Politics and the Media
Political Economy

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Goals

Suggested readings: D. Stromberg (Annu. Rev. Econ. 2015); M. Gentzkow & J. Shapiro (ECMA, 2010); R. Puglisi & J. Snyder (JEEA, 2015); S. DellaVigna & E. Kaplan (QJE, 2007); Snyder and Stromberg (JPE, 2010).

Why Study the Media in Political Environments?

The economist's view:

- In democratic regimes media can inform rational voters, change their beliefs, and potentially sway their choices.
- See Stromberg (2015) for evidence of this
- This can happen even if the media is biased (recall what we learned in informational lobbying).

Communication Studies' view:

- In democratic regimes media can turn behavioral voters by priming, agenda setting, and framing, and eventually determine their choices.

Autocratic regimes seem to make a very surgical use of information and censorship. See China:

> *"A Chinese news portal's publication of a mysterious letter calling for President Xi Jinping's resignation appears to have triggered a hunt for those responsible, in a sign of Beijing's anxiety over bubbling dissent within the Communist Party. The letter, whose authorship remains unclear, appeared on the eve of China's legislative session in early March, the most public political event of the year. Since then, at least four managers and editors with Wujie Media—whose news website published the missive—and about 10 people from a related company providing technical support have gone missing, according to their friends and associates, who say the disappearances are linked to a government probe into the letter."*
>
> *- WSJ, 3/28/2016*

In fact, the field of media studies developed in the 1930s to understand propaganda effect in Fascism and Nazism in Europe.

MEDIA BIAS

Media Bias

Media are typically considered biased in reporting facts

Americans' Trust in the Mass Media

In general, how much trust and confidence do you have in the mass media -- such as newspapers, TV and radio -- when it comes to reporting the news fully, accurately and fairly -- a great deal, a fair amount, not very much or none at all?
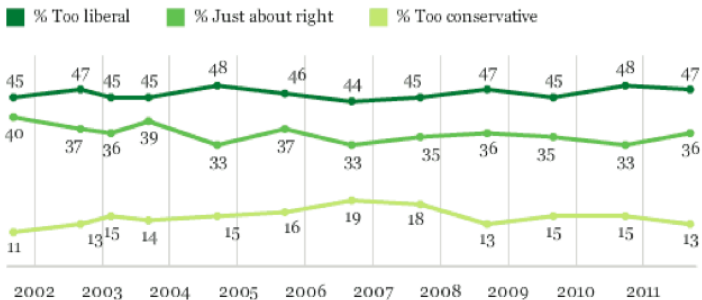
■ % Great deal/Fair amount

Gallup trend since 1997

GALLUP

Media Bias (cont.)

Media are typically considered biased in reporting facts

In general, do you think the news media are -- [ROTATED: too liberal, just about right, or too conservative]?

Ways to Assess Media Bias

Assessing the bias in media by looking at the news text:

- This approach involves identifying partisan patterns of speech and then identifying to which class of text the news text is "the closest".
- Example: "Death tax" v. "Estate tax" in Congressional floor debate
- Does the WSJ use Republican patterns of writing?
  - See Groseclose and Milyo, 2005; Gentzkow and Shapiro, 2010
  - Recall machine learning examples in Trebbi & Weese, 2016

Differential topic coverage of the media:

- Does the WSJ cover scandals involving Democrats more frequently/in more depth than those involving Republicans?
- See: Larcinese, Puglisi and Snyder, 2011; Puglisi and Snyder, 2011

Ways to Assess Media Bias (cont.)

Differential patterns of endorsement of newspapers:

- Does the WSJ endorse Republicans more frequently than Democrats?
- Does the WSJ endorse ballot propositions supported by Republicans more frequently than those by Democrats?
- See Puglisi and Snyder, 2015

Assumption: we abstract from the endogeneity cycle of media affecting political opinion, voters' ideology, preferences – no persuasion effects of media.

What Drives Media Slant?

Using the first approach, Gentzkow and Shapiro construct a measure of textual similarity between the language of the newspaper and that of a typical congressional Democrat or Republican ("What Drives Media Slant? Evidence from US Daily Newspapers", ECMA, 2010).

Then, the authors estimate a model where newspapers are local monopolists and endogenously select their slant to maximize profits, given the characteristics of the demand side.

Turns out that based on this stylized model of demand, the newspapers are optimally selecting their slant. Consumer preference shifters can account for 20% of all measured media slant/bias. Slant seems to be demand-driven not supply-driven.

In fact, other supply dimensions that are typically considered deleterious for bias (such as ownership) do not explain nearly as much (think of Rupert Murdoch's News Corporation and Fox News).

Use news content of a large sample of US daily newspapers.

The corpus of congressional text is the 2005 Congressional Record.

They then pre-process the text, stripping away prepositions, conjunctions and common words to get two- word phrases and three-word phrases of text.

The authors select a subset of phrases based on some common heuristics.

- They drop phrases that are too frequent or too rare either in congressional speech or in the news. (phrases like "yield the remainder of my time" or "first quarter" are uninformative on partisanship).

For each usable phrase p, they compute usage counts by Republicans and by Democrats and they use these counts to create a Pearson chi-squared statistic for each p.

$\chi^2(p)$ is simply the statistic of the test for equality in the propensity to use p by Republicans and Democrats if these two counts were drawn from multinomial distributions.

Calll $f(p, d)$ the count by Democrats. Call $f(\sim p, d)$ the count of all other phrases other than p by the Democrats.

Calll $f(p, r)$ the count by Republicans. Call $f(\sim p, r)$ the count of all other phrases other than p by the Republicans.

$$\chi^2(p) = \frac{(f(p,r)f(\sim p,d) - f(p,d)f(\sim p,r))^2}{(f(p,d)+f(p,r))(f(p,d)+f(\sim p,d))(f(p,r)+f(\sim p,r))(f(\sim p,d)+f(\sim p,r))}$$

Use the 1000 sentences with the highest chi-squared.

Look at ideology (NOMINATE scores) of congressperson using each phrase p and assign an ideology value to p.

Project an overall ideology on the newspaper based on how ideologically charged it is.

What Drives Media Slant? (cont.)

M. GENTZKOW AND J. M. SHAPIRO

TABLE I

MOST PARTISAN 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

Three-Word Phrases		
veterans health care	corporation for public	cut health care
congressional black caucus	broadcasting	civil rights movement
VA health care	additional tax cuts	cuts to child support
billion in tax cuts	pay for tax cuts	drilling in the Arctic National
credit card companies	tax cuts for people	victims of gun violence
security trust fund	oil and gas companies	solvency of social security
social security trust	prescription drug bill	Voting Rights Act
privatize social security	caliber sniper rifles	war in Iraq and Afghanistan
American free trade	increase in the minimum wage	civil rights protections
central American free	system of checks and balances	credit card debt
	middle class families	

WHAT DRIVES MEDIA SLANT? 45

TABLE I—*Continued*

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

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

[a] The top 60 Democratic and Republican phrases, respectively, are shown ranked by χ^2_{pl}. The phrases are classified as two or three word after dropping common "stopwords" such as "for" and "the." See Section 3 for details and see Appendix B (online) for a more extensive phrase list.

Once an ideology level is assigned to all newspapers, the authors proceed to create a benchmark of what the media bias would be in a context where:

- **a.** Readers like to consume news slanted towards their own (zipcode-specific) ideological bias, which is exogenously given (hence no feedback loop from media to voters preference/types/information is allowed).
- **b.** Firms are local monopolist and give their readers what they want in order to profit maximize, but are potentially affected in their supply also by linear supply shifters.

It is a economic model of slant where essentially:

1. More conservative zipcodes have higher demand for more conservatively biased news.
2. Slant supplied by news corporations is increasing in consumer conservativism.

For details on estimation of demand shifters (e.g. for replication purposes of this simple IO model), refer to the main text.
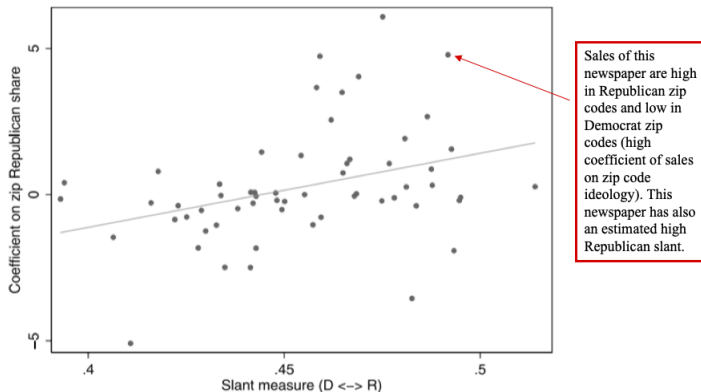
FIGURE 2.—Newspaper slant and coefficients on zip code ideology. The *y* axis shows the esti-
mated coefficient in a regression of the share of households in the zip code reading each news-
paper on the zip code share Republican, for newspapers circulating in more than 200 zip codes.
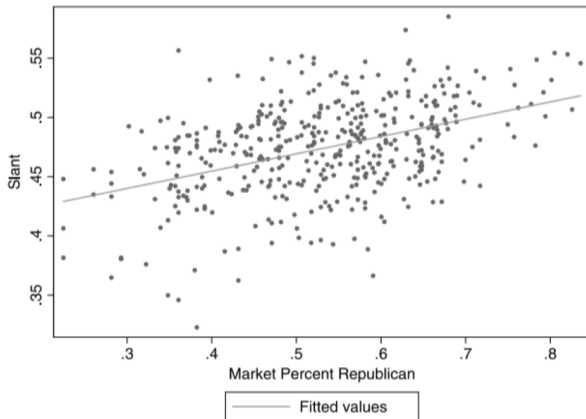The *x* axis shows slant measure.

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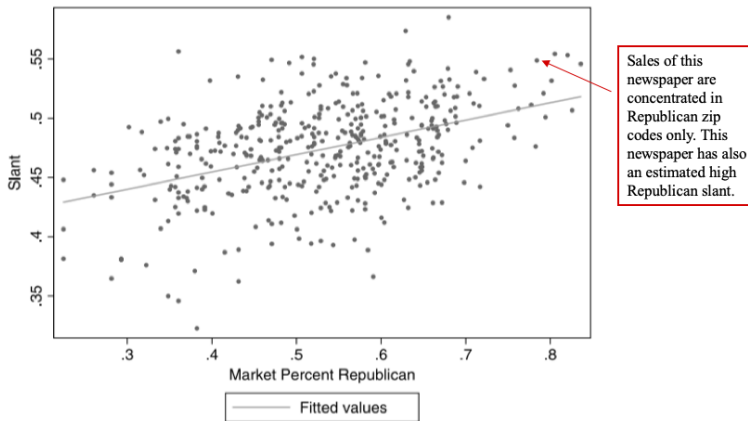
FIGURE 4.—Newspaper slant and consumer ideology. The newspaper slant index against Bush's share of the two-party vote in 2004 in the newspaper's market is shown.

Sales of this newspaper are concentrated in Republican zip codes only. This newspaper has also an estimated high Republican slant.

FIGURE 4.—Newspaper slant and consumer ideology. The newspaper slant index against Bush's share of the two-party vote in 2004 in the newspaper's market is shown.

FIGURE 6.—Newspaper slant and political contributions. The average slant of newspapers owned by a firm is graphed against the share of total dollars going to Republicans within each category of contributions. Correlation coefficients are -0.04 ($p = 0.90$) for newspaper group executives, 0.29 ($p = 0.34$) for independent newspaper executives, and 0.01 ($p = 0.97$) for newspaper group corporate contributions.

Using the third approach Puglisi and Snyder ("The Balanced US Press", JEEA, 2015), we find that US newspapers are typically quite aligned with the median voter in the State in which they operate (no National median voter evidence – only State).

- Average bias is a precise 0.

However, they also find that some media outlets are systematically to the left of the state median voter and others systematically to the right

- So, there is heterogeneity, although dispersion is not high relative to other interest groups (environmental groups, unions, trade associations, etc.).

Differences are issue-specific. Newspapers appear systematically to the left of state voters on social issues and to the right on economic issues.

The Balanced US Press (cont.)

Methodology: Look at State ballot propositions. Typically binary with a Liberal/Conservative policy (say spatially located at $L < R$ on the real line).

3 cases:

1. Suppose, comes voting day, vote shares are split 50/50 between R & L (or at close margin, say 55/45), then the median voter is around $(L + R)/2$. Then, any media endorsing policy R is more conservative than the median voter. Any media endorsing policy L is more liberal than the median voter.

2. Suppose, comes voting day, vote shares are split so that R votes $\gg L$ votes, then the median voter is closer to R. Any media endorsing L is more liberal than the median voter. But if a media endorses R, it could be more or less biased (uninformative).

3. Suppose, comes voting day, vote shares are split so that L votes $\gg R$ votes, then the median voter is closer to L. Any media endorsing R is more conservative than the median voter. If a media endorses L, it could be more or less biased (uninformative).

For each news outlet, average across all ballot propositions. No selection bias issues.
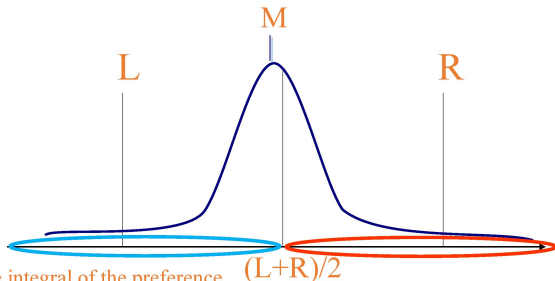
2 Policy Alternatives: at point L and point R

L   R

(L+R)/2
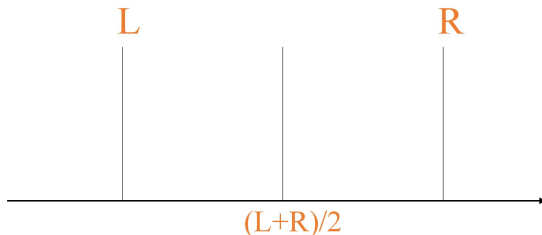
If votes are evenly split,
an endorsement places media on the correct side of Median Voter M

The integral of the preference distribution is integrated up to (L+R)/2 to find the pro-L vote share. If vote shares are balanced, then M is close to (L+R)/2. Then endorsing L puts you to the left of M almost certainly.

If votes are mostly for R,
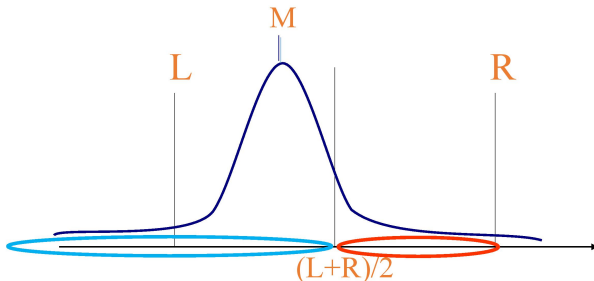an L endorsement places media on correct side of Median Voter M

M

L

R

(L+R)/2
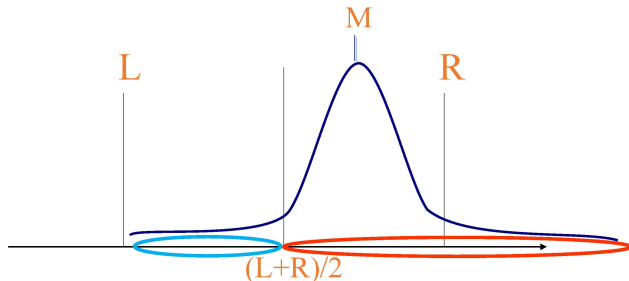
If media outlet endorses L, for
sure it is placed to the left of M.

If votes are mostly for L,
an R endorsement places media on correct side of Median Voter M

M

L   R

(L+R)/2

If media outlet endorses R, for
sure it is placed to the right of
M.

All US newspapers with circulation > 20,000. Period: 1996-2012.

30,525 endorsements

- In most cases (66%), newpapers' endorsement is uninformative (enorsing on the side of the majority in 2 and 3)

23% of endorsements are on close propositions (case 1); these are all usable.

State-by-state analysis for Arizona, California, Colorado, Florida, Oregon, Washington.

Propositions are classified as *R* or *L* based on Party endorsement or endorsement/opposition by a majority of the special interest groups with clear political affiliations –the authors use a bunch of these.
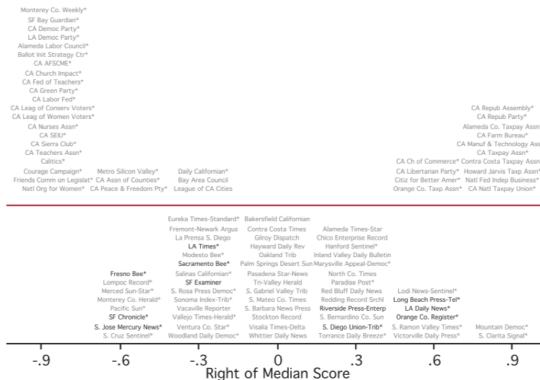
FIGURE 2. Newspapers, interest groups, and voters in California. The figure displays the political position of interest groups and newspapers in California. The endorsers are divided into seven groups based on their Group-Based *Right of Median* scores. The figure is split into two panels, with interest groups and parties on top, and newspapers on the bottom. Endorsers whose positions are significantly different from zero (at the 0.05 level) are starred. In the bottom panel, newspapers with circulation larger than 100,000 are in black, while smaller newspapers are in gray.

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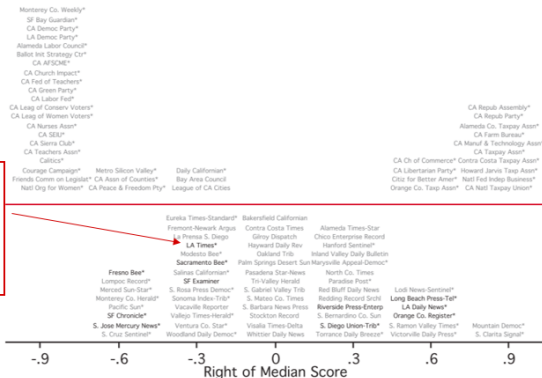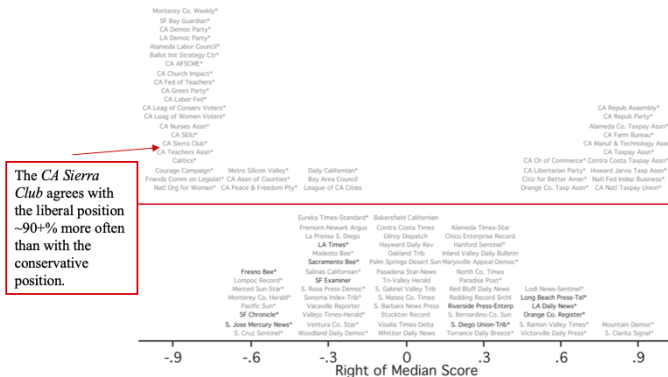
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MEDIA AND ITS EFFECTS

Media and Persuasion

What's the effect of the media on voting?

Most of the evidence is pretty negative. It seems there is no effect of the media on electoral outcomes. This is potentially consistent with the idea that the evidence is short-run and limited.

- Gerber et al. (2011) on the short lived effects of randomized television ads in Texas for the Rick Perry gubernatorial campaign.

In this respect, news change the beliefs of voters, possibly reducing their variance. Nonetheless, the news does not sufficiently move beliefs to the point of affecting voter's choices.

- However, Gentzkow et al. (2011) find precise zeros for the effect of entry and exit of partisan newspapers on party vote shares for the US in the period 1869-2004.

Only exception of a positive result: DellaVigna and Kaplan (QJE 2006) "The Fox News Effect"

The Fox News Effect

DellaVigna and Kaplan (QJE 2006)

- Exploits gradual introduction of Fox News in US TV cable markets over the period 1996- 2000.
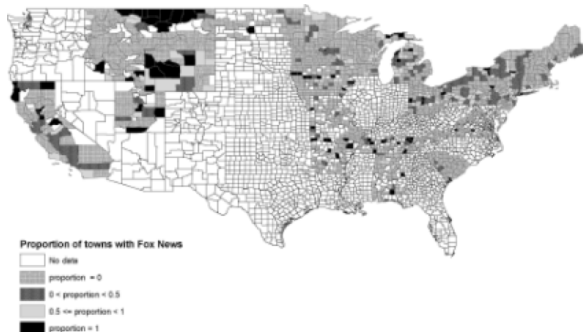
  "Fox News expanded rapidly to reach 20 percent of U. S. cities and an audience of 17.3 percent of the U. S. population by June 2000 (Scarborough Research data)."

Channel distribution and bundling in US is driven by many idiosyncratic elements and this provides some exogeneity to the Fox News treatment.

The phasing-in timing identification strategy is typical of some of these empirical papers on media

- See Gentzkow (QJE 2006) "Television and Voter Turnout" – Television reduced electoral turnout by substituting more politics-rich media, like newspapers).

Fox News Availability in 2000

Proportion of towns with Fox News
- No data
- proportion = 0
- 0 < proportion < 0.5
- 0.5 <= proportion < 1
- proportion = 1

Source: DellaVigna and Kaplan, 2007. Figure 1

The Fox News Effect

DellaVigna and Kaplan look at the effects on the 2000 presidential election vote shares

- They show that areas that started broadcasting Fox on cable before 2000 had increases in Republican vote shares in the 2000 election relative to 1996 of about 0.4-0.7 percentage points (midpoint 0.0055) in the treated towns.

Fox News was available in 34% of households in 2000

- So, the overall effect of Fox News was 0.15 to 0.2 percentage points of all voters (midpoint 0.0019 = 0.34*0.0055).

+200,000 GOP votes nationwide – this was the Bush-Gore tied election, remember, so even small numbers mattered.

- In Florida, the Fox News effect was +10,757 votes (Bush's official margin of victory was 537 votes).

The effect not just through swing voters, but through mobilization of Republican voters, increasing conservative turnout especially in Democratic districts.

Fox News Persuasion Rates

DellaVigna and Kaplan (2007) look at persuasion rates of the media. The following is adapted from *DellaVigna and Gentzkow (2011, p.5)*:

Persuasion rate = percentage of receivers that change the behavior among those that receive a message and are not already persuaded.

In a setting with a binary behavioral outcome, a treatment group T, and a control group C, the persuasion rate f (in percent) is:

$$f = 100 * (y_T - y_C)/(e_T - e_C) * 1/(1 - y0)$$

Fox News Persuasion Rates (cont.)

In a setting with a binary behavioral outcome, a treatment group T, and a control group C, the persuasion rate f (in percent) is:

$$f = 100*(y_T - y_C)/(e_T - e_C) * 1/(1 - y0)$$

Where:

- e_i is the share of group i receiving the message. Note: it allows for nonzero e_C
- y_i is the share of group i adopting the behavior of interest (e.g. voting GOP)
- y_0 is the share that would adopt if there were no message. Where y_0 is not observed, approximate it by y_C .

e.g. in DellaVigna and Kaplan (2007):

$$(y_T - y_C) = (56.55\% - 55\%) = 0.55\% \text{ and } f = 11.6\%$$

Media and Political Accountability

Media divulge information to voters. This is at the core of the economic view of the media in politics.

Assumption: voters have some degree of rationality.

Updating is based on information ,and not completely behavioral.

There is some evidence of voters responding to information from other channels.

- In political campaigns (Kendall et al. AER 2015).
- Using surprise newspaper endorsements Chiang and Knight (ReStud 2011).

Media and Accountability

Snyder and Stromberg (2010): *"Press Coverage and Political Accountability"*, JPE.

- The authors lever identification by noticing that Congressional District boundaries cut across media markets in relatively exogenous ways.

Media cater in their coverage to their readers – i.e. they report on issues the readers care about.

If a newspaper media market covers two districts A and B, that newspaper will typically cover the politician from A less than a newspaper whose media market perfectly overlaps (is "congruent") with district A. This is because the first newspaper will need to compromise, also reporting on news related to B, hence diluting the intensity of scrutiny on the politician from A.

- You need to buy all newspapers covering your congressional district to have a comparable number of news.

If a district is fully "congruent" relative to having a level of zero congruence, the number of articles about that district's congressman increases by 170 per Cong. cycle, on average.

Snyder and Stromberg (2010): *Media and Accountability*

Causality chain:

Media congruence drives media coverage.

⇓

Media coverage induces sizeable learning.

⇓

Learning increases accountability of politicians.

⇓

Politicians' effort increases.

⇓

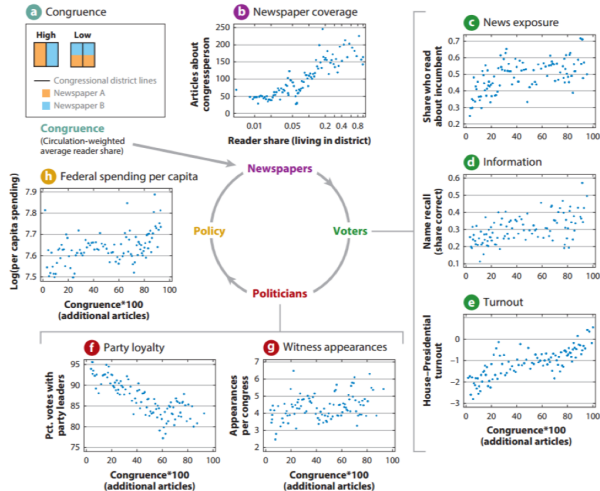Higher effort delivers better policy and public goods to the district.

Figure 1

Structure of empirical investigation of Snyder & Strömberg (2010). Figure reproduced with permission from Snyder & Strömberg (2010).

Media access improves policy outcomes.

Snyder and Stromberg (2010): one st. dev. increase in congruence (i.e. 50 more articles per Congressional cycle) increases federal spending to district by 3% per capita. Areas that exogenously had good radio reception

received significantly more New Deal spending after the great depression and had higher electoral turnout - Stromberg (2004 QJE). Note: the

exogenous variation in these papers typically comes from some odd geophysical features. Typical measures of exogenous drivers of media penetration are ground conductivity, topography relative to the placement of transmitting antennae, etc.

Using this type of identification strategy, some papers have also looked at the deleterious consequences/costs of media penetration:

- Yanagizawa-Drott (QJE 2014) on "hate radio" in Rwanda and genocide;
- Blouin et al. (2016) on pro-government propaganda on Radio Rwanda;
- Adena et al. (2015) on the role of the radio during Weimar and in Nazi Germany;
- Pinotti et al. (2015) on Berlusconi's political ascent and his TV channels (boosting Forza Italia vote shares), etc.

Media access changes policy outcomes.

There is another interesting form of identification of media effect.

- Holding media penetration constant, look a timing.

Issues are being covered by the media at a differential rate when there are other news "competing for bandwidth".

Media and Policy Effects (cont.)

Eisensee and Stromberg (QJE 2007) look at natural disasters.

Olympic Games coverage crowds out coverage of natural disasters.

- This decreases the likelihood of the US government sending relief aid on those events happening to overlap.
- News coverage has a causal effect on US relief.

Media and Policy Effects (cont.)

Durante and Zhuravskaya (2015): *"Attack When the World Is Not Watching? International Media and the Israeli-Palestinian Conflict"*

- The authors look at Israeli attacks/retaliation against Palestine.
- They show that Israeli attacks are more likely to be carried out when US news are expected to be dominated the next day by some prominent, Middle-East-unrelated, event.
- These events are predictable in nature. Only non-urgent attacks that carry the risk of civilian casualties are timed in this manner.

Conclusions on Media

- Issues of media and politics have been explored.
- Recent methodological advances in quantifying bias of newspapers.
- Also, rational models seem do a pretty good job in explaining effects of media.
- Yet ,stark incongruences remain. We would like to further understand/cover the behavioral sides of media.
- How can we explain Silvio Berlusconi, Donald Trump, etc.?