Appendix A   Robustness Checks

In this section, I conduct a series of robustness checks to the main specification used in this study.

First, I present the results without any county-level control variable to see whether the main results are sensitive to the inclusion of the control variables. Appendix Table 3 shows the results.

Second, I use the incumbent presidential party's vote share as my dependent variable and replicate the results. Appendix Tables 4 and 5 replicate the results in Tables 2 and 3, respectively.

Third, I allow the demographic characteristics of counties before television was introduced to affect the vote differently before and after the introduction of television by including interaction terms between TV_{ct} and pre-treatment demographic control variables fixed in 1944, when no county had television. The main effect of the control variables, which is fixed at the 1944 level, were excluded when I included the county fixed effects. Appendix Tables 6 and 7 replicate Tables 2 and 3.

Fourth, in order to address the concern that the main findings are driven by idiosyncrasies of one particular election year, I repeat the analyses after dropping each year one at a time. Appendix Table 8 shows the results.

Finally, I restrict the sample to the matched and paired ones and repeat the analyses reported in the main text. The purpose of these analyses is to address the concern that the main results are due to the differences between counties that had television earlier and later. First, I match the pre- and post-freeze counties on demographic characteristics. Covariate balance between the matched and unmatched sample is shown in Appendix Figure 1. Appendix Tables 9 and 10 replicate the results in Tables 2 and 3.

Second, I pair each pre-freeze county to one post-freeze county based on geographic proximity and demographic similarity. Appendix Figure 2 shows the counties that had

television before the FCC's freeze on television licenses and those that had one after the freeze. As shown in the figure, the pre-freeze counties are distributed near the center of each media market. By restricting the sample to these paired counties, I compare counties that happened to be just inside a media market and those that were just outside.

I first identify all the centers of media markets[18] that had television before the freeze and exclude them from the sample. For each pre-freeze county, I locate all the contiguous post-freeze counties. Since one pre-freeze county can have multiple contiguous post-freeze ones, I choose the one that was most similar in terms of demographic characteristics. All the pre-freeze counties that are not contiguous to at least one post-freeze county and the post-freeze counties not contiguous to at least one pre-freeze county are excluded.

The distribution of the paired counties is shown in Appendix Figure 3. Appendix Figure 4 shows the standardized difference in the pre-freeze and post-freeze counties on the set of covariates. It shows that the paired counties are indeed similar in demographic characteristics, even though the pairing is based primarily on geographic proximity. Appendix Table 11 replicates the results in Tables 2 and 3. These tables show that the main results reported in the text are robust to the sample restriction.

Appendix B   Two-Way Clustering

In this section, I replicate the main results, Tables 2 and 3, with two-way clustered standard errors by county and year. The results are reported in Appendix Tables 12 and 13.

Appendix C   Local Economic Voting

As I mentioned in the main text, the county-level economic indicators such as unemployment rate or wages per worker are not available for the study period. Instead, I use the log of manufacturing output and its interaction with the TV variable. I multiply the log of

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[18]The center of a media market is defined as a county in which a television station is located.

manufacturing output by a variable indicating the incumbent presidential party because the dependent variable is the Democratic party's vote share. The results are reported in Appendix Table 14.

Appendix Figure 1. Standardized Difference between Pre-Freeze and Post-Freeze Counties, Before and After Matching
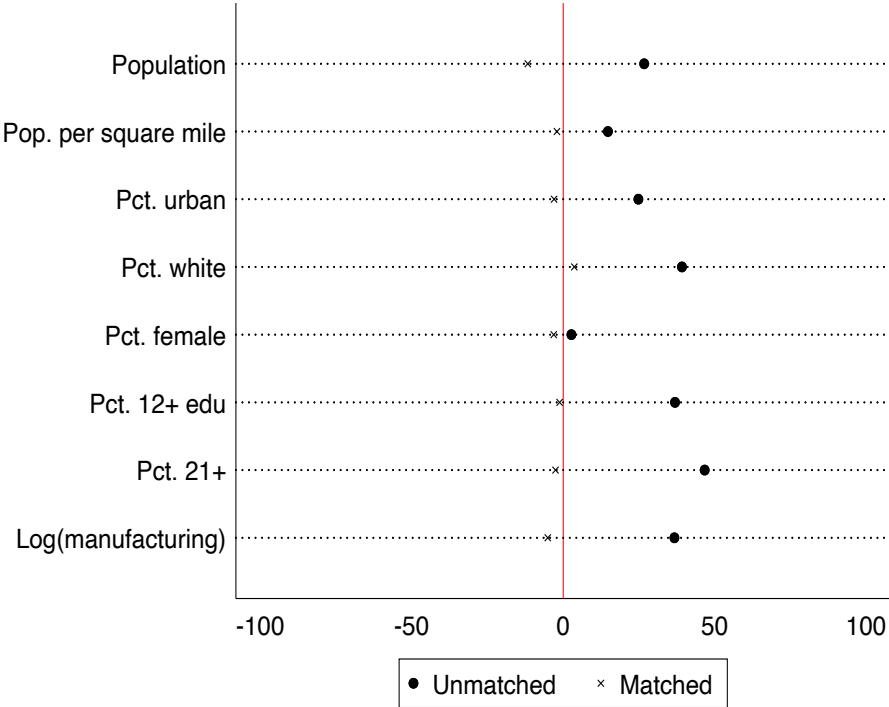
This figure plots standardized difference in the pre-freeze and post-freeze counties on the set of covariates before and after matching. I performed a one to one propensity score matching with a caliper of 0.05.

Appendix Figure 2. Distribution of the Pre and Post-Freeze Counties, All Sample

Center
Pre-Freeze
Post-Freeze
Not in Sample
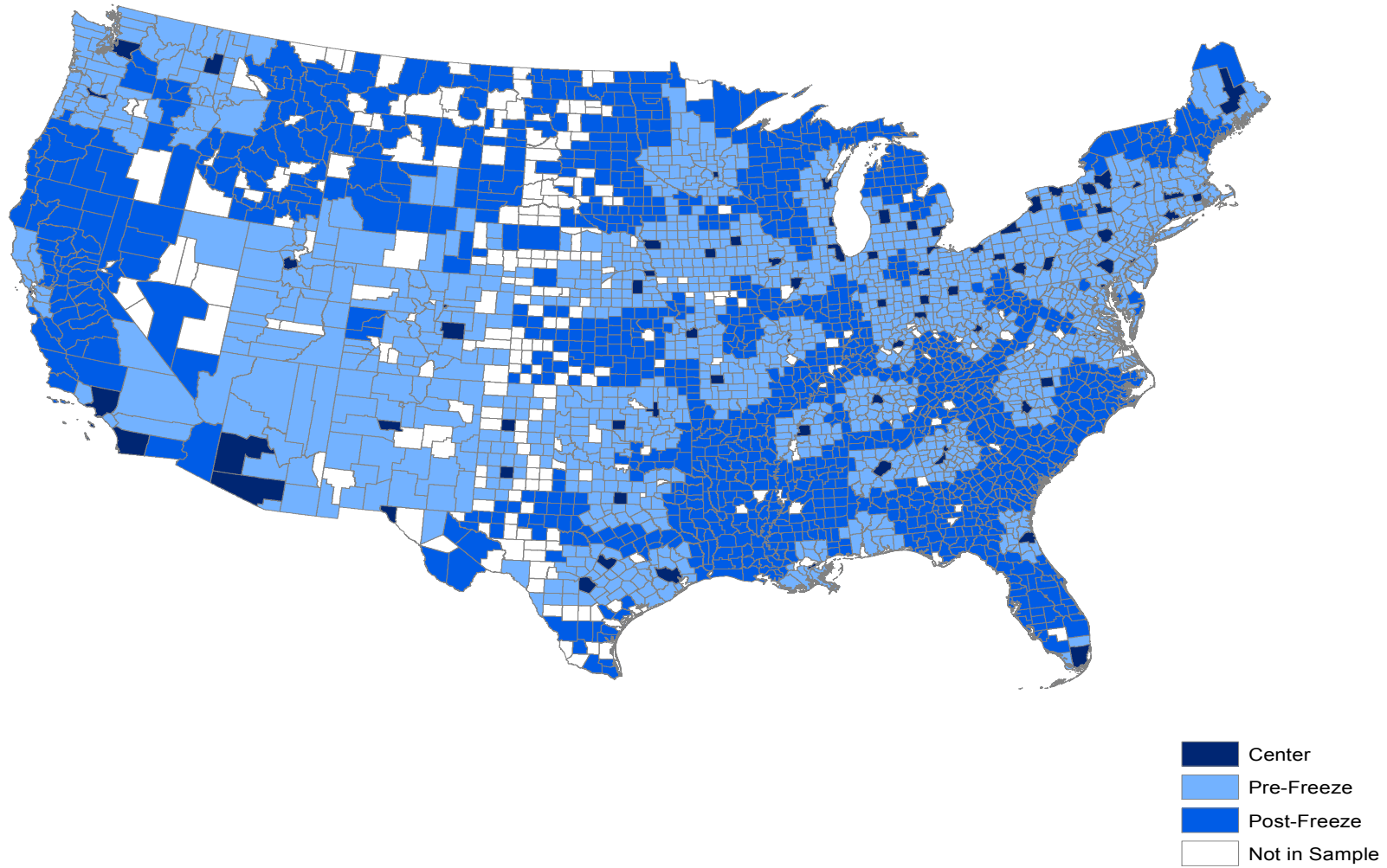
Appendix Figure 3. Distribution of the Pre and Post-Freeze Counties, Paired Sample

Pre-Freeze
Post-Freeze

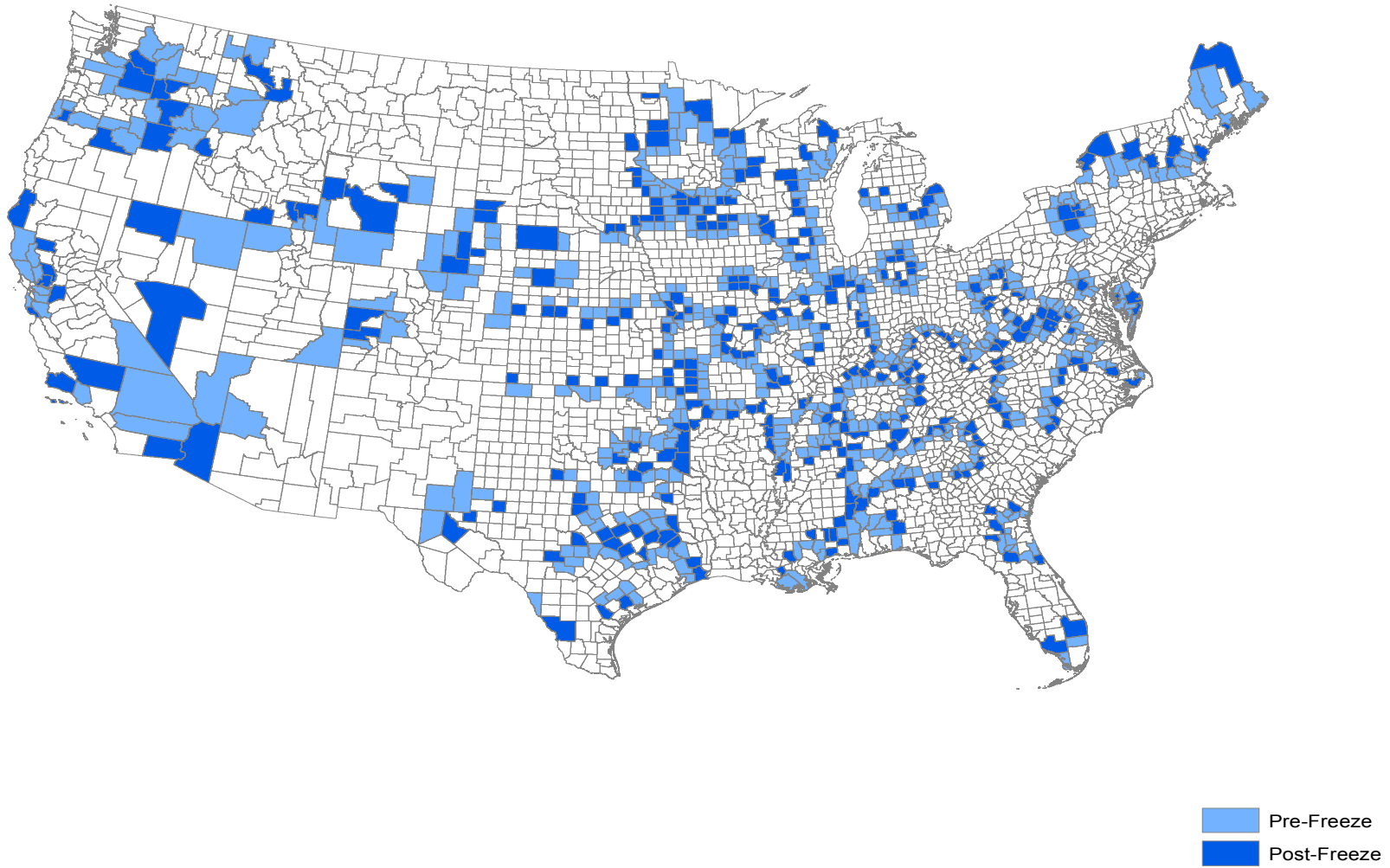Appendix Figure 4. Standardized Difference between Pre-Freeze and Post-Freeze Counties, Before and After Pairing
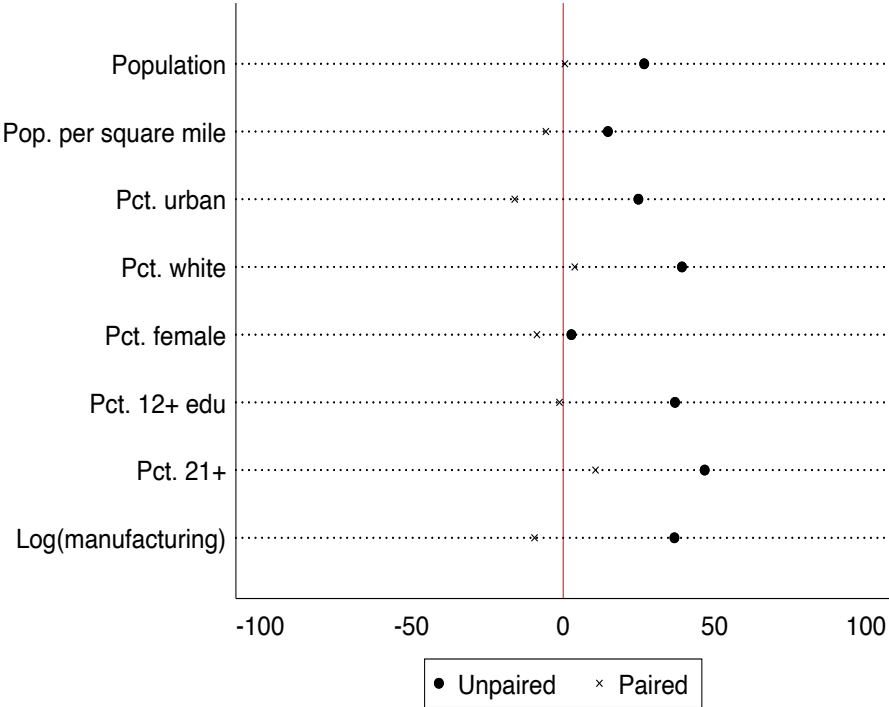
This figure plots standardized difference in the pre-freeze and post-freeze counties on the set of covariates, before and after pairing.

Appendix Table 1. Summary Statistics

	Years	Obs.	Mean	Standard Deviation	Minimum	Maximum
ΔNational Per Capita Income	1944–1964	14,881	3.04	1.95	0.07	5.89
ΔState Per Capita Income	1944–1964	14,881	3.39	4.09	-13.90	21.87
TV Dummy (1 if TV)	1944–1964	14,881	0.60	0.49	0	1
ΔNational Unemployment Rate	1948–1964	12,561	0.25	0.18	0	0.5
TV Dummy (1 if TV)	1948–1964	12,561	0.71	0.45	0	1

All dollar values are in 1960 dollars.

Appendix Table 2. Yearly Variations
in National Economic Indicators

Year	ΔNational Income	ΔNational Unemployment
1944	5.886	
1948	0.065	-0.1
1952	3.146	-0.3
1956	4.549	-0.3
1960	0.791	0
1964	3.498	-0.5

Appendix Table 3. Economic Voting and TV in Presidential Elections (without Controls)

	Dependent Var = Democratic Vote Share					
	Per Capita Income (1944–1964)			Unemployment (1948–1964)		
	(1)	(2)	(3)	(4)	(5)	(6)
TV	-0.348	0.110	1.113***	-3.229***	-0.527***	2.099***
	(0.285)	(0.178)	(0.307)	(0.347)	(0.188)	(0.374)
TV × ΔNational Income	3.685***	1.320***	3.196***			
	(0.270)	(0.236)	(0.335)			
TV × ΔNational Unemployment				4.455***	1.800***	3.921***
				(0.395)	(0.330)	(0.590)
N	14,840	14,840	14,881	12,525	12,525	12,561
Fixed Effects	County	County	County	County	County	County
	Year	State-Year	Year	Year	State-Year	Year
County Trends	No	No	Yes	No	No	Yes

This table replicates Table 2. All the models in the table do not contain any county-level control variable. Standard errors, clustered by county, are in parentheses. ΔNational Income and ΔNational Unemployment are standardized. ΔNational Unemployment is coded such that positive values indicate an improving economy.
*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

Appendix Table 4. Economic Voting and TV in Presidential Elections (Alternative Dependent Variable)

	Dependent Var = Incumbent Vote Share					
	Per Capita Income (1944–1964)			Unemployment (1948–1964)		
	(1)	(2)	(3)	(4)	(5)	(6)
TV	-0.347	0.276	0.789	-2.991***	-0.476	-0.602
	(0.624)	(0.497)	(0.572)	(0.698)	(0.577)	(0.759)
TV × ΔNational Income	4.498***	1.990***	4.010***			
	(0.554)	(0.481)	(0.507)			
TV × ΔNational Unemployment				4.376***	2.532***	5.141***
				(0.775)	(0.696)	(0.843)
N	14,840	14,840	14,840	12,525	12,525	12,525
Fixed Effects	County	County	County	County	County	County
	Year	State-Year	Year	Year	State-Year	Year
County Trends	No	No	Yes	No	No	Yes

This table replicates Table 2 using the incumbent vote share as the dependent variable. Standard errors, clustered by county, are in parentheses. County level control variables are included in all columns. ΔNational Income and ΔNational Unemployment are standardized. ΔNational Unemployment is coded such that positive values indicate an improving economy.

Appendix Table 5. National- and State Level Economic Voting and TV in Presidential Elections (Alternative Dependent Variable)

	Dependent Var = Incumbent Vote Share		
	(1)	(2)	(3)
TV	-0.409	0.240	0.836
	(0.630)	(0.499)	(0.574)
ΔState Income	1.753***		0.336***
	(0.136)		(0.084)
TV × ΔState Income	0.475	-0.854	0.980***
	(0.302)	(0.713)	(0.301)
TV × ΔNational Income	3.624***	2.396***	3.341***
	(0.561)	(0.607)	(0.527)
N	14,840	14,840	14,840
Fixed Effects	County	County	County
	Year	State-Year	Year
County Trends	No	No	Yes

This table replicates Table 3 using the incumbent vote share as the dependent variable. Standard errors, clustered by county, are in parentheses. County level control variables are included in all columns. ΔNational Income and ΔState Income are standardized.

Appendix Table 6. Economic Voting and TV in Presidential Elections, Alternative Control Variables

	Dependent Var = Democratic Vote Share					
	Per Capita Income (1944–1964)			Unemployment (1948–1964)		
	(1)	(2)	(3)	(4)	(5)	(6)
TV	0.224	0.048	1.284***	-2.447***	-0.485***	2.536***
	(0.297)	(0.186)	(0.294)	(0.299)	(0.186)	(0.343)
TV × ΔNational Income	5.040***	1.403***	2.520***			
	(0.289)	(0.237)	(0.321)			
TV × ΔNational Unemployment				5.773***	1.950***	3.901***
				(0.392)	(0.328)	(0.548)
N	14,840	14,840	14,840	12,525	12,525	12,525
Fixed Effects	County	County	County	County	County	County
	Year	State-Year	Year	Year	State-Year	Year
County Trends	No	No	Yes	No	No	Yes

This table replicates Table 2 using $TV\times$ pre-treatment control variables fixed at the 1944 level. Standard errors, clustered by county, are in parentheses. County level control variables are included in all columns. ΔNational Income and ΔNational Unemployment are standardized. ΔNational Unemployment is coded such that positive values indicate an improving economy.

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

Appendix Table 7. National- and State Level Economic Voting and TV in Presidential Elections

	Dependent Var = Democratic Vote Share		
	(1)	(2)	(3)
TV	0.071	0.034	1.329***
	(0.298)	(0.185)	(0.292)
ΔState Income	0.981***		-0.558***
	(0.074)		(0.077)
TV × ΔState Income	-1.947***	0.314	0.130
	(0.191)	(0.273)	(0.153)
TV × ΔNational Income	5.668***	1.247***	2.639***
	(0.316)	(0.276)	(0.325)
N	14,840	14,840	14,840
Fixed Effects	County	County	County
	Year	State-Year	Year
County Trends	No	No	Yes

This table replicates Table 3 using $TV\times$ pre-treatment control variables fixed at the 1944 level. Standard errors, clustered by county, are in parentheses. County level control variables are included in all columns. ΔNational Income and ΔState Income are standardized.

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

Appendix Table 8. Economic Voting and TV in Presidential Elections: Dropping One Election at a Time

Years Excluded	TV × Δ National Income			Obs.	TV × Δ National Unemployment			Obs.
	Coefficient				Coefficient			
1944	2.747*** (0.295)	1.368*** (0.249)	3.654*** (0.378)	12,525				
1948	2.215*** (0.668)	1.637*** (0.494)	3.086*** (0.842)	12,742	2.425*** (0.735)	1.777*** (0.572)	2.810*** (0.890)	10,406
1952	1.759*** (0.441)	1.090*** (0.398)	1.839*** (0.487)	12,177	2.427*** (0.530)	1.544*** (0.491)	1.978*** (0.687)	9,779
1956	2.979*** (0.287)	1.073*** (0.257)	3.308*** (0.252)	12,207	3.709*** (0.414)	1.531*** (0.362)	5.273*** (0.486)	9,883
1960	3.121*** (0.317)	1.381*** (0.251)	3.397*** (0.319)	12,237	3.835*** (0.509)	1.944*** (0.378)	6.169*** (0.595)	9,921
1964	3.831*** (0.247)	1.388*** (0.232)	3.383*** (0.283)	12,180	4.656*** (0.362)	1.803*** (0.320)	4.117*** (0.527)	9,803
Fixed Effects	County Year	County State-Year	County Year		County Year	County State-Year	County Year	
County Trends	No	No	Yes		No	No	Yes	

This table replicates Table 2 after dropping each year one at a time. Standard errors, clustered by county, are in parentheses. ΔNational Unemployment is coded such that positive values indicate an improving economy.
*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

Appendix Table 9. Economic Voting and TV in Presidential Elections, Matched Sample

	Dependent Var = Democratic Vote Share					
	Per Capita Income (1944–1964)			Unemployment (1948–1964)		
	(1)	(2)	(3)	(4)	(5)	(6)
TV	1.130***	0.186	1.461***	-0.349	-0.226	1.165***
	(0.321)	(0.211)	(0.309)	(0.369)	(0.231)	(0.366)
TV × ΔNational Income	3.059***	1.032***	2.663***			
	(0.366)	(0.343)	(0.397)			
TV × ΔNational Unemployment				3.625***	1.391***	3.050***
				(0.516)	(0.450)	(0.603)
N	10,838	10,826	10,838	9,127	9,117	9,127
Fixed Effects	County	County	County	County	County	County
	Year	State-Year	Year	Year	State-Year	Year
County Trends	No	No	Yes	No	No	Yes

This table replicates Table 2 using matched sample. Standard errors, clustered by county, are in parentheses. County level control variables are included in all columns. ΔNational Income and ΔNational Unemployment are standardized. ΔNational Unemployment is coded such that positive values indicate an improving economy.

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

Appendix Table 10. National- and State Level Economic Voting and TV in Presidential Elections (Matched Sample)

	Dependent Var = Democratic Vote Share		
	(1)	(2)	(3)
TV	1.115***	0.169	1.466***
	(0.323)	(0.210)	(0.309)
ΔState Income	0.534***		-0.446***
	(0.088)		(0.078)
TV × ΔState Income	-1.265***	0.215	0.042
	(0.217)	(0.335)	(0.168)
TV × ΔNational Income	3.526***	0.940***	2.736***
	(0.387)	(0.356)	(0.399)
N	10,838	10,826	10,838
Fixed Effects	County	County	County
	Year	State-Year	Year
County Trends	No	No	Yes

 This table replicates Table 3 using matched sample. Standard errors, clustered by county, are in parentheses. County level control variables are included in all columns. ΔNational Income and ΔState Income are standardized.

 *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

Appendix Table 11. National- and State Level Economic Voting and TV in Presidential Elections (Paired Sample)

	Dependent Var = Democratic Vote Share		
	(1)	(2)	(3)
TV	0.638	-0.406	0.685
	(0.441)	(0.484)	(0.445)
TV × ΔNational Income	2.689***		3.203***
	(0.397)		(0.438)
TV × ΔNational Unemployment		3.200***	
		(0.541)	
ΔState Income			0.667***
			(0.176)
TV × ΔState Income			-1.416***
			(0.481)
N	4,738	3,992	4,738
Fixed Effects	County	County	County
	Year	Year	Year

This table replicates Tables 2 and 3 using paired sample. Standard errors, clustered by county, are in parentheses. County level control variables are included in all columns. ΔNational Income, ΔNational Unemployment, and ΔState Income are standardized. ΔNational Unemployment is coded such that positive values indicate an improving economy.

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

Appendix Table 12. Economic Voting and TV in Presidential Elections (Two-Way Clustering)

	Dependent Var = Democratic Vote Share					
	Per Capita Income (1944–1964)			Unemployment (1948–1964)		
	(1)	(2)	(3)	(4)	(5)	(6)
TV	0.483	0.183	1.865***	-1.156***	-0.393*	1.826***
	(0.314)	(0.198)	(0.315)	(0.358)	(0.213)	(0.366)
TV × Δ National Income (β)	2.913***	1.323***	3.204***			
	(0.300)	(0.265)	(0.325)			
TV × Δ National Unemployment (β)				3.457***	1.734***	4.452***
				(0.438)	(0.373)	(0.609)
t-statistic from Wild Bootstrap ($\beta = 0$)	3.877*	4.847*	4.671***	3.514*	5.688***	2.723*
N	14,881	14,881	14,881	12,561	12,561	12,561
Fixed Effects	County	County	County	County	County	County
	Year	State-Year	Year	Year	State-Year	Year
County Trends	No	No	Yes	No	No	Yes

 Standard errors are calculated using two-way clustering by county and year. County level control variables are included in all columns. ΔNational Income and ΔNational Unemployment are standardized. ΔNational Unemployment is coded such that positive values indicate an improving economy. t-statistic from a wild bootstrap test is calculated according to Roodman et al. (2019).

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

Appendix Table 13. National- and State Level Economic Voting and TV in Presidential Elections (Two-Way Clustering)

	Dependent Var = Democratic Vote Share		
	(1)	(2)	(3)
TV	0.383	0.188	1.880***
	(0.316)	(0.196)	(0.315)
ΔState Income	0.724***		-0.525***
	(0.095)		(0.086)
TV $\times$ ΔState Income	-1.329***	-0.118	0.058
	(0.218)	(0.308)	(0.178)
TV $\times$ Δ National Income (β)	3.393***	1.383***	3.360***
	(0.328)	(0.312)	(0.336)
N	14,881	14,881	14,881
t-statistic from Wild Bootstrap ($\beta = 0$)	4.922**	4.287***	4.394***
N	14,881	14,881	14,881
Fixed Effects	County	County	County
	Year	State-Year	Year
County Trends	No	No	Yes

 Standard errors, clustered by county, are in parentheses. County level control variables are included in all columns. ΔNational Income and ΔState Income are standardized. t-statistic from a wild bootstrap test is calculated according to Roodman et al. (2019).
 *** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.

Appendix Table 14. National- and Local-Level Economic Voting and TV in Presidential Elections

	Dependent Var = Democratic Vote Share					
	Per Capita Income (1944–1964)			Unemployment (1948–1964)		
	(1)	(2)	(3)	(4)	(5)	(6)
TV	0.092	-0.194	1.360***	-1.554***	-0.657***	1.404***
	(0.385)	(0.231)	(0.382)	(0.429)	(0.236)	(0.360)
TV × ΔNational Income	2.954***	1.326***	3.172***			
	(0.268)	(0.238)	(0.279)			
TV × ΔNational Unemployment				3.488***	1.734***	4.527***
				(0.388)	(0.328)	(0.510)
Log(Manufacturing)	2.096***	1.078***	2.494***	2.386***	1.559***	1.863***
	(0.440)	(0.295)	(0.464)	(0.435)	(0.291)	(0.446)
TV × Log(Manufacturing)	0.387	0.681***	0.595	0.259	0.384	0.345
	(0.424)	(0.258)	(0.416)	(0.440)	(0.256)	(0.366)
N	14,840	14,840	14,840	12,525	12,525	12,525
Fixed Effects	County	County	County	County	County	County
	Year	State-Year	Year	Year	State-Year	Year
County Trends	No	No	Yes	No	No	Yes

Standard errors, clustered by county, are in parentheses. County level control variables are included in all columns. ΔNational Income, ΔNational Unemployment, and Log(Manufacturing) are standardized. ΔNational Unemployment is coded such that positive values indicate an improving economy.

*** $p < 0.01$; ** $p < 0.05$; * $p < 0.1$.