

How Cable News Reshaped Local Government

ONLINE APPENDIX

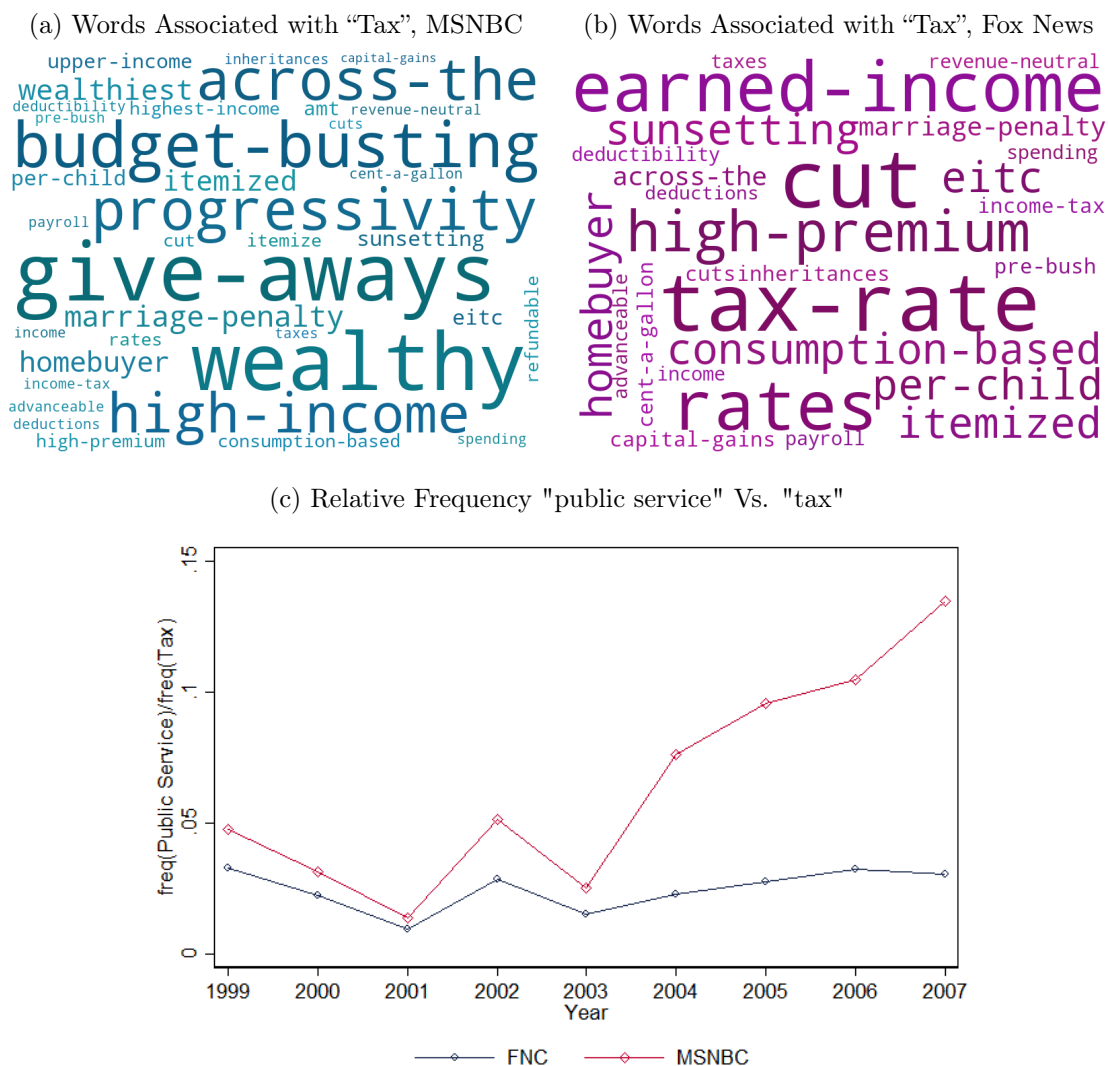
S. Galletta

E. Ash

A. Appendix

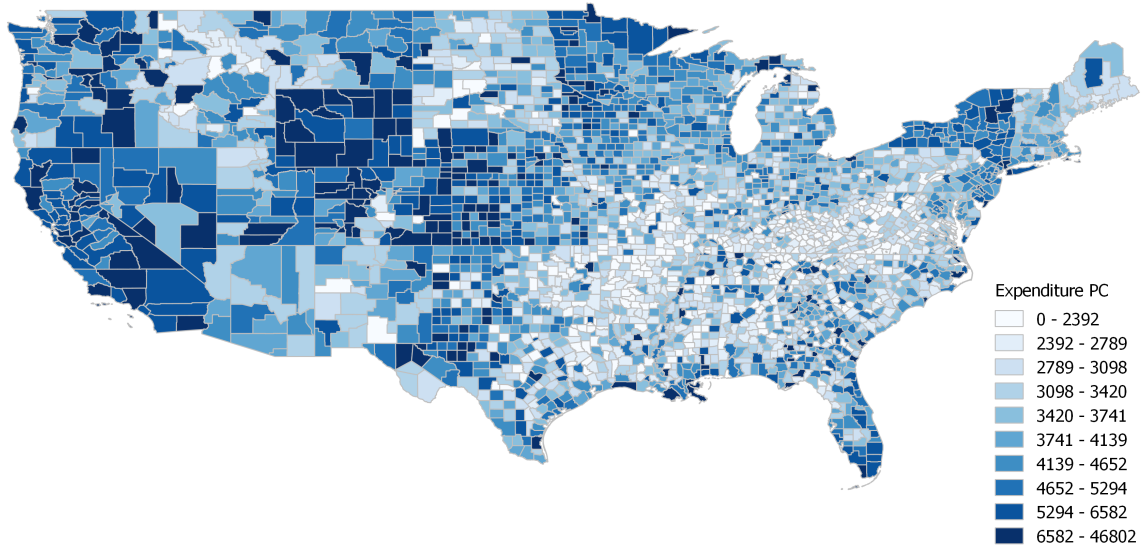
A.1. Appendix - Additional Figures and Tables

Figure A.1: Language differences across Cable Networks



Notes: Illustrations for cable news language. The word-clouds at the top show the words most associated with "tax", compute from a word2vec model, on MSNBC transcripts (a) and FNC transcripts (b). The graph at the bottom (c) reports the relative frequency of the phrase "public service" compared to "tax" for MSNBC and FNC in the period 1999-2007.

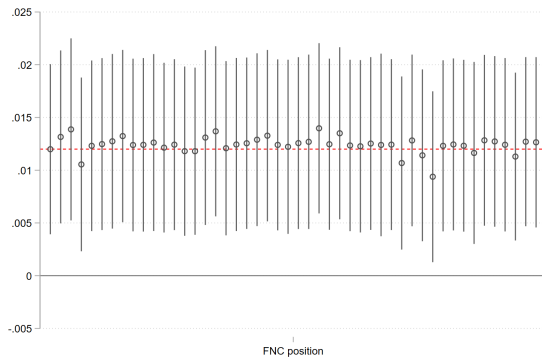
Figure A.2: Public Expenditure, by county (2007)



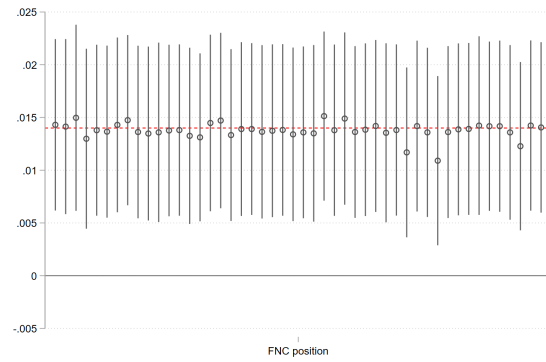
Notes: This map reports the amount of local public expenditure per capita by county in 2007.

Figure A.3: Sampling Check: Excluding one state at the time

(a) Revenue



(b) Expenditure



Notes: The plots show the coefficients of the preferred specification in which the sample has been reduced, each time excluding counties from a different state. The dotted red line indicates the value of the coefficient in the main analysis (Column 6 of Table 1). For each coefficient, 95% (delimited by horizontal bars) confidence intervals are included.

Table A.1: Summary statistics I

Variable	N	Mean	Std. Dev.	Min	Max
<i>News channels</i>					
Ratings % Fox News 2005-2007	2521	.542	.56	0	18
Ratings % MSNBC 2005-2007	2447	.088	.1	0	1.916
Ratings % CNN 2005-2007	2447	.279	.251	0	6.378
Fox News channel position 2005-2007	2521	41.858	12.242	5	81.75
MSNBC channel position 2005-2007	2521	44.939	13.731	4	128.5
CNN channel position 2005-2007	2521	29.781	10.788	1	66.184
Share pop. access to Fox News 2005-2007	2521	.965	.1	.078	1
Share pop. access to MSNBC 2005-2007	2521	.896	.213	.002	1
Share pop. access to CNN 2005-2007	2521	.999	.018	.245	1
<i>Demographic</i>					
County population 2007	2521	114741.4	371346.8	734	9948081
County population 1997	2521	101768.2	331526.4	681	9127751
County population 1987	2521	92260.69	307901.8	160	8296118
County population 1977	2521	81619.55	284806.4	190	7481613
White	2521	.855	.149	.057	.993
Black	2521	.083	.134	0	.795
Asian	2521	.009	.022	0	.463
Hispanic	2521	.058	.113	.002	.973
Male	2521	.494	.016	.433	.638
Age 10-19	2521	.162	.017	.087	.325
Age 20-29	2521	.12	.032	.046	.335
Age 30-39	2521	.14	.018	.076	.23
Age 40-49	2521	.151	.013	.061	.213
Age 50-59	2521	.116	.013	.034	.177
Age 60-69	2521	.083	.017	.023	.173
Age 70-79	2521	.066	.018	.012	.172
Age 80-89	2521	.04	.015	.003	.121
Urban	2521	.455	.29	0	1
Population density	2521	188.565	760.38	.339	29947.45
Area	2521	455.199	641.703	1.768	9193.737
High school	2521	.345	.067	.111	.527
College	2521	.264	.054	.108	.43
Bachelor	2521	.114	.05	.028	.397
Postgraduate	2521	.059	.034	.013	.36
Income between 10000 and 15000	2521	.078	.023	.01	.158
Income between 15000 and 20000	2521	.075	.018	.015	.13
Income between 20000 and 25000	2521	.077	.016	.016	.143
Income between 25000 and 30000	2521	.074	.013	.021	.136
Income between 30000 and 35000	2521	.071	.011	.025	.2
Income between 35000 and 40000	2521	.065	.009	.023	.104
Income between 40000 and 45000	2521	.061	.009	.018	.099
Income between 45000 and 50000	2521	.052	.009	.014	.094
Income between 50000 and 60000	2521	.091	.016	.029	.15
Income between 60000 and 75000	2521	.094	.024	.021	.175
Income between 75000 and 100000	2521	.079	.032	.019	.204
Income between 100000 and 125000	2521	.033	.02	0	.15
Income between 125000 and 150000	2521	.014	.011	0	.1
Income between 150000 and 200000	2521	.011	.01	0	.091
Income between 200000 and plus000	2521	.012	.011	0	.114
Median housing values	2521	140801.8	87763.15	20551.8	980028.4
Mean income	2521	46122.43	10615.42	24460	108756
Gini index	2521	.431	.037	.315	.604
Occ. management and professional	2521	.285	.062	.155	.684
Occ. service	2521	.156	.029	.079	.319
Occ. sales and office	2521	.237	.032	.136	.326
Occ. farming, fishing and forestry	2521	.018	.02	0	.249
Occ. construction, extraction and maintenance	2521	.115	.028	.023	.3

Table A.2: Summary statistics II

Variable	N	Std. Dev.	Min	Max	Mean
Public revenue 2007 pc	2521	4207.008	1890.478	853.928	32941.55
Public revenue 1997 pc	2521	2679.894	1109.619	380.678	24089.68
Public revenue 1987 pc	2521	1597.686	1235.367	120.226	51587.5
Public revenue 1977 pc	2521	743.081	423.719	67.842	14557.9
Property taxes 2007 pc	2521	988.973	733.187	29.731	12564.14
Property taxes 1997 pc	2521	647.961	471.207	29.653	12296.3
License taxes 2007 pc	2521	36.276	47.449	0	803.739
License taxes 1997 pc	2521	5.328	10.988	0	199.982
Sales taxes 2007 pc	2521	201.071	234.639	0	3324.372
Sales taxes 1997 pc	2521	106.085	139.152	0	2211.95
Charges 2007 pc	2521	657.554	702.095	12.659	6130.909
Charges 1997 pc	2521	408.229	381.627	5.069	3320.391
State transfers 2007 pc	2521	1405.692	600.998	98.618	12014.83
State transfers 1997 pc	2521	911.739	328.827	85.397	3989.556
Public expenditure 2007 pc	2521	4316.813	1966.123	887.401	35681.78
Public expenditure 1997 pc	2521	2641.995	1067.868	356.138	22250.3
Public expenditure 1987 pc	2521	1569.86	1280.126	116.441	54475
Public expenditure 1977 pc	2521	743.17	491.123	70.632	14521.05
Health 2007 pc	2521	90.293	131.564	0	2519.059
Health 1997 pc	2521	53.46	67.677	0	651.044
Education 2007 pc	2521	1803.18	665.009	0	11088.62
Education 1997 pc	2521	1181.225	395.973	0	9431.713
Hospital 2007 pc	2521	303.754	651.914	0	6899.785
Hospital 1997 pc	2521	179.131	342.882	0	2871.385
Police 2007 pc	2521	161.423	88.721	1.672	1407.374
Police 1997 pc	2521	96.12	53.538	0	627.692
Welfare 2007 pc	2521	100.838	168.484	0	1999.069
Welfare 1997 pc	2521	69.998	114.424	0	1257.97
Correction 2007 pc	2521	60.532	140.836	0	4740.711
Correction 1997 pc	2521	28.019	34.766	0	727.82
Highway 2007 pc	2521	230.913	182.462	0	1502.665
Highway 1997 pc	2521	160.022	142.561	0	3602.904
Has Property taxes 2007	2521	1	0	1	1
Has Property taxes 1997	2521	1	0	1	1
Has License taxes 2007	2521	.998	.044	0	1
Has License taxes 1997	2521	.479	.5	0	1
Has Sales taxes 2007	2521	.954	.21	0	1
Has Sales taxes 1997	2521	.914	.281	0	1
Has Charges 2007	2521	1	0	1	1
Has Charges 1997	2521	1	0	1	1
Has State transfers 2007 pc	2521	1	0	1	1
Has State transfers 1997	2521	1	0	1	1
Has Health 2007	2521	.98	.139	0	1
Has Health 1997	2521	.979	.145	0	1
Has Education 2007	2521	.999	.028	0	1
Has Education 1997	2521	.998	.04	0	1
Has Hospital 2007	2521	.371	.483	0	1
Has Hospital 1997	2521	.444	.497	0	1
Has Police 2007	2521	1	0	1	1
Has Police 1997	2521	.999	.028	0	1
Has Welfare 2007	2521	.89	.313	0	1
Has Welfare 1997	2521	.887	.317	0	1
Has Correction 2007	2521	.893	.309	0	1
Has Correction 1997	2521	.907	.291	0	1
Highway 2007	2521	.996	.066	0	1
Highway 1997	2521	.994	.074	0	1

Table A.3: Summary statistics III

Variable	N	Mean	Std. Dev.	Min	Max
<i>Mayoral elections</i>					
Republican candidate	839	.449	.498	0	1
Democrat candidate	839	.455	.498	0	1
Republican win	345	.583	.494	0	1
Republican candidate vote share	345	.56	.205	.12	1
Ratings % Fox News 2005-2008 (municipality level)	839	.403	.28	0	2.207
Fox News channel position 2005-2008 (municipality level)	839	45.64	12.855	13	74.75
<i>Political advertising</i>					
Share of ads on fiscal issues (Democrats)	2461	.292	.074	0	1
Share of ads on fiscal issues (Republicans)	2465	.403	.079	0	.8
Share of ads on social issues (Democrats)	2461	.498	.082	0	.765
Share of ads on social issues (Republicans)	2465	.287	.107	0	.667
<i>Ballot in Texas</i>					
Share yes, appraisal values for taxes (proposition 3, 2007)	169	.314	.063	.185	.518
Share yes, limitations on municipal taxes (proposition 5, 2007)	169	.35	.062	.12	.566
Share yes, tax exemptions for motor vehicles (proposition 6, 2007)	169	.255	.05	.106	.403
Share yes, tax valuations of residence homesteads (proposition 2, 1997)	169	.256	.059	.128	.476
Share yes, tax exemptions for water conservation (proposition 3, 1997)	169	.43	.085	.207	.737
Share yes, property tax for fire prevention (proposition 9, 1997)	169	.488	.082	.233	.731
Ratings % Fox News 2005-200	169	.596	.448	0	2.56
Fox News channel position 2005-2008 (municipality level)	169	39.397	9.707	16	65.938
<i>Number of firms (establishments)</i>					
Educational Services (NAICS 61) 2007	2521	32.809	116.536	0	3268
Health care and Social Assistance (NAICS 62) 2007	2521	296.181	941.684	0	27686
Security Guards and Patrol Services (NAICS 561612) 2007	2521	3.396	16.02	0	536
Others (NAICS total - 61/62/561612) 2007	2521	2573.449	7919.915	13	221514
Educational Services (NAICS 61) 1998	2521	24.255	86.309	0	2426
Health care and Social Assistance (NAICS 62) 1998	2521	242.786	769.071	0	22550
Security Guards and Patrol Services (NAICS 561612) 1998	2521	2.422	10.751	0	367
Others (NAICS total - 61/62/561612) 1998	2520	2327.194	7104.046	14	194590
<i>Schooling data</i>					
Share students in private schools 2008	2521	.053	.08	0	1
Share students in private schools 1998	2521	.056	.072	0	1
Share of private schools 2008	2521	.148	.125	0	1
Share of private schools 1998	2521	.16	.131	0	1
Share of teachers in private schools 2008	2521	.069	.087	0	1
Share of teachers in private schools 1998	2521	.127	.243	0	1
<i>Other variables</i>					
Median value house 2010	2521	140801.8	87763.15	20551.8	980028.4
Total public employees pc 2007	2521	.466	.96	0	14.102
Total public employees pc 1997	2521	.472	.916	0	10.813
Total public payrolls pc 2007	2521	1145.277	2624.917	0	34827.69
Total public payrolls pc 1997	2521	838.605	1817.741	0	32635.73
Total public debt pc 2007	2521	3055.484	9565.935	0	443541.6
Total public debt pc 1997	2521	1799.641	4018.007	0	113327.8
Total wages pc 2007	2504	12547.25	7811.01	1872.205	213089.8
Total wages pc 1997	2504	8730.089	4922.014	1327.134	86572.73
Share pop. access to Fox News 1998-2002	2964	.767	.293	0	1
Share pop. access to MSNBC 1998-2002	2964	.624	.386	0	1
Δ Total revenue per capita ₂₀₀₂₋₁₉₉₇ /Total revenue per capita ₁₉₉₇	2964	.244	.211	-.74	3.428
Δ Total revenue per capita ₁₉₉₇₋₁₉₉₂ /Total revenue per capita ₁₉₉₂	2964	.266	.267	-.987	6.586
Δ Total revenue per capita ₁₉₉₂₋₁₉₈₇ /Total revenue per capita ₁₉₈₇	2964	.408	.266	-.678	3.632
Δ Total expenditure per capita ₂₀₀₂₋₁₉₉₇ / Total expenditure per capita ₁₉₉₇	2964	.263	.226	-.584	3.524
Δ Total expenditure per capita ₁₉₉₇₋₁₉₉₂ / Total expenditure per capita ₁₉₉₂	2964	.266	.267	-.987	6.586
Δ Total expenditure per capita ₁₉₉₂₋₁₉₈₇ / Total expenditure per capita ₁₉₈₇	2964	.408	.266	-.678	3.632

Table A.4: Additional Supporting Results

	Reduced form								
	House	Public	Public	Public	Total	Cluster State		Weight Nielsen HH	
	Value (1)	Employees (2)	Payrolls (3)	Debt (4)	Wages (5)	Tot. Rev. (6)	Tot. Exp. (7)	Tot. Rev. (8)	Tot. Exp. (9)
FNC position	-0.013 (0.008)	-0.015 (0.017)	-0.057 (0.060)	0.019 (0.013)	0.002 (0.005)	0.012*** (0.004)	0.014*** (0.004)	0.010** (0.005)	0.012** (0.005)
N observations	2521	2521	2521	2521	2503	2521	2521	2521	2521
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cable system controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dep. variable in 1997	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: The dependent variable is Median house values (2010) in column (1), the Log(number of employees per capita) in 2007 in column (2), the Log(public payrolls amount per capita) in 2007 in column (3), the Log(public debt per capita) in 2007 in column (4) and the Log(total wages per capita) in 2007 in column (5), Log(revenue per capita) in columns (6) and (8), and Log(expenditure per capita) in columns (7) and (9). All estimates include as cable system controls: MSNBC position, CNN position, proportion of people with access to CNN, proportion of people with access to FNC, proportion of people with access to MSNBC, share population covered. Demographic controls include: racial, gender, age, income, educational, occupational, urban/rural composition of the county, the share of vote for the republican candidate in the 1996 presidential election. For the estimate in col Standard errors clustered at the DMA level in parenthesis. *p < 0.1, ** p < 0.05, *** p < 0.01.

Table A.5: FNC effects by budget category

	Reduced form													
	Revenues							Expenditures						
	Taxes	Charges			Transfers			Police	Welfare	Corrections	Highways	Public Services	Protective Services	
Property (1)	License (2)	Sales (3)	Total (4)	State (5)	Education (6)	Health (7)	Hospital (8)	Police (9)	Welfare (10)	Corrections (11)	Highways (12)	Public Services (13)	Protective Services (14)	
<i>Panel A. Log level</i>														
FNC position	0.005 (0.006)	-0.024 (0.027)	0.001 (0.027)	0.037** (0.015)	0.008 (0.006)	0.004 (0.005)	0.072 (0.069)	0.006 (0.007)	0.026 (0.026)	-0.002 (0.032)	0.001 (0.015)	0.014** (0.006)	0.008 (0.006)	
N observations	2521	2521	2521	2521	2521	2521	2521	2521	2521	2521	2521	2521	2521	
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Cable system controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Dep. variable in 1997	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Demographic controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	

Notes: The dependent variable is the share of the category of expenditure listed in the column head of total expenditure. Public services is the sum of expenditure in the categories education, health, hospitals and welfare, while protective services is the sum of the categories police and corrections. All estimates include as cable system controls: MSNBC position, CNN position, proportion of people with access to CNN, proportion of people with access to FNC, proportion of people with access to MSNBC, share population covered. Additional controls include: racial, gender, age, income, educational, occupational, urban/rural composition of the county and the share of vote for the republican candidate in the 1996 presidential election. The observations are weighted by county population. Standard errors clustered at the DMA level in parenthesis. * p < 0.1, ** p < 0.05 and *** p < 0.01.

Table A.6: First Stage Estimates for FNC Effects on Private-Sector Firms and Schools

	First stage			
	Log Number of Firms			
	Education (1)	Health (2)	Security (3)	Others (4)
FNC position	-0.035*** (0.008)	-0.037*** (0.007)	-0.036*** (0.010)	-0.036*** (0.007)
F-stat	22.040	23.997	13.002	23.826
N observations	2047	2513	807	2520
State FE	Yes	Yes	Yes	Yes
Cable system controls	Yes	Yes	Yes	Yes
Dep. variable in 1998	Yes	Yes	Yes	Yes
Demographic controls	Yes	Yes	Yes	Yes

Notes: The dependent variable is FNC viewership. All estimates include as additional controls: MSNBC position, CNN position, proportion of people with access to CNN, proportion of people with access to FNC, proportion of people with access to MSNBC, share population covered, racial, gender, age, income, educational, occupational, urban/rural composition of the county, the share of vote for the republican candidate in the 1996 presidential election. Standard errors clustered at the DMA level in parenthesis. *p < 0.1, ** p < 0.05, *** p < 0.01.

Table A.7: CNN and MSNBC effects on Local Fiscal Policy

	First stage							
	OLS		CNN		MSNBC		Reduced Form	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Panel A. Impact on Revenue</i>								
Ratings CNN	0.018 (0.027)	-0.017 (0.026)						
Ratings MSNBC	0.131* (0.068)	0.073 (0.062)						
CNN position			-0.029*** (0.007)	-0.025*** (0.004)			0.006 (0.004)	0.006 (0.004)
MSNBC position					-0.012*** (0.003)	-0.013*** (0.003)	-0.008* (0.005)	-0.008* (0.005)
F-stat			15.224	47.326	13.592	19.582		
N observations	2447	2447	2447	2447	2447	2447	2447	2447
<i>Panel B. Impact on Expenditure</i>								
Ratings CNN	-0.010 (0.025)	-0.034 (0.023)						
Ratings MSNBC	0.144** (0.063)	0.104* (0.059)						
CNN position			-0.029*** (0.008)	-0.025*** (0.004)			0.008* (0.004)	0.006 (0.005)
MSNBC position					-0.012*** (0.003)	-0.013*** (0.003)	-0.011** (0.005)	-0.009** (0.005)
F-stat			14.345	47.182	13.773	19.321		
N observations	2447	2447	2447	2447	2447	2447	2447	2447
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cable system controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Dep. variable in 1997	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Additional controls	No	Yes	No	Yes	No	Yes	No	Yes

Notes: The dependent variable is the Log(Total revenue per capita) in 2007 in columns (1-2) and (7-8) of panel A and the Log(Total expenditure per capita) in 2007 in columns (1-2) and (7-8) of panel B. In columns (3-4), the dependent variable is Ratings MSNBC (average 2005-2007) in both panels. In columns (5-6), the dependent variable is Ratings MSNBC (average 2005-2007) in both panels. All estimates include as cable system controls: FNC position, MSNBC position, CNN position, proportion of people with access to CNN, proportion of people with access to FNC, proportion of people with access to MSNBC, share population covered. Additional controls include: racial, gender, age, income, educational, occupational, urban/rural composition of the county, the share of vote for the republican candidate in the 1996 presidential election and decennial variation in the dependent variables from 1977 to 1997. The observations are weighted by county population. Standard errors clustered at the DMA level in parenthesis. * p < 0.1, ** p < 0.05 and *** p < 0.01

Table A.8: Estimation à la DellaVigna and Kaplan (2007) for MSNBC

	Total revenues				Total expenditure			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Share pop. exposed to MSNBC	-0.006 (0.009)	-0.019 (0.013)	-0.007 (0.009)	-0.007 (0.009)	0.024** (0.010)	0.009 (0.011)	0.005 (0.011)	0.006 (0.010)
N observations	2964	2964	2964	2964	2964	2964	2964	2964
State FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cable system controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Demographic controls	No	No	Yes	Yes	No	No	Yes	Yes
Pre-trend Dep. Variable	No	No	No	Yes	No	No	No	Yes

Notes: The dependent variable is (Total revenue per capita 2002 - Total revenue per capita 1997)/Total revenue per capita 1997 in columns 1 to 4, and (Total expenditure per capita 2002 - Total expenditure per capita 1997)/Total expenditure per capita 1997 in columns 5 to 8. Share pop. exposed to MSNBC is standardized dividing the original value by the standard deviation (SD=0.38). Cable system controls: share of population exposed to FNC and CNN and by the five principal components from the matrix of channel availability for the fifty top-rated cable channels. Demographic controls include: racial, gender, age, income, educational, occupational, urban/rural composition of the county, the share of vote for the republican candidate in the 1996 presidential election. The pre-trend of the dependent variable are accounting for variation from the the year 1987 to 1992 and 1992 to 1997. The observations are weighted by county population. Standard errors clustered at the DMA level in parenthesis. *p < 0.1, ** p < 0.05, *** p < 0.01.