SUPPLEMENT TO "WHAT DRIVES MEDIA SLANT?
EVIDENCE FROM U.S. DAILY NEWSPAPERS"
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APPENDIX B: ADDITIONAL ROBUSTNESS CHECKS

TABLE B.I PRESENTS THE QUANTITIES shown in Table IV of the paper for a series of alternative model specifications. For comparison, Table B.I first reports the results in Table IV as the baseline.

The first specification in Table B.I allows each zip code to contribute differently to a newspaper's profits, as discussed in Section 4.3. We use cross-newspaper variation in ad rates to estimate the approximate advertising value of different demographics. We then apply the coefficients from this regression to each zip code's demographic characteristics to produce an estimate of the advertising value of readers in each zip code. Finally, we combine these estimates with data on cover prices and estimates of marginal costs (following Gentzkow (2007)) to generate a per-reader markup for each zip code. We then use the sum of the markup-weighted number of readers in each zip code as the maximand when computing ideal$_n$ for each newspaper.

The second specification of Table B.I excludes newspapers headquartered in multi-paper cities from our supply sample, as discussed in Section 4.3.

The third specification of Table B.I uses an alternative slant measure with a different selection of partisan phrases, as discussed in Section 3.1. In particular, we tighten the cutoffs on the number of hits a phrase must have in newspaper headlines from 2000 to 2005 by setting them equal to the 5th and 95th percentiles in our sample. We then select from the remaining phrases the top 1000 by χ^2_{pl}.

The fourth specification of Table B.I uses an alternative slant measure computed by taking a congressperson's adjusted Americans for Democratic Action (ADA) score (Groseclose, Levitt, and Snyder (1999)) as a measure of ideology, as discussed in Section 2.1.

The last specification of Table B.I uses an alternative slant measure computed by taking a congressperson's common space NOMINATE score (Poole and Rosenthal (1997, 2007), Poole (1998)) as a measure of ideology, as discussed in Section 2.1.

Note that because the last two specifications use different measures of congressional ideology, the units of slant measure are different.

Up to the change in units, our core results hold in all specifications: actual and profit-maximizing slant levels are similar on average, deviations from profit maximization result in an economically significant loss in profit, variation in consumer ideology explains a significant portion of the variation in slant, and variation in owner ideology explains a small portion of the variation in slant.

TABLE B.I

ADDITIONAL ROBUSTNESS CHECKS[a]

Quantity	Baseline	Specification				
		Weight Zips by Predicted Profits	Exclude Multi-paper Cities From Supply Sample	Tighten Cutoffs on Phrase Counts by 5%	Measure Ideology With Adjusted ADA Score	Measure Ideology With Poole–Rosenthal Score
Actual slant of average newspaper	0.4734	0.4734	0.4734	0.4822	60.81	−0.1196
	(0.0020)	(0.0020)	(0.0020)	(0.0021)	(0.4087)	(0.0044)
Profit-maximizing slant of average newspaper	0.4600	0.4600	0.4600	0.4681	62.98	−0.1447
	(0.0047)	(0.0047)	(0.0047)	(0.0045)	(0.9523)	(0.0096)
Percentage loss in variable profit to average paper from moving 1 SD away from profit-maximizing slant	0.1809	0.1801	0.1707	0.2243	0.1533	0.2010
	(0.1025)	(0.1021)	(0.0971)	(0.1307)	(0.0859)	(0.1227)
Share of within-state variance in slant from consumer ideology	0.2226	0.2226	0.1922	0.1928	0.2019	0.2164
	(0.0406)	(0.0406)	(0.0407)	(0.0381)	(0.0392)	(0.0403)
Share of within-state variance in slant from owner ideology	0.0380	0.0380	0.0440	0.0000	0.0308	0.0479
	(0.0458)	(0.0458)	(0.0474)	(0.0000)	(0.0360)	(0.0422)

[a]Standard errors given in parentheses are from the delta method. See Table IV in the paper for details on calculations. The Appendix B text provides details on the specifications.

TABLE B.II

RELATIONSHIP BETWEEN SLANT AND POLITICAL CONTRIBUTIONS[a]

Contribution Type	Newspaper Group Executives	Independent Newspaper Executives	Newspaper Group Corporate Contributions
Share of contributions to	−0.0002	−0.0936	−0.0379
Republicans	(0.0212)	(0.0289)	(0.0181)
Share Republican in	0.1883	3.068	0.1413
newspaper's market	(0.0513)	(0.9453)	(0.0390)
State fixed effects			
Number of newspapers	183	13	148
Number of owners	18	13	8
R^2	0.6242	0.9892	0.6287

[a]Dependent variable: slant index ($\hat{y}_n$). Standard errors are given in parentheses. Standard errors in the first and third specifications are clustered by owner to allow for correlation in error across newspapers with the same owner.

Table B.II shows that newspapers whose parent companies or executives give a larger share of political contributions to Republican candidates are not more likely to have right-wing slant, as discussed in Section 7.2.

Table B.III shows that slant is not significantly related to the ideology of incumbent politicians, as discussed in Section 9.

Table B.IV provides more detail on the differences between our demand estimates and those in Gentzkow and Shapiro (2007). We report the percent change in variable profits of the average newspaper from choosing slant 1 standard deviation away from the profit-maximizing level, the quantity reported in the third row of Table IV of the paper. There are three main differences between our demand specification and that in Gentzkow and Shapiro (2007): (i) We drop the parametric measurement error correction and instead exclude zip codes with fewer than 20 political contributions. (ii) We move from a linear to a logit demand model. (iii) As a consequence of using the logit demand

TABLE B.III

RELATIONSHIP BETWEEN SLANT AND PARTY OF INCUMBENT POLITICIANS[a]

Incumbent governor is Republican	−0.0090	
as of December 2005	(0.0070)	
Share of Republican representatives		−0.0044
to House in 109th Congress		(0.0054)
Share Republican in newspaper's market	0.1497	0.1538
(presidential vote)	(0.0185)	(0.0177)
Number of newspapers	427	429
R^2	0.1990	0.1871

[a]Dependent variable: slant index ($\hat{y}_n$). Standard errors are given in parentheses. Standard errors in the first specification are clustered by state to allow for correlation in error across newspapers in the same state and Washington, DC newspapers are omitted.

TABLE B.IV

CHANGES IN DEMAND SPECIFICATION[a]

Specification	Percent Loss in Variable Profit to Average Newspaper From Moving 1 SD Away From Profit-Maximizing Slant
Demand specification from Gentzkow and Shapiro (2007)	0.0309
Dropping measurement error correction and excluding zip codes with fewer than 20 contributions	0.0354
Excluding zip codes with zero circulation	0.2111
Moving from linear to logit demand (preferred specification)	0.1809

[a]This table reports alternative estimates of the third row of Table IV. The last specification is the same number reported in Table IV and differs only in that the demand model is logit rather than linear.

model, we must exclude zip codes where the number of copies sold is zero. In Table B.IV, we show how the results change as we make each of these changes in sequence. The table shows that the bulk of the difference is driven by excluding zip codes with zero circulation.

Table B.V provides an expanded list of partisan phrases introduced in text Table I.

TABLE B.V

POLITICALLY LOADED PHRASES FROM THE 2005 *CONGRESSIONAL RECORD*[a]

Panel A: Phrases Used More Often by Democrats		
Two-Word Phrases		
private accounts	Rosa Parks	workers rights
trade agreement	President budget	poor people
American people	Republican party	Republican leader
tax breaks	change the rules	Arctic refuge
trade deficit	minimum wage	cut funding
oil companies	budget deficit	American workers
credit card	Republican senators	living in poverty
nuclear option	privatization plan	Senate Republicans
war in Iraq	wildlife refuge	fuel efficiency
middle class	card companies	national wildlife
African American	security trust	President Cheney
budget cuts	bill cuts	price gouging
nuclear weapons	medicaid cuts	Iraq war
checks and balances	trade policy	million Americans
civil rights	Asian Pacific	House Republicans
veterans health	CIA agent	assault weapons
cut medicaid	billions of dollars	senior citizens

(*Continues*)

TABLE B.V—*Continued*

foreign oil	abuse of power	cost of the war
President plan	manufacturing jobs	Karl Rove
gun violence	billion in tax	spending cuts
black caucus	lost their jobs	record profits
national debt	central American	bunker buster
public broadcasting	child labor	food stamps
child support	low income	bring our troops
student loans	cut programs	troops home

Three-Word Phrases

veterans health care	corporation for public broadcasting	cut health care
congressional black caucus	additional tax cuts	civil rights movement
VA health care	pay for tax cuts	cuts to child support
billion in tax cuts	tax cuts for people	drilling in the Arctic National
credit card companies	oil and gas companies	victims of gun violence
security trust fund	prescription drug bill	solvency of social security
social security trust	caliber sniper rifles	Voting Rights Act
privatize social security	increase in the minimum wage	war in Iraq and Afghanistan
American free trade	system of checks and balances	civil rights protections
central American free	middle class families	credit card debt
national wildlife refuge	cut student loans	Little Rock Nine
dependence on foreign oil	American people deserve	social security plan
tax cuts for the wealthy	cut food stamps	Arctic Wildlife Refuge
Vice President Cheney	health care education	education health care
Arctic National Wildlife	Federal Trade Commission	social security the President
bring our troops home	congressional Hispanic caucus	social security benefits
social security privatization	alternative minimum tax	explosive device detonated
billion trade deficit	Asian and Pacific islander	plan to privatize social
Asian Pacific American	global gag rule	Ryan White Care
President Bush took office	cut social security	major oil companies
privatization of social security	billion in tax breaks	outing a CIA agent
privatizing social security	below the poverty line	fuel economy standards
party line vote	middle class Americans	improvised explosive device
child support enforcement	funding for veterans health	President social security
credit card industry	health care for veterans	International Labor Organization

Panel B: Phrases Used More Often by Republicans

Two-Word Phrases

stem cell	personal accounts	retirement accounts
natural gas	Saddam Hussein	government spending
death tax	pass the bill	national forest
illegal aliens	private property	minority leader
class action	border security	urge support
war on terror	President announces	cell lines
embryonic stem	human life	cord blood
tax relief	Chief Justice	action lawsuits
illegal immigration	human embryos	economic growth
date the time	increase taxes	food program

TABLE B.V—*Continued*

boy scouts	growth rate	time and i move
hate crimes	cell research	legal system
oil for food	property rights	nuclear power
global war	border patrol	Democrat leader
medical liability	Budget Committee	growing economy
highway bill	consent decrees	raising taxes
adult stem	crimes law	witnesses may testify
Democratic leader	post office	savings accounts
Federal spending	European Union	Iraqi people
tax increase	President business	forest service
raise taxes	postal service	law we can change
illegal immigrants	Terri Schiavo	immigration reform
President i move	Circuit Court	Indian affairs
third time	temporary worker	ten commandments
percent growth	war on terrorism	UN reform

Three-Word Phrases

embryonic stem cell	Circuit Court of Appeals	Tongass national forest
hate crimes legislation	death tax repeal	pluripotent stem cells
adult stem cells	housing and urban affairs	Supreme Court of Texas
oil for food program	million jobs created	Justice Priscilla Owen
personal retirement accounts	national flood insurance	Justice Janice Rogers
energy and natural resources	oil for food scandal	American Bar Association
global war on terror	private property rights	growth and job creation
hate crimes law	temporary worker program	natural gas natural
change hearts and minds	class action reform	Grand Ole Opry
global war on terrorism	Chief Justice Rehnquist	reform social security
class action fairness	percent growth rate	Judge John Roberts
Committee on Foreign Relations	United States Postal Service	gas natural gas
deficit reduction bill	American Farm Bureau	supply of natural gas
boy scouts of America	gross national product	Chief of Naval Operations
repeal of the death tax	social security reform	underground storage tank
highway trust fund	export import bank	partial birth abortion
action fairness act	Justice of the Supreme Court	judicial confirmation process
Committee on Commerce Science	price of natural gas	personal savings accounts
cord blood stem	fifth circuit court	near Earth objects
medical liability reform	social security system	national security issue
stem cell lines	Committee on Homeland Security	law enforcement and intelligence
blood stem cells	United Nations reform	Justice William Rehnquist
Supreme Court of the United	million illegal aliens	medical liability crisis
health savings accounts	California Supreme Court	Judge Alberto Gonzales
banking housing and urban	term care insurance	economic growth and job

[a]The top 150 Democratic and Republican phrases, respectively, are shown ranked by χ^2_{pl}. See Section 3 for details.

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