How Republicans and Incumbents Dominate Earned Media in Elections: Coverage and Effects of Local TV

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Abstract

Trump's surprise 2016 electoral victory in spite of a considerable lag in campaign advertising expenditures has renewed interest in the role that 'earned media' plays in campaigns and whether it affords Republicans an advantage. In this study, we leverage a novel, comprehensive data of broadcast television news coverage to answer a series of questions around the *coverage* and *impact* of news media. We first demonstrate that there are large advantages in television media attention both for incumbents and for Republicans, partly explained by the relative over-saturation of media markets in geographies typically represented by Democratic incumbents. Exploiting convenient geographic discontinuities in media markets, we causally identify and estimate the effects of media coverage leads (overall and of different types) and compare these to the effects of ads. We find that in many cases, but especially in House races, leads in news segment mentions over an opponent translate to slightly higher county-level vote shares (+2-3%) compared to equivalent leads in ad airings (+1-3%). These effects increase for leads closer to election day, in down-ballot elections, and for more affective and informative news coverage.*

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1 Introduction

In the Internet age, television news still matters for elections. Television networks have access to roughly 120 million households[1] in the United States, an audience of some of the most politically engaged members of the electorate who are most likely to participate in elections (Pew Research Center, 2021). Within the TV media ecosystem, local news alone has an aggregate viewership of more than 25 million viewers per night dwarfing the prime-time viewership of Fox News, the most popular cable network. Even as many Americans are moving away from these sources and increasingly consuming their political news online, they are still highly likely to encounter content from broadcast news organizations (e.g. ABC, CBS) that is originally aired on TV (Pew Research Center, 2020). Yet, we still lack a consensus understanding of the role that television media coverage plays in elections from a *candidate's* perspective – namely, which candidates (e.g. incumbents, Democrats, racial minorities) "earn" television media coverage and how it impacts their electoral fortunes in different contexts. Even less is known about the dynamics of local broadcast television, which is an egregious gap given its crucial informational role for the vast majority of (down-ballot) elections in America (Martin and McCrain, 2019).

This chapter leverages novel, comprehensive data of broadcast television news coverage to answer both descriptive questions of *candidate coverage* and causal questions of *vote impact*. Using transcripts of news programs televised from every broadcast station in every media market in America, we construct a dataset of media mentions for all candidates in Presidential, Senate, and House general elections from 2014 to 2020. Starting with coverage, we find that incumbency is the single biggest candidate-level attribute that drives mentions in broadcast TV airings, while electoral competition is the single biggest race-level driver of mentions. More surprisingly, we find a relatively robust Republican advantage in media attention across the three offices and four cycles. This can be partly explained by the surplus of Republican incumbents in less "saturated" media markets – that is, media markets with few overlapping states or Congressional districts and, thus, fewer candidates to cover. By harnessing a convenient geographic discontinuity in media markets, we are able to identify

[1]For comparison, at the time of writing, there are ≈70 million U.S. users on Twitter who over-represent younger adults, a cohort that is typically less engaged with politics.

a causal effect of broadcast media attention on county-level vote margins and compare it the causal effect of broadcast ad airings in the same units (number of airings). We find that a lead of 100 broadcast media airings in the two months before election night (well within a standard deviation of the leads in most media markets across races and offices) yields roughly 1–2% points in county-level vote margin, though in some races these effects can be much higher. These effects are highest when media coverage is given to experienced challengers in less competitive races and when this coverage focuses on substantive topics like policy-making or constituent service rather than candidate statements or campaign events.

This has implications for the literature on media coverage and media effects. The extant literature has mixed conclusions. One side argues that media effects are ever-increasing, pointing to the media's over-attention to Donald Trump's sensational 2016 campaign as proof of mainstream media's king-making ability (Azari, 2016). As Figure 6 shows, the 2016 Trump campaign had many more TV airings covering him than he did tv ads aired in the same media market. The other camp is the "minimal effects" camp which argues that the persuasion effects of media are relatively small, both at the individual (Bennett and Iyengar, 2008) and aggregate (Coppock, Hill, and Vavreck, 2020) levels. These minimal effects may even extend to incumbents, dampening one long-theorized incumbency advantage that office-holders enjoy (Mayhew, 1974): Ansolabehere, Snowberg, and Snyder Jr (2006) in particular exploit exogenous variation in broadcast media market coverage of candidates to show that incumbents' greater media gains have no detectable impacts on votes. The results of the present study sit somewhere in the middle – much like the effects of TV ads, we find that the effects of earned news coverage are comparably small. However, this study shows that these effects can often be *larger* than the effects of advertisements, suggesting that strategizing ways to gain media coverage may be just as worthwhile a campaign activity as optimizing ad dollars.

In the next section, we introduce the various datasets used in the study as well as the research designs need to infer causal effects of broadcast media coverage and compare them to the effects of ads in the same contexts. We then show what this data reveals about candidate coverage before moving onto a range of different causal estimates of the impacts of broadcast media on candidate votes.

2 Materials & Methods

2.1 Broadcast Media Dataset

To create a comprehensive dataset of candidate media mentions on broadcast television, we first collect closed-caption transcripts[2] of every broadcast airing from every station ($n = 2204$) in every designated media market ($n = 210$) in the United States from 2014–2020. From this database, we first subset to airings of news programs aired in each station, excluding entertainment, sports, and other types of media beyond the scope of this study. With each airing's transcript, we use text-matching to search for named mentions of each candidate in our data and identify the related news segment within the airing by isolating the 200 characters before and 200 characters after the naming. While this modest threshold yields a relatively small number of words, it also ensures that we do not accidentally include unrelated content from other segments. Crucially, we make sure to purge any ads from the dataset by excluding any segments that are annotated with "narrator", "voiceover", or involve the introduction of a candidate (e.g. "I'm Jane Doe") or the endorsement messages "I approve this message" and "paid for" (which are mandated by the 'Stand By Your Ad' rule of the Bipartisan Campaign Reform Act).

The primary unit of analysis in this study is an individual *airing* which is a discrete unit of programming content occupying a unique time-slot at a particular station. Intuitively, this is appealing because these correspond to unique media exposures of candidates by voters. However, given that this includes *re*-airings of the same newsreels which may be of diminishing importance, We replicate all our analyses at the unit of unique programs about candidates as well as estimated impressions (total views) per airing about a candidate. We find little different when doing so, as all of these measures of media coverage are tightly correlated.

Beyond a uni-dimensional measure of the amount of coverage for each candidate, we develop several substantive measures to characterize the type of candidate coverage in each airing. To measure *tone*, we use the Lexicoder Sentiment Dictionary of positive and negative

[2]Data was sourced from the broadcast media monitoring vendor TVEyes. We thank members of the Computational Social Science Lab for providing access and optimizing our data collection.

tonal keywords developed by Young and Soroka (2012) supplemented with additional keywords specific to campaign speech using the Wesleyan Media Project definitions of tone in campaign advertising. After careful qualitative reading of a large sample of transcripts, we additionally created a dictionary for a number of different (overlapping) categories of coverage. The first set attempts to capture segments about well-known campaign phenomenon that are theorized to impact voter attitudes: *interviews*, *town halls*, *debates*, *scandals*, and *campaign events*. We developed another set of keywords for a number of subjective phenomenon also observed and studied in electoral: candidate *position-taking*, official candidate *statements*, *policy-making* activities in Washington, and *constituent service* in localities covered by the station. Finally, we look for instances of *horse race coverage*, a vocabulary for elections that mirrors the coverage of competitive sporting events which is increasingly common and may have potential consequences on voter mobilization (Westwood, Messing, and Lelkes, 2020). Each keyword set was created using the method developed by King, Lam, and Roberts (2017) which involves refining a keyword dictionary for a textual concept by iteratively selection and removal using phrases associated and not associated the keyword set.

An attractive feature of this media market (DMA) level data is that counties are perfectly organized along media market boundaries and each receive the same local broadcast programming, but states and Congressional districts span across media market boundaries. As I'll explain in the next section, this feature can be exploited for a more rigorous causal inference of media effects on election outcomes. To proceed in this direction, we crosswalk each media market to its set of constituent counties as well as each of its overlapping House districts and states following the codebook of Sides, Vavreck, and Warshaw (2022). We then merge this transcript-level data with county-level vote counts of every candidate in every general election contest in the House, Senate, and Presidency between 2014 and 2020 from `OurCampaigns.com` and combine it with the rest of the candidate-level data.

Finally, we merge this data with measures of ad airings in each media market using advertising data obtained under license from the Wesleyan Media Project and the Wisconsin Advertising Project (Fowler, Franz, and Ridout, 2016). This enables clean comparisons between the effects of paid and earned media holding as many other observable attributes

Table 1: **Summary of Earned Broadcast Media**

	House	**Senate**	**President**
Cycles	2014, 2016 2018, 2020	2014, 2016 2018, 2020	2016 2020
Candidates	1,214	227	3
Competitive Races	241	53	21 (states)
Total Unique Observations (Last Two Months):			
Media Markets	209	209	209
News Programs	16,081	18,648	28,330
News Airings	841,669	1,138,784	3,287,131
Ad Airings	1,701,568	947,151	263,443
Voting Counties	3,075	3,107	3,114
Border Voting Counties	1,988	2,006	2,007
Mean Per Candidate (Last Two Months):			
Media Markets	≈2	≈7	206
News Programs	105	1,117	212,350
News Airings	113	1,231	236,862
Ad Airings	2,193	5,176	131,154
Impressions Per News Airing	329,267	686,173	2,771,000
Voting Counties	≈9	≈66	3,023
Border Voting Counties	≈7	≈44	1,962

fixed at the level of exposure. For this study, we use only ads aired and paid for by each candidate's campaign rather than outside groups which still (despite the advantages afford to outside groups' ad spending by the *Citizens United* ruling) comprise of the majority of ads aired in House, Senate, and Presidential race in the period of study.

Table 1 summaries the scale and scope of the resulting dataset. Immediately, it is worth pointing out that news airings (aggregate *earned media*) is of a much lower volume than ad airings (aggregate *paid media*). For instance, in the last two months of the election, the average House candidate receives about 10% of the total number of news airings she will pay for. Importantly, this gap narrows for further up-ballot races – the news-to-ads ratio is about 1 to 5 for Senate candidates and reverse to about 3 to 1 for Presidential candidates. Simply put, earned media is in scarcer supply in an election the further down-ballot the office is. Figure 6 may then be an exceptional portfolio of campaign media.

2.2 Causal Research Design

To estimate the causal effects of television earned media on election outcomes – as well as benchmark these to known effects of television paid media – we rely on two parallel research designs following closely from Sides, Vavreck, and Warshaw (2022).

The first design includes all counties for which vote-share data is available and that could be matched to a media market where a candidate received any coverage. We include either county fixed effects to account for time-invariant confounders in each county or, in supplementary analyses, a lagged outcome variable instead of county fixed effects. These account for the overall partisan leaning of each county. We also include state-year fixed effects to control for time-varying confounders at the state and national levels. The state-year fixed effects account for potential swings in the political preferences of states like Ohio and Arizona across election years as well as race-specific dynamics in each state, such as the strength of the candidates and varying incumbency advantages. For races in Congressional districts, district-year fixed effects are used account for the strength of the candidates in each race. Thus, this research design is able to isolate the effects of both news media attention and advertising from other aspects of candidates quality and spending at the lowest possible level.

The second research design only includes counties in the same constituency (Congressional district for House races, state for Senate races) that are adjacent to one another but on different sides of the border of a media market. This allows us to examine plausibly exogenous variations in media attention and ad volume for a pair of otherwise highly demographically similar counties. This accounts for the possibility of unobserved time-varying confounders at the media market or county levels. In particular, campaigns could be strategically ad spending or soliciting media interviews in areas of a state where they expect to do well by using internal polls or newsroom contacts that are unobservable by researchers. This strategy follows closely from a robust literature using geographic discontinuities to isolate the effects of broadcast ads (Ansolabehere, Snowberg, and Snyder Jr, 2006; Huber and Arceneaux, 2007; Spenkuch and Toniatti, 2018; Sides, Vavreck, and Warshaw, 2022) that also document how border counties achieve balance on many characteristics of counties that

could also affect election outcomes.

Figure 7 illustrates how the second design would be operationalized in races occurring in the New England area. By excluding core urban constituencies, we are able to closely pair counties that are both demographically and politically similar. We operationalize this by matching each county in a state with every other adjacent county that lies on the other side of a media market boundary. In this design, county fixed effects are used to account for time-invariant confounders in each county as well as year-specific fixed effects for each pair of border counties to account for any year-specific unobserved confounders in each border-pair of counties. In a series of regressions, we further test the assumption that there are no time-varying confounders by examining whether future values of television news mentions appear to have a significant effect on current outcomes. For both designs, we find little evidence of this spurious effect.

Indeed the second border county design is more rigorous than the all counties design in that there are fewer possible confounders unaccounted for in the sample and estimation. However, this design relies on a much smaller set of counties and could have less external validity – thus we present estimates from both designs throughout the analysis.

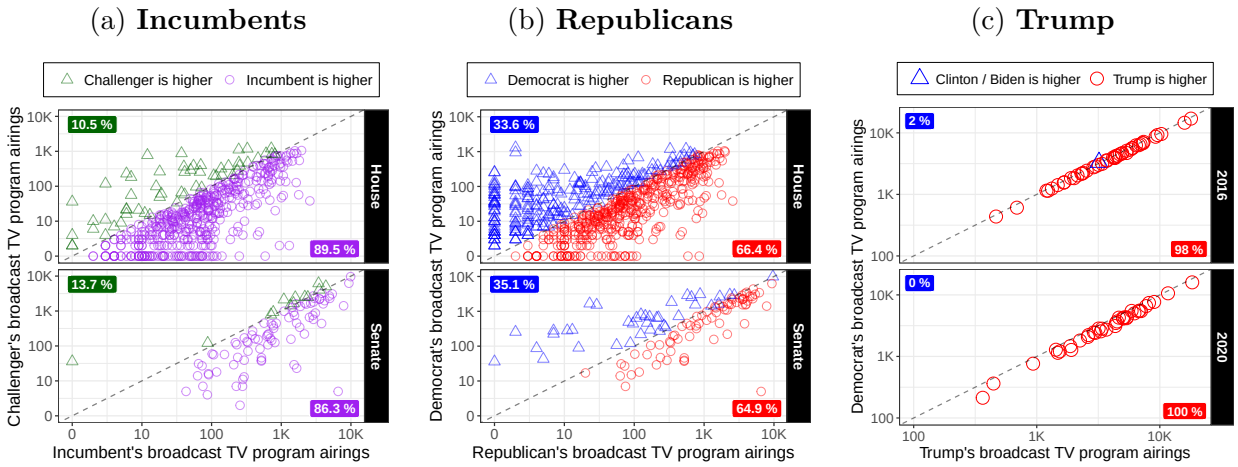
3 Results

I first present a series of findings describing who receives what kinds of coverage in broadcast television. Following this, we present a range of estimates of the effects of this coverage on election outcomes.

3.1 Media Coverage

I begin by establishing a few different advantages in earned media – in other words, identifying who receives the most earned media in our sample. Figure **??** points to the type of candidate that perhaps hogs the most media attention: incumbents. On the left side of Figure **??** we see that incumbents in the House and Senate receive, in the last two months prior to election day, 1.25–1.5 times the number of aggregate segment mentions relative to challengers as a whole. Examining the exact margins within each race, we see that that in

Figure 1: **Within-Race Advantages in Earned Media**



Notes: (a) The unit of analysis is a House or Senate race and the two labels in each subplot summarise the percentage of races where the incumbent and challenger receive more mentions, respectively; the average within-race incumbent margin is 260 airings in the House and 670 airings in the Senate. (b) The average within-race Republican margin is 78 airings in the House and 413 airings in the Senate. (c) The unit of analysis is a state-level contest in each Presidential year; Trump's average state-level margin was 306 airings in 2016 and 941 airings in 2020.

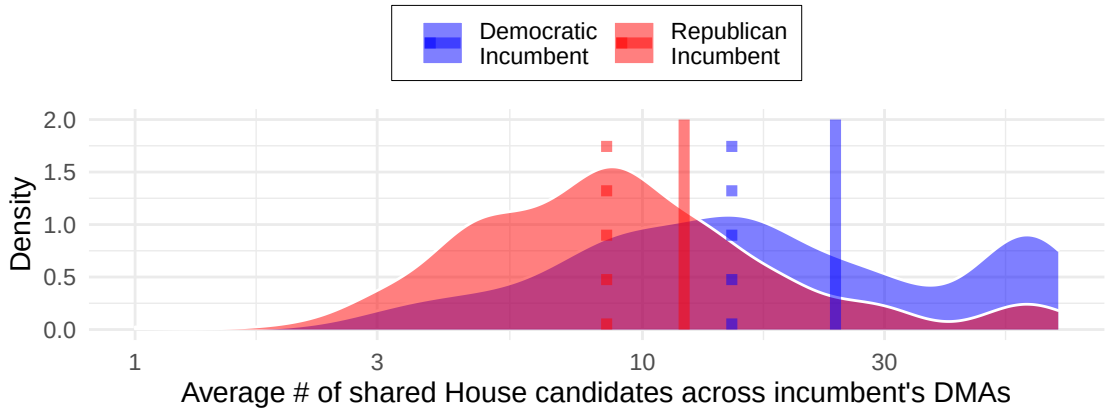
the vast majority of contests – nearly 90% – the incumbent receives more coverage than her challenger. As Appendix Figure **??** shows, this inference is not dependent on the choice of unit: the same trend holds for impressions.

Figure **??** reveals a similarly sizeable advantage for Congressional Republicans across the board in our sample both across and within races. The average Republican House candidate receives nearly 300 total mentions on the airwaves while the average Democrat candidate receives a little less than 100. This gap is narrower in the Senate, still Republicans receive more air time than Democrats (nearly 70% of the time).

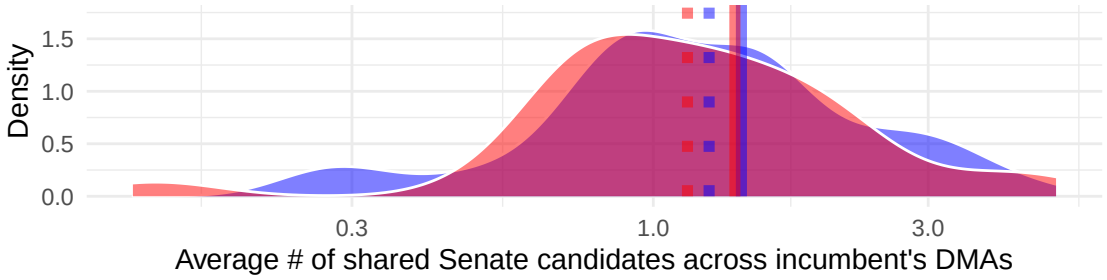
What explains these gaps? Moreover, why is there a bigger gap in the House than in the Senate? One explanation is offered by Figure 2: in the media markets that offer coverage to their constituents, Republican House incumbents face less competition from electoral candidates in *other* districts sharing the same media markets. On the other hand, Democratic House incumbents more often tend to represent urban districts that coincide with "denser" media markets overlapping many other districts and, thus, with a larger supply of candidates to focus on during election season. The New York media market illustrated in

Figure 2: **Republican Incumbents Have Access to Less Saturated Media Markets**

(a) **House Incumbents**



(b) **Senate Incumbents**



Notes: These two plots measure the degree of media market "saturation" for Republican and Democratic incumbents across the four elections (2014–2020) in our cycle. Counts of shared candidates do not include the incumbent themselves.

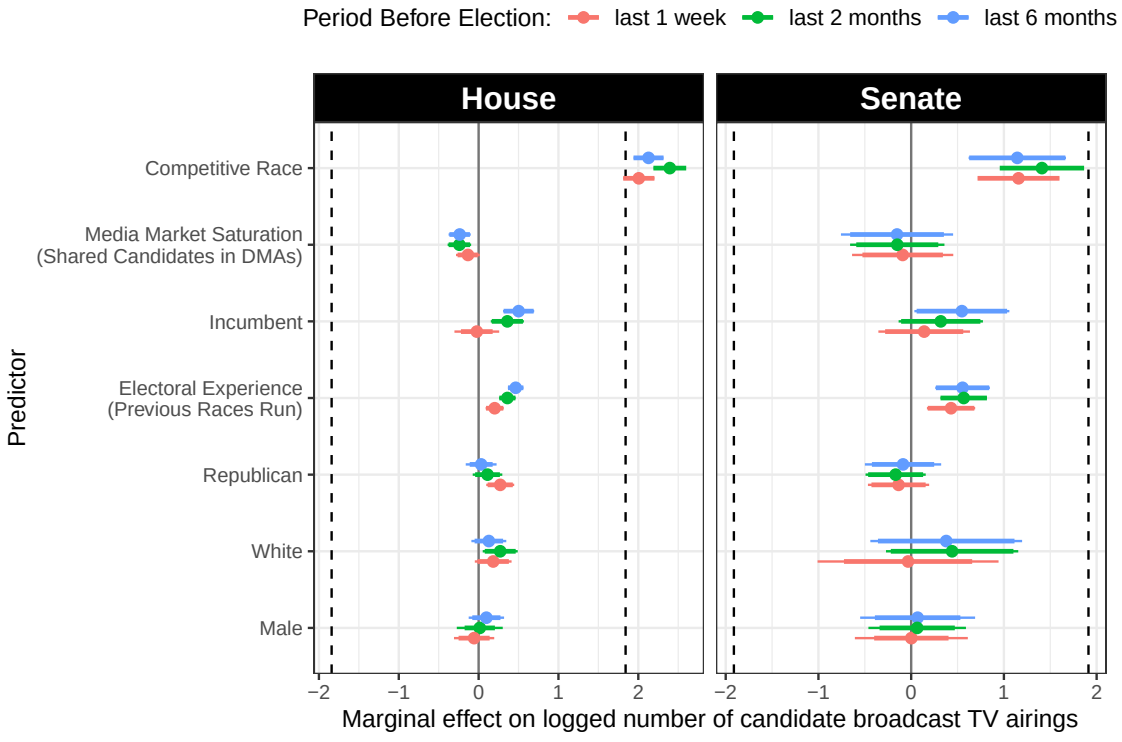
Figure 7 provides a good example of this phenomeon of *saturation*:[3] there are more than 30 Congressional districts across the four states of Connecticut, New Jersey, Pennsylvania, and New York itself that spill over into this media market and are almost entirely held by Democratic representatives. Compare this to the Syracuse media market that coincides with only three House districts, all of which are seated by Republicans. This saturation is less egregious at the state level reflected in the relatively smaller gap in competition for Senate incumbents as Figure 2 shows.

Turning to the two major Presidential contests in our period, broadcast media mentions reveal that – in accordance with the established narrative – Donald Trump did enjoy a clear earned media margin over his opponents in both 2016 and 2020. Though this margin was not massive, Figure 8 reveals that in precisely zero states did Joe Biden receive more broadcast

[3]Also referred to as fragmentation; see Ansolabehere, Snowberg, and Snyder Jr (2006).

news mentions than Trump. This may perhaps be the culmination of both a Republican and incumbency advantage, although other candidate-specific features – Trump's 'supply' of sensational and scandalizing actions as a candidate and incumbent president – and the effects of the policy environment – COVID-19, the George Floyd protests – cannot be identified nor ruled out.

Figure 3: **Predictors of Candidate Earned Media**



Notes: Counts of broadcast TV airings are taken in their total in the last two months leading up to election day and are logged to account for their skewed distribution. The thicker lines correspond to a 95% confidence interval for each coefficient estimate with HC0 robust standard errors. The thinner confidence intervals reflect BHq corrections applied to the estimates to account for multiple testing. Equivalent for presidential candidates are omitted due to the sparsity of general election candidates in our sample (only 3 during the period of study). Dashed lines indicate ± 1 standard deviation in the distribution of logged counts.

Although the aforementioned descriptive plots are informative, it is unclear how much media advantage is owed to Republican party status alone versus incumbency status or a favorable media market terrain. To disentangle these effects, we estimate a model of aggregate candidate earned media based on candidate and race-specific attributes (only abundantly available for Congressional candidates). The result is shown in Figure 3. We can see that incumbency and party status matter at similar (small) magnitudes for House candidates while incumbency appears to be more predictive of Senate candidates' media

earnings. Two other characteristics in particular predict greater coverage, although also in small magnitudes: how competitive the race is rated and the candidate's electoral history (or number of previous races run). Racial minorities experience a small, barely detectable penalty in airings, however in competitive races black candidates tend to receive slightly more airings (Figure **??**). Figure 3 also concretely demonstrates the penalty experienced by House candidates due to media saturation as it is the most significant and largest in negative predictor of media mentions. By far, though, the single factor that explains the most variation in media coverage is the competitiveness of the race itself.

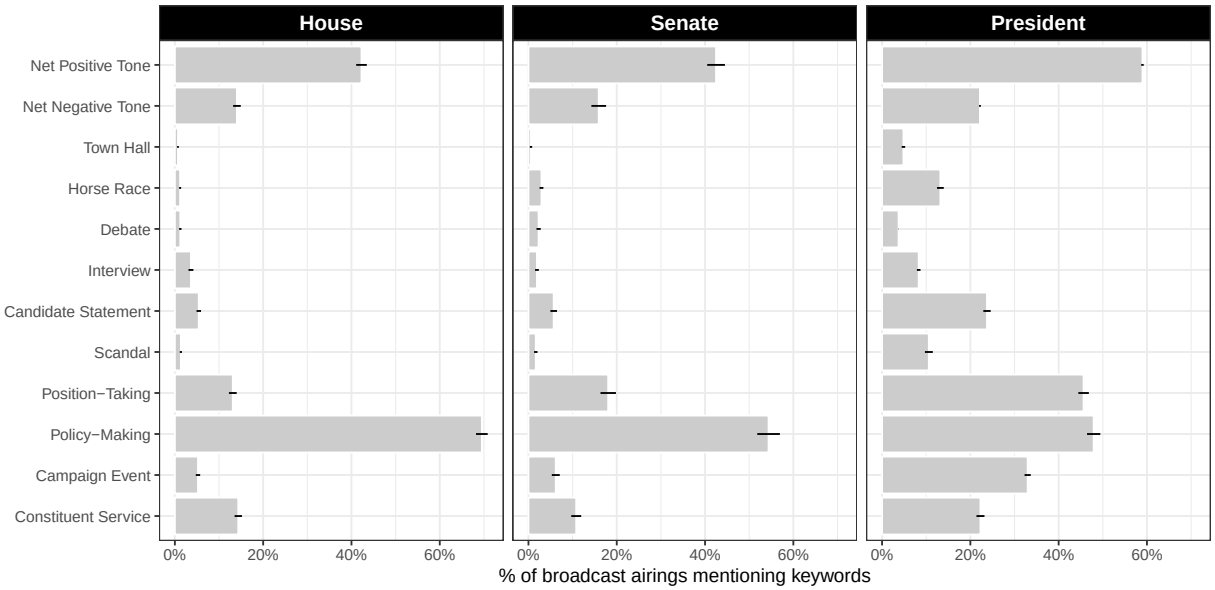
Finally, Figure 4 illuminates how often different types of coverage is received at a baseline across offices. Surprisingly, although negativity is a prominent feature in the modern news environment (Soroka and McAdams, 2015), local broadcast news tends to be net positive in its tone more often than not (40–60% of all airings) rather than net negative (only 10–20%). Policy-making appears to be a dominant theme in coverage particularly for House candidates; Presidential coverage tends to receive more categorical types of coverage altogether, however the least of which is dedicated to policy-making activities.

In the Appendix, Figure **??** shows the types of language associated with coverage of Democrat and Republican candidates respectively. Language in media coverage tends to relate to party-owned issues Egan, 2013 – coverage of Democrats coincides with mentions of health care policy while coverage of Republicans coincides with attention to illegal immigration and crime.

3.2 Media Effects

To benchmark all our estimates, we estimate the causal effects of an advantage in TV news airings on vote impact at the county-level jointly with the causal effects of an advantage in

Figure 4: **Categories of Media Coverage by Office**



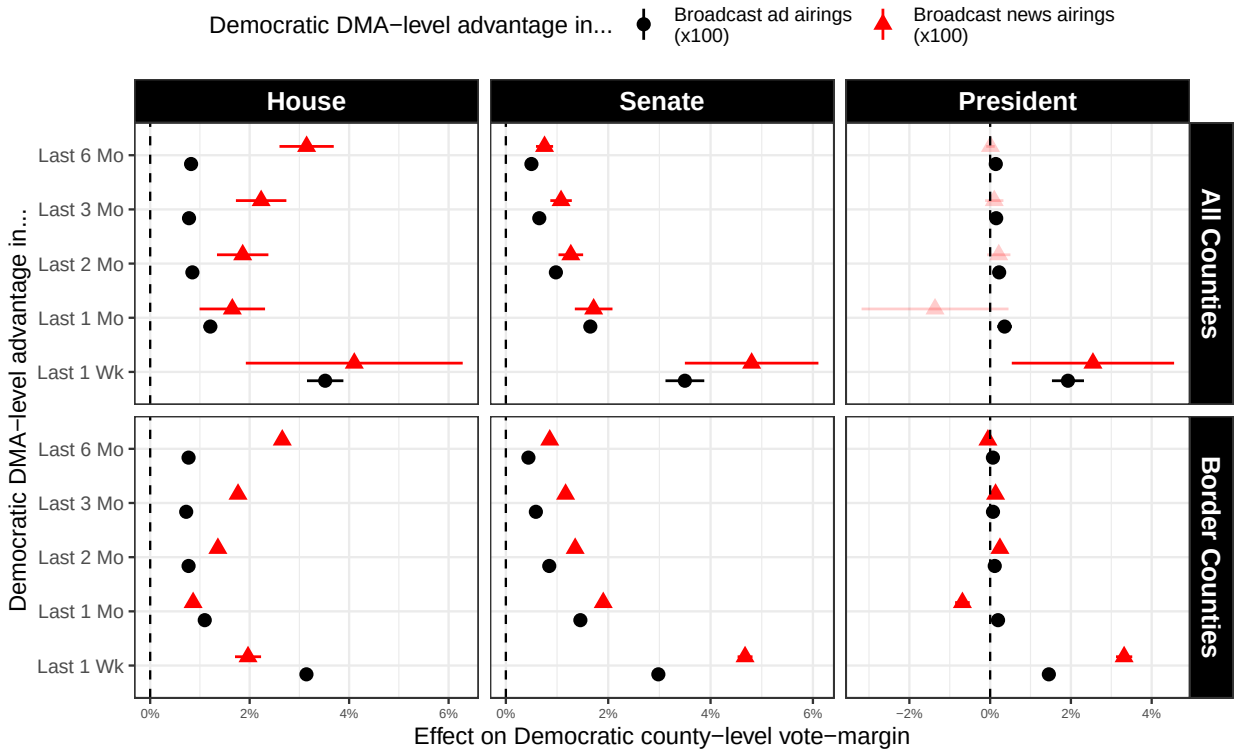
Notes: Categories shown here are neither exhaustive nor mutually exclusive. Categories coded using a keyword dictionary discovered via the iterative method of King, Lam, and Roberts (2017) and hand-validated.

broadcast TV ad airings.[4] We present the results both for all counties (for the purposes of external validity) and just the border counties (for which our causal effect is estimated with arguably with fewer unobservable confounding).

Figure 9 reveals that across a variety of regression specifications, a two-month margin of 100 news airings over her opponent gains a democrat anywhere between 0.1-1.6% points in county-level vote margin (or 0.2-3.0% in vote-share) with the exception of some estimates for Presidential returns which are negative. For context, the standard deviation in airings advantage is 103 for House candidates, 281 for Senate candidates, and 298 for Presidential candidates. Thus, the candidates in the universe of our elections are well able to reap a few electoral points at the county level. Moreover, as the comparisons to the same number

[4]The two types of media are moderately to highly correlated at the media market and candidate levels which may artificially raise the variances of their estimated causal effects depending on how multicollinear the two variables are. This correlation may arise from candidates seeking interviews in media markets with high ad spend as an added boost on their investment. Conversely, stations in media markets with greater ad spend from a candidate may choose to cover the candidate further in their newsrooms. Finally, it may be the case that there are other correlates of both variables – for example, urbanicity or density. The latter sets of county-level factors are not a threat to inference due to the fixed effects in our regression specifications. Morever, although ads and news airings are correlated, an analysis of the VIF (Variance Inflation Factor) suggests that the variance inflation from collinearity is limited (VIF $\approx$ 1).

Figure 5: **Early vs. Late Effects of Earned Media Advantage on Vote Margin**



Notes: Counts of broadcast media advantage are taken in the last two months of each race. 95% confidence intervals are shown with HC0 robust standard errors. The effects of ads and news airing are jointly estimated in the same model. Fixed effects for year and county are also included in these regression specifications.

of ads shows – news mentions tend to pay off more than ad airings, particularly for House candidates.

Figure 5 considers how these effects change for advantages over different windows of time - between 6 months to 1 week before election night. Fairly consistently, the pay-off for both sets of media is gained closer to election day rather than further, consistent with past studies (Sides, Vavreck, and Warshaw, 2022). The one exception is the House where early leads pay off relatively equally or better than late leads in media attention – an explanation for this may be that a much larger share of challenged House seats are uncompetitive ($\approx$ 20% in our sample) compared to Senate race ($\approx$ 40%) where there is little *to be* gained from media attention due to relatively sparse campaign activity or sporadic bursts in coverage following the primary and right before election night and inattention in-between. Figure **??** shows that this dynamic of late and early gains disappears entirely in the context of competitive

House races.

Figure 11 disaggregates the main effects further and shows how they vary by incumbency, electoral experience, and race competition. A striking result here is that the largest gains to be had from earned media are in non-competitive races – up to a whopping 15%. Note from our earlier results that non-competitive races are precisely those that are less likely to receive earned media to begin with – the average House candidate in an un-competitive district election receives about 50 airings in the last two months before election.

Finally, Figure 11 shows how these effects, pooled across all offices, vary by the type of coverage. The effect of Democrat's media margin at different percentages of airings in each category is first estimated as a linear interaction effect (shown in grey in slope form); the estimates in red are the same effects binned at terciles of media coverage in each category (due to the relative sparsity of town hall and debate mentions, they are excluded from plot). Somewhat counterintuitively, the effects of earned media increase the most when paired with coverage of policy-making, scandal, and constituent service. They also appear to somewhat increase with slightly more affective tone, either positive or negative. One interpretation of this is that these types of coverage – of campaign or candidate 'actions' – are more informative of a candidate's abilities as a representative than coverage of candidates' interviews, released statements, or campaign events.

4 Conclusion

In this study we have demonstrated who gets covered more by the media – candidates in competitive races, incumbents, experienced candidates, candidates in less saturated media markets, and whites (in roughly that order of ranking) – and how this impacts votes – all in all, in a fairly small way but most strongly towards the last weeks of a down-ballot race in an uphill competition where coverage is focused on candidate activities rather than candidate attributes. In other words, those who receive the most coverage are not often those who reap most of its purported benefits.

This chapter contributes to a number of important literatures around elections. First, this paper offers important nuance to a literature arguing that campaigns typically have

minimal effects on voters (Kalla and Broockman, 2018; Sides, Vavreck, and Warshaw, 2022; Coppock, Hill, and Vavreck, 2020). While we have shown here that earned media in broadcast television news also offers small yields, they can be more effective than ads, particularly in House races in the last months or weeks. Even in Presidential races the advantage of a 100 airing lead jumps from nearly 0% to nearly 4% in the county level when comparing the lead 2 months out vs. 1 week out.

This study also advances our understanding of an underappreciated aspect of geography in elections: the somewhat incidental alignments of media markets with particular Congressional constituencies is a small, but meaningful source of advantage for the accumulation of media attention. Importantly, this advantage asymmetrically favors Republicans, as increasingly many other features of the mainstream media environment do (DellaVigna and Kaplan, 2007; Martin and Yurukoglu, 2017). Finally, this paper fits into a literature on the candidate "pipeline" – from selection to election – by demonstrating how particular traits predict more or less media attention. Unlike previous studies (Ansolabehere, Snowberg, and Snyder Jr, 2006), this study takes the position that Mayhew (1974)'s incumbency advantage is alive and well and can operate through the media, if somewhat minimally.

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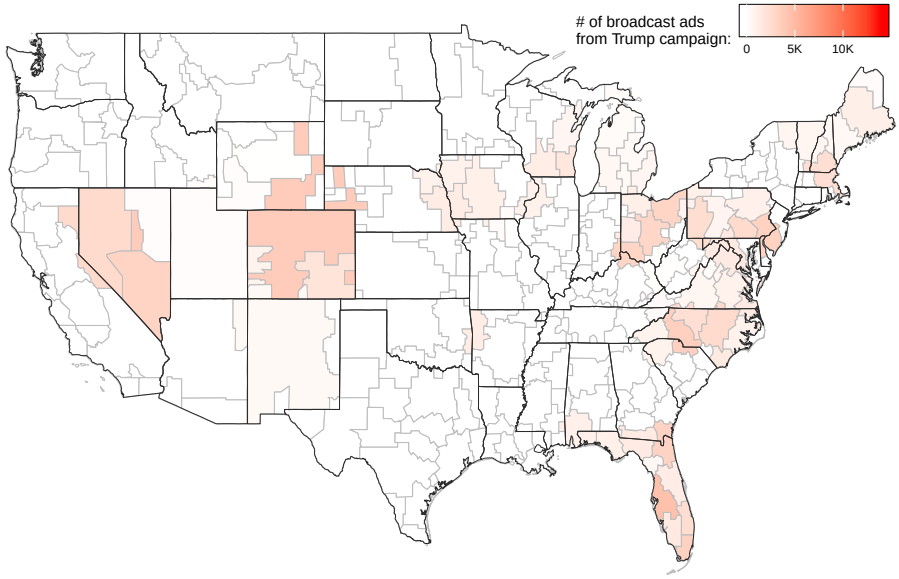
How Republicans and Incumbents Dominate Earned Media in Elections: Coverage and Effects of Local TV

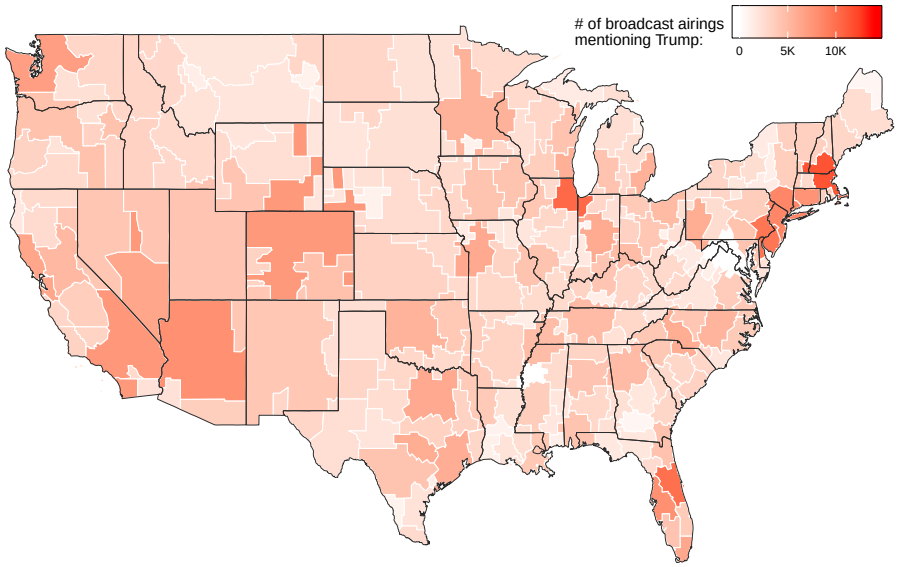
Appendix

Figure 6: **Earned vs. Paid Media for Donald Trump in 2016 General Election**

(a) **Paid Broadcast Media for Trump**

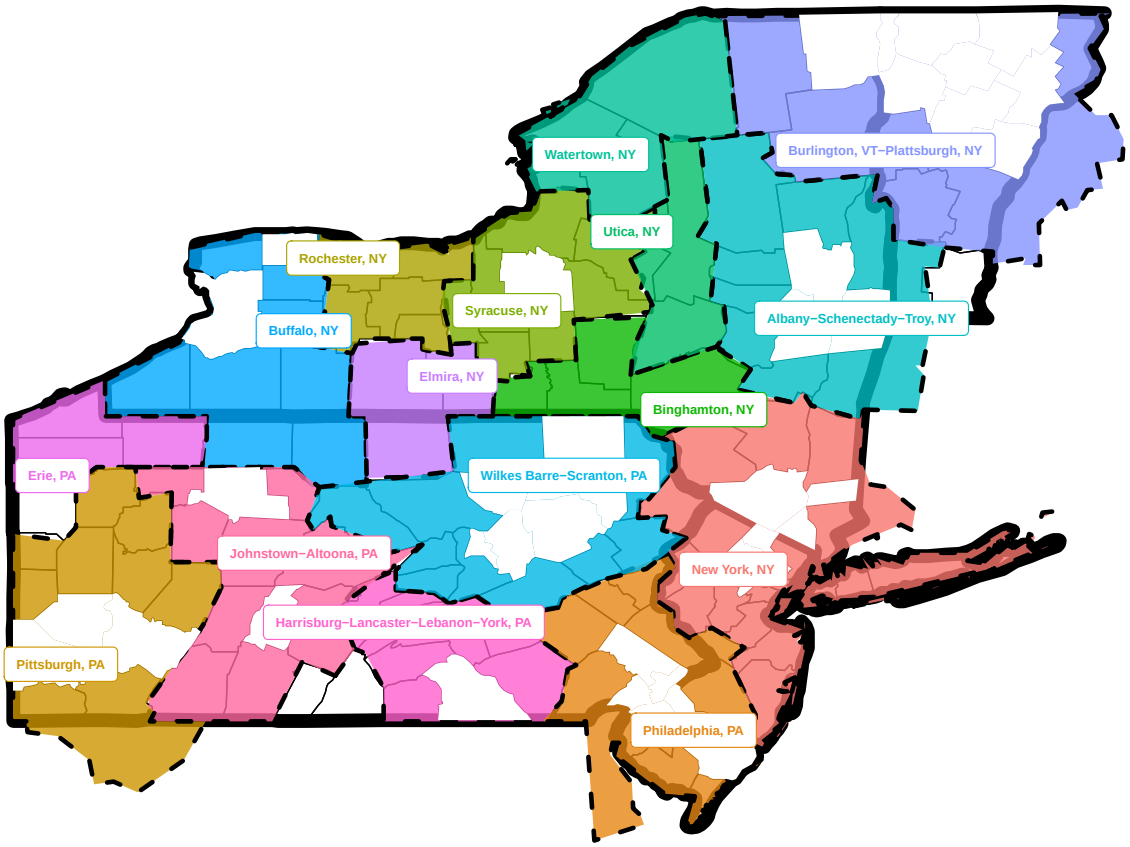


(b) **Earned Broadcast Media for Trump**



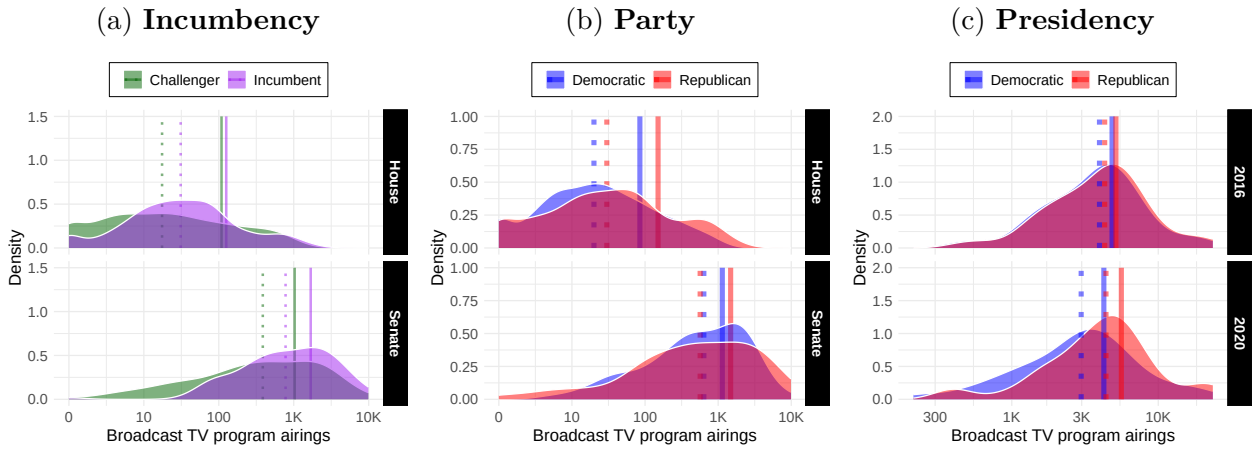
Notes: Data for (a) paid media map from Wesleyan Media Project counts of broadcast ad airings; for (b) earned media map from TV Eyes broadcast TV transcripts.

Figure 7: **Examples of Border Counties Within Media Markets**



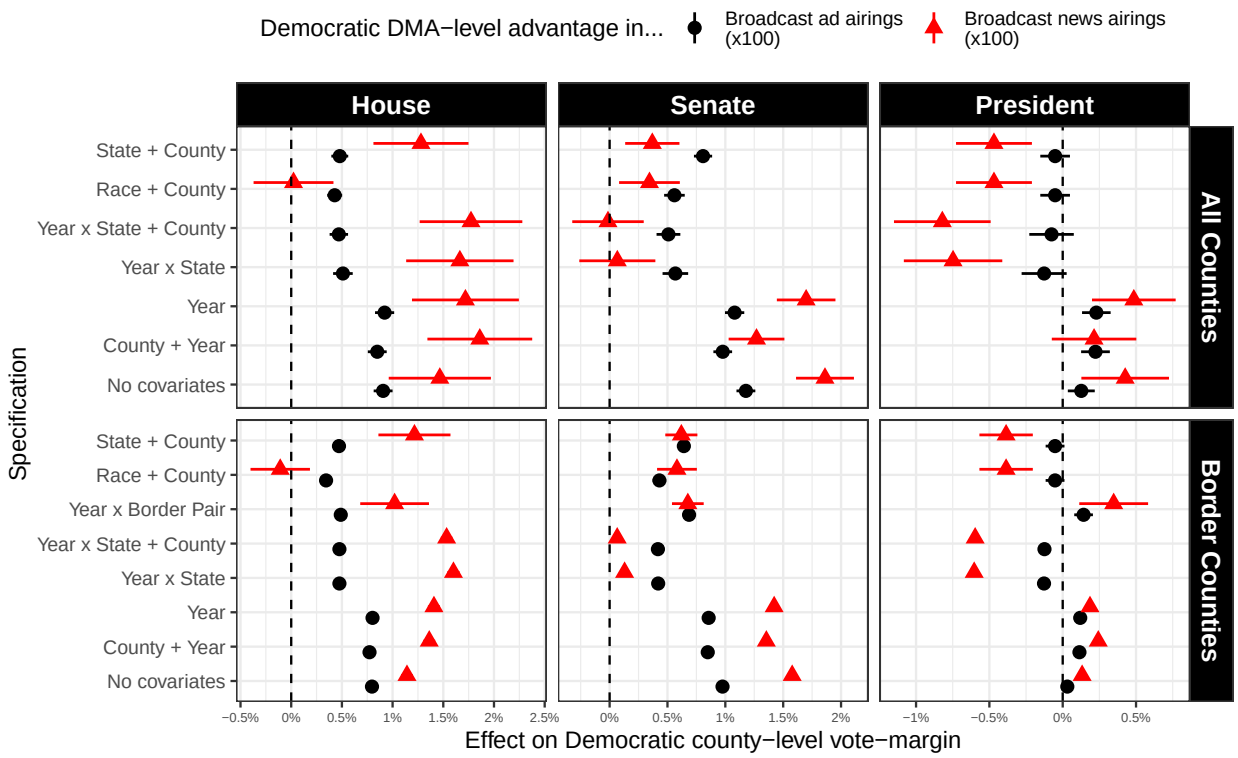
Notes: Dark lines indicate state boundaries. Dashed lines indicate boundaries between media markets. The counties shown are those included in the border county sample and are colored according to the media market they belong to.

Figure 8: **Total Earned Media Across Races Per Candidate**



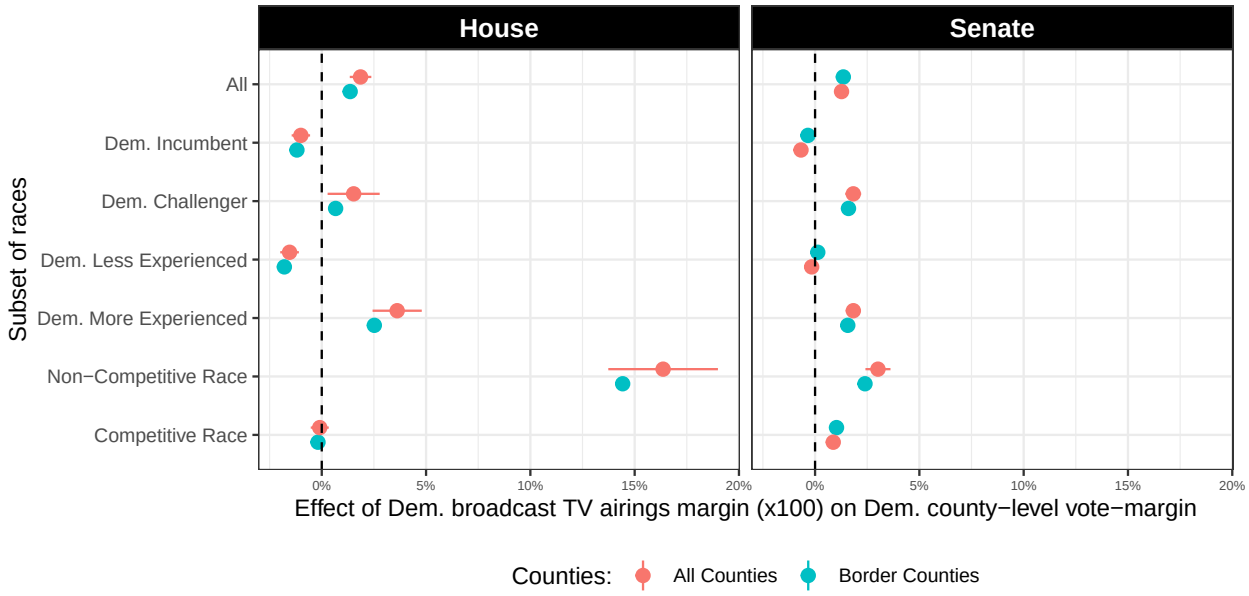
Notes: (a–b) The unit of analysis is the broadcast television airings mentioning an individual House or Senate candidate in the last two months of the race; solid lines display the means, while dotted lines display the medians; (c) The unit of analysis is the broadcast television airings mentioning each Presidential candidate *in the last two months of a state-level race*.

Figure 9: **Effects of Earned Media Advantage on County-Level Vote Margin**



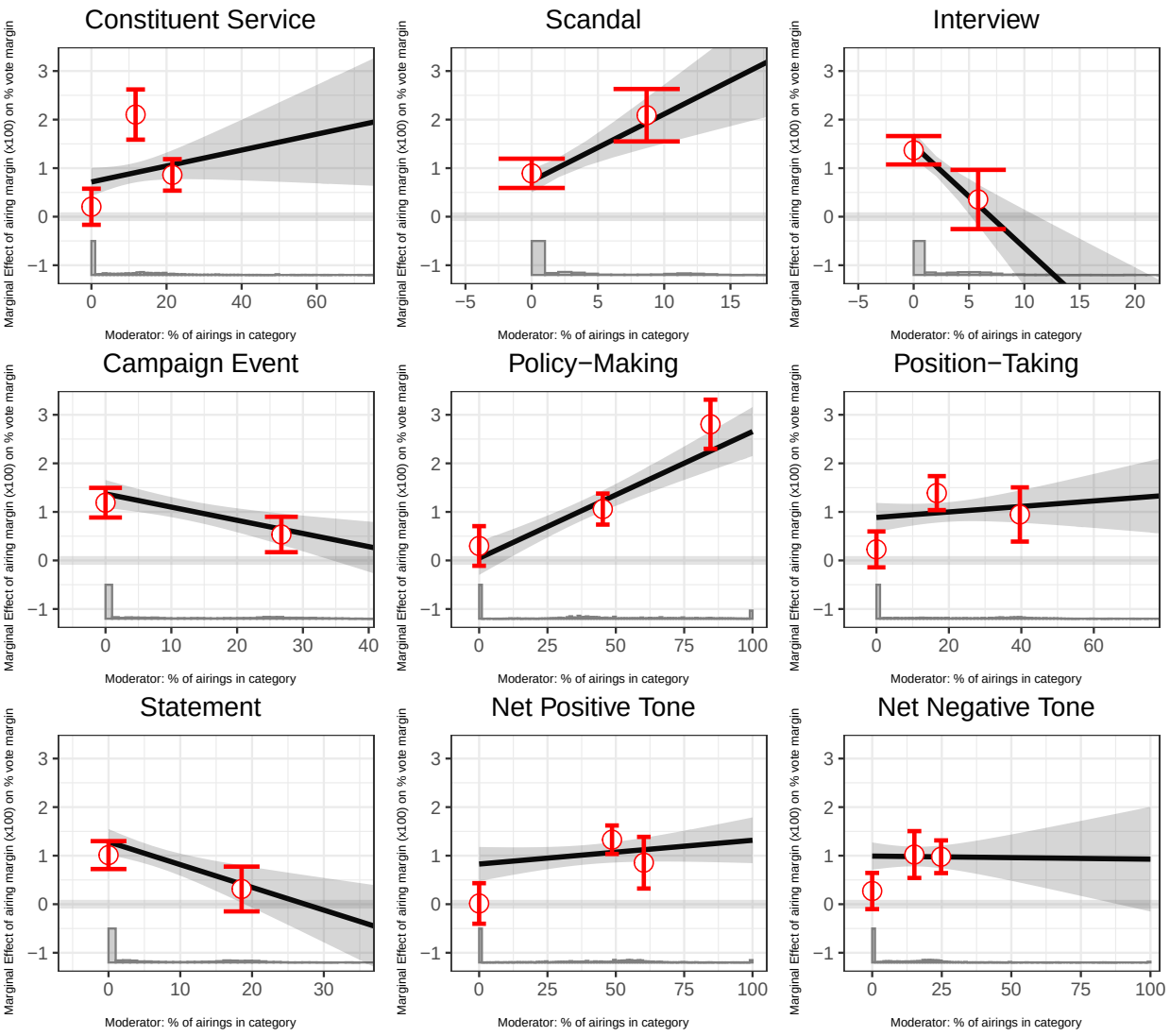
Notes: Counts of broadcast media advantage are taken in the last two months of each race. 95% confidence intervals are shown with HC0 robust standard errors. The effects of ads and news airing are jointly estimated in the same model.

Figure 10: **Heterogeneous Effects of Earned Media Advantage on Vote Margin**



Notes: Counts of broadcast media advantage are taken in the last two months of each race. 95% confidence intervals are shown with HC0 robust standard errors. The effects of ads and news airing are jointly estimated in the same model. Fixed effects for year and county are also included in these regression specifications.

Figure 11: **Stylistic Moderators of Earned Media Advantage on Vote Margin**



Notes: Only border counties are used in the estimates produced here. Counts of broadcast media advantage are taken in the last two months of each race. 95% confidence intervals are shown with HC0 robust standard errors. For each set of estimates, additional fixed effects for year and county are included as well as a control for the amount of TV ads aired in each county, although results are substantively similar with other specifications.