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Newspaper Coverage of Political Scandals

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We study the coverage of U.S. political scandals by U.S. newspapers during the past decade. Using automatic keyword-based searches we collected data on 32 scandals and approximately 200 newspapers. We find that Democratic-leaning newspapers—i.e., those with a higher propensity to endorse Democratic candidates in elections—provide relatively more coverage of scandals involving Republican politicians than scandals involving Democratic politicians, while Republican-leaning newspapers tend to do the opposite. This is true even after controlling for the average partisan leanings of readers. In contrast, newspapers appear to cater to the partisan tastes of readers only for local scandals.

n modern societies the mass media are citizens' most important source of information about public affairs. On some issues, such as crime or the state of the economy, citizens can compare the news provided by the media with their personal experience. On other issues, such as foreign affairs, the media are the only source of information for most of the public.¹

Events concerning the malfeasance of public officials typically fall into the second category. Politicians may wish to communicate directly with voters about certain matters, such as popular policy decisions, but they clearly have no incentive to advertise their wrongdoings. As a result, the mass media have the potential to play a crucial role as watchdogs, informing citizens about any improper conduct by those in power.

Of course, in practice the media might or might not serve as faithful watchdogs. In particular, according to the "agenda-setting" theory of mass media, editors and journalists enjoy considerable freedom in deciding what is newsworthy and what is not, and these choices affect the perception of citizens about which issues are relevant and to what extent. As pointed out by Lippmann (1922), events regarding public affairs would be "out of reach, out of sight, out of mind" for citizens if the media happen not to cover them.

In this paper we investigate the coverage of political scandals by approximatively 200 U.S. news-

papers during the last decade. We collect data on media coverage through automated keyword-based searches of the NewsLibrary electronic archive and focus on recent financial scandals involving senators, members of congress, and state governors. Exploiting the newspapers' own archives and the Factiva electronic archive, we integrate our dataset with similar information on the New York Times, the Los Angeles Times, and the Chicago Tribune. Our dataset includes 32 scandals and approximately 200 newspapers. We use this data to test several hypotheses regarding the political behavior of mass media. We match this data with a measure of the explicit partisan position of each newspaper and a measure of the partisanship of each newspaper's readers. The former is the average propensity to endorse Democratic versus Republican candidates in congressional and statewide races, and the latter is the propensity to vote for Democratic versus Republican candidates in the areas in which each newspaper is sold, weighted by circulation. We also use the circulation data to construct measures of the competitiveness of each newspaper market.

The main finding of our analysis is that partisan biases exhibited on the editorial pages of newspapers are strongly correlated with partisan biases in the coverage of scandals, and with the expected sign. Democratic-leaning newspapers—i.e., those with a higher propensity to endorse Democratic candidates in elections—devote significantly more attention to

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¹An online appendix with supplementary material for this article is available at http://journals.cambridge.org/jop. Data and supporting materials necessary to reproduce the numerical results will be made available upon publication at www-3.unipv.it/webdesed/ept/docente.php?id=puglisi.

scandals involving Republican politicians than scandals involving Democratic politicians, while Republican-leaning newspapers do the opposite. This bias in coverage of scandals is not confined to the editorial page, but also affects the news section. The correlation holds strongly even after controlling for the partisan leanings of newspapers' readers. This suggests the bias is due at least in part to "supply side" factors.²

On the other hand, we find that "demand side" factors play a significant role only for local scandals. Newspapers mainly read in Democratic (Republican) areas give significantly more coverage to Republican (Democratic) scandals, but only when the politicians involved in the scandal are from the same state or congressional district where the newspaper is sold. This difference in coverage does not hold for "distant" scandals. In contrast, the supply side effect described in the previous paragraph—that Republican-endorsing newspapers systematically give more coverage to Democratic scandals, and Democraticendorsing newspapers do the opposite—holds irrespective of the geographical location of the politicians involved.

The relative frequency of stories about political scandals is on average quite small. Thus, in absolute terms the effects we measure are also small. In relative terms, however, the biases are large. Consider a newspaper with a propensity to endorse Democratic candidates that is one standard deviation higher than average. On average, this newspaper would devote 26°% more coverage to Republican scandals than to Democratic scandals. To put this in perspective, one standard deviation in the endorsement score is what separates the *Chicago Tribune* from the *Denver Post*, and the *Denver Post* from the *New York Times*.

Finally, we find some evidence that newspapers with larger circulation systematically give more space to scandals, irrespective of the political affiliation of those involved. As discussed below, there are both demand- and supply-side accounts consistent with this relationship.

Our findings contribute to three lines of research on the politics and political economy of the media.

The first is the growing empirical literature searching for replicable and intuitive ways to measure the ideological or partisan positions of different media outlets. The existing measures can be divided into three types. One type focuses on the explicit political behavior of newspapers, analyzing endorsements of candidates or ballot propositions (e.g., Ansolabehere, Lessem, and Snyder 2006; Puglisi and Snyder 2009). A second type measures the *implicit* political behavior of media outlets, analyzing the language they use or the sources they cite in their news stories (e.g., Gasper 2007; Gentzkow and Shapiro 2010; Groseclose and Milyo 2005). The idea is to compare the words, phrases or sources used by the media with those used by politicians. Outlets that employ language or sources that are used mainly by Republican (Democratic) politicians are then classified as relatively conservative (liberal). The third type also measures the implicit political behavior of the media, but focuses on the amount of coverage devoted to various issues, that is, on "agenda setting" (e.g., Larcinese, Puglisi, and Snyder 2011; Puglisi 2011). The idea is to analyze how the behavior of newspapers varies as the partisan identity of the president varies. For example, Larcinese, Puglisi, and Snyder (2011) study the amount of coverage devoted to economic issues, such as unemployment, inflation, and deficits. A newspaper is classified as relatively conservative (liberal) if it covers unemployment more intensely when unemployment is high and the president is a Democrat, compared to when unemployment is equally high but the president is a Republican.³

Our article provides a new measure of the third type of bias. One reason to focus on agenda setting is that abuse of this power is potentially one of the most harmful behaviors by news media, especially if it is used to suppress information. The reason is that it is difficult for consumers to distinguish the scenario "I did not see any news about X today because nothing important happened regarding X" from the alternative "I did not see any news about X today because, although something important happened, the media decided not to publish it." Theoretical models by Anderson and McLaren (2009), Bernhardt, Krasa, and Polborn (2008), Besley and Prat (2006), and Puglisi (2004) incorporate precisely this source of

²Although the relationship between endorsement behavior and readers' partisanship is positive and statistically significant, the correlation is only about 0.3. This suggests that the endorsement behavior of a given newspaper is a reasonable indicator of "supply side" forces pinning down its editorial position. We discuss this in more detail in the next section.

³Lott and Hassett (2004) shares features of the second and third groups. They analyze newspaper coverage when official data about various economic indicators are released. They code the "tone"—positive or negative—of newspaper headlines and relate this to the partisanship of the sitting president.

media bias, and show how this can lead to suboptimal public policy decisions.^{4,5}

The second line of work to which our article speaks is the theoretical literature on media bias. Formal models by Baron (2006), Mullainathan and Shleifer (2005), Gentzkow, Glaeser, and Goldin (2006), and Gentzkow and Shapiro (2006) provide different accounts of media bias, and in some cases make different predictions.

Baron (2006) and Gentzkow, Glaeser, and Goldin (2006) focus on supply-side factors—such as the personal tastes of publishers, editors, and journalists—while Mullainathan and Shleifer (2005) and Gentzkow and Shapiro (2006) focus on demand-side factors. If demand-side factors were the main driver of media, then we should expect the degree of ideological or partisan bias exhibited by outlets to closely follow the ideological or partisan positions of their readers or viewers. As noted above, we find a significant correlation between the partisanship of readers and the coverage of local scandals. Also, the correlation between scandalcoverage bias and editorial endorsement bias is strong even after controlling for the partisanship of voters. Thus, our evidence suggests that both supply-side and demand-side factors influence newspaper behavior.

⁴The theory of agenda-setting effects, as pioneered by the study by McCombs and Shaw (1972) on Chapel Hill voters during the 1968 presidential campaign, posits that the amount of coverage devoted to an issue by the media can influence the importance readers and viewers attach to that issue. See Iyengar, Peters, and Kinder (1982) for some experimental evidence on this. As noted by McCombs (2002), not only can mass media coverage highlight some topic as an object of attention, but the coverage can also emphasize particular attributes of the topic, making these attributes more salient. The theory of *issue priming* describes how readers and viewers, when assessing a given situation or individual, are pushed towards giving a higher weight to the aspect emphasized by the mass media. See Krosnick and Miller (1996) for a review of this literature.

⁵In addition to the literature in communications studies on agenda setting and framing effects (see the previous footnote), there are a few recent papers examining the effects of variation in the diffusion of given media outlets, for outlets whose political positions are assumed to be known. Gerber, Karlan, and Bergan (2009) conducted a randomized field experiment just before the November 2005 gubernatorial election in Virginia. In the experiment, some households received a free subscription to the Washington Post, others received a free subscription to the Washington Times, and others received no free newpaper. DellaVigna and Kaplan (2007) use instead a quasi-experimental approach and exploit the gradual introduction of Fox News in cable markets, in order to estimate its impact on the vote share in presidential elections between 1996 and 2000. Finally, Knight and Chiang (2011) exploit individual-level survey data and find that only "surprising" presidential endorsements-i.e., those that are contrary to the expected position of a given newspaper—have a significant persuasive effect on voters. By the same token, Ladd and Lenz (2009) analyze the persuasive effects of surprising endorsements by U.K. newspapers during the 1997 General Elections.

Another important theoretical factor is market competition. Gentzkow, Glaeser, and Goldin (2006), and Gentzkow and Shapiro (2006) predict that competitive pressures in a media market will reduce the bias in coverage. Mullainathan and Shleifer (2005) makes the opposite prediction. We find a negative correlation between competition and supply-driven bias—consistent with the first prediction—but the relationships are rarely statistically significant.

A third factor is the size and ideological composition of the media audience. A model by Larcinese (2009) predicts that newspapers that appeal to moderates or independents should tend to cover all political scandals, irrespective of the political affiliation of the politicians involved. With respect to size, it seems likely that newspapers circulating in a large city should devote more overall coverage to political scandals than newspapers in smaller cities. First, there is an obvious supply-side factor—newspapers with larger circulation also have more resources and might choose to assign more staff to investigative reporting and coverage of scandals. But there might also be demand-side reasons for such a relationship. Suppose that (i) readers are confirmation seekers who like to read about scandals involving politicians from the opposition party, and (ii) larger audiences tend to be more ideologically heterogeneous or more diverse in terms of partisanship. Then, as long as readers can simply skip over the articles covering scandals involving politicians from their preferred ideology or party (or do not dislike reading these articles too much), a newspaper catering to the larger audience is likely to find it profitable to cover scandals involving both parties' politicians, and hence will devote more coverage overall to scandals. That is, a newspaper that initially covered only Republican scandals would increase its profits if it decided to cover Democratic scandals as well, because it would gain more readers among Republicans than it would lose among Democrats. We find evidence consistent with both of these predictions.

The third line of work to which we contribute is the research on media coverage of political scandals. In this literature the Watergate affair looms large, as it stimulated interest in how scandals are covered—and sometimes even uncovered—by the mass media. The causes and consequences of Watergate have been widely investigated, and in some cases Watergate is used as a benchmark against which other scandals are to be compared.⁶ One issue debated in the political

⁶See, e.g., Bernstein (1976), Chomsky (1973), Lang and Lang (1980), Lipset and Raab (1973), Schrag (1974), Szasz (1986), and Zimmer (1979).

science and communications literatures is whether the mass media act as efficient watchdogs in their coverage of political scandals, or whether they instead inject an excessive dose of sensationalism, making the public skeptical and ultimately cynical and unresponsive.⁷ A related issue, which is the explicit focus of our empirical analysis, is whether the coverage of scandals is partisan or balanced. Regarding this question, the closest contribution to ours is the historical analysis by Gentzkow, Glaeser, and Goldin (2006) on how U.S. newspapers covered the Crédit Mobilier scandal in the early 1870s and the Teapot Dome scandal in the 1920s. The authors find that the coverage of the Crédit Mobilier scandal—which occured in a period dominated by partisan newspapers—was more biased than the coverage of Teapot Dome—which occurred at a time when fewer dailies were directly linked to political parties.

Our contribution to this literature is to add breadth, analyzing coverage for a large number of newspapers and a large number of recent political scandals. By using automatic keyword-based searches, we provide an easily replicable and relatively precise way to estimate the importance of some of the key factors that drive the coverage of political scandals. We use objective criteria to generate a sample of relatively comparable scandals and then measure the coverage of all scandals satisfying the selected criteria on all newspapers that are available in the NewsLibrary archive (plus the New York Times, the Chicago Tribune, and Los Angeles Times, which we add because they are the largest newspapers in the U.S. that endorse candidates but are not searchable through NewsLibrary). Thus, we provide a good example of the benefits of automated textclassification procedures.8

Data and Measures

In the empirical analysis, in order to minimize potential selection bias we include a given scandal if and only if it satisfies a set of pretermined conditions. More precisely: (1) we focus on recent scandals that involve a member of Congress, a state governor, or a major executive branch official;9 (2) we focus on financial scandals (not sex scandals) in which there was an official investigation by the FBI or the Justice Department, or an Ethics Committee investigation that resulted in a severe punishment; (3) we did not rely on newspapers to identify scandals.¹⁰ To avoid omitting relevant scandals, we carefully searched the FBI and Justice Department websites, and also the Justice Department's annual "Report to Congress on the Activities and Operations of the Public Integrity Section."¹¹ The time period we study is 1997 to 2007. We chose this period because of a trade-off. A longer time period is desirable because it allows us to include more scandals, but a shorter period is necessary because we want to include a large number of newspapers, and (currently) relatively few newspapers have searchable archives that go back to the early 1990s or earlier.

Table 1 presents an overview of the scandals we study, giving the position, state of origin, political affiliation of the persons involved, a brief description of each scandal, and the name of the investigating institution. Our sample comprises 13 scandals involving Democratic politicians and 19 involving Republicans. Many of those scandals resulted in indictments and felony convictions. Of the Democratic scandals we see Robert Torricelli (Sen-NJ) and William Jefferson (Rep-LA) accused of accepting bribes and Don Siegelman (Gov-AL) convicted of racketeering and extortion. On the Republican side, we see Bill Frist (Sen-TN, Majority Leader) accused of insider trading, Tom DeLay (Rep-TX, Majority Leader) charged with accepting illegal corporate donations and money laundering, and Randy "Duke" Cunningham (Rep-CA) convicted of soliciting and accepting bribes.

⁷See, e.g., Francke (1995), Balkin (1999), and Bennett and Serrin (2005).

⁸Antweiler and Frank (2005) argue that such procedures allow researchers to investigate a comprehensive dataset of news items, possibly the entire population of interest. Due to cost, studies employing human-based content analysis must instead focus on a small subset of the relevant population—in our case, this would likely mean limiting attention to a few scandals by a small number of media outlets. This may increase the risk of various biases, including publication bias—i.e., the tendency to overpublish significant and seemingly interesting results. As Antweiler and Frank point out, researchers and scientific journal editors enjoy considerable freedom to engage in cherry picking, because the universe of studies employing human-based content analysis is so large. The comprehensive data treatment allowed by automated procedures reduces this type of bias, by sharply restricting the "degrees of freedom" available to the researcher.

⁹We also include one especially prominent lobbyist, Jack Abramoff.

¹⁰It is possible that some of the sources used might have relied on newspapers, and we cannot easily verify that.

¹¹We found numerous scandals involving lower officials, such as lower statewide officers and state legislators. We did not include those scandals, because we likely missed many other scandals involving similar officials that were investigated at the state or local level.

TABLE 1 Summary of Covered Political Scandals

Name	Position	State	Party	Scandal	Under Investigation by	Time Window
James Traficant	House	Ohio	D	Bribery, false tax returns, racketeering, forcing aides to clean up his farm	Justice Department	1/1/1997 to 9/30/2002
Frank Ballance	House	North Carolina	D	Money Laundering and other charges from funds as a State Senator	Justice Department	11/1/2003 to 1/31/2006
Robert Torricelli	Senate	New Jersey	D	Bribery related to Chinese connections, acceptance of campaign gifts	Senate Ethics Committee	4/1/2001 to 11/30/2002
William Jefferson	House	Louisiana	D	Bribery, fraud	FBI	6/1/2005 to 6/30/2007
Jane Harman	House	California	D	Possible improper contact with AIPAC	FBI	10/1/2006 to 6/30/2007
Paul Kanjorski	House	Pennsylvania	D	Funnelling of money into family business	FBI	2/1/2002 to 6/30/2007
Robert Menendez	Senate	New Jersey	D	Conflict of interest problems dealing with renting out property to a nonprofit, as well as an associate pressuring a psychiatrist involving hiring someone and prison contracts	FBI	8/1/2006 to 6/30/2007
Alan Mollohan	House	West Virginia	D	Misrepresentation of private assets, earmarking funds to an aide	FBI, 2006; Justice Department, 2007	2/1/2006 to 6/30/2007
Ed Mezvinsky	House	Iowa	D	Bank fraud, mail fraud, wire fraud	Justice Department	3/1/2001 to 1/31/2003
Jim McDermott	House	Washington	D	Eavesdropping on Gingrich/Boehner conversation	House Ethics	12/1/2004 to 12/31/2006

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TABLE 1 (Continued)

Under **Position** Scandal Investigation by Time Window Name State **Party** Don Siegelman Governor Alabama Racketeering and D Justice Department 10/1/2005 to 6/30/2007 extortion dealing with HealthSouth and doctor's boards (as well as trading favors for campaign contributions Rod Blagojevich Illinois Kickback connections, Governor D Justice has open 8/1/2005 to 6/30/2007 hiring irregularities investigation (July 2006) Edwin Edwards Governor Louisiana D Racketeering, payoffs for Justice Department 11/1/1998 to 1/31/2001 casinos Accepted \$2.4 million in Randy "Duke" House California R FBI 5/1/2005 to 3/31/2006 bribes and Cunningham underreported income from dealings with MZM inc., a defense contractor. Ohio Abramoff-related Justice Department, then Bob Nev House R 10/1/2005 to 4/1/2007 House Ethics Rick Renzi House Arizona R Bribery involving land Justice Department 10/1/2006 to 6/30/2007 swapping for copper mines, possible links to the US Attorneys probe, also did not disclose \$200k from business associate Iohn Doolittle Abramoff-related, dealing House California Justice Department 12/1/2004 to 6/30/2007 with money given to wife for undefined work and Doolittle's work to get Indian casino for Iowa tribe Conrad Burns Senate Montana R Pay for play, Abramoff Justice Department 3/1/2005 to 11/31/2006 connections on getting money for Michigan

Indian tribe

TABLE 1 (Continued)

Name	Position	State	Party	Scandal	Under Investigation by	Time Window
Mark Foley	House	Florida	R	Inappropriate emails to Congressional Pages	FBI and House Ethics	9/1/2006 to 6/30/2007
Tom DeLay	House	Texas	R	Illegal corporate donations through TRMPAC as part of redistricting plan, money laundering, aides and personal connections to Jack Abramoff investigation	Texas Travis County district attorney	4/1/2005 to 6/30/2007
Bill Frist	Senate	Tennessee	R	Insider trading	SEC, 2006	9/1/2005 to 5/31/2007
Jim Kolbe	House	Arizona	R	Page-related trips	Justice Department	9/1/2006 to 6/30/2007
Curt Weldon	House	Pennsylvania	R	Influence trading/bribery	FBI	10/1/2006 to 6/30/2007
Jerry Lewis	House	California	R	Bribery dealing with ties to former Rep. Bill Lowery	FBI	12/1/2005 to 6/30/2007
Gary Miller	House	California	R	Failure to report land deals	FBI	12/1/2006 to 6/30/2007
John Rowland	Governor	Connecticut	R	Corruption and fraud stemming from work done on his weekend cottage, as well as dealings on a home in Washington	Justice Department, State Attorney General	11/1/2003 to 3/31/2005
George Ryan	Governor	Illinois	R	Racketeering and corruption, illegal sales of government licenses, bribery to give truck drivers jobs, payments to family and others for no work.	Justice Department	1/1/2000 to 9/30/2006
Robert Taft	Governor	Ohio	R	Failure to disclose gifts and trips given by lobbyists	State Attorney General	6/1/2005 to 8/31/2005

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Name	Position	State	Party	Scandal	Investigation by	Time Window
Ernie Fletcher	Governor	Kentucky	Ж	Merit system related corruption (hiring and firing based on political lovalty)	State Attorney General	5/1/2005 to 8/31/2006
Jim Gibbons	House/Governor	Nevada	Я	Bribery (Gifts given for votes on Armed Services and Intelligence Committee)	Justice Department	11/1/2006 to 6/30/2007
Jack Abramoff	Lobbyist		R	Defrauding of American Indian tribes and corruption of public officials	Justice Department	3/1/2004 to 6/30/2007
I. Lewis "Scooter" Libby	I. Lewis "Scooter" Libby Chief of Staff, Vice President	1	×	Perjury and involvement in the Valerie Plame	Justice Department	10/1/2005 to 3/31/2007

For each of these 32 scandals, we collected data from the NewsLibrary electronic archive, recording the total number of articles mentioning the person involved in each available newspaper during a fixed time window.12 The time window for each scandal begins on the first day of the month prior to an announced investigation by a federal agency, a congressional ethics committee, or a state attorney general, and ends at the end of the month in which the person involved was convicted or acquitted (if this occured), or at the end of the month in which the investigation formally ended (if this occurred), or at the end of the month when the member lost reelection or resigned (if this occured), or on June 30, 2007 if the investigation was still ongoing at that date.¹³ The politicians in our sample have prominent public roles which make them newsworthy for a variety of reasons. In order to restrict attention to articles covering the scandals themselves, we code an article as being about the scandal if the name of the person involved appears together with the one or more of the following words (*'s are wildcards): investigat*, indict*, convict*, guilty, resign*, brib*, ethic*, corrupt*, conspir*, prison, scandal*. To find opinion articles we added the following qualifiers to the "Topic" and "Section" fields in the search: opinion, editorial, comment, commentary, perspective, viewpoint, forum, ideas, citizen voices, sunday punch.¹⁴ We define "news" articles all nonopinion articles.15

Since newspapers vary greatly in size cross-sectionally (total number of pages, stories, and words), and can also vary in size over time, we focus on the *relative frequency* of articles about a scandal in each newspaper during the relevant time window. In order to do so, we proxy the total number of articles in each newspaper in each time period by running a search on the word "and." We do the same for opinion pieces, by adding the qualifiers listed above to the "Topic" and "Section" fields when searching for the word "and."

¹²As mentioned above, we use the newspapers' own archives to add data on the *Los Angeles Times* and the *Chicago Tribune*, and the Factiva archive for the *New York Times*.

¹³Most federal investigations are by the FBI, but the SEC and IRS are also involved in some cases.

¹⁴This failed to find the editorial page for a few newspapers, so we dropped these from the analysis.

¹⁵Regarding the *New York Times*, the *Los Angeles Times*, and the *Chicago Tribune*, the online archives allow to explicitly restrict the searches to the editorial page: we directly follow this simpler route to retrieve opinion pieces.

The first half of Table A1 in the online appendix displays summary statistics on scandal coverage for those newspapers that we were able to match with endorsement and readership data. We express relative frequencies of stories in percentage points and distinguish between total hits, articles, and editorials. Overall, scandal stories make up a very small fraction of the total: on average there are around two and a half hits every 10,000 stories. This figure is much higher for editorials (something more than one editorial every 1,000). For all three categories of hits, the distribution is strongly skewed to the right, as witnessed by the large differences between means and medians.

In order to control for the relative localness of a scandal, we construct the dummy variable *Instate*, which equals one when the politician involved in scandal i is from the state where newspaper j is located. In a similar fashion *Local* is a dummy which equals one when the politician involved in scandal i is from a congressional district that overlaps heavily with the market area of newspaper j (for congressional scandals). Summary statistics on these variables are again reported in the first half of Table A1.

As mentioned, we match data on the coverage of scandals with information on the endorsement propensity of each newspaper.¹⁶ The main source of endorsement data is Ansolabehere, Lesseon, and Snyder (2006), which we supplement with additional information obtained via searches on the NewsLibrary archive.¹⁷

We define the "partisan bias" of a newspaper as the propensity for the newspaper to endorse one of the parties during electoral campaigns, controlling for the quality of candidates and their incumbency status. We used a linear regression model to estimate these biases. Let i index offices, let j index newspapers and let t index years. Let

$$E_{ijt} = \begin{cases} 1 & \text{if newspaper } j \text{ endorses Democrat} \\ & \text{for office } i \text{ in year } t \\ -1 & \text{if newspaper } j \text{ endorses Republican} \\ & \text{for office } i \text{ in year } t \\ 0 & \text{if newspaper } j \text{ explicitly makes no} \\ & \text{endorsement for office } i \text{ in year } t \end{cases}$$

measure the endorsement behavior by each newspaper endorsing a candidate in a race (explicitly refusing to do so). 18 Also, let

$$I_{ijt} = \begin{cases} 1 & \text{if Democrat for office } i \text{ in year } t \text{ is only incumbent} \\ -1 & \text{if Republican for office } i \text{ in year } t \\ & \text{is only incumbent} \\ 0 & \text{if otherwise} \end{cases}$$

measure the incumbency status of the candidates in each race. ¹⁹ Finally, we use previous electoral experience to measure the quality of nonincumbents. To be more specific, define a "high-quality" candidate as a candidate who currently holds a U.S. House seat or an elected statewide office other than the office sought. Let

$$Q_{ijt} = \begin{cases} 1 & \text{if Democrat for office } i \text{ in year } t \\ & \text{is only high quality non-incumbent} \\ -1 & \text{if Republican for office } i \text{ in year } t \\ & \text{is only high quality non-incumbent} \\ 0 & \text{otherwise} \end{cases}$$

We estimated the following linear model for the period 1992–2006, exploiting the panel nature of the data:

$$E_{ijt} = NE_j + \theta_t + \beta_1 I_{ijt} + \beta_2 Q_{ijt} + \epsilon_{ijt}$$
 (1)

The newspaper-specific fixed effects, NE_j , capture newspapers' partisanship.²⁰ Overall, we have sufficient data on both endorsements and scandal coverage for 213 newspapers.²¹

¹⁶There is considerable variation across countries in the propensity for media outlets to explicitly endorse political candidates. While this is a routine practice in the United States and in United Kingdom, in other countries it is not. For example, the decision by *Corriere della Sera*, the main Italian newspaper, to endorse the left-wing coalition leader Romano Prodi before the 2006 parliamentary elections caused a vast outcry, as it was perceived as an excessively biased and uncommon practice. According to some commentators, this decision also caused a sizeable chunk of right-leaning *Corriere* readers to move to explicitly right-wing newspapers such as *Giornale* and *Libero*.

¹⁷A few newspapers have an explicit policy not to endorse candidates for political offices—e.g., the Deseret News in Salt Lake City, the Orange County Register, and the Colorado Springs Gazette. Also, many smaller dailies do not bother to make political endorsements.

¹⁸Our sample contains a few cases where a newspaper endorsed both candidates in a race. We drop these from our analysis.

¹⁹After redistricting there are some U.S. House races with two incumbents running. In these cases we set $I_{ijt} = 0$. There are a few such cases in our sample, and if we drop them the results are unchanged.

²⁰The panel is unbalanced, since in the earlier years some newspapers lack endorsement data. The model also includes year fixed-effects, θ_D to capture partisan tides.

²¹When matching coverage and endorsement data, newspapers under a joint operating agreement are tricky cases. These agreements typically imply that the news section is common among participants, while the editorial sections are separate. However, in four such instances the NewsLibrary archive reports data for only one outlet. We dropped those cases (i.e., eight outlets).

We measure the average partisanship of each newspapers' readers as follows. First, for each county c we compute D_c as the average Democratic vote share in the presidential, senatorial and gubernatorial elections between 1990 and 2000. Then, for each newspaper j we calculate the weighted average of the D_c 's, weighting each county by the relative sales of newspaper j in that county. We call this variable NR_{i} .²² Figure 1 displays a scatter plot of the endorsement partisanship NE_i against readers' ideology NR_i , together with the estimated regression line. Not surprisingly, there is a statistically significant correlation between the ideological stance of the demand and the supply side.²³ However, the correlation is only 0.3, which is not overwhelming. Evidently, there is a considerable degree of "slack" between the partisan positions of news consumers and news providers.

We measure the relative percentage of moderates (or partisan independents) among each newspapers' readers in a similar fashion. First, for each county c we compute sd_c as the standard deviation of the Democratic vote share in the presidential, senatorial, and gubernatorial elections between 1990 and 2000.²⁴ Then, for each newspaper j we compute NR_sd_j as a weighted average of the sd_c 's, again weighting each county by j's relative sales in the county. We measure newspaper size as the average annual circulation during the period 1996–2002.

Finally, to measure the competitive pressure facing each newspaper in its relevant markets, we again use data from 1996 to 2002 and proceed as

²⁴The standard deviation is widely used as a proxy for the relative share of independents or moderates in states, districts, and counties. This measure was introduced by Wright (1974). See also Wallis (1984). An area where the vote exhibits large fluctuations between the two parties presumably has a large share of independents or moderates, since loyal partisans and ideological extremists will rarely change their vote between elections.

follows. Let s_{jct} be the share of copies sold by newspaper j in county c during year t. Our index is based on the probability of a random meeting between an individual living in county c who reads newspaper j with another individual living in the county who reads a different newspaper. This probability is $s_{jct} \times (1-s_{jct})$. We average this across years and weight it by the relative sales of each newspaper in each county. Call this measure $Compet_j$. Summary statistics for all independent variables are reported in the second half of Table A1 in the online appendix.

Partisan Bias: Two-Stage Analysis

We begin with a simple and intuitive two-stage analysis. First we separately estimate newspaper-specific propensities to cover Democratic and Republican scandals, controlling for factors such as whether the scandal involves a politician from the same state or city as the newspaper. Then we regress the difference in these estimated propensities against our measures of endorsement partisanship and reader partisanship.

More precisely, for each Democratic scandal i = 1, ..., 13, let n_{ij}^D be the relative frequency of articles published by newspaper j about scandal i during the relevant time window. Define n_{ij}^R similarly, for each Republican scandal i = 1, ..., 19. We run the following two panel regressions:

$$n_{ij}^D = \alpha_i^D + \beta_j^D + \delta_1^D Instate_{ij} + \delta_2^D Local_{ij} + \epsilon_{ij}^D \quad (2)$$

$$n_{ij}^{R} = \alpha_{i}^{R} + \beta_{j}^{R} + \delta_{1}^{R} Instate_{ij} + \delta_{2}^{R} Local_{ij} + \epsilon_{ij}^{R}$$
 (3)

where α_i^D and α_i^R are scandal-specific fixed effects; β_j^D and β_j^R are newspaper-specific fixed effects; the *Instate* and the *Local* dummy variables are described above. Since we have data not only on the overall coverage of scandals on the newspaper, but separate information on the coverage devoted on the editorial page and on the news section, we can perform these regressions on three different items: relative frequencies of total hits, relative frequencies of news hits, and relative frequencies of opinion hits.

Our focus is on the differential coverage of Republican and Democratic scandals by the different newspapers, which we can compute from the newspaper-specific fixed effects. Let $\hat{s}_j \equiv \hat{\beta}_j^R - \hat{\beta}_j^D$ measure the degree to which newspaper j exhibits a relatively pro-Democratic bias in its scandal coverage.²⁵

²²We also considered a simpler measure of reader partisanship, with weights of 1 for a newspaper's home county and 0 for all other counties. The results using this measure are quite similar to those using the circulation-weighted measure.

²³A positive correlation between reader and endorsement partisanship is consistent with several different theoretical models discussed in the introduction. According to demand-driven models of media bias (Gentzkow and Shapiro 2006; Mullainathan and Shleifer 2005) media outlets cater to the ideological tastes of news consumers, and hence the ideological positions of newspapers and readers will be close. Supply-driven models of media bias (such as Anderson and McLaren 2009; Baron 2006; Bernhardt, Krasa, and Polborn 2008; and Besley and Prat 2006) predict that readers and viewers select ideologically consonant media outlets, and/or are influenced by the ideological position of media outlets to which they are exposed. In both cases we would tend to expect a positive equilibrium correlation along the lines of that displayed in Figure 1.

²⁵Note that this is *only* a relative measure—we do not make any claims about the *absolute* ideological position of media outlets.

Correlation between Reader and Endorsement Partisanship I C.IB PRER NN.NB MD LDNB DN NYT 2 RLOE DC BC CFAB HDRE NWDB ATSB TLWKK endorsement partisanship ERGETES (N-scate-res OKTB IDSB AGNR NYDB SL.IB ICPB^{CC} HCRAK AQTB SYCR CEOB DM NADB DM SNLB WTEB KBCB JS/DRR NWJB LB DTNB WO LVRB LASNE LAJE мsgR NDNB RSLB ZMEW CNGB AGCB SMNB WDNB CDMB WRAB SHJB RTDB FTUB вт MRTB

GRBE

reader partisanship

.5

.4

FIGURE 1 Correlation between Reader and Endorsement Partisanship

Once we obtain these newspaper-specific measures of slanted coverage, we check how they correlate with the explicit partisan position of each newspaper, as proxied by its endorsement pattern, and with the political leaning of consumers. The results are shown in Table 2. We present results for three dependent variables: total hits, news hits, and editorial hits. For each dependent variable we present the results of four regressions: in the first we simply regress \hat{s}_j against the endorsement partisanship NE_j and a constant, in the second we do the same with reader partisanship NR_j , in the third we control for both NE_j and NR_j , and in the fourth we add total average circulation as an additional control, expressed in thousands of yearly copies.

.3

.2

The main finding is that pro-Democratic coverage of scandals is significantly and positively correlated with a pro-Democratic endorsement pattern: newspapers with a higher propensity to endorse

Democratic candidates give relatively more coverage to scandals involving Republican politicians than scandals involving Democratic politicians, while Republican-leaning newspapers do the opposite. This is robust across specifications and is consistent with supply-driven models of media bias.

.6

.7

Regarding the partisanship of demand, there is no statistically significant relationship with the dependent variable. However, when controlling for endorsement partisanship the point estimate suggests that the Democratic partisanship of readers is *negatively* correlated with pro-Democratic coverage of scandals.

As discussed above, competitive pressure in the media market should compress the bias in coverage if the latter originates from the ideological position on the supply side. The same is true if newspapers face Bayesian consumers who are uncertain about the quality of news reporting, as in Gentzkow and

TABLE 2 Agenda Bias in the Coverage of Political Scandals, Two-Stage Analysis

endorsement partisanship 0.015 - 0.015 0.0142 [0.006] - 0.005 [0.0065] reader partisanship - 0.016 -0.004 -0.0208 [0.019] [0.019] [0.020] [0.00198] total circulation 0.0036 (hundred of thousands)			artı	articles			edit	editorials	
anship 0.015 - 0.015 [0.007] [0.007] - 0.015 [0.007] - 0.016 [0.007] [0.019] [0.020] [0.020] [0.002] [0.002] [0.002] [0.002] [0.002] [0.002]	(3) (4)	(5)	(9)	(2)	(8)	(6)	(10)	(11)	(12)
[0.006] [0.007] - 0.016 -0.004 - [0.019] [0.020]		0.012	1	0.012	0.0117	0.06	1	0.063	0.0601
- 0.016 -0.004 [0.019] [0.020] 0.012 [0.012] [0.002] [0.012]	_	[0.005]		[0.005]	[0.0053]	[0.024]		[0.025]	[0.0247]
housands) [0.019] [0.020] housands) 0.01 0.002 0.012		1	0.014	-0.003	-0.0186	,	0.051	-0.035	-0.0911
housands)	_		[0.016]	[0.018]	[0.0167]		[0.081]	[0.085]	[0.0854]
housands) 0.01 0.002 0.012	- 0.0036	1	,	,	0.0033	,	,	,	0.012
0.01 0.002 0.012	[0.0011]				[0.0009]				[0.0000]
		0.008	0.001	0.01	0.0128	0.049	0.022	0.067	0.0765
[0.009] [0.010]	[0.010] $[0.0100]$	[0.002]	[0.008]	[0.000]	[0.0085]	[0.009]	[0.042]	[0.045]	[0.0443]
Observations 213 213 213		213	213	213	213	213	213	213	213
R-squared 0.04 0 0.04 0	0.04 0.07	0.03	0	0.03	0.08	0.03	0	0.03	90.0

In the first stage (not reported) the relative frequency of pieces, articles or editorials is regressed against newspaper-specific fixed effects, scandal-specific fixed effects and dummies for the locainess of the scandal. This is separately done for the coverage of Republican and Democratic scandals. In the regressions reported here, the dependent variable is the difference between the coverage of Republican scandals minus the corresponding fixed effect in the coverage of Democratic ones. Standard errors are heteroskedasticity Shapiro (2006). On the other hand, competition would exacerbate bias if newspapers cater to confirmation-seeking readers.

To shed some empirical light on these contrasting predictions, we checked whether the partial correlation of \hat{s}_j with our measures of endorsement and reader partisanship is weaker or stronger in more competitive media environments. We consistently find a negative relationship—implying that more competition reduces supply-led bias—but the coefficients are rarely statistically significant at the .05 level.²⁶

Partisan Bias: One-Stage Analysis

In this section we pool all of the data and perform a one-stage analysis with interaction terms. This is an alternative and more direct way to estimate whether the coverage of Democratic and Republican scandals of the various newspapers differs as a function of the endorsement score and the ideological leaning of readers. It also allows to delve further into the data, and investigate whether demand-driven or supply-led coverage bias is a function of specific features of the scandals themselves, such as their location.

Since we are exploiting the differential coverage of Republican and Democratic scandals by each newspaper, it is possible to include newspaperspecific fixed effects. More specifically, we run the following regression:

$$n_{ij} = \alpha_i + \beta_j + \gamma (NE_j \times RS_i) + \delta_1 Instate_{ij} + \delta_2 Local_{ij} + \epsilon_{ij}$$
(4)

where RS_i is a dummy which equals one when scandal i involves a Republican politician, and minus one when it involves a Democrat. We also run a regression in which we instead control for the interaction with the reader partisanship variable NR_j , and a third one where both interactions are included. In a fourth specification we check whether the slant in the coverage of scandals depends on the localness of the scandal itself. We do so by adding two triple interactions between NE_j (NR_j), RS_i and a dummy which equals one if the politician involved in scandal i is from the state where newspaper j is

²⁶As often occurs with interacted variables, our data exhibit a substantial amount of multicollinearity, making it difficult to disentangle the role played by competitive forces in determining slanted coverage.

located or from a congressional district that overlaps heavily with the market area of newspaper j.²⁷

As in the previous section we separately consider total hits, news articles and editorials. Also, to account for the possibility that the error terms across observations are correlated within newspapers, we compute standard errors that are clustered by newspaper.

The results are shown in Table 3. The relative frequency of hits-for total hits, news hits, and editorial hits—is always positively and significantly correlated with the interaction between the endorsement score and the Republican scandal dummy. This corresponds to what we found in the two-stage analysis. Moreover, the interaction between the partisanship of readers and the Republican dummy is negatively correlated with n_{ij} , although this coefficient is statistically insignificant. However, when allowing for a differential partisan behavior for local and non local scandals, we find that newspapers mainly read in Democratic (Republican) areas devote significantly more coverage only to those Republican (Democratic) scandals which involve local politicians. Interestingly, this demand-driven coverage bias does not occur on the editorial page, but only in the news section (and with total hits, as the latter effect dominates the former). On the other hand, supplyled coverage bias is not confined to local scandals, as shown by the positive and statistically significant coefficient on the simple interaction between NEi and RS_i . The triple interaction of NE_i with the "localness" dummy is positive, but not significant.

A plausible interpretation of these results is that newspapers would pander to the ideological tastes of readers only by slanting news material which is already known to them.²⁸ On the other hand, editors and journalists pursuing a partisan bias in their coverage appear to be making use of any news material that is suitable to the purpose, whether local or not.

The coefficient on the interaction term $NE_j \times RS_i$ provides an estimate of the differential coverage of Republican *versus* Democratic scandals by newspapers with different endorsement scores. Since the Republican scandal dummy takes on the values 1 and -1, by multiplying the estimated coefficient by two

and by the standard deviation of NE_i (which is 0.3783), we obtain a measure of this differential coverage for newspapers that are one standard deviation apart on this endorsement dimension. In turn, we can divide this effect by the average fraction of hits, articles and editorials in our sample, in order to compute a relative measure of coverage bias. Doing this implies that a newspaper with an endorsement score which is one standard deviation more Democratic-leaning than another would dedicate 26% more coverage to Republican than to Democratic scandals.²⁹ This effect is around 26% for articles and 23% for editorials. A standard deviation in the endorsement score is what roughly separates the *Chicago Tribune* ($NE_i = -0.250$) from the *Denver* Post ($NE_i = 0.137$), and the Denver Post from the New York Times ($NE_i = 0.491$).

Robustness Checks

In this section we explore the robustness of our findings on coverage bias. As pointed out in the data section, we are particularly concerned with potential selection bias regarding the scandals under consideration. At the outset, one must however notice that selection bias would be a much more serious problem if we were trying to estimate the "absolute" level of newspaper bias, i.e., whether U.S. newspapers overall display a liberal or a conservative slant in the coverage of scandals. However, our research question is different, since it involves the *relative* amount of bias across newspapers and its correlates, and hence is much less prone to the distortions induced by selection bias.

In order to further deal with this issue, we run several robust checks conditional on our sample. This would also allow to check whether the average behavior of newspapers across scandals is in fact a combination of largely different "treatments" newspapers devote to heterogenous types of scandals.³⁰

The time periods of the various scandals is a first source of heterogeneity. In our case, all scandals except those involving Democratic politicians James Traficant (Rep-OH) and Edwin Edwards (Gov-LA) began after George W. Bush became president in 2000. A potential concern is that newspapers might be differentially covering political scandals as a function of the match between their political

²⁷In other terms, this dummy equals one when the *Instate* or the *Local* dummies are equal to one, and zero otherwise.

²⁸These results are also consistent with the existence of "favorable relationships" between newspapers and local politicians. On average, in a Democratic area the Democratic candidates may have established relationships with local notables, including newspapers owners and editors. These owners and editors might in turn show their friendship by suppressing coverage of scandals involving the local politicians. This is of course a supply side factor

 $^{^{29}} The \ calculation \ is \ \frac{0.009 \times 2 \times 0.378}{0.0262} \approx 0.260.$

³⁰Note, for example, that we have already found evidence that newspapers cater to partisan tastes of readers only when scandals involve local politicians.

affiliation (as proxied by the endorsement score) and the overall partisan climate at the federal level, which is of course heavily influenced by the political affiliation of the incumbent president. If, for example, newspapers are more aggressive in the bias of their coverage of scandals when the president belongs to the least favorite political party, then the average differential coverage of scandals might change when the president changes. This would not affect our estimates of the relative partisan bias, but one cannot exclude the further possibility that Democraticendorsing and Republican-endorsing outlets react to a change in the political affiliation of the president with a different degree of aggressiveness, hence confounding our results.

Again separately displaying results for total hits, news articles and opinion pieces, Table 4 presents the outcome of this robustness check in the first column of each subgroup, where we exclude the Traficant and Edwards scandals from the analysis. Throughout, we adopt the more general specification where we jointly control for endorsement and reader partisanship, and their triple interactions with the localness dummy. The results are very similar—in terms of magnitude and statistical significance—to those reported in Table 3.

As an additional check on the robustness of our results to sample selection—and to influential outliers—in an online appendix we drop scandals one at a time (Tables A2, A3, and A4). We do this separately for total hits, news and editorials, and focus on the fuller specification, whereas we include triple interactions of the endorsement partisanship variable (and readership partisanship) with the Republican scandal and the localness dummies (see columns 4, 8 and 12 in Table 3). The estimated coefficients are remarkably stable in their sign, magnitude and significance throughout the tables.³¹

Up to now, we have attached the same weight to all scandals within each party, irrespective of the ideology of the politicians involved. However, it

³¹One might be also concerned that the endorsement partisanship scores are generated regressors, hence it can be more efficient to take into account the variance-covariance matrix associated with them (Pagan 1984). On the other hand, the choice of clustering the standard errors at the newspaper level allows to be prudential regarding the overall precision of our estimates. One reasonable way to accomodate these concerns is to run Weighted Least Squares estimates, with the newspaper-specific weights given by the number of available endorsements, and still calculate standard errors that are clustered at the newspaper level (see, e.g., Bertrand and Schoar 2003 for a similar approach). The sign, magnitude, and significance of our findings are robust to this check. The relevant regression outcome is available upon request from the authors.

might be more rewarding for a Democratic-leaning (Republican-leaning) newspaper to cover scandals involving staunchly conservative Republicans (liberal Democrats) rather than moderate ones. This logic would also apply to demand-side forces driving newspapers to cater to confirmation-seeking readers. Poole and Rosenthal's (1997) NOMINATE scores provide a widely used measure of the ideological locations of all of the politicians who served in the U.S. Congress. 32,33 For the 27 politicians to whom we can attach a NOMINATE common space score, we check whether the amount of coverage devoted by a Democratic-endorsing newspaper to a given scandal is increasing in the ideological conservativeness of the involved politician (as proxied by the NOMINATE score), and vice versa for a Republican-endorsing newspaper. In order to implement this type of analysis, we simply run a specification similar to (4), with the RS_i dummy replaced by the NOMI-NATE common space score.

The last column for each subgroup of news items in Table 4 reports the findings of this last robustness check. The interaction between the endorsement score and the NOMINATE common space score has a positive coefficient, which is significant for hits and news, but not for editorials. In the case of editorials, the triple interaction with the localness dummy is now significant at the 10% confidence level. On the other hand, the interaction of the NOMINATE score with the reader partisanship variable is negatively and insignificantly correlated with coverage, similar to what we found in the baseline specification.

Overall Scandal Coverage

As noted in the introduction, if the demand for information by consumers is what drives mass media behavior, then newspapers appealing to moderate voters should devote more total coverage to political

³²The idea behind NOMINATE scores is to retrieve the ideological position of congressmen in a possibly multidimensional policy space on the basis of roll-call votes cast (Poole and Rosenthal 1985, 1997). Since we must compare politicians belonging to different chambers and at different points in time, we use the Common Space Scores (Poole 1998), which are exactly designed to allow this type of comparison.

³³In addition to the politicians who were members of the U.S. Congress at the time of the scandal in which they were involved, five of the governors served in the Congress before their election as governor and also have NOMINATE scores: Rod Blagojevich (D-IL), Edwin Edwards (D-LA), John Rowland (R-CT), Ernie Fletcher (R-KY), and Jim Gibbons (R-NV).

TABLE 3 Agenda Bias in the Coverage of Political Scandals, One-Stage Analysis

		tota	l hits			arti	cles		editorials			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
endorsement score * Republican scandal dummy	0.0083 [0.0037]	-	0.0086 [0.0039]	0.0048 [0.0017]	0.0068 [0.0030]	-	0.007 [0.0032]	0.0039 [0.0015]	0.0344 [0.0126]	-	0.0361 [0.0133]	0.0231 [0.0078]
reader partisanship * Republican scandal dummy	-	0.0079 [0.0113]	-0.0042 [0.0121]	-0.0152 [0.0137]	-	0.007 [0.0096]	-0.0029 [0.0103]	-0.0129 [0.0117]	-	0.0262 [0.0432]	-0.0247 [0.0455]	-0.0492 [0.0496]
endorsement score * Republican scandal dummy * dummy for local scandals	-	-	-	0.1118 [0.0950]	-	-	-	0.0941 [0.0790]	-	-	-	0.3711 [0.2848]
reader partisanship * Republican scandal dummy * dummy for local scandals	-	-	-	0.1016 [0.0422]	-	-	-	0.0927 [0.0349]	-	-	-	0.2087 [0.1699]
same state for involved politician and newspaper	0.2027 [0.0314]	0.2024 [0.0314]	0.2027 [0.0314]	0.1891 [0.0296]	0.1635 [0.0258]	0.1632 [0.0258]	0.1635 [0.0258]	0.1508 [0.0237]	0.8054 [0.1266]	0.804 [0.1266]	0.8055 [0.1266]	0.7831 [0.1329]
same congressional district for involved politician and newspaper	0.1288 [0.0649]	0.1295 [0.0648]	0.1286 [0.0649]	0.1292 [0.0615]	0.1054 [0.0538]	0.106 [0.0538]	[0.1053] [0.0538]	0.1064 [0.0510]	0.5297 [0.2578]	0.5323 [0.2580]	0.5287 [0.2577]	0.5199 [0.2501]
constant	0.0499 [0.0018]	0.0539 [0.0058]	0.1045 [0.0233]	0.108 [0.0237]	0.0869 [0.0185]	0.0834 [0.0197]	0.0883 [0.0200]	0.0915 [0.0204]	0.3531 [0.0771]	0.3401 [0.0833]	0.3655 [0.0825]	0.3738 [0.0844]
newspaper fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
scandal fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	yes	Yes
Observations	6298	6298	6298	6298	6297	6297	6297	6297	6296	6296	6296	6296
Number of newspapers	213	213	213	213	213	213	213	213	213	213	213	213
Number of scandals R-squared	32 0.29	32 0.29	32 0.29	32 0.31	32 0.27	32 0.27	32 0.27	32 0.29	32 0.34	32 0.34	32 0.34	32 0.34

The relative frequency of pieces, articles or editorials is regressed against newspaper-specific fixed effects, scandal-specific fixed effects, dummies for the locainess of the scandal and an interaction between the endorsement score and a "Republican scandal" dummy. This equals one when the scandal involves a Republican politician, and minus one when it involves Democrat. The same interaction is computed for the reader partisanship variable. These interaction terms are further interacted with a dummy which equals one when the scandal is a local one. Standard errors are clustered at the newspaper level, and are reported in brackets below each coefficient.

TARIE 4	Robustness	Checks on	Agenda Rias	One-Stage A	nalveic
I ADLL T	Robusticss	CHICKS OH	ngciiua Dias	One-otage M	mary olo

	t	otal hits		articles	e	ditorials
	recent scandals	interaction with Nominate score	recent scandals	interaction with Nominate score	recent scandals	interaction with Nominate score
endorsement score *Republican	0.0046	0.009	0.0037	0.0072	0.0236	0.0375
scandal variable	[0.0017]	[0.0045]	[0.0015]	[0.0041]	[0.0081]	[0.0227]
reader partisanship *Republican	-0.0126	-0.0279	-0.0109	-0.0221	-0.0417	-0.1503
scandal variable	[0.0130]	[0.0416]	[0.0112]	[0.0354]	[0.0486]	[0.1594]
endorsement score *Republican	0.1198	0.3535	0.1003	0.2735	0.3996	1.5126
scandal variable* dummy for local scandals	[0.0953]	[0.2547]	[0.0794]	[0.2102]	[0.2848]	[0.8202]
reader partisanship *Republican	0.0891	0.0825	0.0831	0.0868	0.1608	-0.1228
scandal variable* dummy for local scandals	[0.0405]	[0.1133]	[0.0335]	[0.0911]	[0.1678]	[0.4929]
same state for involved politician	0.1966	0.1465	0.1566	0.1148	0.8121	0.6321
and newspaper	[0.0315]	[0.0278]	[0.0252]	[0.0218]	[0.1417]	[0.1281]
same congressional district for	0.1341	0.1607	0.1102	0.1336	0.5264	0.6305
involved politician and newspaper	[0.0636]	[0.0643]	[0.0528]	[0.0532]	[0.2584]	[0.2610]
constant	0.0586	0.0606	0.047	0.0492	0.3798	0.2452
	[0.0075]	[0.0061]	[0.0064]	[0.0051]	[0.0835]	[0.0324]
newspaper fixed effects	yes	yes	yes	yes	yes	yes
scandal fixed effects	yes	yes	yes	yes	yes	yes
Observation	5959	5298	5958	5298	5957	5298
Number of newspapers	213	213	213	213	213	213
Number of scandals	30	27	30	27	30	27
R-squared	0.31	0.32	0.29	0.29	0.35	0.37

The relative frequency of pieces, articles or editorials is regressed against newspaper-specific fixed effects, scandal-specific fixed effects, dummies for the localness of the scandal and an interaction between the endorsement score and a "Republican scandal" dummy. This dummy equals one when the scandal involves a Republican politician, and minus one when it involves a Democrat. The same interaction is computed for the reader partisanship variable. In the first column within each subgroup we restrict attention to recent scandals; in the second one we interact the endorsement score (and the reader partisanship variable) with the NOMINATE common space score of the person involved, if available. Standard errors are clustered at the newspaper level and are reported in brackets below each coefficient.

scandals, irrespective of the political affiliation of the public officials involved.³⁴ Also, under reasonable conditions, newspapers that are read by larger and ideologically more heterogeneous audiences would find it profitable to cover all scandals, in order to satisfy (to some extent) all customers.

To assess these hypotheses, in this section we analyze the overall coverage of scandals. The specifications are analogous to equations (2)–(4) above, but with a different dependent variable.³⁵ Since the results of the two-stage and one-stage analyses are qualitatively similar, we present only the one-stage

analysis here. The results of the two-stage analysis can be found in the online appendix, in Table A5.

Since our focus in this case is on newspaperspecific variables such as total circulation and reader moderateness, we cannot use fixed effects at the newspaper level. Instead, we run the following regression:

$$n_{ij} = \alpha_i + \theta_1 Circ_j + \theta_2 NR_sd_j + \gamma (NE_j \times RS_i) + \phi (NR_j \times RS_i) + \delta_1 Instate_{ij} + \delta_2 Local_{ij} + \epsilon_{ij}$$
(5)

Again, we estimate the partisan coverage of scandals by interacting the Republican scandal dummy with NR_j and NE_j . Standard errors are again clustered at the newspaper level.

Table 5 displays the results. For each category of hits (total hits, articles and editorials) in the first

³⁴See Larcinese (2009) for a model yielding this type of prediction.

³⁵In the two-stage analysis, we do not estimate separate equations for Democratic and Republican scandals, but instead estimate one equation with the same independent variables as those in equations (2) and (3).

specification we include only the circulation measure; we then add the voter standard deviation variable. As in the two-stage analysis, circulation is positively and significantly correlated with overall coverage in the case of total hits and news hits, but it is not significant for editorials. On the other hand, the voter standard deviation variable is positively and significantly correlated with coverage, mildly so for total hits and news, strongly so for editorials. Finally, it is still the case that the interaction between endorsement partisanship and the Republican scandal dummy is positively and significantly correlated with coverage, while the interaction with reader partisanship is negatively and insignificantly correlated.

Discussion and Conclusions

In this paper we have analysed the coverage of political scandals by a large number of U.S. newspapers, focusing on supply and demand side determinants of any partisan bias in this coverage. As discussed above, the use of automated keyword-based searches of the online news archives (in our case: the NewsLibrary archive, plus Factiva and the newspaper's own archive for the *New York Times*, the *Los Angeles Times*, and the *Chicago Tribune*) allows us to systematically investigate how U.S. newspapers covered all recent and salient political scandals involving senators, members of congress or state governors (plus Jack Abramoff).

The main finding is that there is a strong correlation between the partisan leaning of newspapers as measured by their endorsement behavior and the partisan bias in their coverage of political scandals. Democratic-leaning newspapers—i.e., Specifically, those with a higher propensity to endorse Democratic candidates in elections—give significantly more coverage to scandals involving Republican politicians than scandals involving Democratic politicians, while Republican-leaning newspapers behave in the opposite way. This bias in the coverage of scandals is not confined to the editorial page, but also affects the news section. While the fraction of stories devoted to political scandals is on average very small, the magnitude of the coverage bias effect is large in relative terms: a one-standard-deviation increase in a newspaper's propensity to endorse Democratic candidates is associated with an increase in differential coverage of Republican versus Democratic scandals of 26%.

We also find evidence that biased coverage of scandals "panders" to the partisan leaning of readers (as demand-driven models of mass media behavior by Mullainathan and Shleifer 2005 and Gentzkow and Shapiro 2006 would suggest), but only for those scandals which are local—i.e., scandals involving politicians that are based in the same area where the newspaper is sold. From this point of view, while supply-led coverage bias would make use of any news material which is suitable to the purpose (i.e., any scandal on the opposite political side, irrespective of the geographical location of those involved), slanted coverage which caters to confirmation-seeking readers appears to be constrained by their ex ante preferences, in this case an interest for local people and events.

We also find some evidence regarding factors that are correlated with the overall coverage of scandals. Newspapers with higher circulation systematically devote more coverage to political scandals, at least in the news section. Further work is needed to distinguish between demand-driven and supply-led accounts for this relationship.

Finally, regarding the issue of competition, we find no robust effects on bias or overall coverage. This may be in due in part to the fact that in the period we study most U.S. newspaper markets are relatively uncompetitive. Thus, it will be interesting to study earlier time periods, when the number of newspapers was larger and there was probably more variation in the degree of competition across cities.³⁶ In addition, with historical data there are potential quasi-experiments we can exploit to better identify the effects of competition on media coverage. One is the demise of afternoon newspapers. Many scholars argue that this was caused by the spread of television and/or lifestyle changes, and therefore the decline can be treated as an exogenous shock to newspaper markets. If so, we can obtain a clean estimate of the effects of competition by comparing changes in newspaper coverage across cities with different initial numbers of afternoon newspapers.

One obvious weakness of our approach is that is purely cross-sectional. This is especially important since one of our goals is to begin disentangling the relative importance of demand and supply factors in affecting the bias in the coverage of scandals. As shown by Figure 1, in the cross-section of newspapers

³⁶A recent paper by Gentzkow, Shapiro, and Sinkinson (2009) focuses on entries and exits of U.S. daily newspapers from 1869 to 2004, in order to estimate the effects of newspaper competition on political participation, party vote shares, and electoral competitiveness. The main finding of this analysis is that newspapers have a significant and positive effect on voter turnout, but this is mainly due to the first newspaper entering a given market, while the effects of the second and third outlets entering are significantly smaller.

TABLE 5 Overall Coverage of Political Scandals, One-Stage Analysis

	total	l hits	arti	icles	edito	orials
	(1)	(2)	(3)	(4)	(5)	(6)
total circulation	0.0021	0.0022	0.0021	0.0022	0.0052	0.0059
(hundreds of thousands)	[0.0007]	[0.0007]	[0.0006]	[0.0006]	[0.0044]	[0.0044]
standard deviation	-	0.0788	-	0.0697	-	0.4916
of Democratic vote		[0.0466]		[0.0406]		[0.1864]
endorsement score	0.0092	0.0091	0.0075	0.0074	0.0394	0.0387
*Republican scandal dummy	[0.0046]	[0.0046]	[0.0038]	[0.0038]	[0.0151]	[0.0150]
reader partisanship	-0.0092	-0.0089	-0.0073	-0.007	-0.0393	-0.0372
*Republican scandal dummy	[0.0145]	[0.0145]	[0.0126]	[0.0126]	[0.0540]	[0.0536]
constant	0.0603	0.0524	0.0498	0.0428	0.2213	0.1723
	[0.0239]	[0.0223]	[0.0206]	[0.0192]	[0.0846]	[0.0791]
state fixed effects	no	no	no	no	no	no
newspaper fixed effects	no	no	no	no	no	no
dummies for scandal "localness"	yes	yes	yes	yes	yes	yes
scandal fixed effects	yes	yes	yes	yes	yes	yes
Observation	6298	6298	6297	6297	6296	6296
Number of newspapers	213	213	213	213	213	213
Number of scandals	32	32	32	32	32	32
R-squared	0.25	0.25	0.22	0.23	0.29	0.29

The relative frequency of pieces, articles or editorials is regressed against scandal-specific fixed effects, dummies for the localness of the scandal and an interaction between the endorsement score and a "Republican scandal" dummy. This dummy equals one when the scandal involves a Republican politician, and minus one when it involves a Democrat. The same interaction is computed for the reader partisanship variable. The focus is on total circulation of each newspaper and the standard deviation of the Democratic vote in the area where the newspaper is sold. Standard errors are clustered at the newspaper level and are reported in brackets below each coefficient.

there is a positive and significant correlation between endorsement and reader partisanship, which is consistent with many of the theoretical models discussed in the introduction. However, this correlation is rather low, i.e., there is a sizeable "slack" between the partisan position on the demand and the supply side. We exploit this slack in order to try and distinguish the correlation of slanted coverage with the ideological stance on the demand and on the supply side. From this point of view, it is especially interesting to notice that endorsement and reader partisanship are correlated with scandal coverage in distinct ways: unconditionally so for endorsement partisanship, only for local scandals in the case of reader partisanship. Given that we do not have a proper experiment or natural experiment, however, we cannot conclude that ideology on either the supply or demand side of the newspaper market has a causal effect on scandal coverage.

We are more confident asserting that the correlations we find cast doubt on one of the basic tenets of a free press—the duty of the press to behave as watchdogs vis a vis incumbent politicians. Newspapers cover political scandals, but they do so in systematically biased ways, which appear to depend on the partisan positions of their publishers, editors, and readers.

One issue we do not address, but which would be interesting for future work, is whether the amount and bias of coverage varies across different types of scandals. In particular, sex scandals might be different than financial scandals, since "sex sells." In addition, the power of the office held by the person involved in the scandal may have a significant influence not only on the amount of coverage but also on bias. It may be much easier for publishers, editors, and journalists to "pick and choose" which scandals to cover when the scandals involve low-level officials in other states or

areas. Thus, there might be even more bias in the coverage of low-level scandals than in the relatively high-level scandals studied here.

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