Newspaper Market Structure and Behavior: Partisan Coverage of Political Scandals in the U.S. from 1870 to 1910

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Introduction

- How does media market structure affect what media outlets do?
  - We study partisan bias in newspapers' coverage of political scandals and how that bias is affected by competition
  - The period that we study is especially interesting: newspapers and magazines were the only mass media outlets, they were highly partisan and during the period there was a trend towards independent newspapers

Why Scandals?

- It is relatively easy to identify scandals in a replicable manner
- It is also easy to count the number of newspaper stories devoted to a particular scandal
- Scandals involving politicians have clear partisan implications, they are "bad news"

Hypotheses

- Partisan newspapers should devote a large amount of coverage to scandals involving politicians of the opposing party, and less coverage to scandals involving politicians in their party
- These newspapers should behave this way especially if they are in a monopoly position
- If they face competition, and as competition increases, this bias against opposition party politicians and in favor of own party politicians, should decrease

Literature

- The hypotheses are mostly in line with literature such as Besley and Prat (2006) and Gentzkow and Shapiro (2006), which both conclude that competition mitigates bias
- In the other hand, they go against studies such as Mullainathan and Shleifer (2005), Anand, Di Tella and Galetovic (2007), Baron (2006), where competition can increase bias.

Main Results

- Partisan newspapers publish more articles about scandals involving politicians from the opposition party, and they publish less stories about politicians from their own party, relative to independent newspapers.
- This bias is stronger in cases where the newspaper faces no competition; as competition increases, the bias, both against the opposition party and in favor of the own party, decreases.

Scandals

Table: Scandals by Political Affiliation and by Scope

Panel A: By Political Affiliation		
	Number	%
Democratic	45	36.9
Republican	77	63.1
Total	122	100
Panel B: By Geographical Scope		
	Number	%
National	8	6.6
State	59	48.4
Local	55	45.1
Total	122	100

Scandals

Scandals gathered mostly from ProQuest's archives of five daily newspapers: *Chicago Tribune*, *Atlanta Constitution*, *New York Times*, *San Francisco Chronicle* and *Washington Post*

- These were large and established newspapers, located in five of the largest cities in the country, where they faced highly competitive markets
- Broadly cover all regions of the country
- Used the same set of search strings to collect articles about scandals

These five newspapers, as well as all newspapers in large markets ($>$ 10 newspapers) were excluded from the analysis

Scandals

Examples of scandals:

- Stephen Wallace Dorsey, Republican Senator from Arkansas - Apr. 1881 to June 1883: was accused of being involved in the Star Routes frauds against the U.S. Post Office Department. He was tried twice and was ultimately acquitted.
- Marshall Tate Polk, Democratic State Treasurer in Tennessee - Jan. 1883 to July 1883: was accused of embezzling state money and was arrested (after fleeing to Texas), tried and convicted.

Newspaper Articles

Measure newspaper coverage by the number of articles published by each newspaper that mention the scandal while it was ongoing.

- Articles come from the newspaper archive *America's Historical Newspapers* (AHN), which contains issues for 166 newspapers for the period 1870-1910.
- Collected the total number of articles per newspaper for each scandal
- To scale the number of articles, we collected the total number of articles published by each newspaper during the period of each scandal

Newspaper Articles

Used search strings, tailored for each scandal.
Examples:

- Senator Stephen Wallace Dorsey: *dorsey and senator and ("star-route" or "star route") and (indict* or lawsuit or trial or acquit* or guilty or fraud* or false* or conspir*)*
- Treasurer Marshall Tate Polk: *polk and treasurer and (shortfall or fled or arrest* or embezzle* or guilt* or default*)*

Newspaper media market

- Matched the newspapers from AHN with the newspapers in *Rowell's American Newspaper Directory* and *N.W. Ayer & Son's American Newspaper Annual and Directory*
- From *Rowell's* and *Ayer's* we collected information about each newspaper's partisanship and frequency of circulation
- Collected this same information for all other partisan newspapers in their cities

Newspaper media market

Table: Newspapers by Party and by Media Market

Panel A: By Party	Number	Percent
Democratic	59	33.0
Republican	89	49.7
Independent	31	17.3
Total	179	100
Panel B: By Media Market	**Number**	**Percent**
1	32	9.6
2	51	15.3
3	54	16.2
4	59	17.7
5	55	16.5
6 to 10	83	24.9
Total	334	100

Data

Dependent Variable:

$$Relative\ Hits_{ij} = \frac{h_{ij}}{H_{ij}} - \frac{\sum_{k=1}^{n_i}(h_{ik}/H_{ik})}{n_i} \quad (1)$$

Where h_{ij} is the number of articles about scandal i published by newspaper j, H_{ij} is the total number of articles published by newspaper j during the same period of the scandal, and n_i is the number of newspapers in the sample during the period of scandal i.

Data

- A newspaper is coded as Republican if it was Republican for over 50% of the period of the scandal, the same for Democratic and Independent newspapers
- With the newspapers' and the politicians' political affiliations we coded:
  1. $Opposition\ Party_{ij} = 1$ if both the politician in scandal i and newspaper j belong to the same party
  2. $Own\ Party_{ij} = 1$, if the politician in scandal i and newspaper j belong to opposite parties
  3. $Overall\ Bias_{ij} = Opposition\ Party_{ij} - Own\ Party_{ij}$

Data

- Measure of competition: $Log\ Newspapers_{ij}$ is the log of the average total number of newspapers in the city of newspaper j over the period of scandal i
- Partisanship of newspaper j's market area: $Voter\ Partisanship_{ij} = D_{ij}$ if scandal i involves a Republican politician, and $Voter\ Partisanship_{ij} = 1 - D_{ij}$ if scandal i involves a Democratic politician, where D_{ij} is the Democratic share of the vote in the previous Presidential election

Baseline Estimation

$$RelativeHits_{ij} = \beta_0 + \beta_1 \, OppositionParty_{ij} + \gamma\prime X_{ij} + \epsilon_{ij} \quad (2)$$

and

$$RelativeHits_{ij} = \beta_0 + \beta_1 \, OppositionParty_{ij} + \beta_2 \, LogNewspapers_{ij} + \beta_3 \, OppositionParty_{ij} \times LogNewspapers_{ij} + \gamma\prime X_{ij} + \epsilon_{ij} \quad (3)$$

X_{ij} is a vector of control variables. The models are similar for the other bias measures, with *Own Party* or *Overall Bias* substituted for *Opposition Party*.

Newspaper Biases: Dependent Variable = Relative Hits

	(1)	(2)	(3)	(4)	(5)	(6)
Log Newspapers		0.319		-0.349		-0.008
		(0.261)		(0.203)		(0.181)
Opposition Party	0.930	2.017				
	(0.295)	(0.763)				
Opposition Party ×		-0.813				
Log Newspapers		(0.392)				
Own Party			-0.691	-1.839		
			(0.286)	(0.716)		
Own Party ×				0.878		
Log Newspapers				(0.379)		
Overall Bias					0.469	1.090
					(0.166)	(0.412)
Overall Bias ×						-0.475
Log Newspapers						(0.214)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3705	3705	3705	3705	3705	3705

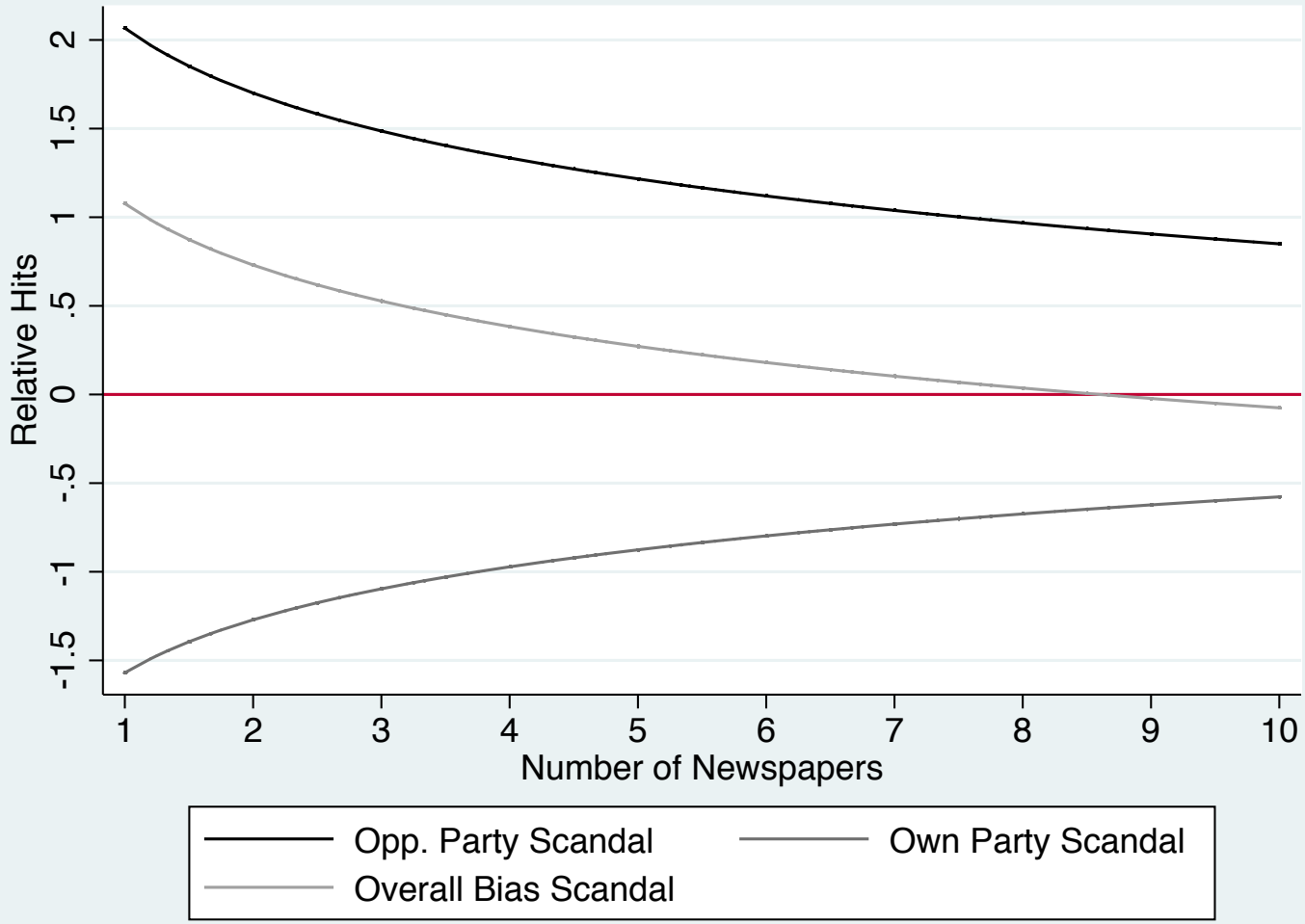
Standard errors in parentheses, clustered by scandal.

Scandal fixed effects included in all columns.

All columns include all census controls.

Bias and Competition

Figure 1 - Bias and Competition



Newspaper Biases: Dependent Variable = Relative Hits

	(1)	(2)	(3)	(4)	(5)	(6)
Log Newspapers		0.344		-0.659		-0.130
		(0.325)		(0.273)		(0.217)
Opposition Party	1.205	2.679				
	(0.367)	(0.928)				
Opposition Party ×		-1.042				
Log Newspapers		(0.449)				
Own Party			-0.919	-2.580		
			(0.367)	(0.941)		
Own Party ×				1.179		
Log Newspapers				(0.462)		
Overall Bias					0.620	1.403
					(0.211)	(0.497)
Overall Bias ×						-0.568
Log Newspapers						(0.239)
Voter Partisanship	-1.759	-2.043	-1.426	-1.770	-1.810	-2.084
	(0.836)	(0.874)	(0.857)	(0.905)	(0.895)	(0.934)
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3312	3312	3312	3312	3312	3312

Standard errors in parentheses, clustered by scandal.

Scandal fixed effects included in all columns.

All columns include all census controls.

Newspaper Biases: Dependent Variable = Relative Hits

	(1)	(2)	(3)	(4)	(5)	(6)
Log Newspapers	0.163	0.227	-0.658	-0.551	-0.218	-0.116
	(0.302)	(0.307)	(0.270)	(0.253)	(0.222)	(0.216)
Opposition Party	2.182	2.179				
	(0.812)	(0.805)				
Opposition Party ×	-0.723	-0.711				
Log Newspapers	(0.384)	(0.385)				
Own Party			-2.191	-2.207		
			(0.868)	(0.851)		
Own Party ×			0.920	0.934		
Log Newspapers			(0.430)	(0.424)		
Overall Bias					1.156	1.155
					(0.446)	(0.439)
Overall Bias ×					-0.414	-0.414
Log Newspapers					(0.214)	(0.213)
Voter Partisanship	-1.221	-1.119	-1.267	-1.101	-1.319	-1.176
	(0.919)	(0.893)	(0.895)	(0.851)	(0.969)	(0.927)
Year	-0.010	-0.009	-0.045	-0.039	-0.032	-0.030
	(0.008)	(0.007)	(0.013)	(0.012)	(0.007)	(0.006)
Opposition Party × Year	-0.050	-0.050				
	(0.020)	(0.021)				
Own Party × Year			0.035	0.037		
			(0.019)	(0.020)		
Overall Bias × Year					-0.024	-0.024
					(0.011)	(0.011)
Observations	3312	3312	3312	3312	3312	3312

Standard errors in parentheses, clustered by scandal.

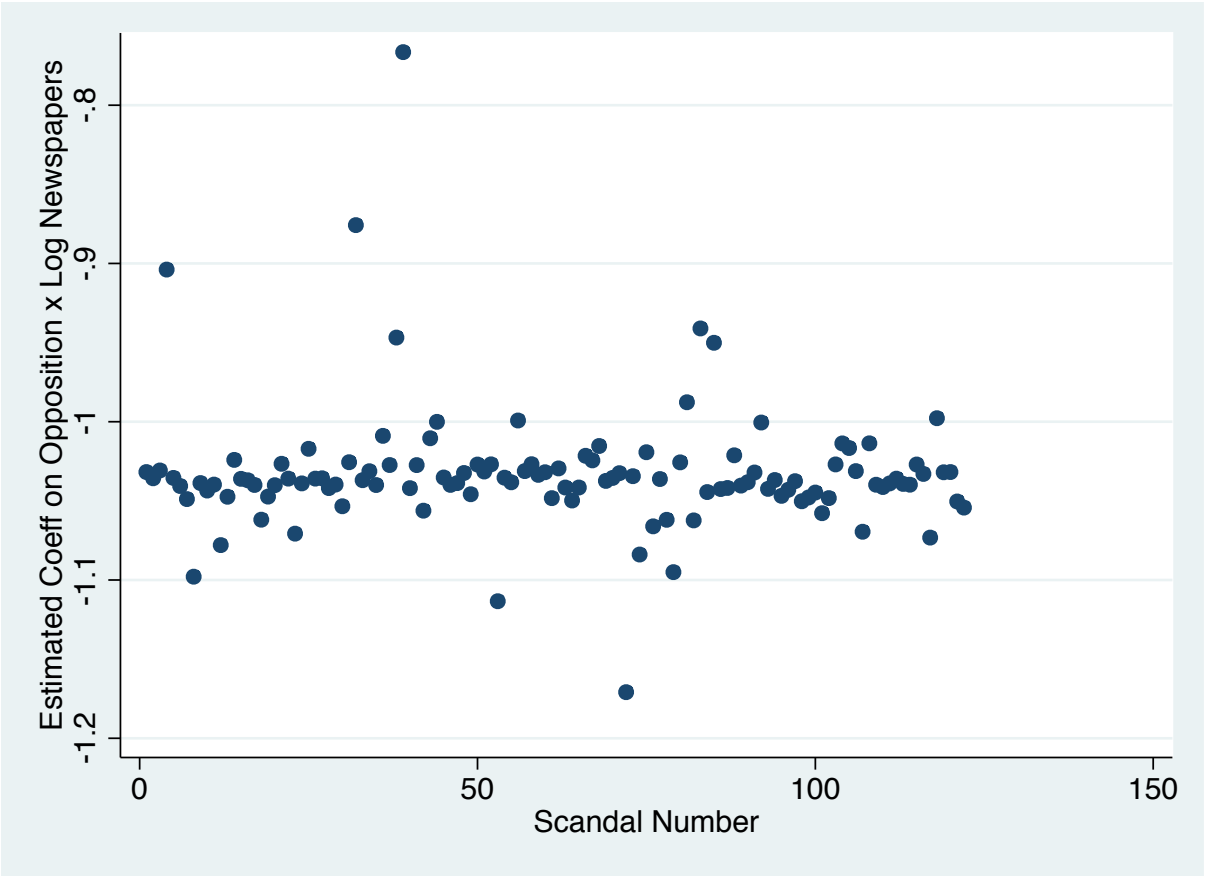
Scandal fixed effects and all additional controls included in all columns.

Conclusion

- Partisan bias was reflected in the amount of coverage devoted to scandals depending on the partisan affiliations of the politicians involved.
- Our results indicate that competition reduced the degree to which partisan newspapers skewed their coverage of scandals.
- Our sample consists of 166, it is large enough to have confidence in results, and we have no reason to believe it is unrepresentative, however, it represents only a small fraction of the newspapers that circulated at the time.
- Enlarge the sample by using other newspaper archives.
- We are interested in studying whether newspapers responded to the structural changes in political institutions that began at the start of the 20^{th} century.

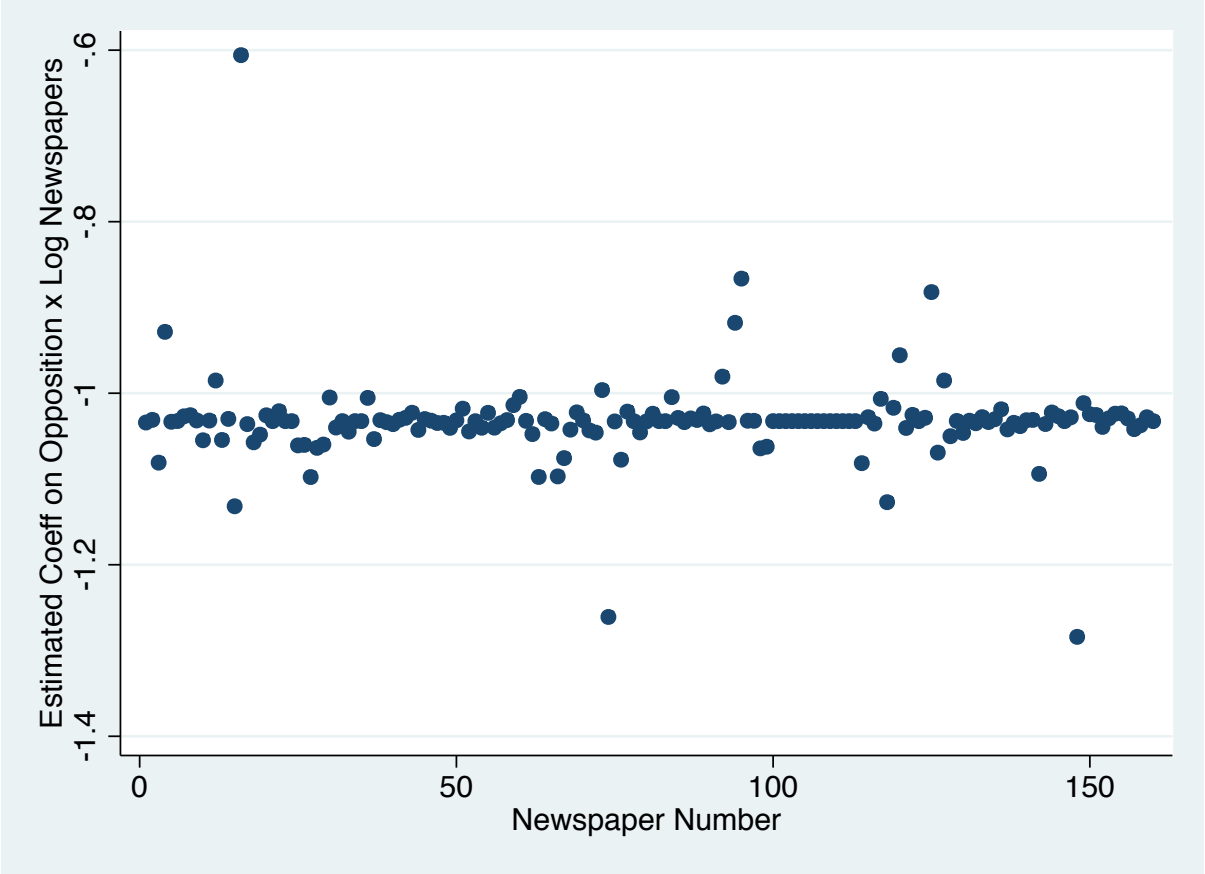
Robustness check

Figure A1 - Coefficients on Opposition × Log Newspapers after dropping each scandal one at a time



Robustness check

Figure A2 - Coefficients on Opposition × Log Newspapers after dropping each newspaper one at a time



Robustness check: Excluding foreign language newspapers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Log Newspapers			0.324	0.321			-0.310	-0.351			-0.029	0.000
			(0.267)	(0.263)			(0.210)	(0.204)			(0.195)	(0.182)
Opposition Party	0.945	0.950	2.073	2.033								
	(0.297)	(0.298)	(0.752)	(0.767)								
Opposition Party × Log Newspapers			-0.851	-0.810								
			(0.384)	(0.394)								
Own Party					-0.640	-0.701	-1.616	-1.886				
					(0.283)	(0.289)	(0.688)	(0.722)				
Own Party × Log Newspapers							0.754	0.905				
							(0.362)	(0.380)				
Overall Bias									0.465	0.476	1.093	1.107
									(0.167)	(0.167)	(0.416)	(0.414)
Overall Bias × Log Newspapers											-0.480	-0.483
											(0.215)	(0.215)
Observations	3670	3670	3670	3670	3670	3670	3670	3670	3670	3670	3670	3670

Standard errors in parentheses

Standard errors in parentheses, clustered by scandal. Scandal fixed effects included in all columns. Even numbered columns include all additional controls.