375)	-0.0253 (0.0351)	0.000401 (0.0321)
Observations	4,882	4,882	4,882	4,882	4,882	4,882
R-squared	0.838	0.772	0.719	0.672	0.624	0.584
Panel C.	Mentioning of Issues of National Importance					
	ln(“Slavery”)	ln(“Texas”)	ln(“Annex”)	ln(“Tariff”)	ln(“Mexic”)	ln(“Vote”)
Eff. Dist. To Washington (100 miles)	-0.106** (0.0461)	-0.0841** (0.0395)	-0.0553* (0.0284)	-0.0593 (0.0383)	-0.0448 (0.0347)	-0.0779*** (0.0253)
Observations	4,882	4,882	4,882	4,882	4,882	4,882
R-squared	0.672	0.636	0.645	0.570	0.768	0.564
Newspaper FE	Yes	Yes	Yes	Yes	Yes	Yes
Month-by-year FE	Yes	Yes	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes	Yes	Yes
Newspaper-specific linear trend	Yes	Yes	Yes	Yes	Yes	Yes

Notes - The table shows the estimates from Table 7 after controlling for newspaper-specific linear trends in each regression. *** p<0.01, ** p<0.05, * p<0.1

Table A.24: Access to Telegraphed News from Washington and Mentioning of Campaign-Related Words

	(1) ln("Rally")	(2) ln("Meeting")	(3) ln("Speech")	(4) ln("Orator")	(5) ln("Gathering")	(6) ln("Invite")	(7) ln("Assembl")	(8) ln(Combined)
Eff. Dist. to Washington (100 miles)	-0.0236 (0.0324)	-0.0280 (0.0311)	-0.0261 (0.0413)	-0.0242 (0.0363)	-0.00321 (0.0208)	0.0732* (0.0392)	-0.00746 (0.0566)	-0.00363 (0.0342)
Observations	1,427	1,427	1,427	1,427	1,427	1,427	1,427	1,427
R-squared	0.291	0.589	0.581	0.309	0.344	0.587	0.517	0.617
Newspaper FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Month-by-year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes - The table shows the estimated effects of access to telegraphed Washington news on the mentioning of words related to local campaigning activities in my sample of newspapers during presidential election years. The regressions follow the same specification as in Table 7. *** p<0.01, ** p<0.05, * p<0.1

Table A.25: Direct Access to the Telegraph and Mentioning of Campaign-Related Words

	(1) ln("Rally")	(2) ln("Meeting")	(3) ln("Speech")	(4) ln("Orator")	(5) ln("Gathering")	(6) ln("Invite")	(7) ln("Assembl")	(8) ln(Combined)
Telegraph connection	0.0371 (0.145)	0.116 (0.175)	-0.161 (0.193)	-0.155 (0.215)	-0.0863 (0.102)	0.273* (0.161)	-0.0754 (0.209)	0.00825 (0.158)
Observations	1,427	1,427	1,427	1,427	1,427	1,427	1,427	1,427
R-squared	0.345	0.722	0.700	0.375	0.393	0.687	0.615	0.821
Newspaper FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Month-by-year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Ln(total word count)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes - The table shows the estimated effects of a town's direct connection to the telegraph on the mentioning of words related to local campaigning activities in my sample of newspapers during presidential election years. The explanatory variable is a dummy variable that becomes 1 once the newspaper's town was connected to the telegraph and 0 otherwise. Each regression controls for newspaper fixed effects, month-by-year fixed effects, county demographic controls as in Table 7, and the natural log of the total number of words in newspapers. Standard errors are corrected for clustering at the newspaper location (town) level. *** p<0.01, ** p<0.05, * p<0.1

Appendix B:

Constructing Alternative Measures of Access to Telegraphed Washington News based on Historical Transportation Networks

In this section, I construct alternative measures of access to telegraphed news from Washington based on GIS network analysis that takes into account the overland, rail, and water transportation networks available during the study period. I then test the robustness of the results when I use these alternative measures of access to telegraphed Washington news as the explanatory variables.

To implement this exercise, I take the following steps. First, I obtain GIS datasets on the historical transportation networks during my study period. Specifically, GIS shapefiles on railroads, canals and steamboat-navigated rivers during the period 1840-1852 are obtained from [Atack \(2015, 2016, 2017\)](#). One caveat is that GIS shapefiles for roads or turnpikes are not available for this early period. To proxy the road network, I connect each county centroid with the 5 nearest other county centroids within a 50-mile radius; the results, however, are not sensitive to using alternative numbers or distance cutoffs to proxy the road network.⁴⁶ I then integrate the shapefiles for the different transportation modes into one single GIS network dataset in ArcGIS Pro.

Next, I collect information on the travel speeds of the various modes of transportation during the 1840s, including those of stagecoaches, railroads, and steamboats. Based on *The Historical Statistics of the United States* ([Carter et al., 2006](#)), in 1845, the typical speed of steamboats was 9 miles per hour (average of upstream and downstream speeds) and that of railroad transportation was about 27 miles per hour. While [Carter et al. \(2006\)](#) does not

⁴⁶I chose to connect county centroids with its 5 nearest neighbors within a 50-mile radius to balance considerations for reality and for the feasibility of the network analysis, as direct road connections are more likely to exist between nearby counties while too few connections would break the network structure and prevent the subsequent GIS network analysis.

include information for the speed of stagecoaches, various sources suggest that the typical speed of stagecoaches during this period was about 8-9 miles per hour.⁴⁷ I use the speeds of the different transportation modes (9 miles per hour for steamboat-navigated rivers, 27 miles per hour for railroads, and 8 miles per hour for roads) as input parameters for the subsequent GIS network analysis.

Finally, combining the GIS network dataset and the travel speed information, I run the origin-destination (OD) cost matrix analysis tool in ArcGIS Pro, minimizing the travel time from each county centroid to the nearest daily newspaper with telegraphed Washington news in each election year during 1840-1852.⁴⁸ The predicted travel time and travel distance based on this procedure, which I call the effective travel time and the effective travel distance to Washington, are what I use as alternative measures of access to telegraphed Washington news (instead of the baseline straight-line distance measure).

Table A.10 shows the results on voter turnout when I use the predicted travel time to measure access to telegraphed news from Washington. Columns 1-2 show that a reduction in the effective travel time to Washington by 10 hours is associated with an increase in presidential election turnout by about 1 percentage point. Columns 3-4 show that there is no such effect on House elections on average, consistent with the baseline finding.

Similarly, Table A.11 shows the results on voter turnout when I use the predicted travel distance to measure access to telegraphed news from Washington. Columns 1-2 show that a reduction in the effective travel distance to Washington by 100 miles is associated with an increase in presidential election turnout by about 0.9 percentage point, which is very similar to the baseline estimate (1.2 percentage points). Columns 3-4 show that the effects on House elections are small and statistically insignificant on average, again consistent with the baseline finding.

⁴⁷For example, see <https://www.teachushistory.org/detocqueville-visit-united-states/articles/historical-background-traveling-early-19th-century>

⁴⁸Specifically, the origin-destination (OD) cost matrix solver finds and measures the least-cost paths along the network from multiple origins to multiple destinations. The best path on the network is discovered for each origin-destination pair, and the travel times and travel distances are stored as attributes of the output lines.

In short, the evidence presented here suggests that the results are not sensitive to using alternative travel time and distance measures of access to telegraphed news that take into account the historical transportation networks.