DO NEWSPAPERS SERVE THE STATE? INCUMBENT PARTY INFLUENCE ON
THE US PRESS, 1869-1928

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ABSTRACT

Using data from 1869-1928, we estimate the effect of party control of state elected offices on the entry, exit, circulation, and content of Republican and Democratic daily newspapers. We exploit changes over time in party control of the governorship and state legislatures in a differences-in-differences design. We also present regression-discontinuity estimates based on the outcomes of close gubernatorial elections and state legislatures with small majorities. Our main estimates show no evidence that incumbent governments influence the press, and are precise enough to rule out modest effects. Estimates for politically significant times and places where we would expect the scope for government intervention to be relatively large also show little evidence of influence. The one exception is the post-Reconstruction South, an episode that we discuss in detail.

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1 Introduction

Control of the press is an important tool of autocrats. Reductions in press freedom and increasing state control of media accompanied the recent movement from democratic to authoritarian government in Russia and Venezuela (Corrales et al. 2009). In Fujimori's Peru, the secret police paid large bribes to media in order to make their content more favorable to the government (McMillan and Zoido 2004). Theory suggests that government control may reduce welfare by weakening checks on politicians' actions (Besley and Prat 2006).

The extent of government influence on the press in Western democracies is less clear. On one hand, press freedom is usually given strong legal protection. Media are often privately owned and competitive (Djankov et al. 2003), factors that should further limit government influence (Besley and Prat 2006). On the other hand, democratic governments control valuable resources, from favorable regulation to access to government officials, and historical evidence makes clear that these resources are sometimes used to tilt the playing field in favor of supportive media outlets (Gentzkow and Shapiro 2008). Many argue that government influence distorts the content of US media today (Thomas 2006; Bennett et al. 2007). Large-scale empirical evidence on the extent of media influence exerted by democratic governments is limited.[1]

In this paper, we study government influence on the US press from 1869 to 1928, a time when the tension between forces supporting and undermining press freedom was especially strong. Freedom from government influence was guaranteed by the First Amendment. All newspapers were privately owned, and newspaper markets were intensely competitive: 470 cities had two or more daily newspapers in 1928, and 25 cities had five or more. Expanding advertising markets and falling costs created potent commercial incentives (Baldasty 1992; Gentzkow et al. 2006). Yet efforts by politicians to funnel resources to friendly outlets were widespread. State officeholders supported "loyal" newspapers with printing contracts and provided editors and publishers with patronage jobs (Baldasty 1992, 21; Summers 1994, 47-48, 54, 60, 210-214). Politicians contributed money to start new newspapers and bailed newspapers out when they were in financial trouble (Kaplan 2002, 61-63; Summers 1994, 49 & 60). Half of US daily newspapers maintained explicit affiliations with political parties into the 1920s (Lee 1937, 182). Whether the net result was

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[1]Qian and Yanagizawa-Drott's (2010) study of human rights coverage during the cold war and Boas and Hidalgo's (2011) study of the allocation of broadcast licenses in Brazil are important recent exceptions.

significant government influence remains a point of contention among historians.[2]

We use panel data on all general circulation daily newspapers from this period to ask whether control of state government allowed parties to tilt the composition and content of newspapers in their favor. We focus on state government influence in part because patronage from state governments has been a primary focus of the historical literature (Dyer 1989). Our main outcome measure is the share of circulation going to papers historically affiliated with one party or the other. This measure captures the net effect of many different channels of influence, and can be directly linked to electoral outcomes. We also look separately at effects on entry, exit, circulation, prices and content, the last of which we capture by the frequency of presidential candidate mentions in newspaper text.

Our fundamental empirical challenge is separating the causal impact of incumbent politicians from changes in the preferences of voters that affect both election outcomes and the demand for partisan news. We address this using two strategies. First, we run panel regressions including the share voting Democrat in presidential elections as a control for voter preferences. We note that the most obvious confounds in these regressions would bias us toward over-stating the extent of political influence. Second, we use a regression discontinuity approach following Lee (2008) in which we focus on outcomes of close elections or on state legislatures with small majorities.

We find no evidence that incumbent governments influence the press in our sample as a whole. Our main panel estimates suggest that shifting the governorship and both houses of the state legislature from Republican to Democratic control decreases Democratic papers' share of circulation by a statistically insignificant 0.1 percentage points per year. We can rule out positive effects greater than 1.6 percentage points per year. Decomposing changes in circulation into constituent parts, we find no evidence of effects on entries, exits, circulation, or prices. We also find no evidence of effects on content. Regression discontinuity estimates confirm the conclusions of the panel analysis.

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[2]Kaplan (2002) writes that "The fourth estate of both the nineteenth and twentieth centuries... is quite weak and easily overpowered by rival political powers. Indeed, the press is inevitably entangled in the debate of the public arena and influenced by the political powers that be" (3). Referring to the period 1866-1900, he writes, "Politicians, desiring favorable publicity... invested heavily in the journalistic market.... In the end, politics decisively influenced the structure of the market" (55). In contrast, Baldasty (1992) argues that political influence had diminished sharply by the end of the nineteenth century: "In 1900, American newspapers bore little resemblance to the small journals that had so earnestly debated politics in the 1820s and 1830s. Newspaper owners and editors were no longer primarily political activists.... Most everyone in the newspaper industry claimed to be independent of party dictation" (139).

To extend our results to a more recent period, and to capture additional dimensions of newspaper content, we analyze incumbent effects on newspaper endorsements between 1932 and 2004 in an appendix. This analysis shows no significant effects. In an online appendix, we extend our analysis to include estimates of the effect of members of the US House, where we again find no effect.

Given these strong negative results for the full sample, we turn next to examining whether political influence may be important in settings where the political stakes are especially high. We re-estimate our baseline panel specifications on data from the early part of the sample, when political patronage played a relatively larger role in newspaper finances, from state capitals and county seats, where newspapers were believed to be most politically relevant, and from presidential battleground states. In none of these settings do we find any clear evidence of political influence.

Finally, we consider the South during and after Reconstruction. The political uncertainties of the post-Civil War era, combined with rapidly expanding government patronage and a greatly reduced set of incumbent newspapers, made the incentives for government intervention in this period particularly strong. The historical record suggests that these incentives translated into deliberate efforts by Republican governments to expand the reach of Republican papers (Abbott 2004).

This episode provides a compelling natural experiment in which to identify the causal effect of political control. At the beginning of our sample, in 1869, most former Confederate states were controlled by Republicans. Over the subsequent decade, every one of these states reverted to complete control by Democrats. The primary cause of this shift was not changes in the political preferences of individuals, but the forceful disenfranchisement of blacks. Thus, this period provides substantial variation in the identity of the incumbent party which is plausibly exogenous to the preferences of newspaper consumers.

In contrast to the rest of our findings, results for the Reconstruction era provide evidence of substantial government influence. We estimate that the transition from Republican to Democratic control was associated with an increase in the daily circulation share of Democratic newspapers of approximately 18 percent, an effect eight standard errors outside the confidence interval of the analogous estimate for the full sample. Supplementary data show effects of similar magnitude on the weekly circulation share of Democratic newspapers.

The Reconstruction results inform the broader conclusions of our paper in two ways. First, the

4

fact that the estimated Reconstruction effect is far outside our main confidence interval confirms that we have the power to detect significant influence when it occurs. This test thus bolsters our conclusion that such influence was not the norm in the late nineteenth and early twentieth centuries. Second, the Reconstruction is a reminder that even if market forces discipline government intervention in most times and places, this does not prevent governments manipulating the press when the market is particularly weak and the political incentives especially strong.

We stress two important limitations of our findings. First, we present no evidence on influence by local governments and only limited evidence on influence by federal officeholders. Both local and federal government played a role in the system of political patronage. Second, we have only coarse measures of newspaper content. It is possible that incumbent governments influence content in ways more subtle than our measures can detect.

This paper is most directly related to Qian and Yanagizawa-Drott's (2010) study of US government influence on newspapers during the Cold War. It is also related to Durante and Knight's (2012) work examining the ruling coalition's impact on news content provided by public and private TV stations in Italy from 2001 to 2007, and Edwards and Wood's (1999) study of whether the US President and Congress affect the topics reported on the evening news. It contributes to a growing empirical and theoretical literature on the sources of media bias including owner ideology (Balan et al. 2009), tastes of reporters (Baron 2006), consumer preferences (Mullainathan and Shleifer 2005; Gentzkow and Shapiro 2010), and preferences of the wealthy (Petrova 2008).

2 Data

2.1 US Newspaper Panel

We use data from the US Newspaper Panel (Gentzkow, Shapiro, and Sinkinson 2011a). The data contain the name, city, circulation, and political affiliation of English-language daily US newspapers in presidential election years from 1869 to 1928, hand-entered from G. Rowell & Co's *American Newspaper Directory* (1869-1876) and N. W. Ayer & Son's *American Newspaper Annual* (1880-1928). (We use 1869 in place of year 1868 because we are not aware of a directory of daily newspapers published prior to 1869.)

We define a time-constant measure of affiliation for each newspaper, where papers are classified as Republican if they ever declare a Republican affiliation and Democratic if they ever declare a Democratic affiliation. In the handful of cases where a newspaper declares a Republican affiliation in one year and a Democratic affiliation in another, we use the affiliation declared most often by the newspaper. We exclude independent or unaffiliated papers. Gentzkow, Shapiro and Sinkinson (2011a) present formal evidence in support of a time-constant measure of affiliation.

We calculate the total number and circulation of Democratic and Republican daily newspapers in each state in each year. Our key dependent variable of interest is the Democratic share of newspaper circulation. The data include 1974 papers which we classify as Republican and 1748 which we classify as Democratic that have non-missing values of circulation in at least one year.

It is important to note that our circulation data is imperfect in two respects. First, circulation data for some paper-years is missing, particularly in the earliest part of our sample. Second, circulation reports were only independently audited in the later part of our sample. In defining the Democratic share of newspaper circulation, we treat missing values as if they were zeros. We expect missing data and self reporting to be sources of noise in our main estimates, but not sources of systematic bias. We report separate results using the Democratic share of newspapers, which do not rely on the circulation data. We also show in the online appendix that our results are robust to dropping state-years in which more than half of papers have missing circulation data, state-years in which any paper has missing circulation data, and the year 1869, where the missing data problem is most severe.

For a subset of newspaper-years, we have a direct measure of the newspaper's content collected using automated searches on the website newspaperarchive.com. For each newspaper, for each presidential election from 1872-1928, and for each party, we search newspaperarchive.com for articles containing the last names of both the presidential and vice presidential candidates and at least one of the words "Nominee," "Candidate," "Nomination," "Race," "Ticket," "Election," or "Campaign." We compute, for each state, year, and newspaper affiliation, the average share of candidate mentions that go to the Democratic candidate.

We collect additional data on weekly newspapers in the South during the period during and after Reconstruction. These data are collected from G. Rowell & Co's *American Newspaper Directory* (1869-1876) and N. W. Ayer & Son's *American Newspaper Annual* (1880-1896). They include

the number and circulation of non-daily Republican and Democratic newspapers in each of the 11 Confederate states in 1869 and every presidential election year between 1872 and 1896. We exclude independent or unaffiliated papers. We refer to all non-daily newspapers as "weeklies" throughout, although some are published at lower frequencies such as bi-weekly.[3]

2.2 Voting and Party Control

We obtain state-level gubernatorial and presidential voting data from 1868 to 1928 from data files generously provided by James Snyder. These data include the total number of votes cast by party in each election. In a few cases we supplement these data with information on party control of the governor's office from ICPSR Study 16, *Partisan Division of American State Governments, 1834-1985* (Burnham 1984), and from the National Governors Association (2011).

We obtain state-level counts of the number of Republicans, Democrats, and others in the upper and lower houses of state legislatures from ICPSR Study 16.

For each gubernatorial election, we define the Democratic margin of victory variable as the difference between the Democratic vote share and the vote share of the Democrat's strongest opponent. (The strongest opponent is a Republican in 838 out of 947 elections.) For each state legislative chamber, we define the Democratic margin of control as the difference between the Democratic and Republican seat shares. If Democrats and Republicans make up fewer than half of the seats, we consider the Democratic margin of control to be missing. (This occurs in 12 out of 1345 state-years for the lower house and 13 out of 1346 state-years for the upper house.)

We assume that transitions in office occur in the year following an election. We consider the Democrats to be the incumbent gubernatorial party if the Democratic candidate won the most recent election. We consider the Democrats to be the incumbent party in a given chamber of the state legislature if the Democrats have strictly more seats than the Republicans. (Our results are robust to dropping cases where Democrats and Republicans have an equal number of seats.)

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[3]We compare these data with Abbott's (2004) list of all Republican newspapers in the eleven formerly Confederate states from 1865 to 1877. The correlation in the change in the state-level Democratic share of newspapers across the two series is 0.86 for weekly newspapers and 0.70 for daily newspapers. An inspection of discrepancies suggests that most are due to short-lived papers that do not exist for long enough to be present in a directory in a presidential election year. Our series therefore is weighted towards long-lived newspapers, which are likely to have had larger-than-average circulations (Gentzkow, Shapiro and Sinkinson 2011a).

3 Mechanisms of Party Influence on the Press

Historians have documented a number of channels by which incumbent parties used the machinery of the state to benefit sympathetic newspapers in the nineteenth and early twentieth centuries. The most important were contracts to print government documents (records of legislative proceedings, official forms, notices, laws, and so forth); these contracts were often allocated at inflated prices to papers affiliated with the party in power (Baldasty 1992, 21; Abbott 2004, 45; Summers 1994, 48, 54, 60, 210-214). In a detailed study of Wisconsin newspapers from 1849-1860, Dyer (1989) shows that such contracts from the state government accounted for roughly half of the revenue of large party newspapers in the state capital, and ten to twenty percent of the revenue of smaller English-language papers near the frontier (29-31). Abbott (2004) similarly finds that printing patronage was the "most important" revenue source for many papers throughout the South (45).

A second channel was the allocation of lucrative government jobs to newspaper editors. Wisconsin state governments awarded editors jobs including chief clerk, state librarian, postmaster, sergeant-at-arms, and night watchman (Dyer 1989, 22-23). In Ohio, the editor of the Columbus *Ohio Statesman* was appointed clerk to the state senate and "paid for 462 days of work in one year" (Summers 1994, 48). A third channel was purchases of newspapers at government expense. In Wisconsin, in 1852, each legislator was permitted to order 30 newspaper copies per day, and Dyer (1989) estimates that these newspaper purchases accounted for 17 percent of all state government patronage (18).[4]

Although state government patronage has been documented most extensively, newspapers also received patronage from both federal and local governments (Dyer 1989, Baldasty 1992). The federal government awarded large printing contracts and lucrative jobs which especially benefited papers in Washington DC. Local governments awarded printing and government advertising contracts which were small in magnitude relative to state patronage, but significant for local papers outside of state capitals.

Much of the evidence on the importance of government patronage comes from the period before the Civil War. There is broad agreement that over the late 19th and early 20th century, explicit

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[4]Newspapers were also supported in some cases by direct subsidies from party committees, from local partisans, and from candidates themselves. Dyer (1989, 24) and Baldasty (1992, 22) both suggest that these transfers were small relative to the direct government patronage discussed above. These transfers are also less relevant to our analysis because they were not differentially controlled by the party in power.

patronage became relatively less important and commercial incentives relatively more important (Baldasty 1992; Lee 1937; Gentzkow et al. 2006; Petrova 2011). Historians disagree, however, about the timing of this change, and the extent to which government continued to exert significant influence over newspapers during the years 1869-1928 which are the focus of our study.

According to Baldasty (1992), newspapers had moved from being primarily political to primarily commercial enterprises by the last two decades of the nineteenth century. The centerpiece of this change, in his view, is that "advertisers replaced political parties as the key constituent (and chief financial angel) of the press" (5). The growth of advertising was reinforced by falling costs, urbanization, increased literacy, and improvements in technology, all of which increased the relative importance of commercial motives. The transition was also supported by changes on the political side: the rise of political campaigns as an alternative way to reach voters, institutionalization of parties which reduced the importance of party editors, and the elimination of printing patronage in many places.

Summers (1994) and Abbott (2004) take a somewhat different view, seeing party influence as remaining strong through the late nineteenth century. Summers (1994) sees the behavior of newspapers in the 1868 presidential campaign as "squarely in the golden age of partisan journalism," (45) and describes numerous examples of explicit influence in the period 1865-1878. Abbott (2004) cites a Census report noting that competition for government advertising remained "constant and intense" in 1880 (45).

Kaplan (2002) dates the transition even later, arguing that newspapers were "weak and easily overpowered by rival political powers" well into the twentieth century (3). He explicitly criticizes Baldasty's account, arguing that "a concern for profits will not necessarily exclude political advocacy" (9). He writes that despite espousing an ideal of independence, newspapers of the twentieth century "rapidly assimilated to the role of official interpreter and purveyor of governmental publicity," and their correspondents were "less often governmental watchdog than lapdog" (193).

4   Empirical Model and Identification

Let a index states and $t \in \{1, ..., T\}$ index calendar years. We model an outcome of interest y_{at} (e.g., the share of newspaper circulation that goes to Democratic papers). Let Δ be the first difference

operator so that $\Delta y_{at} = y_{at} - y_{a(t-1)}$. Let $w_{a(t-1)}$ be an indicator for whether the Democrats control a particular political office in state a at time t-1. Our main specification is:

$$\Delta y_{at} = \beta w_{a(t-1)} + \mu_{at} + \varepsilon_{at}, \tag{1}$$

where μ_{at} represents area- and time-level characteristics that may be correlated with both Democratic control and trends in newspaper circulation, and ε_{at} represent idiosyncratic shocks to the newspaper market that are unrelated to Democratic control. We assume $E\left(\varepsilon_{at} | w_{a(t-1)}, \mu_{at}\right) = 0$.

Our main identification strategy assumes that μ_{at} is a linear function of area- and time-level observables. In all specifications we control for year fixed effects. In some specifications we control for the Republican share of the two-party vote in the last presidential election. The presidential vote share control captures readers' political leanings, which in turn affect newspaper circulation and affiliation choices (Gentzkow, Shapiro and Sinkinson 2011b). In some specifications we include area fixed effects to allow for an area-specific time trend. (Time-constant area characteristics are "differenced out" because our dependent measure is in first differences.)

Although we cannot rule out the possibility that there are additional components of μ_{at} that are not captured by these proxies, we expect most such unobservables to be *positively* correlated with both $w_{a(t-1)}$ (i.e., Democratic control of government) and ε_{at} (i.e., increases in the relative importance of Democratic newspapers), and so introduce an upward bias in our estimates. Causal effects of $w_{a(t-1)}$ unrelated to political influence (e.g., Democratic control of government increasing demand for Democratic news) would also tend to bias our estimates upward. We therefore view our panel estimates as a plausible upper bound on the extent of political influence.

Our second identification strategy assumes that μ_{at} is piecewise linear in the margin of victory in the last election (for governors), or the margin of control (for state legislatures), with a slope that differs depending on whether the Democrats have control. We restrict attention to cases in which the margin of victory or control is small in absolute value (less than 0.1 for governors and less than 0.2 in state legislatures). This second identification strategy parallels Lee's (2008) estimates of the incumbency effect in House elections. However, we note that we apply the approach here not only to elections but also to the party composition of legislative chambers, in which cases the assumption that close cases are "as good as random" may be less plausible.

In all specifications, we estimate model (1) by averaging each variable over the four-year inter-vals between presidential election years. We take this approach because we observe our dependent measure only in presidential election years.

Note that our econometric model assumes a particular form of dynamics, where the incumbent party influences the *trend* in outcomes such as the Democratic share of circulation. This specifi-cation is motivated by the idea that incumbent governments would influence the composition of newspaper openings and closings, and that other forms of influence would accumulate gradually over time.

We will also explore alternatives to the dynamics specified in model (1). Most importantly, we will present results for the following alternative model:

$$y_{at} = \beta w_{at} + \mu_{at} + \varepsilon_{at}, \tag{2}$$

which assumes that the incumbent party influences the contemporaneous *level* of outcome vari-ables. While this specification is less realistic in general—in most times and places newspapers will not open or close immediately in response to an opposition victory—we will see that it cap-tures important dynamics in some cases. When we estimate models with this specification, we exclude data from the final presidential election year in our newspaper panel so that the series w_{at} has the same termination date as in the estimation sample for model (1).

Our main dependent measure y_{at} will be the Democrats' share of daily circulation. Using the circulation share allows us to capture many ways in which the incumbent party can influence the newspaper market, including encouraging the entry of favorable newspapers and the exit of unfavorable ones, subsidizing the cost of newspapers so that own-party papers can offer lower subscription prices, etc. Using circulation also allows us to capture any demand-side response to incumbent party influence (Durante and Knight 2012). In section 6 below we empirically decom-pose our main results into separate estimates of the various possible margins of influence.

11

5 Effect of Party Control on Daily Newspapers

5.1 Estimates

Table 1 presents our main estimates of model (1). The dependent variable Δy_{at} is the change in the share of partisan newspaper circulation going to Democratic papers. Each of the first three columns presents results for a single political office. The final column presents the estimated effect of changing the incumbent party in all state offices, estimated from a model that includes a separate incumbency variable for each office.

The specifications in the first row control for year fixed effects. The specifications in the second row add a control for the Democratic share of the two-party vote in the previous presidential election. The specifications in the third row add state fixed effects. Although the specifications in the first row show some evidence of a correlation between party control and newspaper market shares (consistent with newspapers responding to changes in the political tastes of consumers), the magnitudes in all cases are small, and no statistically significant relationship remains when we control for presidential vote shares and state fixed effects. In our final model, we estimate that switching the incumbent party from Republican to Democratic in all state offices would decrease the growth rate of the Democratic share of newspaper circulation by 0.1 percentage points.

Figure 1 illustrates our main estimates graphically, showing the change in Democratic circulation in the years before and after a transition to Democratic control. We see no significant pre-trends, and no evidence that our main specification is masking important dynamics.

Table 2 presents results from three specifications that encode different assumptions about the dynamics of government influence. The first specification is an estimate of model (2), in which a change in the incumbent party has an immediate effect on the *level* of the Democratic share of circulation. The second specification is a version of model (2) in which the independent variable is the share of the preceding four years in which the Democrats held the office. This specification allows for a slower-moving impact than model (2). The third specification is a version of our baseline model, model (1), in which we include a four-year lag of the main independent variable and report the sum of the coefficients on the contemporaneous and lag independent measures. In no case do we find evidence for an effect of Democratic incumbency on the Democratic share of circulation.

Table 3 presents estimates of model (1) using a regression-discontinuity strategy in which we focus on cases with small margins of victory or control, and include flexible margin controls. In no case do we find a statistically significant effect of party control on the growth rate of the Democratic share of circulation. Figure 2 illustrates these findings graphically. We show in the online appendix that the estimates in table 3 are robust to tightening or loosening the restriction on the margin of victory used to select the sample.

In the appendix, we present an extension of our main results where we estimate the effect of the incumbent party on newspaper endorsements from 1932-2004. We find no evidence of any effect. In the online appendix, we estimate the effect of the incumbent party of a district's House representative on our main dependent measure and find no evidence of an effect.

5.2 Discussion of Magnitudes

Table 4 presents a set of quantitative comparisons for our main estimates, which confirm our ability to detect nontrivial effects of incumbent party on newspaper market shares.

The first row of table 4 shows the point estimate of the effect of control of the governor's office and both houses of the state legislature from row (3) of table 1. The second row of table 4 shows the upper bound of the 95-percent confidence interval of this estimate, 1.6 percentage points per year. The upper bound from the confidence interval is the smallest magnitude whose value we can distinguish statistically from the point estimate.

The third row of the table shows the upper bound of the confidence interval as a share of the between-state standard deviation in the Democratic share of circulation. We can rule out increases in the Democratic share of circulation of more than 5 percent of a cross-state standard deviation.

The fourth row of the table uses the contemporaneous relationship between the change in the Democratic share of the two-party presidential vote and the Democratic share of newspaper circulation to estimate the change in presidential vote share necessary to produce an effect of the size in row (2). A change in presidential vote share of only 1.1 percentage points would be sufficient to produce a change of this magnitude. This test can be thought of as comparing the importance of political factors to the importance of "demand-side" factors in determining newspaper circulation (Mullainathan and Shleifer 2005; Gentzkow and Shapiro 2010).

The fifth row of the table uses Gentzkow, Shapiro, and Sinkinson's (2011a) point estimate of the causal effect of newspaper affiliation on vote shares to estimate the implied effect that incumbent influence exerts on voters through the media market. They estimate that the average newspaper entry or exit changes the difference between Democratic circulation share and Republican circulation share by 51 percentage points, which is equivalent to a 25 percentage point increase in circulation share for a specific party. The upper bound of our baseline estimate for the three state offices on circulation share is 0.016 percentage points, or about 6.4 percent of the effect of the typical newspaper entry or exit on circulation share. Gentzkow, Shapiro, and Sinkinson (2011a) also estimate that entry of a same-type paper or exit of an opposite type paper increases a party's vote share in Congressional elections by a (statistically insignificant) 0.21 percentage points, with the upper end of the 95 percent confidence interval at 0.57 percentage points. Consequently, control of all state offices for a two-year congressional term would increase the incumbent party's vote share by 0.03 percentage points in the next congressional election,[5] and we obtain an effect smaller than 0.1 percentage points even using the upper bound estimate of the effect on vote share.

The sixth row of the table uses the structural model proposed by Gentzkow, Shapiro, and Sinkinson (2011b) to estimate the cost of implementing a targeted fixed-cost subsidy for Democratic papers that would produce an equivalent change in circulation share. We find that the average state would have to spend less than 0.1 percent of the revenue of in-state newspapers to achieve a change equal to the upper bound of our confidence interval. For comparison, recall that the magnitude of total state patronage reported by Dyer (1989) in mid-nineteenth-century Wisconsin could be as much as 50 percent of newspaper revenue.

6   Results for Specific Margins of Influence

Table 5 presents estimates of model (1) with several alternative dependent measures. Each measure corresponds to a specific margin on which the incumbent party could exert influence over newspapers. Depending on how effective each mechanism is along each margin and how commonly it was used by incumbents, we may be able to detect an incumbency effect on an alternative dependent measure, even though we cannot detect an effect on the overall change in circulation

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[5]Specifically, $0.064 \times 0.0021 \times 2$ [years] $\times 100 = 0.03$ percentage points.

share. For example, if incumbents were especially proficient at bailing out failing newspapers or arranging financing for entering newspapers, we may be able to detect an incumbency effect on the entry or exit margin, but not on with the overall share of circulation. Similarly, providing or taking away printing contracts and patronage jobs could have different effects on entering, exiting, and continuing papers.

The first specification reproduces row (3) of table 1 for comparison.

The second specification uses the change in the share of newspapers that are Democratic. The number of newspapers is better measured than circulation early in the sample period, so estimates using this variable may be more precise than estimates of the effect on circulation share. It also weights each paper equally, allowing us to detect an effect if the circulation of newspapers influenced by the incumbent is very small, if affected papers cannibalize the circulation of same-affiliation papers, or if the effects are on the entry and exit margins rather than changes in the size of existing papers.

The third and fourth specifications use the change in the share of entering newspapers that are Democratic and the change in the share of exiting newspapers that are Democratic, respectively. We will observe an effect in this specification if incumbent politicians are able to affect the affiliation of entering papers or the affiliation of exiting papers, but not the circulation of established papers.

The fifth specification uses the Democratic share of circulation of continuing newspapers. We will observe an effect in this specification if incumbents are able to affect the circulation of existing papers—for example, through marginal subsidies—but are unable to affect entry or exit. We will also observe an effect in this specification if incumbents affect continuing newspapers' content in a way that influences readership (Durante and Knight 2012).

The sixth specification uses the relative subscription prices of Democratic newspapers. If we observe a decrease in relative subscription prices, it may indicate that incumbents are subsidizing same-type papers to allow them to lower prices (or withdrawing subsidies from opposite-type papers), even if the effect of prices on circulation is too small to be detectable.

The seventh and eighth specifications use our direct measure of newspaper content, the share of candidate mentions going to the Democratic candidate for president or vice-president. These estimates should be read with some caution as content measures are only available for a small

fraction of the newspapers in our sample, but they provide a check on whether incumbents influence content in a way that is not captured by affiliations.

We find no evidence that the party in power affects the newspaper market through any of these channels.

7   Results for Politically Significant Times and Places

Given our negative results for the sample as a whole, we ask whether effects may be stronger in times and places where the historical record suggests particularly large incentives for government influence.

We report these results in table 6, where the first specification reproduces row (3) of table 1 for comparison. Motivated by findings for the Reconstruction South discussed below, we present results for both our baseline specification and the "on-impact" specification introduced in table 2.

7.1   Early Years, County Seats, and State Capitals

The second row of table 6 limits the data to the years of our sample prior to 1900. As discussed in section 3, historians agree that the scope for political influence was declining over the period we study, suggesting that effects may have been larger in the early years. We continue to find no statistically significant effect.

The third row focuses on newspapers in county seats. County seats were a "prized location" due to local government printing, and newspapers in county seats were significantly more likely to be partisan than newspapers in other locations (Abbott 2004, 45; Baldasty 1992, 133; Petrova 2011). Again, we find no significant effects.

The fourth row focuses on newspapers in state capitals. Dyer (1989) reports that state government patronage in the mid-nineteenth century was several times larger as a share of revenue for Wisconsin newspapers in the state capital than for papers elsewhere. Papers in the capitals of Georgia, New York, and Pennsylvania "were the major recipients of state financial subsidies" (Baldasty 1992, 21-22). Illinois state governments provided patronage to papers in Springfield that did not circulate widely, and a paper in Topeka, KS, did not exist prior receiving state funding (Summers 1994, 54, 60-61). Table 6 shows no significant effect in the sample of state capitals.

16

The fifth row restricts attention to presidential battleground states, which we define as states that have a two-party vote margin less than or equal to 10 percentage points in at least half of the elections in our sample period. Such states contained a significant fraction of electoral votes during much of our sample period (Glaeser and Ward 2006) and were by definition important sites of political competition. We find no effect of incumbent party in our baseline specification and a marginally statistically significant and wrong-signed effect in our on-impact specification.

In the online appendix, we decompose each of the sub-sample results above using the entry, exit, circulation, and price measures shown in table 5 for the main sample. Of the 18 new specifications reported, one (Democratic share of newspapers in state capitals) is statistically significant with a sign consistent with political influence. All other coefficients are statistically insignificant.

7.2   Reconstruction South

As a final test, we consider Southern newspapers during and after Reconstruction. The chaotic environment of the post-Civil-War era provided unusually strong incentives for Republican governments to support the entry and growth of Republican newspapers. The Radical Republican program of enacting profound economic and social change was widely agreed to require the support of favorable newspapers (Abbott 2004, 55). Yet hostility of much of the Southern population, along with low literacy among Republican supporters, meant that few Republican papers would be viable without government support (Summers 1994, 209-210). The war had decimated incumbent Democratic papers, with roughly two-thirds of those existing before the war ceasing publication by its end (Abbott 2004, 40-41). New Republican entrants thus faced limited competition. Moreover, the usual institutional constraints on efforts to aid friendly newspapers had largely evaporated, as aggressive rebuilding and economic development efforts led to a dramatic expansion of state government spending, and with it a deluge of patronage and political favors of all kinds (Foner 2002, 379-392). The result of all these factors, according to the detailed historical account of Abbott (2004), was a program of widespread government support for Republican newspapers under Republican incumbents, followed by the rapid withdrawal of this support when Democrats regained power.

This episode also provides a unique natural experiment for our purposes, because political con-

17

trol changed dramatically for reasons plausibly unrelated to reader preferences. At the beginning of 1869, all eleven former Confederate states were controlled by Republicans. Black suffrage and the disenfranchisement of many former Confederates—both mandated by Congress and enforced by the Union Army—had given Republicans a commanding position in the elections of 1867 and 1868. Over the following decade, blacks were disenfranchised through "force and threat of force" (Key 1949, 536), and federal troops ceased supervising elections. Democratic vote shares increased dramatically as a result, and by 1877 the governorship and legislatures of all eleven states were controlled by Democrats. Thus, the shift in political control was not driven primarily by changing preferences of individual citizens, but by a change in the subset of those citizens who were represented in the electorate.

Figures 3 and 4 give a view of the data for this period. We limit the sample to the eleven Confederate states in the years 1869-1892. We show the share of circulation accounted for by Democratic newspapers by state and year. For each state, we indicate the first year in which Republicans controlled all branches of the state government (indicated by a red dashed line), and the first year in which Democrats regained control of all branches of government (indicted by a blue dashed line). Figure 3 presents the Democratic share of daily circulation, and figure 4 presents the Democratic share of weekly circulation using our database of weekly newspapers in Confederate states. Circulation figures for 1869 are partially imputed from 1872, and plotted with open circles to emphasize this. Raw data underlying these figures, and analogous plots using newspaper counts in place of circulation shares, are reported in the online appendix.

Several patterns are notable in these figures. First, in the states where Republicans did not control state government for an extended period—Georgia, Texas, and Virginia—Republican papers never gained a large share of circulation, and there are few noticeable declines in Republican circulation around the end of Reconstruction. Second, in almost all of the remaining states, Republican papers achieved a meaningful share of both daily and weekly circulation while Republicans were in power, and Republicans' share declined sharply around the time Democrats retook control.[6] The timing of the circulation change matches the timing of the political change closely, suggest-

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[6]In Alabama, where we see a relatively small increase in the Democratic circulation share, control flip-flopped between Democrats and Republican during the period between the red and blue dashed lines. For Florida, this statement only applies to weeklies, as the first Florida daily in our sample enters after the Democrats retake control.

ing the possibility of a large causal effect.[7] Third, the magnitude of the apparent effect in these states is large. For example, Republican shares of weekly circulation rose to 50 percent or more in Arkansas, Florida, and Louisiana while the Republicans were in control, but never exceeded 20 percent in these states thereafter. Finally, the data appear to be better approximated by a model in which the change in control causes a one-time shift in the level of circulation shares (the "on-impact" specification introduced in table 2) than by a model in which it causes a change in trend (our baseline model).

The final two rows of table 6 present our regression results for the Reconstruction sample. In order to exploit the natural experiment caused by the enfranchisement, and subsequent disenfranchisement, of blacks, we drop the Republican vote share control from these regressions. In normal times, we expect movements in the vote share to reflect changes in potential newspaper readers' political preferences. Our main panel regressions thus control for the vote share and take identification from the discontinuous relationship of vote share and political control. In the Reconstruction episode, by contrast, the sharp swings in vote share were driven by changes in the composition of the electorate. In order to take identification from this variation, we must drop the control.

Consistent with the graphical evidence, the on-impact specification in the second column shows large and significant effects of Democratic control on the circulation share of both Democratic dailies and weeklies. For daily papers, the effect is 18 percentage points, well above the top of the confidence interval for our main specification. For weekly newspapers, the effect is even larger, at 22 percentage points. Our baseline specification shows a counterintuitive negative-signed effect: a mechanical consequence of the fact that after the return of Democratic control the newspaper market is so heavily Democratic that there is little room for further growth.

Our Reconstruction specifications have fairly small samples. In addition, following our baseline specification, these specifications include separate dummies for party control of each of three offices, which during the Reconstruction were highly correlated with one another. To check the robustness of our conclusions, in the online appendix we present results from a more parsimonious specification with a single Democratic control dummy, in which we compute permutation-based p-values for more robust small-sample inference. To examine sensitivity to missing circulation data,

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[7]In Florida and North Carolina, where the increase in the Democratic circulation share leads the blue dashed line slightly, Democrats took control of the state legislature several years before they took full control of the state.

we also present results for Democrats' share of newspapers. We continue to find evidence of a statistically significant positive on-impact effect of Democratic control. The (mechanical) negative effect of Democratic control on the growth in the Democratic circulation share is not consistently statistically significant.

In interpreting these results, it is important to keep in mind that any changes in reader preferences that happened to coincide with the shift of political control could bias us in favor of finding an effect. Preferences did appear to shift in favor of Democrats over this period, and it is possible that the timing of this shift was correlated with the timing of disenfranchisement. Moreover, the change in control and the demise of the Reconstruction project may have reduced demand for Republican news holding political preferences constant.

It is also worth stressing that although we follow Abbott (2004) in attributing the decline of Republican papers following the restoration of Democratic political control to the removal of state support for the Republican press, it is possible that at least some of the decline is attributable to deliberate efforts by Democrats to suppress Republican newspapers and bolster Democratic ones. In this sense our estimates should be taken as the net effect of the transition from Republican to Democratic control, including the effects of both Republican and Democratic incumbents' actions on sympathetic and opposition press.

The Reconstruction analysis informs our broader results in two ways. First, the results confirm that we have the power to detect large-scale political influence when it occurs. Comparing our point estimate for the Reconstruction to the upper end of our confidence interval in our baseline specification, we know that any influence exerted by the average state government in our sample must be smaller than one-sixth the estimated influence of the Reconstruction governments. Second, the results are a warning that negative results for the sample as a whole do not rule out the possibility of significant influence at times and places where the stakes are high and the usual forces of market discipline are weak.

8   Conclusion

Incumbent officials wield powerful tools of influence. Nixon famously threatened the renewal of the broadcast licenses of the *Washington Post's* parent corporation in the wake of its coverage

of the Watergate scandal (Graham 1997). Thomas (2006) writes of the modern era, "There is management and manipulation of news by government and a supine press.... One has to wonder how much General Electric (NBC), Viacom (CBS), and Disney (ABC) care about freedom of the press when access to the White House is at stake" (xv). If public officials use their authority to distort media coverage, the result may be a less informed electorate and a less effective political system.

In this paper we study government influence on the US press at a time when the tension between forces supporting and undermining press freedom was especially strong. We find little evidence that incumbent party support affects the entry, exit, circulation, or content of like-minded newspapers. The one exception is the South during and after Reconstruction, where Republican governments made a coordinated and concerted effort to sustain a Republican press amidst limited political and market competition.

The elimination of most forms of direct patronage and the continuing competitiveness of most media markets make it possible that incumbent influence on the press today is weaker than during the period we focus on. Consistent with this, the results in the appendix show no relationship between incumbent control and newspaper endorsements in the 1932-2004 period, and Gentzkow and Shapiro (2010) find no correlation between the party of the incumbent governor or congressional representative and the political slant of newspapers in 2005.

We stress, however, that in the present paper we offer no evidence on influence by local governments and only limited evidence on influence by federal officeholders. In addition, we have only coarse measures of newspaper content. Finally, the Reconstruction episode is a reminder that incumbent influence may play an important role when stakes are high and constraints are weakened.

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Table 1: Effect of incumbent party on newspaper circulation share - Panel model

		Effect of Democratic Incumbent on Change in Democrat's Circulation Share			
Specifications:		Governors (1)	State Lower House (2)	State Upper House (3)	All State Offices (4)
(1)	Year Fixed Effects	0.003	0.006	0.005	0.003
		(0.002)	(0.003)	(0.003)	(0.002)
(2)	Year Fixed Effects and	0.003	0.007	0.005	0.002
	Presidential Vote Share Indicators	(0.003)	(0.005)	(0.004)	(0.005)
(3)	Year and State Fixed Effects, and	0.002	0.008	0.005	-0.001
	Presidential Vote Share Indicators	(0.004)	(0.010)	(0.008)	(0.009)

Notes: Data cover the 1869-1928 period. Numbers reported in the table are the point estimate and standard errors (in parentheses, clustered by state-decade) on a dummy for Democratic incumbency for 12 separate regressions. The dependent variable in each regression is the change in the Democratic share of daily newspaper circulation. Row (1) includes year fixed effects, row (2) adds dummies for each 10 percentage point increment of the Democratic share of the vote in the previous presidential election, and row (3) adds state fixed effects. Column (4) is estimated by simultaneously including dummy variables for Democratic control of the Governor's office and the upper and lower houses of the state legislature. The point estimates and standard errors reported in column (4) are the linear combination of the three state office incumbent variables.

Table 2: Effect of incumbent party on newspaper circulation share - Alternative dynamics

		Effect of Democratic Incumbent on Change in Democrat's Circulation Share			
Specifications:		Governors (1)	State Lower House (2)	State Upper House (3)	All State Offices (4)
(1)	On-impact effect	-0.011	-0.016	-0.001	-0.009
		(0.011)	(0.019)	(0.016)	(0.019)
(2)	Slow on-impact effect	-0.020	-0.039	-0.013	-0.041
	(four-year weighted average)	(0.018)	(0.029)	(0.022)	(0.031)
(3)	Baseline specification	-0.007	-0.003	-0.008	-0.002
	with a four-year lag	(0.004)	(0.009)	(0.007)	(0.007)

Notes: Data cover the 1869-1928 period. Numbers reported in the table are the point estimate and standard errors (in parentheses, clustered by state-decade) on a dummy for Democratic incumbency for 12 separate regressions. In specifications (1) and (2) the dependent variable is the Democratic share of daily newspaper circulation and the independent variable is an indicator for contemporaneous Democratic control of the state office. Specification (3) reports a specification that adds a four-year lag of the key independent variable to our baseline specification. The coefficient reported is the sum of the contemporaneous effect and the lag effect. Column (4) is estimated by simultaneously including dummy variables for Democratic control of the Governors office and the upper and lower houses of the state legislature. The point estimates and standard errors reported in column (4) are the linear combination of the three state office incumbent variables. All specifications include presidential vote share indicators, and year and state fixed effects.

Table 3: Effect of incumbent party on newspaper circulation share - Regression discontinuity model

Variables:	Change in Democratic Share of Circulation			
	Governors (1)	State Lower House (2)	State Upper House (3)	All State Offices (4)
Dem Incumbent	-0.008	0.005	0.016	-0.003
	(0.005)	(0.018)	(0.021)	(0.018)
Dem Margin	0.186	-0.018	-0.093	0.057
	(0.066)	(0.057)	(0.060)	(0.094)
Dem Incumbent × Margin	-0.094	0.063	0.100	0.014
	(0.076)	(0.061)	(0.059)	(0.088)
N	254	133	88	568
R^2	0.045	0.011	0.025	0.045

Notes: Data cover the 1869-1928 period. Standard errors in parentheses are clustered by state-decade. The dependent variable in each regression is the change in the Democratic share of daily newspaper circulation. "Dem margin" is the Democratic margin of victory in the last election for governors, and the Democratic margin of control for the state legislature. Regressions are limited to observations in which the absolute value of the Democratic margin is less than 0.1 in column (1) and less than 0.2 in columns (2) and (3). Column (4) is estimated by simultaneously including all of the independent variables from columns (1) through (3), an indicator for each office if the absolute value of the margin is greater than our threshold for inclusion in the sample, and an interaction between each variable listed in the table and its respective out-of-sample indicator.

Table 4: Magnitude of the panel estimates

		All State Offices
Baseline Estimates		
(1)	Effect of switching all state offices from Republican to Democratic control on Democratic circulation share	-0.001
(2)	Upper bound of confidence interval (from row 1)	0.016
Interpretation of upper bound of confidence interval		
(3)	Effect on circulation share divided by the between-state standard deviation in the level of circulation share	0.050
(4)	Change in presidential vote share necessary to produce this change in circulation share	0.011
(5)	Increase in incumbent party's vote share in US Congressional elections from incumbent's effect on circulation share	0.0003
(6)	Fixed-cost subsidy to Democratic firms from each state necessary to produce this change in circulation share, as a fraction of total newspaper revenue.	0.001

Notes: Data cover the 1869-1928 period. Row (1) reports the estimate of the effect of control of all three state offices on circulation presented in row (3) of table 1, and row (2) reports the upper bound of the confidence interval of that point estimate. Row (3) reports the value in row (2) divided by the between-state standard deviation in the average Democratic share of circulation in each state. Row (4) reports the change in presidential vote share necessary to produce the change in circulation in row (2) from a contemporaneous cross-sectional estimate of the effect of the Democratic vote share in Presidential elections on the Democratic share of circulation during the 1868-1928 period. Row (5) uses point estimates of the effect of the Democrat's share of circulation on the Democratic vote share in US Congressional races from Gentzkow, Shapiro, and Sinkinson (2011a) to estimate the effect that a party which controls all three state level offices has on the vote share in US Congressional races through its effect on circulation share. Row (6) uses the entry model estimated in Gentzkow, Shapiro, and Sinkinson (2011b) to estimate the total cost of a fixed-cost subsidy to firms choosing Democratic affiliation required to induce an equivalent change in circulation share as a fraction of total newspaper revenue, averaged over all states in the panel. See section 5.2 for details.

Table 5: Decomposition of the effect of incumbent party on newspaper circulation share

|		All State Offices
(1)	Baseline	-0.001
		(0.009)
(2)	Democratic Share of Newspapers	-0.001
		(0.006)
(3)	Democratic Share of Newspaper Entries	0.001
		(0.026)
(4)	Democratic Share of Newspaper Exits	0.036
		(0.040)
(5)	Democratic Share of Circulation of Continuing Papers	-0.002
		(0.003)
(6)	Ratio of Democrat to Republican Subscription Prices	0.013
		(0.015)
(7)	Democratic Share of Candidate Mentions in Republican Newspapers	-0.004
		(0.033)
(8)	Democratic Share of Candidate Mentions in Democratic Newspapers	-0.037
		(0.052)

Notes: Data cover the 1869-1928 period. The sample is restricted to observations where the baseline outcome variable is non-missing. Standard errors in parentheses are clustered by state-decade. The specifications parallel row (3), column (4) of table 1. The rows indicate the dependent variable used in the regression. The numbers reported in the table are the coefficients and standard errors on the Democratic incumbent dummy variable. Row (1) presents the baseline results from row (3) of table 1. Rows (7) and (8) use the Democratic share of mentions of presidential or vice-presidential candidates for Republican and Democratic newspapers, respectively. All specifications include presidential vote share indicators and year and state fixed effects.

Table 6: Panel estimates for politically significant times and places

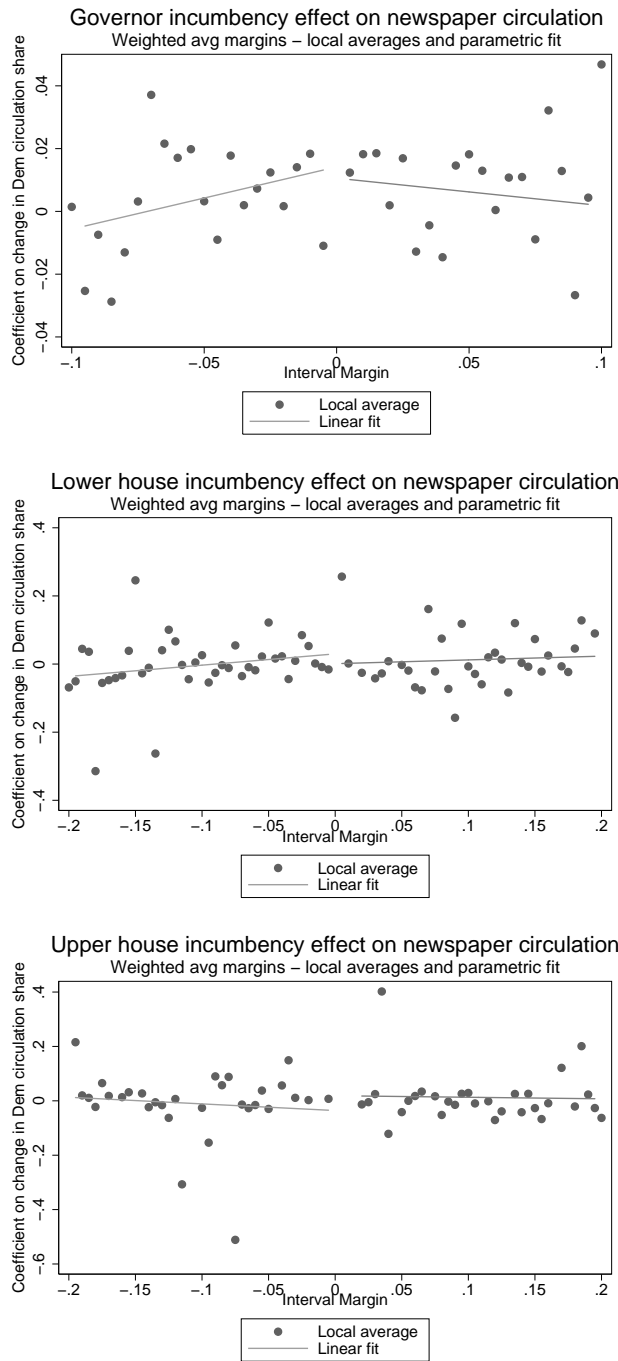| Variables:		Baseline model (1)	On-impact effect (2)
(1)	Baseline	-0.001	-0.009
		(0.009)	(0.019)
(2)	Before 1900	-0.010	0.030
		(0.017)	(0.029)
(3)	Only County	-0.002	-0.007
	Seats	(0.008)	(0.018)
(4)	Only State	0.005	0.053
	Capitals	(0.009)	(0.040)
(5)	Presidential	0.003	-0.039
	Battleground States	(0.010)	(0.020)
(6)	Reconstruction	-0.029	0.182
	South (dailies)	(0.012)	(0.033)
(7)	Reconstruction	-0.055	0.222
	South (weeklies)	(0.024)	(0.095)

Notes: Standard errors in parentheses are clustered by state-decade. In column (1) the specifications correspond to the "all state offices" specification in row (3) of table 1. In column (2) the specifications correspond to the "all state offices" specification in row (1) of table 2. Row (1) contains the baseline results from tables 1 and 2. Row (5) uses data from battleground states in which the presidential vote margin is at or below 10 percentage points in at least half of the presidential elections in our sample period. Row (6) uses data from Confederate states through 1900. Row (7) uses data on weekly newspapers from Confederate states through 1900. All specifications include year and state fixed effects. All specifications except rows (6) and (7) include controls for presidential vote share indicators.

Figure 1: Incumbency effect on newspaper circulation share: Panel estimates
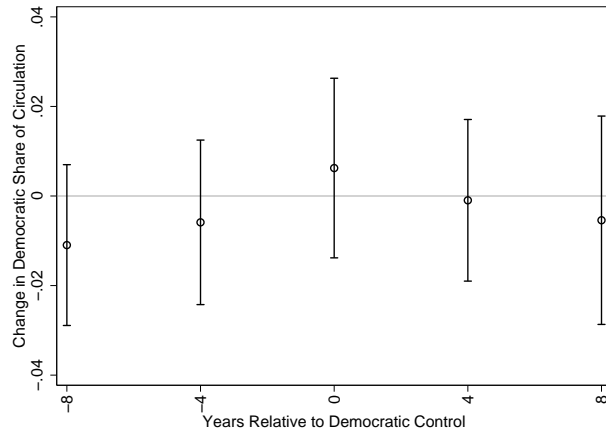
Notes: To construct this figure we augment the "all offices" specification of table 1 with leads and lags of the independent variables. We then plot the lead and lag coefficients along with their confidence intervals.

Figure 2: Incumbency effect on newspaper circulation share: Regression discontinuity estimates

Governor incumbency effect on newspaper circulation
Weighted avg margins – local averages and parametric fit

Lower house incumbency effect on newspaper circulation
Weighted avg margins – local averages and parametric fit

Upper house incumbency effect on newspaper circulation
Weighted avg margins – local averages and parametric fit

Notes: Data points are constructed by regressing the dependent measure on a vector of indicators for whether the margin of victory (in the first panel) or control (in the second and third panels) falls in a given interval, averaged over the four-year period since the last presidential election. The line shows the best linear fit allowing the slope to differ for positive and negative margins of victory.

Figure 3: Democratic share of daily circulation
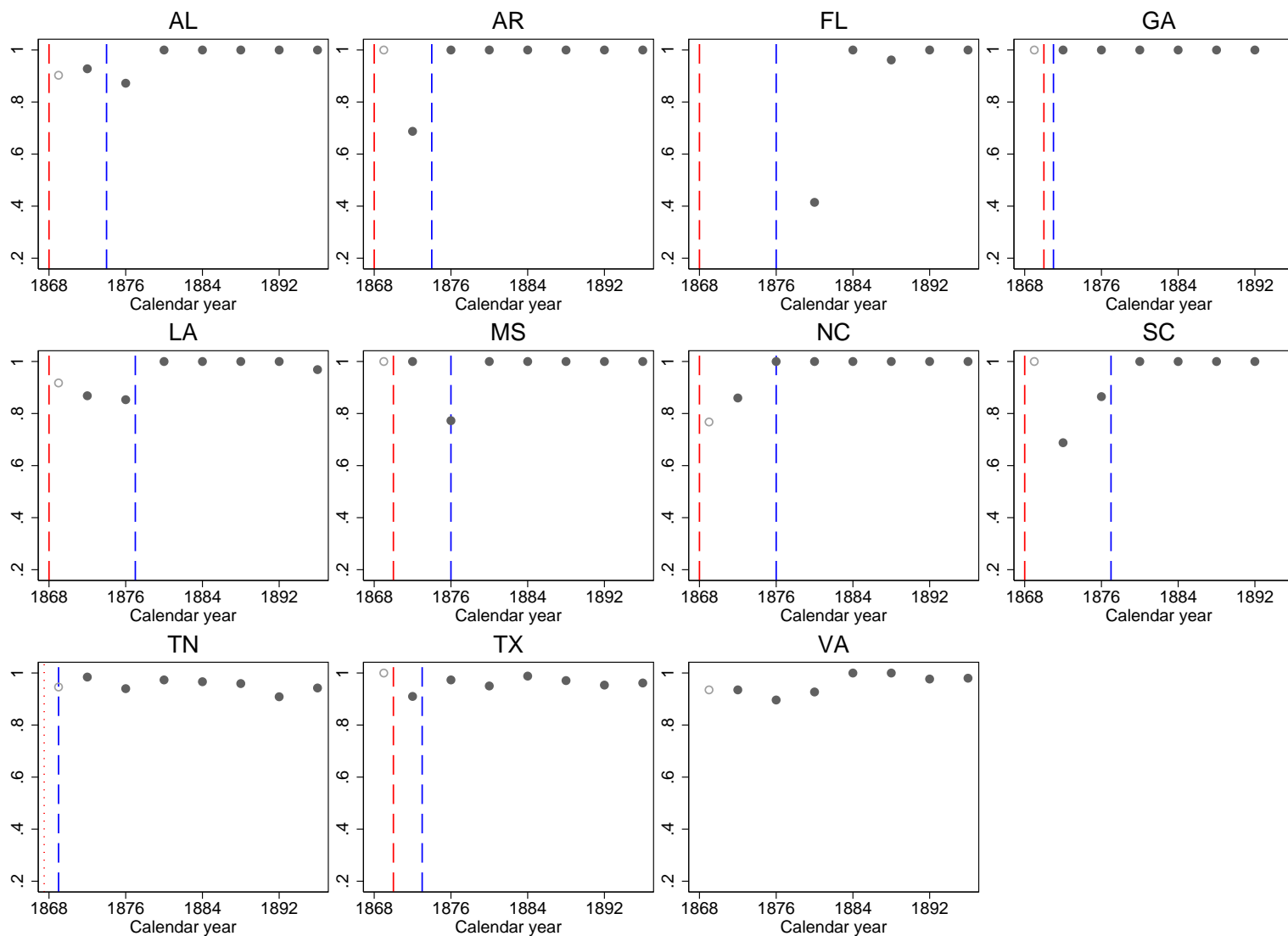
Notes: The figure shows the Democratic share of daily newspaper circulation by state and year. The red and blue dashed lines, respectively, reflect the years in which the Republicans and Democrats first took control of the state after the Civil War, where control is defined as occupying the governor's office and the majority of both houses of the state legislature. In Tennessee, Republicans took control of the state in 1866, indicated by the dotted red line. In Virginia there was never a Republican civilian government. In Alabama, partial control alternated between Republicans and Democrats between 1868 and 1874. In Texas, Florida and North Carolina, Democrats retook control of the legislature before they retook full control of the state government. Circulation data for daily newspapers is unavailable for South Carolina and Louisiana in 1869, and for Florida in 1876. There were no daily newspapers in Florida in 1869 and 1872. For papers that existed in both 1869 and 1872, but for which 1869 circulation is missing, 1869 circulation was replaced with 1872 circulation. This is indicated by the hollow circles for 1869.

Figure 4: Democratic share of weekly circulation
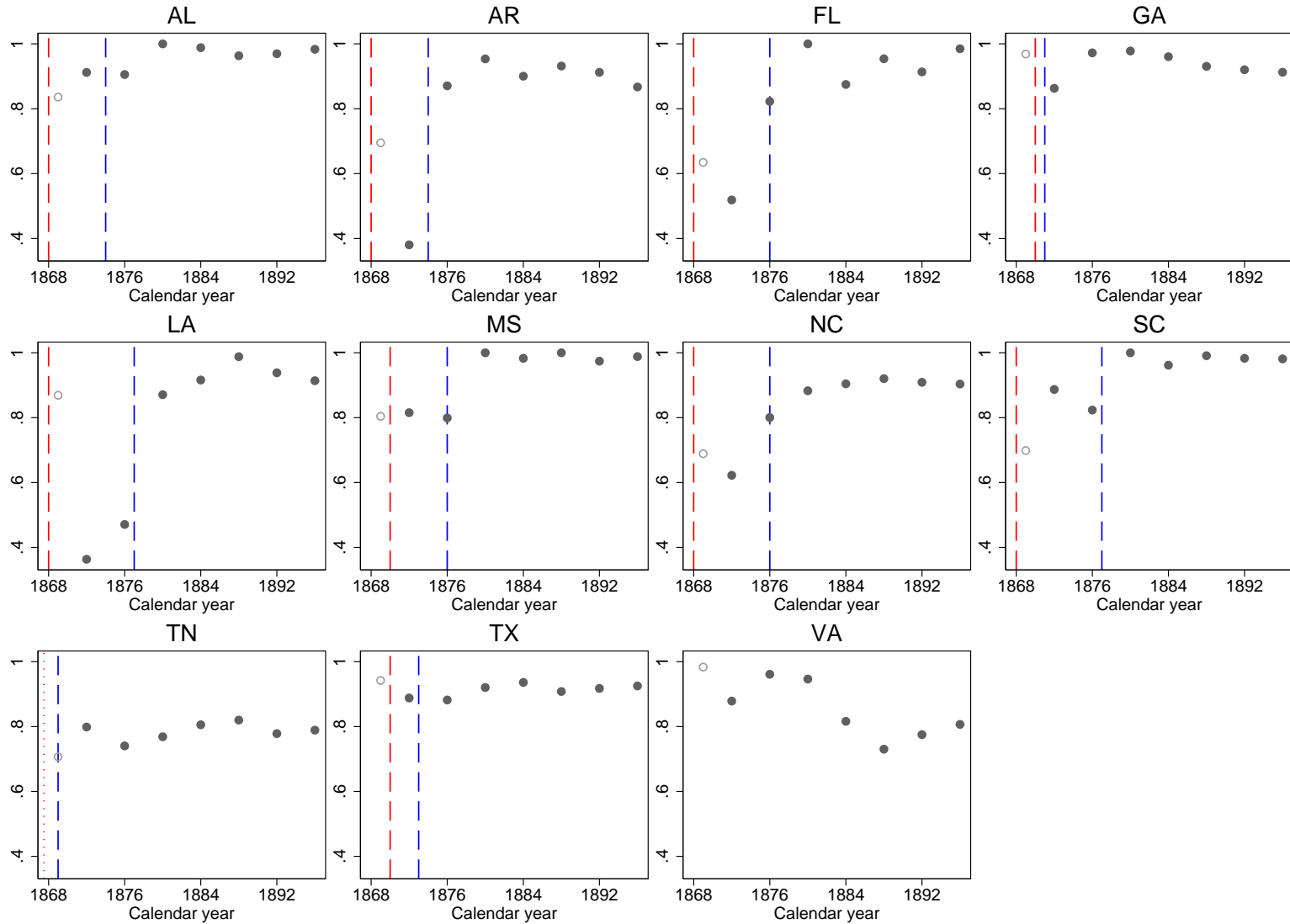
Notes: The figure shows the Democratic share of weekly newspaper circulation by state and year. The red and blue dashed lines, respectively, reflect the years in which the Republicans and Democrats first took control of the state after the Civil War, where control is defined as occupying the governor's office and the majority of both houses of the state legislature. In Tennessee the Republicans took control of the state in 1866, indicated by the dotted red line. In Virginia there was never a Republican civilian government. In Alabama, partial control alternated between Republicans and Democrats between 1868 and 1874. In Texas, Florida and North Carolina, Democrats retook control of the legislature before they retook full control of the state government. For papers that existed in both 1869 and 1872, but for which 1869 circulation is missing, 1869 circulation was replaced with 1872 circulation. This is indicated by the hollow circles for 1869.

Appendix: Evidence on Newspaper Endorsements, 1932-2004

To extend our analysis into the recent period we gather data on presidential endorsements from 1932-2004. For the 1932 to 1996 presidential elections, these data come from a quadrennial survey of newspaper endorsements in *Editor and Publisher Magazine*. For the 2000 and 2004 presidential elections the data come from data complied by Jacob Kaplan-Moss (who based his list on *Editor and Publisher Magazine*), data generously provided to us by Stefano DellaVigna, and data we collected through web searches and phone calls to newspapers. We extend our voting data series using data generously provided by James Snyder, supplemented with data on state legislatures from 1958-2004 collected by Carl Klarner and available on the *State Politics & Policy Quarterly* website.

Appendix table 1 presents estimates of the effect of the incumbent party on newspaper content as measured by endorsements. Our dependent measure is the change in the share of circulation of newspapers endorsing the Democratic presidential candidate, among those newspapers endorsing either candidate in the given state and presidential election year. We present one model analogous to our main panel specification and one analogous to our main regression discontinuity specification. In neither case do we find a statistically significant effect of incumbent party on endorsements. The panel estimate is fairly precise; the regression-discontinuity estimate's confidence interval includes economically large effects.

Appendix Table 1: Effect of incumbent party on newspaper endorsements

	Change in Share of Circulation of Papers Endorsing Democrats	
	All State Offices	All State Offices
	(1)	(2)
Dem Incumbent	0.004	0.068
	(0.012)	(0.054)
Controls	Presidential Vote Share Indicators	Dem Margin of Victory
		Dem Incumbent $\times$ Margin
Year Fixed Effects	Yes	No
State Fixed Effects	Yes	No
N	791	791
R^2	0.271	0.033

Notes: Standard errors in parentheses are clustered by state-decade. Data cover the 1932-2004 period. The dependent variable is the change in share of circulation of papers endorsing Democrats. Column (1) is estimated using the panel specification from table 1, row (3) and column (4). Column (2) is estimated using the RD specification from table 3, column (4).