The Influence of Biased Local Newspaper Endorsements*

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Abstract

This paper investigates the direct effects of political endorsements on election results. I focus on analyzing county-level vote shares in statewide elections for Governor and U.S. Senate, where voters across the state participate in the same election but are "treated" with different local newspaper exposure. I find that credible endorsements have a small but statistically significant effect on vote shares of about 1.3 percentage points. I also demonstrate that county-level newspaper bias and vote shares are positively correlated, and that candidate quality *per se* can explain about three-fourths of the raw correlation between newspaper endorsements and electoral performance. In aggregate, endorsement effects only change election outcomes in a small subset of very close elections, but in those cases endorsements almost always help the higher quality candidate win. The results suggest that local newspapers play a role in improving political outcomes and that at least some voters may rely on newspaper endorsements to inform their perceptions of candidate quality.

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1 Introduction

The influence of media bias on electoral outcomes and political representation has been a long-standing area of study in American politics. Typically, news and media are thought to be a crucial part of the electoral process, informing voters of the issues at stake and the type of candidates (good or bad) running for office. Bias in the media, however, can affect the information voters receive about candidates, and hence can alter their vote decision relative to if their news source was unbiased. Elections provide a mechanism for holding elected officials accountable, but if voters are misinformed due to media bias, the quality of representation is degraded as the link between voter preferences, public policy, and governance is distorted.

Media bias does not always manifest as pure intentional misinformation, but rather more often appears in nuanced forms, such as when a media source selectively reports good economic news conditional on whether the outlet supports the party of the president (Larcinese et al., 2011) or through a plethora of other framing techniques (Puglisi and Snyder, 2015). This is often referred to as media "slant" – not outright lying, but attempting to make a news source's preferred political party look good, typically with the aim of influencing voter behavior or reader perceptions. Studying the effects of news slant on political outcomes is challenging due to the subtle nature of media bias, making it difficult to identify and measure objectively.

There are, however, instances of media outlets being explicit about their political preferences. Local newspapers making political endorsements for candidates constitute a striking example, and it is a common practice in the United States. In fact, during the country's formative years, newspapers were primarily established and financed by political parties,[1] and had names that reflected such party affiliations.[2] It wasn't until the 1920s that most newspapers switched to an independent affiliation (Gentzkow et al., 2006), though their partisan preferences were still reflected in their tendency to endorse one party over another

[1]See Pasley (2001) for a detailed accounting of the origins of newspapers and their strong political and partisan affiliations in early American history.

[2]Many of these historical names have continued into the present time, and still reflect longstanding parti-

(Ansolabehere et al., 2006; Gentzkow and Shapiro, 2010). Unlike subtle partisan slant in news coverage, political endorsements represent explicit political acts that reveal support for a political party, policy position, or candidate, and hence provide a valuable insight into the partisan preferences of newspapers and their editors. Newspapers in the United States often publish political endorsements on or leading up to election day (de Leon, 2013; Schuster, 2023). In most cases, they also justify their endorsements to their readers in the form of an article explaining their decision and reasoning, with hopes of convincing voters to vote for their preferred candidates.

Estimating the effects of newspaper endorsements on political outcomes, however, is difficult due to two major issues. First, the partisan leanings of a city or town may affect demand for biased newspapers, causing a spurious correlation between endorsements and election outcomes. To put it simply, newspapers in areas that lean towards the Democratic (Republican) party may be more inclined to endorse Democratic (Republican) candidates, because that is what their readers like. Second, higher quality candidates may be more likely to get local newspaper endorsements regardless of partisan considerations, and may also be able to convince more voters to vote for them through other methods and media – for example, through campaigning, word of mouth, or due to other media coverage (e.g. radio, TV) of the election that informs voters about candidates. This would also produce a positive correlation between winning newspaper endorsements and election performance, even though winning more votes in this case would not be due to newspaper endorsements *per se*. Despite previous attempts to tackle these concerns in studies examining the impact of newspaper endorsements, most research is constrained by these theoretical difficulties and significant data limitations.

In this paper, I provide the most comprehensive empirical test to date of the effect of newspaper endorsements on voter behavior and election results. Using the data set of historical local newspaper endorsements from DeLuca (2023b), I use the dynamic measure of the partisan slant of each newspaper to calculate the "credibility" of each individual endorsement

– how surprising an endorsement is, given the paper's partisan leanings. The credibility of each endorsement is significant because it indicates the endorsement's strength in terms of conveying information about the quality of the candidate (Chiang and Knight, 2011). More credible or unexpected endorsements are more informative about differences in candidate quality, are hence more likely to influence a person's decision as they cast their vote. For a measure of the differences in candidate quality, I use the endorsement-based quality measure from DeLuca (2023b), which is operationalized as the propensity of a candidate to be endorsed by local newspapers, conditional on those newspapers' partisan bias.

I merge the estimates of newspaper partisan bias onto a time series of county-level newspaper circulation data to analyze the effect of newspaper endorsements and local media bias on voter behavior and electoral outcomes. This comprehensive data set allows me to control for the partisan slant of local news and differences in candidate quality in each election when estimating the effects of endorsements. To identify a causal effect of endorsements, I concentrate my analysis on county-level election results for hundreds of Governor and U.S. Senate races between 1952 and 2002. Statewide elections provide a useful case study because all voters in the state are faced with the same set of candidates (and quality disparities between them), but they read different newspapers across counties. The key identifying variation in my estimates comes from the fact that, within each state, voters in different counties are exposed to different local news slants and endorsement patterns despite being faced with the same candidate- and election-specific factors.

Using a circulation- and credibility-weighted measure of local newspaper endorsements, I show that county-level vote shares for a candidate are higher when local newspapers endorse that candidate. My estimates suggest that a one standard deviation increase in the average credibility of a county's newspaper endorsements increases the endorsed candidate's vote shares by 1.3 percentage points. This is consistent with a causal story where the information provided by local newspapers and their endorsements affect voters' assessments of candidate quality, which subsequently affects at least some voters' decision about who to vote for.

Importantly, including controls for candidate quality reveal that around three-fourths of the raw correlation between a county's newspaper endorsements and election results is due to *overall* candidate quality, rather than credible endorsements *per se*.

At the election-level, however, my analysis suggests that endorsements have a more modest effect on outcomes: in most cases, statewide aggregate effects are less than 1 percentage point. Net effects across all endorsements in a state are smaller because a typical endorsement is usually not very credible, in addition to the fact that in many elections the effects of one newspaper's endorsement in one part of the state will be offset by other newspaper endorsements in other parts of the state for the other candidate. In a subset of my election sample where I have good circulation and endorsement coverage, I find that out of 271 cases, there are only ten (3.7%) where endorsements plausibly played a role in changing the outcome of the election. Notably, in nine of these ten cases, the endorsements helped the higher quality candidate win.

The results of this study highlight the important role that local newspaper have historically played in informing voters about candidate quality. Because higher quality candidates are more likely to earn local newspaper endorsements, the causal effects of endorsements on voter behavior and election outcomes reveal a positive impact of local news in an electoral context – that endorsements, on average, help higher quality candidates do better in their elections. The estimates also suggest that voters are able rationally incorporate information about candidate quality that they receive from local newspaper endorsements into their voting decisions. Overall, while the impact of endorsements may be relatively small in aggregate, they still represent an important source of information for voters in many elections, and can have a meaningful positive impact on election outcomes.

san preferences of local newspapers today. For example, the Waterbury Republican-American was started in 1844 as a conservative local newspaper in Connecticut, and is still conservative today. See https://www.rep-am.com/about-us/history/.

2 Newspaper Influence and Election Outcomes

Given their historical importance in American history, numerous social scientists have sought to analyze the influence of local newspapers on political outcomes.[3] Specifically in regards to the effects of newspaper endorsements, there is mixed evidence on the size of their impact. While some researchers have found that endorsements can affect between 10-25% of readers (Robinson, 1974; Ladd and Lenz, 2009; Schuster, 2023), others find more modest effects of influence in the range of 5-7% of readers (Erikson, 1976; Chiang and Knight, 2011; Olson, 2018). Additionally, most of this past research covers only a single or few elections, and concentrates predominantly on the influence of endorsements for president from a small number of well-known newspapers.

Recent work on endorsements has focused on taking into account the "credibility" of an endorsement – how surprising or unexpected they are given a newspaper's partisan slant. The simple idea is that endorsements are a stronger signal to voters when they are unusual or unexpected – newspapers would only endorse candidates that go against their typically preferred partisan preference when the quality differences between the candidates are large (Calvert, 1985; Chiang and Knight, 2011; DeLuca, 2023b). In the context of presidential endorsements, Chiang and Knight (2011) find that up to 4.5% of readers change their intended vote choice due to credible endorsements, but that there are essentially no effects when endorsements are expected or low-credibility. Casas et al. (2016) look at the effects of endorsements on win probabilities in prediction markets, and find that credible or surprising endorsements from major newspapers affect win probabilities but that expected endorsements do not. In aggregate, because not everyone reads newspapers, because different newspapers endorse opposing candidates in the same race, and because many endorsements are low-credibility, the estimated *overall* effect sizes of endorsements on election results typically range between 0-2 percentage points in terms of vote shares. (Ladd and Lenz, 2009; de Leon, 2013; Olson, 2018).

[3]Some examples include: Gregg (1965); St. Dizier (1985); Druckman (2005); Snyder and Stromberg

There are two major barriers to estimating the causal effects of endorsements. The first is identification – how to identify credible endorsements, who reads them or is exposed to them, and how to account for the fact that endorsement patterns among newspapers may be determined by reader preferences (rather than the other way around). In particular, it is possible that newspaper editors conform to their reader's demand for partisan news in attempts to maximize economics profits, so that partisan customers lead to biased news. The link between media bias and a demand for biased news has been formally modeled and empirically established by numerous studies (Mullainathan and Shleifer, 2005; Iyengar and Hahn, 2009; Gentzkow and Shapiro, 2010; Gentzkow et al., 2014a). Rather than endorsements causing readers to vote for certain candidates, it may simply be that newspaper editors are good at predicting what many of their readers want to hear and endorse the candidate that their readers already support.

Controlling for the partisan predispositions of news with a measure of media bias would help to alleviate this issue. A measure of newspaper bias is also necessary in order to calculate the credibility or unexpectedness of any particular endorsement. Scholars have taken a variety of approaches to measure newspaper bias, from manually reading and classifying newspaper articles and editorials (Swanson, 1955; Kelley, 1958; Ho and Quinn, 2008), to much more computationally complicated content- or text-analysis estimation procedures (Groseclose and Milyo, 2005; Gentzkow and Shapiro, 2010; Gentzkow et al., 2019; Widmer et al., 2020). Because of data limitations, many studies of media bias and politics focus on national news outlets where content is more readily available (Groseclose and Milyo, 2005; DellaVigna and Kaplan, 2007). When they analyze local news content, studies are often confined to a small number of cities or newspapers (Ardoin, 1973; Druckman, 2005; Gerber et al., 2009; Schulhofer-Wohl and Garrido, 2013). In terms of credibility, most empirical studies do not explicitly define or calculate a measure of endorsement credibility, even if they can identify situations where endorsements are likely to be credible (Erikson, 1976; Ladd and Lenz, 2009).[4]

(2010); de Leon (2013); Gentzkow et al. (2011, 2014a)

[4]The notable exception to this being Chiang and Knight (2011).

The second major obstacle in estimating the effects of endorsements on election outcomes is that a candidate's quality can impact both newspaper endorsements and voter behavior. For instance, a highly qualified candidate is more likely to secure endorsements from several local newspapers (DeLuca, 2023b), and can also convince a larger portion of the electorate to vote for them, even if those individuals are not newspaper readers and are unaware of their local newspapers' endorsements. As a result, a misleading correlation between newspaper endorsements and the vote shares of the endorsed candidate may arise, underscoring the importance of controlling for candidate quality. Most studies do not account for candidate quality explicitly at all, though some studies' identification strategies relieve this concern (i.e., analyzing reader-level panel data that exploiting timing of endorsements as done in Robinson (1974), Druckman and Parkin (2005), Ladd and Lenz (2009), Chiang and Knight (2011), and Schuster (2023)).

Additionally, previous research attempting to measure the impact of newspaper bias and political endorsements often encounters considerable data constraints, which poses a challenge in identifying causal estimates that can be widely generalized. Endorsements are time-consuming and difficult to collect, measures of bias are difficult to construct, and variation in circulation data and election outcomes is difficult to compile. In this paper, I overcome many of these data limitation by utilizing the endorsement data and new empirical measurements of newspaper partisan slant and candidate quality differentials from DeLuca (2023b).

3 Empirical Strategy: Measuring Slant, Quality, and Credibility

In order to estimate the causal effects of newspaper endorsements on voting behavior and election outcomes, I focus my analysis on statewide elections where voters across the state all participate in the same election but read different local newspapers, and hence have differing exposure to newspaper partisan slant, newspaper endorsements, and the credibility of those

endorsements. I also control for the direct effects of newspaper slant and candidate quality, as well as incumbency effects, the expected vote shares in each county, and national partisan tides. I merge the partisan slant estimates, quality differential estimates, and endorsements of each newspaper from DeLuca (2023b) to county-level newspaper circulation data from Gentzkow et al. (2014b) and county-level results for governor and senate elections. The key question I examine is whether people who live in places where local newspapers endorse a particular candidate are more likely to vote for that candidate, controlling for likely confounding factors.

To implement this strategy, a couple of key measurements and calculations are needed. First, a measure of the partisan slant of each newspaper is needed, both to account for possible direct effects of newspaper bias on election results and also to calculate the "credibility" of each individual newspaper endorsement. In this study, I use newspapers' political endorsements to measure the partisan slant of newspapers. A few previous studies have used endorsements to construct measures of media bias as well (Ansolabehere et al., 2006; Gentzkow et al., 2011), and other work has shown a link between editorial page positions and more general news coverage (Kahn and Kenney, 2002; Druckman and Parkin, 2005; Ho and Quinn, 2008; Puglisi and Snyder, 2011; Larcinese et al., 2011; Fonseca-Galvis et al., 2013). I take the endorsement-based partisan slant measure for each newspaper directly from DeLuca (2023b). This endorsement-based partisan slant is essentially a measure of the tendency of a newspaper to endorse one political party over the other (controlling for the effects of candidate quality). A positive score means the paper tends to endorse Democrats, while a negative score means it tends to endorse Republicans. The slant measure is allowed to vary in each year to reflect changes in the newspaper's editorial stance over time.

The second key measure needed is a measure of candidate quality, due to the fact that differences in candidate quality will affect both election results (directly) as well as the probability that a particular candidate will be endorsed by a county's local newspaper. Again, I use the endorsement-based candidate quality differential measure in each election that come

directly from DeLuca (2023b). The endorsement-based quality differential is operationalized as the likelihood that a candidate is endorsed by local newspapers, conditional on those newspapers' partisan slant. In governor in senate elections, this quality differential utilizes endorsements made by all newspapers across the state. As a result, the overall quality differential is based on endorsements that may not have been seen by a significant number of voters through their own local newspapers. This is a useful aspect of the measure in this particular context as it allows for a distinction to be made between the impact of overall candidate quality and the direct influence of a county's local newspaper endorsements.

Last, in order to accurately gauge the impact of endorsements, it is crucial to assess their credibility. The credibility of each endorsement depends on how unexpected or surprising the endorsement is for a particular newspaper, taking into account the paper's partisan bias.[5] Theoretically, voters who see more credible endorsements should be more likely to adjust their perception of a candidate's quality and modify their expected voting behavior. Endorsements lacking credibility do not offer much valuable information, so they are expected to have a minor effect (Calvert, 1985; Chiang and Knight, 2011).

To explicitly measure the credibility of an endorsement, I calculate:

$$\lambda_{n,r,y}(\beta_{n,y}) = e_{n,r,y} - \beta_{n,y} \tag{1}$$

Where $\lambda_{n,r,y}$ is the credibility of an endorsement, e is an indicator variable for a Democratic endorsement,[6] and $\beta_{n,y}$ is the estimated partisanship of the newspaper making the endorsement, with n indexing newspapers, r indexing the particular election race (i.e., an

[5]This definition of credibility comes directly from the economics literature on media influence, most directly Chiang and Knight (2011), but also has its roots in earlier theoretical work about how to rationally use biased information (Calvert, 1985). Notably, this is a somewhat different definition from that used in the Political Communications literature, where a news source's credibility is more about its resonance with readers and ability to persuade, through things like a source's "expertise", trustworthiness, shared ideology/partisan affiliation or likeability and reputation (Druckman, 2001; Weber et al., 2012).

[6]While not common, I include any explicit non-endorsements and dual endorsements (endorsing both candidates) made by newspapers and code these as equal to 0.5.

office and district, if applicable), and y indexing years. Like the newspaper slant and quality differential measures, the credibility measure is also standardized to have a standard deviation of one, and is positive when the endorsement is credible in favor of the Democratic candidate, and negative when it is credible in favor of the Republican candidate.[7]

I use the same data set of approximately 22,000 endorsements in DeLuca (2023b) to calculate the credibility measure. I make two small alterations to the credibility output, in addition to its standardization. First, I multiply the credibility of endorsements for Republican candidates by -1 so that higher values indicate higher credibility endorsements, regardless of the partisan affiliation of the endorsed candidates (originally, more negative values indicates credibility for the Republican candidate in the election). Second, any endorsements with a negative credibility score – which would be interpreted as an endorsement signaling that the *non*-endorsed candidate is of *higher* quality – are assigned a credibility value of zero, since they do not provide any useful information.[8] The distribution of the standardized credibility measure across all endorsements is plotted in Figure 1. The dashed vertical line is marked at $+1$ standard deviation in endorsement credibility. According to the figure, and in part by definition, only about 38% of endorsements fall outside of the dashed line, meaning that nearly two-thirds of endorsements are not very credible.

Next, I merge the endorsements, their credibility estimates, and the partisan slant estimates to county-level newspaper circulation data. The circulation is based on the Gentzkow et al. (2014b) panel data, which records total circulation of each newspaper and attributes it to the main county where the paper circulates, with observations every 4 years. I augment this circulation panel data with Audit Bureau of Circulation (ABC) data from the years

[7]In section Appendix B I report the results of alternative specifications of the model using the model and credibility formula from Chiang and Knight (2011), and I do not find qualitatively different outcomes.

[8]Negative credibility arises in this particular calculation due to the fact that some newspapers are extremely partisan – meaning that the estimate of their partisanship more than predicts any endorsements (i.e., they would have endorsed even an extremely bad candidate of their preferred party). The issue of negative credibility scores is not an problem in Chiang and Knight (2011) due to the functional form they specify in their credibility calculation. In appendix Figure B1, I compare the linear probability model credibility calculation used in this paper with the Chiang and Knight (2011) credibility measure and show that they are highly correlated, even with replacing negative credibility endorsements with zero in the rare instances where they occur.

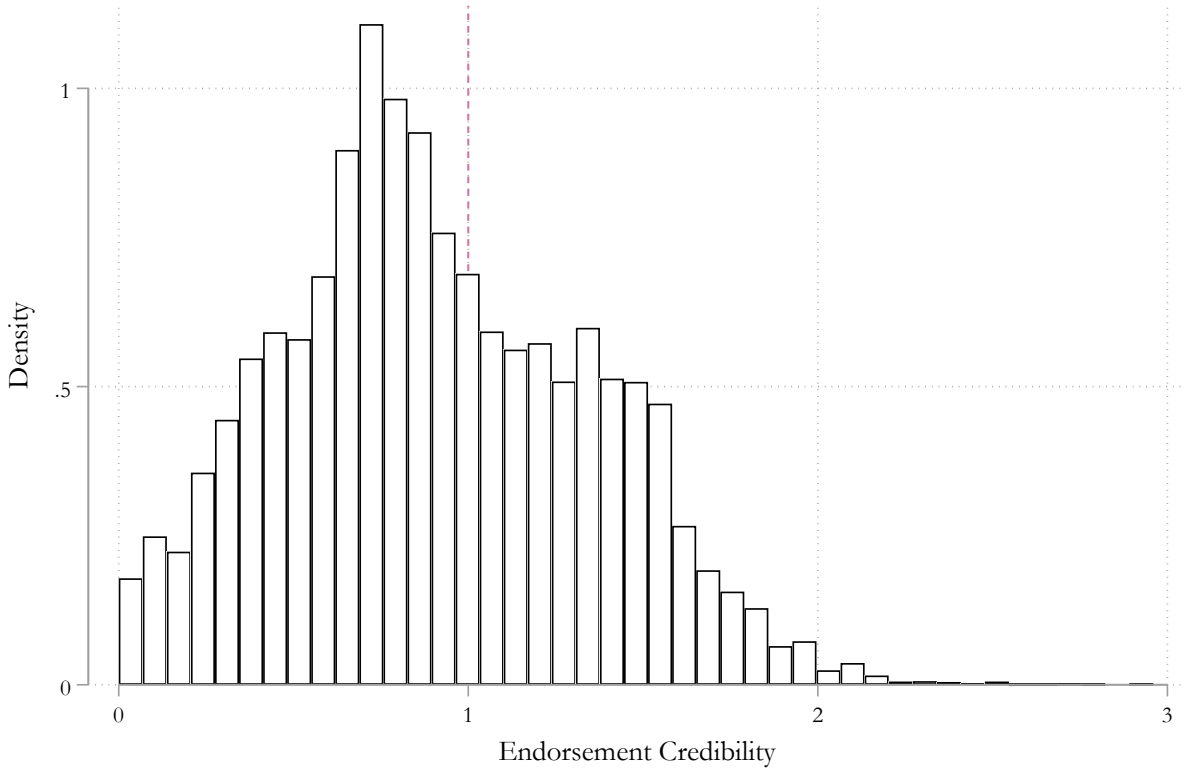


Figure 1: Distribution of Endorsement Credibility

1982, 1993, and 2000, which provides county-level circulation data for all counties, not just a paper's "main" county, for each newspaper. I assign the total main county circulation for each newspaper from Gentzkow et al. (2014b) across each county proportionally according to the ABC circulation samples. I linearly interpolate circulation for election years missing circulation data in Gentzkow et al. (2014b).[9]

For both the partisan slant and credibility-weighted endorsements measures, I take a circulation-weighted average across all newspapers in each county-year observation. The resulting output is a county-level data set which includes the circulation-weighted overall partisan slant of the newspapers circulating in each county and the credibility- and circulation-weighted share of endorsements for each party's candidate from those same papers. Finally, I merge these onto county-level election results for Governor and Senate races.[10] The election data includes 705 elections comprised of 387 U.S. Senate elections and 318 elections for Governor.[11] In total, there are almost 13,000 county-year observations for which all the relevant data is available.

To identify causal effects of endorsements on election performance, I leverage the variation in newspaper circulation, (credible) endorsements, and election outcomes at the county-level. Before moving to the main results, I first demonstrate my empirical strategy with a concrete example – the 1974 race for U.S. Senate in Florida.

3.1 Example: The 1974 U.S. Senate Race in Florida

To illustrate more concretely the identification strategy and empirical estimation procedure, I begin by analyzing the effects of newspaper endorsements in the 1974 Florida U.S. Senate race. This example is particularly useful as there are 12 newspaper endorsements in the endorsement data for this single election, because Florida has many (67) counties (which provide significant geographic variation), and the newspaper data there is relatively good

[9] See section Appendix A for more details on this procedure.

[10] Special thanks to Jim Snyder for sharing these data.

[11] See section Appendix A for more information about the sample of county-level election data from each state and year.

coverage of newspaper bias and circulation across the counties in Florida. In the race, Richard Stone ran as the Democratic candidate, and Jack Eckerd ran as the Republican candidate. Stone ended up winning by 51.5% of the two-party vote.[12]

Overall, Stone (D) received nine endorsements from local newspapers, Eckerd (R) received two endorsements, while one newspaper (the Fort Lauderdale News) endorsed both candidates. Table 1 shows each of these Florida newspapers' partisan slant, their endorsement in the 1974 Senate race, and the credibility of that endorsement. Given that Stone received a large majority of newspaper endorsements, he would be expected to be the higher quality candidate in this race; and the candidate quality differential in this race estimated from Chapter 1, which takes into account the endorsements and partisan slant of all of these newspapers, shows that Stone had the relative quality advantage in this election (of 0.42 standard deviations – a meaningful but not particularly large quality advantage).

Of note, the Tampa Daily Times endorsed the Republican candidate Eckerd, which was unusual for this slightly Democratic-leaning paper. The other newspaper in the Tampa area, the Tampa Tribune, endorsed Eckerd as well, and this endorsement is also fairly credible given that the newspaper is quite unbiased. Other notable endorsements were made by the Jacksonville Journal and Florida Times Union – they both endorsed the Democratic candidate Stone, despite typically being conservative-leaning newspapers. These are examples of endorsements with relatively high credibility (see the final column of Table 1). If credible endorsements are affecting voter behavior, the Republican candidate should do better than expected in places where the Tampa newspapers circulate, and the Democratic candidate should do better than expected in the area where the Jacksonville newspapers circulate.

[12]John Grady, a part of the American Independent Party, was also running for U.S. Senate in Florida that year. Grady won only 15.7% of the vote, which is significant for a third-party candidate, but did not win a majority of the vote in any county. He received no endorsements from local newspapers in my data. I use two-party vote shares in the analysis, which adjusts for the existence of third party votes.

Table 1: Florida Newspaper Slant, Endorsement, and Credibility

Newspaper	Endorsed Candidate	Party	Slant	Credibility
Fort Lauderdale News	Both	D/R	-0.73	0.43
Fort Myers News Press	Stone, Richard B.	D	0.37	0.88
Gainesville Sun	Stone, Richard B.	D	0.13	1.01
Jacksonville Florida Times Union	Stone, Richard B.	D	-0.68	1.48
Jacksonville Journal	Stone, Richard B.	D	-0.42	1.34
Miami Herald	Stone, Richard B.	D	0.37	0.88
Miami News	Stone, Richard B.	D	0.73	0.67
Palm Beach Post	Stone, Richard B.	D	0.59	0.75
St. Petersburg Times	Stone, Richard B.	D	0.32	0.90
Tallahassee Democrat	Stone, Richard B.	D	0.39	0.87
Tampa Daily Times	Eckerd, Jack M.	R	0.29	1.26
Tampa Tribune	Eckerd, Jack M.	R	-0.01	1.08

Notes: This table shows 12 newspapers that made endorsements in the 1974 U.S. Senate race in Florida. The "Endorsed Candidate" column names the candidate endorsed by the newspaper indicated in the row; the "Party" column indicates which party the endorsed candidate belongs to; the "Slant" column reports each newspapers' partisan bias or slant in 1974, with negative values indicating a pro-Republican slant and positive values indicating a pro-Democratic slant; and "Credibility" is the standardized credibility of each newspapers' endorsement.

I merge the partisan slant estimates and endorsement data from these newspapers to their county-level newspaper circulation data. The map in Figure 2 shows the top-circulating newspaper in each Florida county in 1974, for newspapers contained in the endorsement data and estimation.[13] It shows the wide variety of local newspapers across the state, each with their own biases, and making their own endorsements with varying credibility. In panel A of Figure 3, I plot the share of endorsements that went to the Democratic candidate in each county, weighted by the county-level newspaper circulation. In many counties, the Democratic candidate, Stone, received 100% of endorsements from newspapers circulating in the county, including in counties in the northeastern corner of the state where Jacksonville

[13]The Tampa Times and Jacksonville Journal are not shown in the figure because they are not a top circulating newspaper in any county in 1974 (the Tampa Times is always second to Tampa Tribune or St. Petersburg Times in its circulating counties, while the Jacksonville Journal is usually second to the Jacksonville Times-Union in its circulating counties). The endorsement data does not (currently) record any endorsements from the Lake City Reporter and Orlando Sentinel in the 1974 senate race, though they have made other endorsements. Counties labeled "NA" are cases where the top circulating newspapers are papers where endorsement data are missing or have not yet been collected.

is located. In central Florida, near Tampa, many counties had the Republican candidate, Eckerd, receiving endorsements from all or a majority of circulating newspapers.

The overall local news partisan slant of each county is displayed in panel B of Figure 3. The partisan slant at the county-level is a circulation-weighted average of the partisan slant estimates for each newspaper circulating in each county. Again, there is significant variation in the overall news slant that voters in different counties across the state are exposed to. This variation in county-level news slant will affect the overall credibility of the endorsements shown in panel A, because the most credible endorsements for a candidate can only come from newspapers that typically have a bias against that candidate's party.

In panel C of Figure 3, I display the circulation- and credibility-weighted endorsements in each county. This panel is similar to panel A in that it is reflective of the endorsements of each newspaper, except that panel C takes into account how unusual or surprising each endorsement is from each newspaper, based on their estimated partisan slant shown in panel B. As expected, the most credible Democratic endorsements are in the Jacksonville area (northeastern corner of Florida), where the Republican leaning Jacksonville Journal and Florida Times Union circulate; and the most credible Republican endorsements are in the counties where the Democratic-leaning Tampa Daily Times and the unbiased Tampa Tribune circulate (in the central counties of Florida).

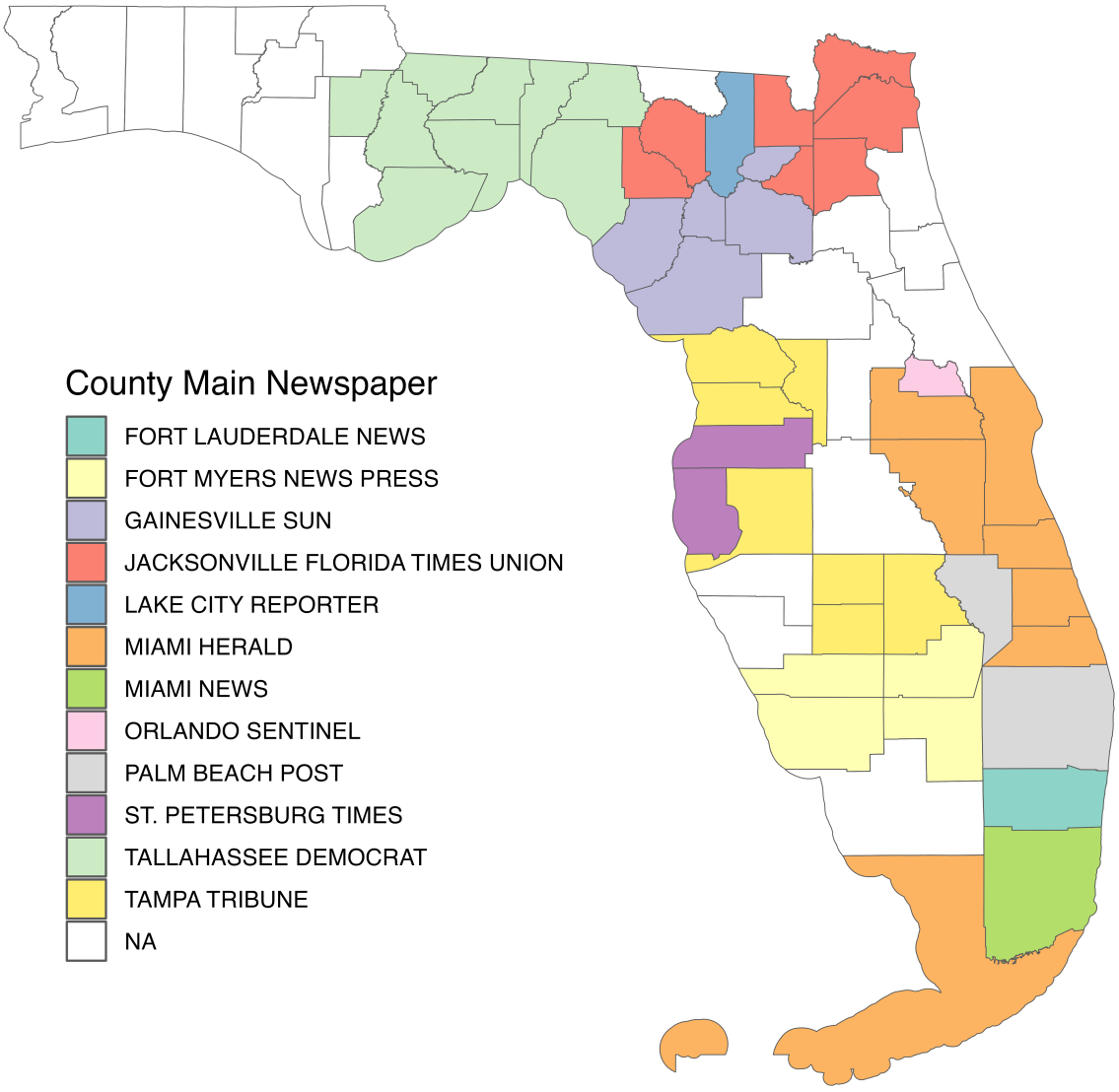
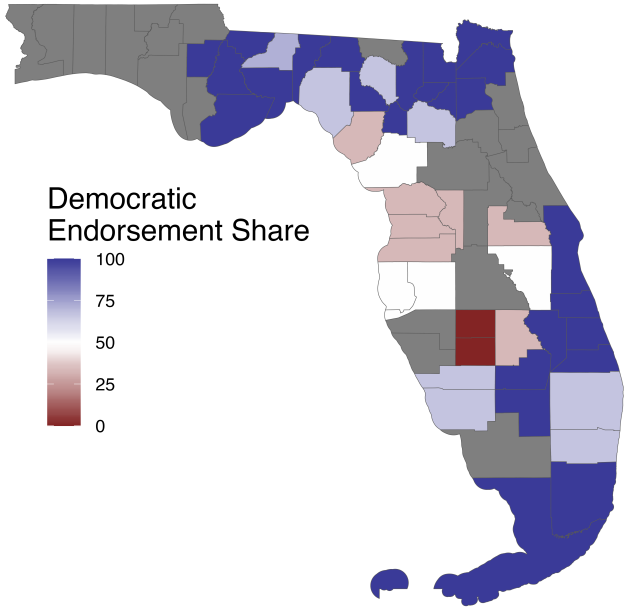
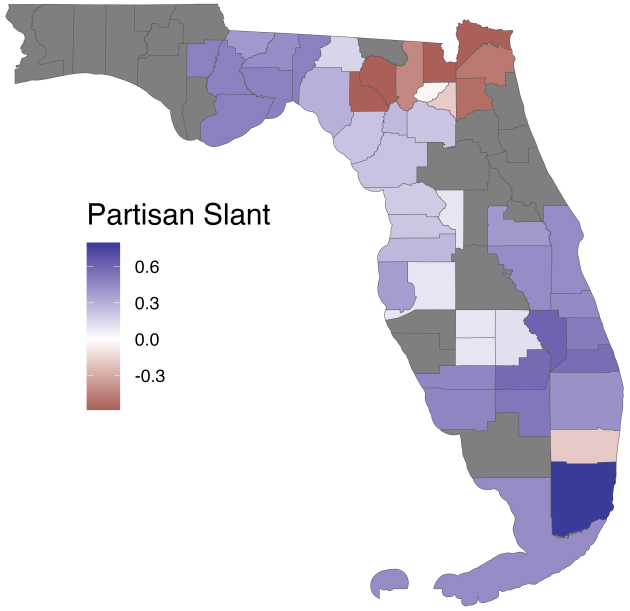


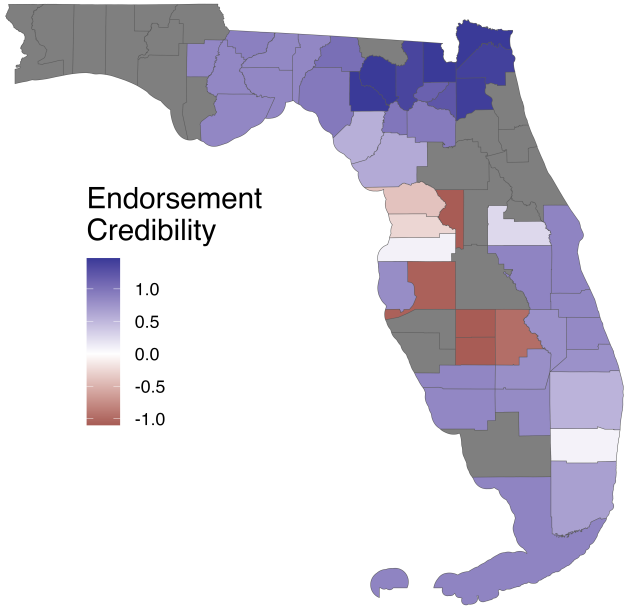
Figure 2: Main Newspaper by Circulation, Florida Counties, 1974



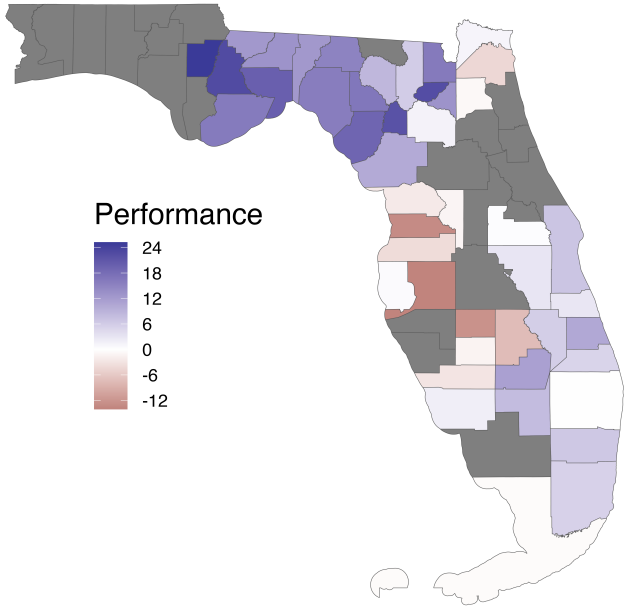
(A) Democratic Share of Newspaper Endorsements



(B) County-Level Newspaper Partisan Slant



(C) Credibility-Weighted Endorsements



(D) Democratic Relative Electoral Performance

Figure 3: U.S. Senate Race in Florida, 1974

In panel D of Figure 3, I plot the relative over- or under-performance of the Democratic candidate in each county. This relative performance measure is calculated by subtracting the expected Democratic two-party vote in each county[14] from the actual performance of the Democratic candidate in the 1974 U.S. Senate election. If (credible) endorsements affect voter behavior or election outcomes, then the credibility-weighted endorsements (panel C) should be correlated with relative performance (panel D). At a glance, the figure visually demonstrates a correlation between the credibility in panel C and the relative electoral performance in panel D of Figure 3, particularly in the Tampa-area counties where Eckert had his best performance.

A scatterplot of the county-level relative over- or under-performance of the Democratic candidate in each county is displayed in Figure 4, with performance on the y-axis and the circulation-weighted endorsement credibility of each county on the x-axis. The counties in the Tampa area (squares) and in the Jacksonville area (diamonds) are highlighted in the figure and are located at either end of the credibility spectrum. The horizontal dashed line is the average performance of the Democratic candidate in the sample counties. The slope of the line is a statistically significant 0.078 points, implying that a 1 standard deviation increase in the circulation- and credibility-weighted endorsements is associated with a large increase in county-level two-party vote shares of 7.8 percentage points.

While this example demonstrates a large effect of endorsements, it is just one particular case in one particular state, and it omits controls for variables such as newspaper slant and candidate quality. In order to fully test whether newspaper endorsements *per se* have an effect on election results, I now turn to using the full sample of Governor and U.S. Senate elections across many states and years.

[14]To calculate expected vote shares for each county, I use the average of the county's two-party vote shares in U.S. House, Governor, Senate, and Presidential elections within a two-year window of the year being analyzed.

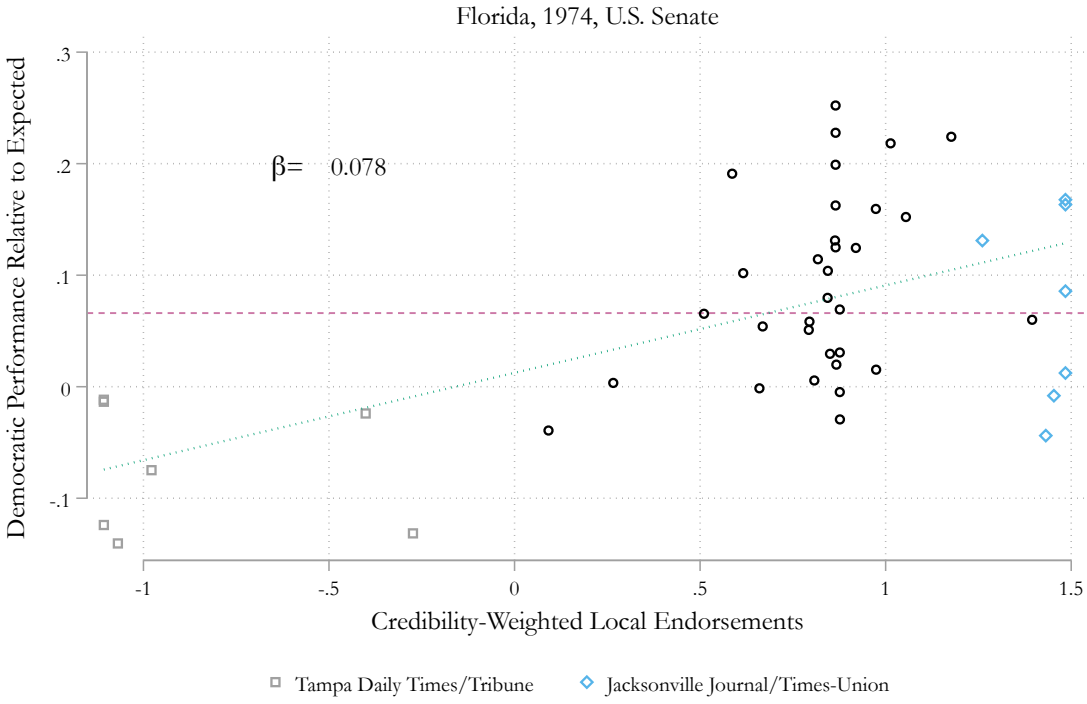


Figure 4: County-Level Performance and Credibility-Weighted Endorsements

4 County-Level Election Results

When using the full sample of elections and endorsements, I include a number of controls in order to isolate causal effects. First, I control for the partisan slant of each county's local newspapers. The partisan slant of the local news is likely *not* independent of the political behavior of the residents who live there. One possible concern is that the slant of the news, as measured by partisan endorsements, may itself affect the behavior of voters in the same county (independent of their endorsements). Another concern is that the partisan lean of the voters in a county might affect newspapers' editorial positions, as a business strategy to be more appealing to readers. Either case would result in a positive relationship between local news slant and partisanship of a county, one that is not due to causal effects of endorsements. As a demonstration, in the left panel of Figure 5, I plot a binned scatterplot of the Democratic two-party vote shares and circulation-weighted local newspaper partisan slant at the county-level, which indeed shows a positive correlation between the two.

The second major issue is that higher quality candidates are more likely to win endorsements, but also are more likely to do better in their election (again, regardless of endorsements). In the right panel of Figure 5, I plot a binned scatterplot of the relationship between Democratic two-party vote shares at the election-level and the relative quality differential between candidates in the full sample of elections, similar to the results in DeLuca (2023b) and DeLuca (2023a). The panel also demonstrates a stark relationship between candidate quality and overall electoral performance, again suggesting a need to control for *overall* candidate quality differentials when testing whether endorsements themselves are what is influencing voter behavior.

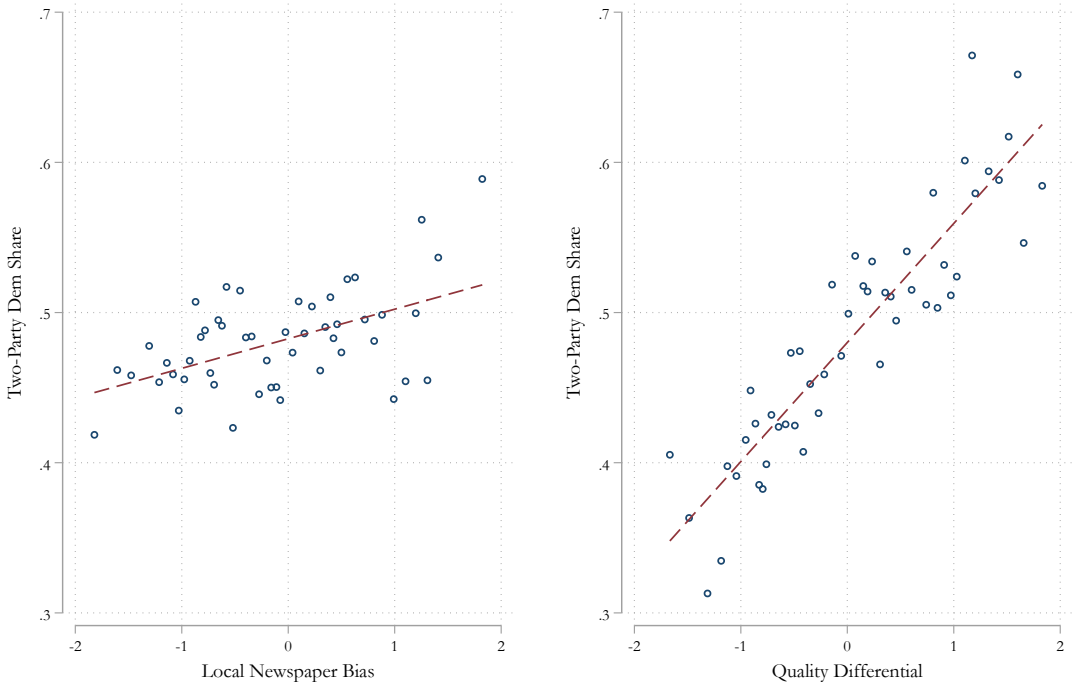


Figure 5: Two-Party Vote Shares, Local News Bias, and Quality Differentials

I run a regression of the following form in order to test the effects of credible endorsements on county-level election outcomes, while controlling for the relevant alternative explanations:

$$V_{c,o,y} = \theta_1 \lambda_{c,o,y} + \theta_2 \beta_{c,y} + \theta_3 \gamma_{o,y} + \zeta_c + \eta_y + \varepsilon_{c,o,y}$$

Where $V_{c,o,y}$ is the Democratic two-party vote shares in county c for office o in year y; $\lambda_{c,o,y}$ and $\beta_{c,y}$ are the county-level circulation-weighted averages of credibility and newspaper partisan slant, respectively; $\gamma_{o,y}$ is the quality differential between the candidates in the race for office o in year y; and ζ_c and η_y are county and year fixed effects, respectively.[15] The coefficient of interest is θ_1, which measures the association between exposure to credible newspaper endorsements in a particular county and the relative Democratic two-party performance in that county, while controlling for the effects of the partisan slant of the news (θ_2) and the differences in candidate quality (θ_3). The year fixed effects capture any variation caused by year-specific partisan tides that affect all elections, while the county fixed effects pick up the expected county-level vote shares in each county. I run this regression on the full sample of elections using the county-level data set constructed from before. The main results of this analysis are displayed in Table 2.

[15] Specifically, the $\lambda_{c,o,y}$ and $\beta_{c,y}$ terms are defined as:

$$\lambda_{c,o,y} = \frac{\sum_n^{N_c} \lambda_{n,o,y} s_{c,n,y}}{\sum_n^{N_c} s_{c,n,y}}$$

and

$$\beta_{c,y} = \frac{\sum_n^{N_c} \beta_{n,y} s_{c,n,y}}{\sum_n^{N_c} s_{c,n,y}}$$

where $s_{c,n,y}$ is defined as newspaper n's total circulation in county c in year y, and N_c is the set of newspapers n that have positive circulation in county c. These are the circulation-weighted averages of all newspapers which circulate in county c, both of each endorsement's credibility ($\lambda_{n,o,y}$) and of the newspapers' partisan slant or bias in a particular year ($\beta_{n,y}$).

Table 2: Effects of Credibility-Weighted Endorsements on County-Level Votes

VARIABLES	(1) D Vote	(2) D Vote	(3) D Vote	(4) D Vote	(5) D Vote
Credibile Endorsement	0.064***	0.016***	0.013***	0.013***	0.014***
	(0.001)	(0.002)	(0.002)	(0.001)	(0.002)
Quality Differential		0.060***	0.064***	0.039***	0.039***
		(0.002)	(0.002)	(0.002)	(0.002)
Local News Slant			0.029***	0.037***	
			(0.001)	(0.003)	
Incumbency				0.033***	0.031***
				(0.001)	(0.002)
Observations	12,811	12,811	12,811	12,634	6,776
Adjusted R-squared	0.165	0.216	0.248	0.655	0.679
Year FE	No	No	No	Yes	No
County FE	No	No	No	Yes	No
County-Year FE	No	No	No	No	Yes
Clustered SE	No	No	No	Yes	Yes
N Elections	641	641	641	639	336

Notes: The outcome variable is Democratic two-party vote shares at the county-level; Credible Endorsement is the county-level circulation- and credibility-weighted standardized credibility measure of all endorsements in the county; Quality Differential is the election-specific estimated quality differential between the two candidates in the race; Local News Slant is the county-level circulation-weighted average of newspaper slant; and Incumbency is coded as +1 for a Democratic incumbent, -1 for a Republican incumbent, and 0 for open seats. Credible Endorsement, Quality Differential, and Local News Slant are coded so that negative indicates pro-Republican and positive indicates pro-Democratic. Standard errors are clustered at the county level in column 4, and at the county-year level in column 5. $^{*} = p < 0.10$, $^{**} = p < 0.05$, $^{***} = p < 0.01$.

The regression includes observations from most states, and in total includes 641 of governor and senate elections (see appendix Table A1.) In the first column of Table 2, I run the regression of two-party shares on county-level credible endorsements with no controls (this is equivalent to the regression shown previously in the Florida example, Figure 4). The results show that $\theta_1 = 0.064$, which implies that a 1 standard deviation increase in county-level average endorsement credibility is associated with a 6.4 percentage point increase in two-party vote shares in that county for the endorsed candidate, on average.

The coefficient on Credible Endorsement in column (1) does not take into account a

number of potential confounding variables, so it is likely an over-estimate of the effect of endorsements on vote shares. Adding in controls for the candidate quality differential ($\gamma_{o,y}$) in column (2) drops the coefficient on credible endorsements from 6.4 points down to 1.6 points, implying that candidate quality explains about 75% of raw correlation between (credible) endorsements and candidate performance. In other words, much of the observed relationship between endorsements and performance is due to candidate quality.

The county's local news slant is also estimated to have a small statistically significant effect (of 2.9 percentage points) on vote shares, as demonstrate in column (3) of Table 2. When controlling for county-level news slant, the coefficient on Credible Endorsement also decreases further from 1.6 points to only 1.3 points. In column (4) of Table 2 I add in controls for incumbency and year and county fixed effects, while also clustering the standard errors (at the county level). Adding these controls does not change the coefficient on credible endorsements at all, though they do explain a large share of the overall variation in county-level election outcomes, as demonstrated by the R^2 increasing from 0.248 to 0.655. And finally, in the last column (5), I include county-year fixed effects (rather than county and year fixed effects) as a control variable. The variation in column (5) comes from cases where both a governor and senate election occur in the same state and same year, but where newspapers' endorsements within the county differ across offices. Even in this special half of cases, the estimated effect of a credible endorsement remains approximately the same, at a statistically significant 1.4 percentage points.

As expected, Table 2 shows that both the local news bias and candidate quality account for a large portion of the observed relationship between local newspaper endorsements and county-level election results, while the endorsement effect *per se* is much smaller, a little more than 1 percentage point. Given that the standard deviation of the circulation- and credibility-weighted endorsement variable ("Credible Endorsement") is 0.874, it implies that the typical range of the county-level endorsement effect is less than or equal to about 1.13 percentage points. As suggested by Mummolo and Peterson (2018), I also calculate the variance of the

Credible Endorsement variable once controlling for Quality Differential, Local News Slant, and Incumbency – all of which are included in the specification in column (3) – and find that the standard deviation is around 0.117, and so a typical estimate of the effect of endorsements, once accounting for these other factors, is closer to 0.15 percentage points.[16]

On the media slant side, the estimated positive coefficient is consistent with either a causal interpretation – that biased news affects consumer vote choice – or a demand side explanation – that consumers want local news that caters to their partisan preferences. These results also demonstrate that while credible endorsements may have a small effect on election results, the effects of overall candidate quality itself explains much of the correlation between endorsements and performance, which further validates the use of the endorsement-based candidate quality differential measure developed in DeLuca (2023b). That is, if the endorsement-based quality differential affected election results *only* through the direct effect of endorsements, then we would not expect to see the overall candidate quality differential to have such a large effect on election results, since it is calculated using all endorsements in the state, including endorsements that voters are not exposed to. The estimated effect of candidate quality from these county-level regressions – around 3.9 percentage points, even when controlling for the effects of the specific endorsements voters in each county see – is also highly consistent with the election-level estimates of the effects of quality on vote shares from DeLuca (2023a), which estimates the effect to be about 3.8 percentage points.

Overall, the preferred specifications in the regression results using the full data set suggest that a credible endorsement from a newspaper increases the endorsed candidate's two-party vote shares by about 1.3 percentage points. In appendix section Appendix B, I present the results of Table 2 using alternative specifications using the credibility calculation taken directly from Chiang and Knight (2011) (appendix Table B1) and find qualitatively identical results.

[16]Because the estimated coefficients from columns (4) and (5) are essentially the same as those in column (3), and column (3) does not include any fixed effects, I used column (3) in the adjustment as this still represents a realistic variation in the credible endorsements effect across units. Using the standard deviation after account for fixed effects in column (4) gives a typical effect of less than 0.099 points, while using the

5 Effect of Endorsements on Representation

To assess the potential impact that endorsements have on the quality of representation, I estimate the aggregate effect of all local newspaper endorsements in each election on the final election outcome, and examine how often newspapers help the higher quality candidates win their elections. To do so, I predict the estimated effect of local newspaper endorsements for each county, given the endorsements' credibility and the overall newspaper circulation, and then calculate the difference between the actual vote shares in a county and the estimated vote shares in that county that are due to endorsements. This calculation reveals what the county-level vote shares would have been *without* the effects of each county's local newspaper endorsements.

Next, I aggregate the county-level estimates up to the statewide (election) level to calculate the net effect of endorsements on the overall vote shares of each candidate. I drop elections where I do not have county-level newspaper slant or endorsement data for at least half of the voter population in each election; in total, I calculate these effects for 271 of the statewide elections in the sample. This ensures that I am not estimating statewide aggregate endorsements effects from a small number of unrepresentative counties or newspaper endorsements in an election. It also assumes that in cases where I perform the calculation, the estimated effects in the counties where I do observe endorsement and slant data are representative of the effects in counties where data is missing. The distribution of the aggregate effects of endorsements on the statewide governor and senate elections is plotted in Figure 6. The distribution shows that in almost all cases (98%) the aggregate effect of endorsements on election results is less than 2 percentage points in either direction, and in 70% of cases the aggregate effect is less than 1 percentage point.[17] On its face, this suggests that endorsements can only change election results if the election was already expected to be extremely close.

variance adjusted standard deviation for column (5) gives a typical effect of less than 0.079 points.

[17]Additionally, the largest estimated effect I find is 2.3 percentage points, and the average and median effects are about 0.09 percentage points each.

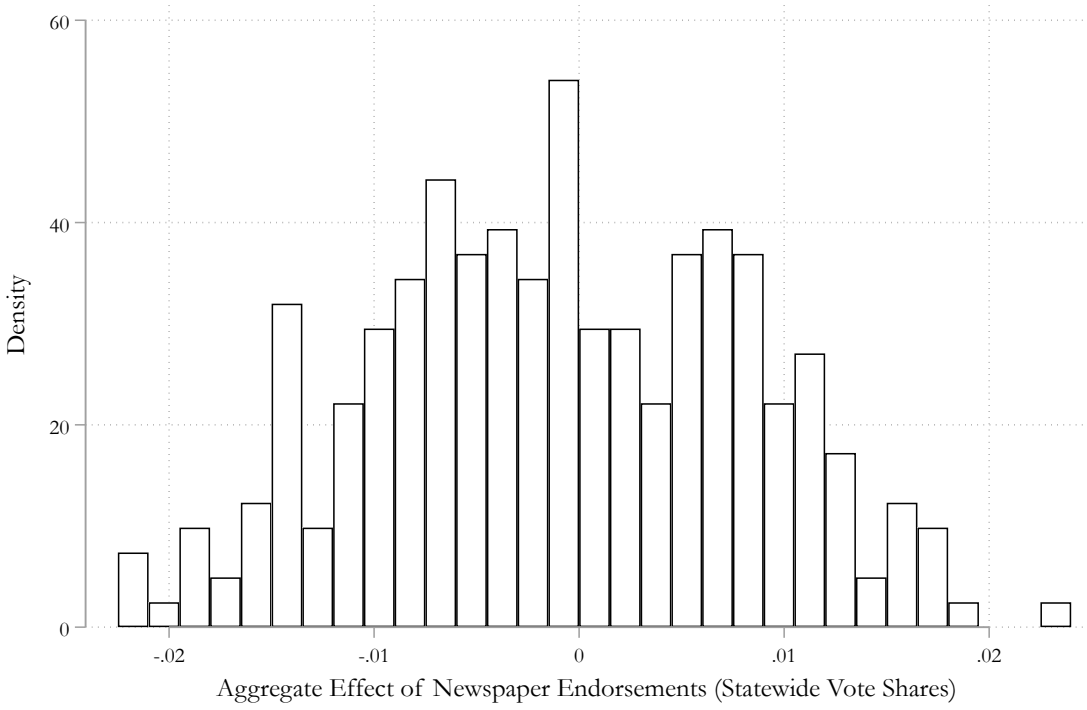


Figure 6: Effects of Endorsements on Vote Share Distribution, County-Level

I identify cases where the winner of the two-party vote shares changes due to the estimated aggregate endorsement effects. These are situations where the final election result was close enough that the pattern of endorsements across the state that year may have plausibly resulted in aggregate effects large enough to flip the winner of the election. Out of the 271 cases with good newspaper and endorsement coverage, I find ten such instances – only 3.7% of cases – where the estimated endorsement effect overlaps the winner's vote margin, suggesting a possible flip of the election result. These cases are listed in Table 3, and all of them are elections that were decided with a margin of about 1 percentage point or lower. I merge these cases to the quality differential estimates from DeLuca (2023b) to assess the endorsement effect on the winner's quality. I find that in nine of these ten cases, the effect of credible endorsements helped the higher quality candidate win their election. In summary, the results of the exercise suggest that in most cases newspaper endorsement effects on election outcomes are minimal, but in the few instances where they do matter they almost always help the higher quality candidate win their election.

Table 3: Summary of Elections Affected by Newspaper Endorsements

State	Year	Office	Dem Vote Share	Endorsement Effect	Winner	High Quality Candidate	High Quality Winner?
Arizona	1980	Sen	49.45%	-0.62%	R	R (+0.37)	**Yes**
Arizona	1990	Gov	49.79%	-0.40%	R	D (+0.40)	No
Colorado	1998	Gov	49.68%	-1.21%	R	R (+0.59)	**Yes**
Delaware	1968	Gov	49.49%	-1.09%	R	R (+1.08)	**Yes**
Maryland	1994	Gov	50.21%	+0.54%	D	D (+0.40)	**Yes**
Michigan	1970	Gov	49.16%	-0.93%	R	R (+0.86)	**Yes**
New Mexico	1960	Gov	49.67%	-0.56%	R	R (+0.62)	**Yes**
Nevada	1998	Sen	50.05%	+0.10%	D	D (+0.48)	**Yes**
Oklahoma	1974	Sen	49.75%	-0.33%	R	R (+0.37)	**Yes**
Wisconsin	1998	Sen	51.08%	+1.34%	D	D (+1.23)	**Yes**

Notes: The table lists cases where endorsement effects may have flipped the election outcome. The Dem Vote Share column indicates the actual aggregate two-party votes, and Endorsement Effect displays the estimated aggregate endorsement effect of all endorsements in the state. The High Quality Candidate column indicates which candidate was higher quality, and inside the parentheses is the estimated quality differential. The High Quality Winner column indicates whether the winner of the election, due to endorsement effects, was the higher quality candidate in the race.

6 Discussion and Conclusion

The analysis in this paper highlights the role of local newspapers in shaping political outcomes and the quality of political representation. The results demonstrate a likely causal effect of newspaper endorsements on voter behavior. The endorsement data supplemented with county-level election results and circulation data allows me to provide one of the most comprehensive tests of the effects of endorsements. In summary, I find that a credible endorsement (of 1 standard deviation in terms of credibility) has an estimated effect on vote shares of about 1.3 percentage points. I also find very strong relationships between county-level election results, the average local news partisan slant, and overall candidate quality, which together explain more than three-fourths of the raw correlation between endorsements and electoral performance. In most cases, the aggregate effect of endorsements does not change the winner of an election; however, in the small sample of cases where it does, it almost always helps the higher quality candidate win.

One limitation of this study is that it covers a time range when local newspapers were a much more prominent source of voter information. During this period, a majority of people read daily newspapers, so their influence may be larger during this time relative to their influence today. For example, according to the American Nation Election Study (ANES), over 70% of respondents in the 1970s indicated that they read a daily newspaper, and even in the 1990s 80% of respondents responded that they read at least one newspaper in the past week. The dramatic decline in local news in contemporary times (Abernathy, 2016) might temper the effects of newspaper endorsements on voter behavior, though more recent research shows that even in today's nationalized news and political environment local newspapers still have a substantial impact on voter information and knowledge (Peterson, 2019).

While the results demonstrate a statistically significant effect of *credible* endorsements on voter behavior, it should be noted that many endorsements are *not* credible in the first place, and hence most endorsements are not expected to make a notable difference. This is consistent with the estimated aggregate level results, which suggest that only a small set

of very close elections are altered by overall newspaper endorsement patterns. It is also consistent with earlier work in political science on the effects of media bias – which reasoned that most people select into media that shares their partisan preference, and that those who don't are less likely to care about politics or vote in the first place (Lazarsfeld et al., 1948; Erikson, 1976). However, this does not mean that the effects of media or endorsements do not matter. It simply reveals where scholars of media bias and politics ought to focus their attention: on credible (surprising) endorsements, that occur in close races. While newspapers have become less prominent, and while many have stopped making political endorsements,[18] there are still examples of credible endorsements in key races. For example, in the 2022 Senate and Governor races in Pennsylvania, the Pittsburg Post-Gazette – a conservative leaning newspaper – endorsed Mehmet Oz (R) in the Senate race but endorsed Josh Shapiro (D) in the Governor's race.[19] In a swing state election that was expected to be particularly close at the time, endorsements like this might not only change voter behavior but also determine election results in a way that improves the average quality of political representatives.

Another important finding of this study is that the candidate quality effect estimates here are consistent with the impact of quality differences in other studies, most notably the estimates in DeLuca (2023a). It should also be noted that even the estimated endorsement effect of 1.3 percentage points might be interpreted as an effect of candidate quality; while most of the candidate quality effect comes from elsewhere, at least some percentage of voters may cue in to local newspaper endorsements or local news coverage in order to form their perceptions of candidate quality. That is, relying on newspaper endorsements can be a rational strategy for voters to use to inform their assessments of candidate quality when deciding who to give their vote.[20]

Last, this study highlights an under-examined positive role of biased media in the elec-

[18]For example, newspapers owned by Alden Global Capital have a new policy of not making political endorsements: https://www.nytimes.com/2022/10/06/business/media/alden-newspaper-candidate-endorsements.html

[19]See: Oz Endorsement and Josh Shapiro Endorsement

[20]Druckman and Parkin (2005) finds a related result – that reading a newspaper friendly to a candidate increases reader vote propensity for that candidate through the channel of the "feelings thermometer" – i.e.,

toral process. Given that, by definition, the most credible endorsements must come from biased newspapers, the analysis suggests that biased news sources may be more effective at persuading voters with a shared bias to *not* support particularly bad candidates. For example, a strongly leaning conservative paper making a Democratic endorsement is actually *more* informative to voters about the difference in quality between the candidates, at least compared to a Democratic endorsement coming from a neutral or unbiased newspaper. That is, biased news may actually be better at informing voters of particularly bad candidates from their typically-preferred political party, because their endorsements will be more credible. These credible signals can help voters identify and reject bad candidates that they would have voted for with less information. This paired with the fact that in some cases, newspaper endorsements actually help the higher quality candidate win their election, demonstrates the positive role that local news plays in electoral selection and, more generally, in improving the quality of our political representation.

through affecting voter perceptions of the candidate.

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Appendix A Data Sources

Appendix A.I Newspaper Endorsements

The newspaper endorsement data has been a joint effort of manual data collection over a number of years, carried out by myself, Jim Snyder, Tyler Simko, David Beavers, and a handful of research assistants. Subsamples of the endorsements have been used in previous work – such as Ansolabehere et al. (2006) and Hirano and Snyder (2014). The main source of the set of newspaper endorsements come from `newspapers.com`; see DeLuca (2023b, Appendix A) for more details about the data collection process and sample characteristics.

Appendix A.II Newspaper Circulation Data

Newspaper circulation comes from two sources: 1) the newspaper circulation panel from Gentzkow et al. (2014b), and 2) county-level circulation data from the years 1982, 1993, and 2000, from the Audit Bureau of Circulation (ABC).

Because the Gentzkow et al. (2014b) data attribute all circulation of a newspaper to the main county of circulation, rather than to all individual counties where the paper may circulate, I approximate county-level circulation for all papers in all years using the following interpolation procedure. First, I use the ABC data to calculate the proportion of each newspaper's circulation that circulates across all counties (not just the main county). Then, for each year in the Gentzkow et al. (2014b) data, I allocate the total circulation in the main county to each county proportionally in accordance with the ABC data, using the closest year in the ABC data for each year in the Gentzkow et al. (2014b) data. Last, for years missing circulation data in the Gentzkow et al. (2014b) panel (the Gentzkow et al. (2014b) data is only observed every four years), I linearly interpolate the ABC-allocated county-level circulation data.

Appendix A.III Election Results

County-level election results for Governor and U.S. Senate elections were manually collected and generously provided to me by Jim Snyder. In the results, the data includes election results from the following states and years:

Table A1: Sample of Elections Used in Main Analysis

State	Office	Years	County-Years
Alabama	Governor	1982-2002	109
Alabama	Senator	1972, 1984-1990, 1996-2002	127
Arizona	Governor	1960-2002	102
Arizona	Senator	1962-1988, 1994, 1998-2000	91
California	Governor	1958-2002	211
California	Senator	1956-2000	259
Colorado	Governor	1956, 1994-2002	160
Colorado	Senator	1996-2002	151
Connecticut	Governor	1956, 1970, 1978, 1982-1990, 1998-2002	17
Connecticut	Senator	1956-1970, 1974-1998	29
Delaware	Governor	1960-1988	13
Delaware	Senator	1960, 1964, 1970, 1976-1978, 1988	8
Florida	Governor	1960, 1964-1966, 1970-2002	303
Florida	Senator	1962-1980, 1986-2000	331
Georgia	Governor	1998-2002	121
Georgia	Senator	1996-2002	198
Hawaii	Governor	1970, 1982, 1986, 1990	6
Hawaii	Senator	1970, 1982, 1986, 1990	9
Iowa	Governor	1962, 1970-1990, 1998-2002	361
Iowa	Senator	1962, 1974-1990, 1996-2002	347
Idaho	Governor	2002	16
Idaho	Senator	2002	16
Illinois	Governor	1956-2002	244
Illinois	Senator	1956-2002	288
Indiana	Governor	1956-2000	306
Indiana	Senator	1956, 1962-2000	378
Kansas	Governor	1964-1968, 1974-2002	310
Kansas	Senator	1968, 1974-1990, 1998, 2002	314

Kentucky	Senator	1968, 1972, 1992-2002	325
Massachusetts	Governor	1974, 1990-2002	34
Massachusetts	Senator	1966, 1990-2000	26
Maryland	Governor	1978, 1986-2002	46
Maryland	Senator	1974-1976, 1986-2000	71
Maine	Governor	1994-2002	24
Maine	Senator	1994-1996, 2002	36
Michigan	Governor	1958-1978, 1986-2002	266
Michigan	Senator	1958, 1970-1978, 1988, 1996-2002	265
Minnesota	Governor	1962, 1966, 1990-2002	77
Minnesota	Senator	1966, 1972, 1976, 1990-2002	240
Missouri	Governor	1960, 1964, 1972-2000	372
Missouri	Senator	1964, 1974-1986, 1992-2002	485
Montana	Governor	2000	15
Montana	Senator	2000, 2002	30
North Carolina	Governor	1960, 1968, 1972-2000	112
North Carolina	Senator	1962-1984, 1990-2002	140
North Dakota	Senator	1998, 2000	55
Nebraska	Governor	1978, 2002	46
Nebraska	Senator	1978, 1996, 2000, 2002	74
New Hampshire	Governor	1974	1
New Hampshire	Senator	1974	1
New Jersey	Senator	1960, 1964, 1972, 1976, 1984, 1988, 1996, 2000	19
New Mexico	Governor	1960-1962, 1966-2002	216
New Mexico	Senator	1976-1982, 1990, 1996, 2000-2002	217
Nevada	Governor	1994-1998, 2002	38
Nevada	Senator	1994, 1998	27
New York	Governor	1958-2002	156
New York	Senator	1956-2000	164
Ohio	Governor	1956-1958, 1962-2002	260
Ohio	Senator	1956-2000	248
Oklahoma	Governor	1962, 1974, 1998-2002	204
Oklahoma	Senator	1962, 1974, 1992-2002	281
Oregon	Governor	1958, 1990, 1998-2002	16
Oregon	Senator	1956, 1960, 1990-2002	29
Pennsylvania	Governor	1962-2002	105

Pennsylvania	Senator	1956, 1962-2000	122
South Carolina	Governor	1982-2002	140
South Carolina	Senator	1978-1980, 1986, 1998, 2002	133
Tennessee	Governor	1962, 1970, 1990-2002	122
Tennessee	Senator	1964, 1976, 1990-2002	235
Texas	Governor	1962-2002	487
Texas	Senator	1960-2002	596
Virginia	Senator	1972, 1978, 1984, 1988, 1996, 2000	175
Washington	Governor	1976, 1992-2000	58
Washington	Senator	1992-2000	62
Wisconsin	Governor	1962-2002	234
Wisconsin	Senator	1962-1992, 1998, 2000	203
West Virginia	Governor	1996, 2000	22
West Virginia	Senator	2000, 2002	20
All States	Governor	1956-2002	5,330
All States	Senator	1956-2002	6,911
Total	Both	1956-2002	12,241

Appendix B Robustness and Alternative Specifications

Appendix B.I Chiang and Knight (2011) Estimation

In this section, I use the credibility calculation from Chiang and Knight (2011) to assess the robustness of the main substantive results in the main text to alternative specifications used in past research. For a Democratic endorsement, the form of the credibility measurement from Chiang and Knight (2011) is:

$$\lambda_d(\beta_{n,y}) = \frac{\phi(\beta_{n,y})}{1 - \Phi(\beta_{n,y})} \tag{1}$$

Where $\lambda_d(\beta_{n,y})$ indicates credibility, given a newspaper's partisan slant in a particular year $\beta_{n,y}$. For a Republican endorsement, credibility takes the form:

$$\lambda_R(\beta_{n,y}) = \frac{\phi(\beta_{n,y})}{\Phi(\beta_{n,y})} \tag{2}$$

I take the partisan slant measures of each newspaper from DeLuca (2023b) and simply plug these in to the credibility equations above to calculate the Chiang and Knight (2011) version of credibility. This is in contrast to Chiang and Knight (2011), who do not have a pre-existing measure of newspaper partisan slant, and so assume that newspaper's editorial positions (which they call p_n) are determined exogenously by newspaper characteristics, which they then incorporate into a two-equation model to calculate credibility.

The correlation between the linear credibility measure from Equation 1 and Equation 2 is displayed in Figure B1. I replicated the main estimates of the effects of credible endorsements on vote shares in Table B1, and show that the effect sizes and qualitative pattern of results are essentially unchanged relative to the estimates report in Table 2 of the main text.

Figure B1: Linear vs. Chiang and Knight (2011) Credibility

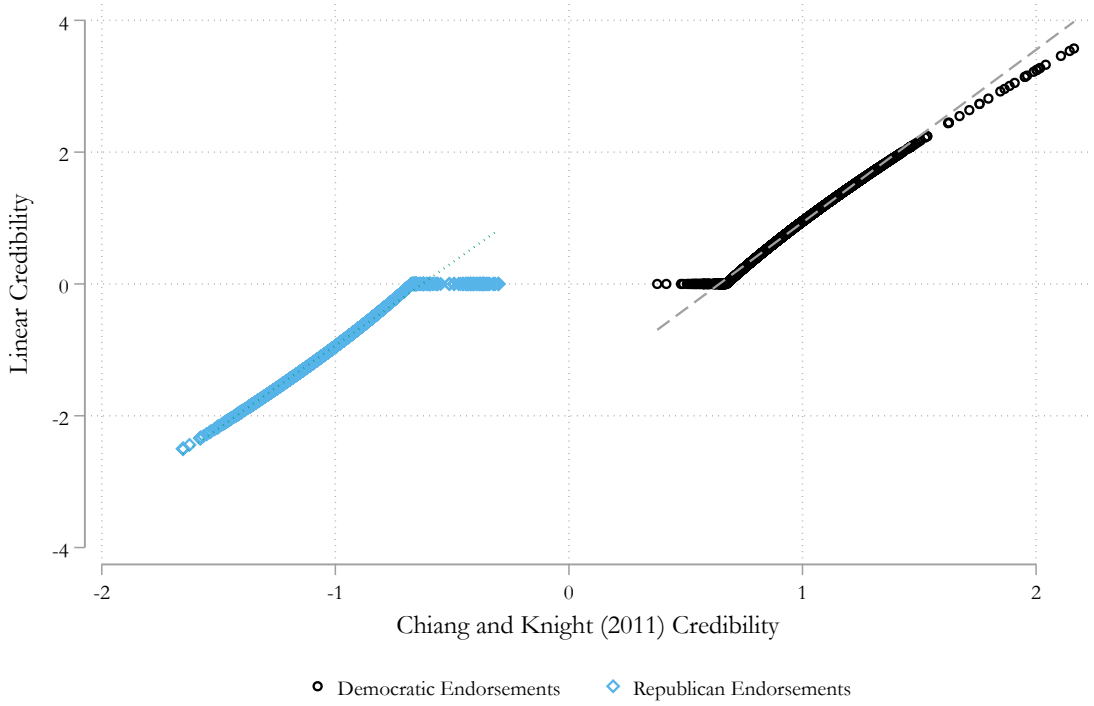

Table B1: Effects of Endorsements on County-Level Votes, Chiang and Knight (2011) Credibility

VARIABLES	(1) D Vote	(2) D Vote	(3) D Vote	(4) D Vote	(5) D Vote
Credibile Endorsement	0.067***	0.032***	0.014***	0.014***	0.014***
	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)
Quality Differential		0.048***	0.063***	0.039***	0.039***
		(0.002)	(0.002)	(0.002)	(0.002)
Local News Slant			0.024***	0.033***	
			(0.001)	(0.004)	
Incumbency				0.033***	0.031***
				(0.001)	(0.002)
Observations	12,811	12,811	12,811	12,634	6,776
Adjusted R-squared	0.191	0.232	0.248	0.655	0.679
Year FE	No	No	No	Yes	No
County FE	No	No	No	Yes	No
County-Year FE	No	No	No	No	Yes
Clustered SE	No	No	No	Yes	Yes
N Elections	641	641	641	639	336

Notes: The outcome variable is Democratic two-party vote shares at the county-level; Credible Endorsement is the county-level circulation- and credibility-weighted endorsement, using the credibility calculation in Chiang and Knight (2011); Quality Differential is the election-specific estimated quality differential between the two candidates in the race; Local News Slant is the county-level circulation-weighted average of newspaper slant; and Incumbency is coded as +1 for a Democratic incumbent, -1 for a Republican incumbent, and 0 for open seats. Standard errors are clustered at the county-level in columns 2-4, and at the county-year-level in column 5. $^{*} = p < 0.10$, $^{**} = p < 0.05$, $^{***} = p < 0.01$.