Media Consolidation[*†]

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Abstract

Recent decades have seen major changes to the local media environment in the United States, with the absorption of many formerly independent local TV stations into conglomerates. Using a comprehensive dataset of acquisitions, we examine the effects of ownership by the three largest television conglomerates on local news advertising, content, and viewership. Conglomerate owners consistently increase advertising duration during local newscasts. We also find large effects on stations' coverage of local events and local politics, but the direction of these effects varies across owners. In spite of these changes, viewer responses are minimal. We conclude by investigating downstream consequences on viewers' political knowledge.

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Media markets, like many other markets,[1] have seen substantial increases in ownership concentration in the United States in the past few decades. In the newspaper industry, the Gannett chain now controls one-sixth of all US local dailies after a 2019 merger (Doctor 2019). In broadcast television, the focus of our study, more than $23 billion in ownership transactions since 2014 (Nicolaou 2019) have led to the three largest conglomerate owners today controlling 40% of all local news-producing stations and being present in over 80% of US media markets.

While these dynamics in market structure mirror those in other industries, the news industry is unlike others in one critical respect: its product is a fundamental input to any well-functioning democratic society. Particularly at the local level, where there exist fewer alternative sources of information, traditional media outlets remain the primary producers of information about politicians and policy issues on which the voting public relies. To the extent that they change the quality and quantity of news produced and consumed, these deep structural changes in local media markets thus have potentially far-reaching consequences for the functioning of US democracy.

There are clear economic reasons for the growth of conglomerates in the news industry. Conglomerates are likely to present economies of scale in production, and to increase news producers' bargaining power in negotiations with advertisers and distributors. But conglomerate ownership is also likely to impact editorial choices, with potential consequences for politics. Many of the same economic forces that make conglomeration attractive from the business perspective are likely to impact content: economies of scale might for example be realized by centralizing news production, homogenizing coverage across all outlets owned by the group and thereby reducing coverage of local politicians and issues specific to individual markets. On the other hand, conglomerates' increased market power on the advertising side of the business could increase the returns to differentiation and investment in news quality. These contrasting incentives highlight the need to study both sides of the market to have a complete picture of what conglomerate ownership entails for news production, and to inform regulatory approaches to media mergers.

Local TV stations in the United States provide the ideal setting to study the effects of conglomerate acquisitions. First, the large expansion of conglomerate ownership in the 2010s gives us excellent variation to identify the causal effects of acquisitions. Second, we are able to combine

[1]See Grullon, Larkin and Michaely (2019) for cross-industry evidence on changes in concentration in US product markets and Kwon, Ma and Zimmermann (2024) for the size distribution of US businesses across 100 years.

several data sources to document how conglomerate ownership impacts content, advertising, viewership, and citizens' political knowledge. We are able not only to evaluate what happens to acquired stations, but also the externalities that are fundamental to the evaluation the welfare consequences of conglomerate growth. Third, multiple conglomerate owners are actively expanding during the time period we study: Gray Television (Gray), Nexstar Media Group (Nexstar), and the Sinclair Broadcast Group (Sinclair). Previous research has focused almost exclusively on Sinclair,[2] leaving open the question of whether the consequences of conglomerate acquisition are driven by fundamental economic forces common to all large conglomerate acquirers, or by this specific acquirer's idiosyncratic strategy and objectives. This distinction is crucial to the development of effective regulatory policy for the media sector.

To identify the causal effect of conglomerate growth, we exploit the staggered timing of each group's acquisitions in a differences-in-differences design. Identification rests on the timing of acquisition being uncorrelated with the error term, with the main threat to identification being that acquisitions might be endogenous to media market- or station-level trends. We address this concern in three ways. First, we complement our baseline strategy with a triple-differences design that estimates the effect of conglomerate acquisition using only variation across stations within the same media market, allowing us to flexibly control for media market-level shocks. Second, we include in all our specifications several baseline station characteristics interacted with time fixed effects, ensuring that measured effects are also not driven by groups' targeting of specific types of stations for acquisition. Finally, we estimate event study specifications to provide direct evidence for the parallel trends assumption.

Preview of results. We begin by characterizing how conglomerate acquisitions affect local news coverage using a comprehensive dataset of transcripts of the near-universe of local TV newscasts in the US.[3] We find that conglomerate ownership is highly consequential for the "local-ness" of coverage, but that the direction of the change is heterogeneous across the different groups. When Sinclair acquires a station, coverage of local events (measured by mentions of local place names in news transcripts) as well as coverage of local politics (measured by mentions of local politicians at

[2]See e.g. Martin and McCrain (2019); Mastrorocco and Ornaghi (2024); Levendusky (2022); Miho (2023), among others. See page 6 for a more detailed discussion of these papers.

[3]Our sample includes more than 600 stations across 204 media markets.

the city, state legislative, and US House levels) decreases, by around 10% of the baseline mean. Acquisitions by Nexstar, on the other hand, produce effects of similar magnitude, but in the opposite direction, with an increase in mentions of local places and in coverage of local politicians. We estimate no significant effect on content due to acquisitions by Gray. Rather than a general phenomenon common to all large owner groups, the effects of ownership concentration on local news coverage thus appear to be group-specific.

We find much less heterogeneity on the advertising side: both Sinclair and Nexstar increase advertising duration during local newscasts by 6.4% and 4.3% respectively in our preferred specification. This increase is economically significant, corresponding to almost one full additional ad per half hour of local news, and is reflected in higher advertising revenues for both groups' acquired stations relative to their pre-acquisition revenues. Digging deeper into the data shows that the increase is reached by increasing sales to different types of advertisers: Sinclair increases advertising duration for multi-market advertisers and decreases that of single-market advertisers, whereas Nexstar appears to equally increase sales to both types of advertisers. As before, we estimate no effect for Gray.

If viewers value coverage of local events or dislike advertising, we expect them to react to the changes induced by Sinclair or Nexstar acquisitions by switching out or in. This is not what we find. After Sinclair acquires a station, we estimate no effect on news ratings or log impressions (specifically, we can reject a decrease in viewership of 2.2-2.7% of the baseline mean). We estimate an increase in news ratings for Nexstar-acquired stations. However, we cannot reject that the Nexstar effect on viewership is the same as that for Sinclair, despite their very different effects on content. Consistently with our null effects on content and advertising, we see no change in viewership after a Gray acquisition. We interpret these results as suggesting limited viewer responsiveness following conglomerate acquisitions. This is an important result, as lower viewer sensitivity to changes in content implies weaker constraints on owners' interference with editorial decisions, whether for purely economic or for political motives (Prat 2018).

We conclude by studying the effect of conglomerate acquisitions on citizens' political knowledge. Perhaps surprisingly, given the large changes in politically-relevant content, we do not detect significant effects of conglomerate acquisitions on survey respondents' knowledge of the Members of Congress (MCs) that represent them. However, this null effect is not because local TV news is

not an important source of information about representatives in Congress. We demonstrate the continuing importance of TV news in this area by exploiting exogenous variation in "congruence" between TV media markets and Congressional districts, following the strategy pioneered by Snyder and Strömberg (2010) for local newspaper markets. We show that stations devote significantly higher coverage to MCs whose districts are more geographically congruent with the station's media market; that is, they devote more coverage to MCs who represent a larger share of their viewers. This difference in coverage manifests strongly in citizens' knowledge of their MCs: survey respondents in less-congruent TV markets within a Congressional district are less able to identify, express an opinion about, or express an intention to vote for or against their representative than their peers in more-congruent districts in the same market.

The fact that we do not detect significant effects of conglomerate acquisitions on political knowledge—in spite of our results on coverage and this strong evidence that TV coverage matters for knowledge—can be understood as the difference between a treatment effect and an intent-to-treat. Most media markets have multiple news-producing stations, and regulations limit the number of stations that each conglomerate owner can control per market (generally, to one out of four). While congruence influences the coverage of *all* stations in a market, acquisition changes the coverage of only one. As a result, the acquisition "treatment" affects only a minority of survey respondents in a geographic area.

Implications and relationship to existing literature. Our findings have several implications for the regulation of media conglomerates. First, they highlight the importance of the specific market structure of each media industry in determining the consequences of conglomerates. For instance, consolidation is likely to have different effects for local newspapers, which tend to be either monopolies or duopolies. Second, it suggests that provisions preserving within-market competition, such as duopoly rules, are important to ensure healthy media environment, even under high ownership concentration at the national level. As a result, these findings should not be interpreted as evidence favoring a more hands-off approach to ownership changes.

This study contributes to several strands of literature at the intersection of the economics of media, industrial organization, and political economy. First, it extends the body of work examining the effects of supply-side changes on media content and on political outcomes. Prior research in

this area has studied, among others, the effect of media outlets entry and exit (Gentzkow, Shapiro and Sinkinson 2011; Gentzkow 2006), market structure (Garz and Rickardsson 2024; Dunaway and Lawrence 2015), and competition (Angelucci, Cagé and Sinkinson 2024; Djourelova, Durante and Martin 2023; Widmer, Galletta and Ash 2023). We focus on a specific supply-side change in the local TV industry: ownership consolidation and, in particular, the growth of media conglomerates.

Existing research in this area has primarily focused on one of the groups that we also study, Sinclair. Martin and McCrain (2019) use a specific acquisition event to show that, after being acquired by Sinclair, local TV stations substitute coverage of local politics for coverage of national politics, and use more conservative framing. Sinclair's content changes have been shown to have downstream consequences for police behavior (Mastrorocco and Ornaghi 2024), citizens' attitudes towards national politics (Levendusky 2022), and vote shares in Presidential elections (Miho 2023). But as Sinclair is distinctive in several respects, this body of research leaves open the question of whether the content changes and their downstream outcomes are a conglomerate-owner or a Sinclair effect—an important question to understand how to regulate media mergers. By looking at the effects of acquisitions by other conglomerate owners we are able to contribute to this important policy question: indeed, we find that other conglomerate owners follow quite different strategies than Sinclair. In addition, by bringing in detailed data on advertising and viewership, we are able to provide a more complete picture of the consequences of conglomerate ownership. In doing so, we contribute to the broader discourse on ownership concentration, media power, and pluralism (Prat 2018; Rolnik et al. 2019; Cagé et al. 2024).

An extensive literature in industrial organization studies how market structure impacts product differentiation in the media industry (Sweeting 2010; Berry and Waldfogel 2001). Most of the papers in this literature take a structural approach, developing and estimating theoretical models to highlight key mechanisms and produce counterfactuals. Among several papers focused on local newspapers (George 2007; L'Heudé 2023; Fan 2013), Stahl (2016) is particularly relevant to us in that she studies concentration in the local TV industry in the 1990s using a structural model of acquisition decisions. We see our "reduced form" approach as being highly complementary to this work. In particular, combining causal identification and an extensive data collection effort, we are able to track the effect of conglomerate ownership through the entire causal chain, thus offering a comprehensive analysis of how changes in ownership impact the local media outlets themselves but

also their downstream consequences on political outcomes.

Roadmap. The structure of the paper is as follows. Section 1 lays out the institutional background of the local television news industry; Section 2 provides a theoretical discussion of the different economic incentives specific to cross-market ownership groups that we expect to underlie consolidation and its subsequent impacts on content choices; Section 3 presents our data sources; Section 4 describes our empirical strategy; Section 5 presents the results of conglomerates acquisitions on content, advertising and viewership; Section 6 investigates the relationship between news coverage and political knowledge; Section 7 concludes.

1 Background

1.1 Local TV Stations

Television stations in the United States broadcast a mixture of nationally syndicated content and local content specific to the geographic area they operate in. National content is sourced from affiliated networks that produce programming distributed across all the stations affiliated with the network. We focus on stations affiliated with the so-called "Big Four" networks: ABC, CBS, FOX, and NBC.[4] These are the most-viewed commercial broadcast stations in nearly every market.

Licenses to broadcast on specific frequencies in a defined geographic area are granted by the Federal Communications Commission (FCC) and must be renewed on a bi-annual basis. The relevant geographic area is the Designated Market Area (or DMA).[5] The FCC requires licensees to produce news programs that serve the public interest by addressing issues of importance to the local community, and to document their treatment of these issues in quarterly reports submitted to the Commission. Within this broad mandate, however, owners have wide latitude to determine the length, content, and form of their local news programs.

The primary business of for-profit stations is advertising sales; they also derive significant revenues from retransmission fees paid by cable television distributors. Local stations sell advertising

[4] Affiliate networks are unrelated to ownership; Sinclair, Gray and Nexstar all own stations affiliated with each of the big four networks.

[5] DMAs are a geographic definition of media markets originally created by the Nielsen Company for purposes of audience measurement but later adopted by the FCC for use in rulemaking. The US is partitioned into 210 DMAs, each usually encompassing one or two regionally important cities and their surrounding suburban and rural areas.

to local businesses as well as to regional and national corporations, which airs alongside the station's programming. Because most viewers in the US today access TV through fixed-line cable subscriptions rather than over-the-air (OTA) broadcast signals, the FCC enforces a rule requiring all cable system operators in a DMA to carry all of the local commercial and public TV stations broadcasting in that DMA. A broadcast TV license therefore also entails a right to inclusion in the cable package of all cable subscribers in the DMA where the broadcast station is located. Nonetheless, cable systems have to pay retransmission fees to compensate the stations for the content they produce.

Stations are operated by a mixture of privately held and publicly traded for-profit corporations along with some non-profit, semi-public organizations. The FCC enforces several restrictions on ownership aimed at limiting the formation of local monopolies and ensuring some diversity of broadcast sources in specific media markets. At the local level, single owners may not control more than one of the top four stations (by viewership) in a given DMA, unless granted a specific exemption by the FCC.[6] This rule is intended to preserve competition and diversity of news options at the local level. The FCC also enforces a limit on the *national* audience reach of stations that can be controlled by a single owner, currently set at 39 percent of the national television audience.[7] The audience reach limit became binding (or close to binding) for all three of the groups we consider over our sample period.

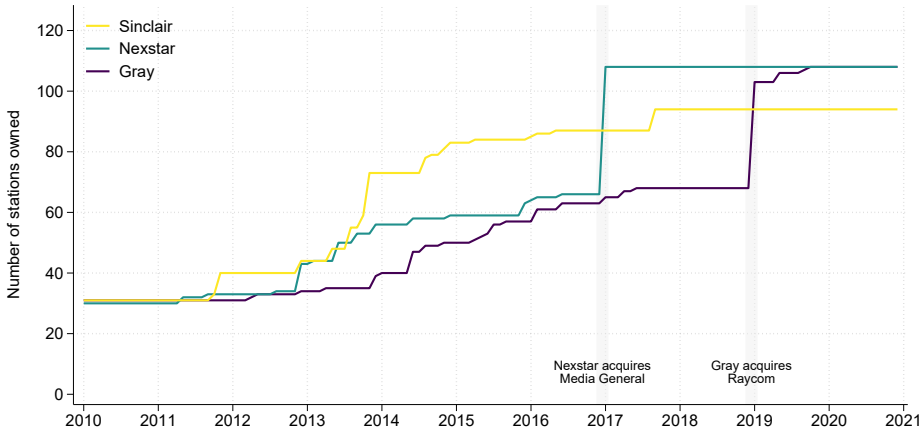
1.2 Conglomerate Owners

The three largest owners of broadcast TV stations in the US today are Nexstar Media Group (Nexstar), the Sinclair Broadcast Group (Sinclair), and Gray Television, Inc. (Gray). All three are publicly traded corporations, and today each owns roughly 100 Big-Four-affiliated stations across the US. Sinclair has been the focus of a substantial amount of prior research, centering on its perceived conservative outlook and its policy of "must-run" segments produced centrally and distributed to all Sinclair-owned stations for inclusion in news broadcasts. Nexstar and Gray are much less-studied—owing perhaps to their less outspoken major shareholders and correspondingly lower prominence in media accounts—but are similar in scale, structure, and geographic dispersion

[6] 47 CFR 73.3555(b)(1), known as the top-four prohibition.

[7] 47 CFR 73.3555(e), known as the national television multiple ownership rule.

Figure 1: Conglomerate Ownership Over Time



Notes: This figure shows the number of stations owned by each of the three conglomerates we consider in the analysis over time.

to Sinclair.

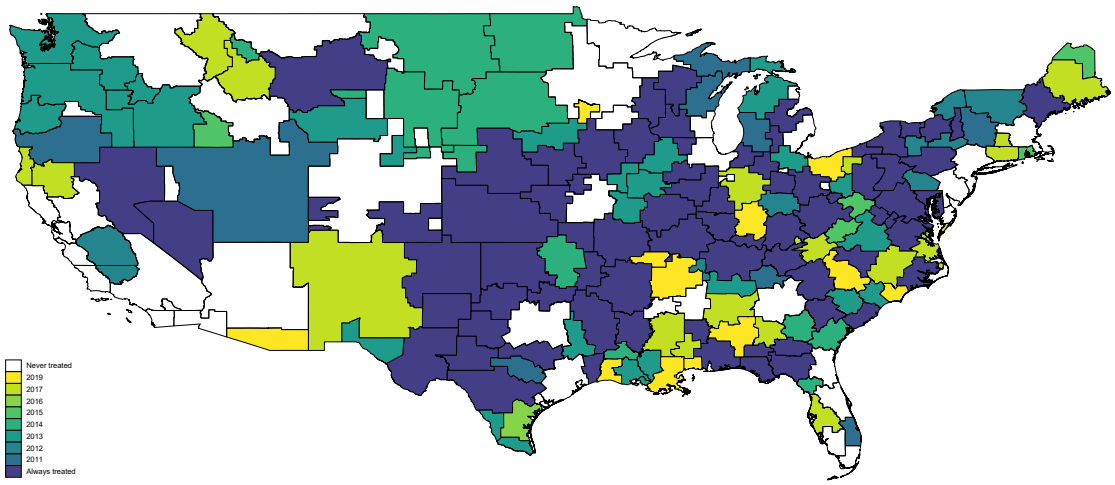
Gray is the oldest of the groups, having been founded in 1946. Sinclair was founded (as Chesapeake Television Corporation) in 1971, and Nexstar in 1996. All three began growing substantially through acquisitions in the 1990s, and continued their expansion into the 2010s (the period of our study), as can be seen in Figure 1. There are a total of 216 acquisitions in the dataset that meet this criteria: 63 by Sinclair, 78 by Nexstar, and 75 by Gray. Sinclair's growth has come primarily through acquisitions of smaller groups and independent stations, while Gray and Nexstar both completed mergers with another existing large conglomerate: Nexstar acquired Media General in 2017, and Gray acquired Raycom in 2019.

Figure 2 shows a map of the year of first conglomerate entry by media market across the country, with darker shades indicating earlier times.[8] The figure shows that acquisitions have taken place all across the country. The only exception from this trend are the largest DMAs by population, that have been mostly excluded: New York City, Los Angeles, Chicago, Dallas, Houston, and several other large cities all remain "untreated" by conglomerate acquisition through 2020.[9]

[8] See Appendix Figure A1 for conglomerate-specific maps.

[9] This pattern can be understood through the observation that broadcast stations are in the advertising business: the biggest cities have deep pools of companies that operate primarily or exclusively in the market and that are therefore interested in single-market advertising campaigns. Smaller markets have much thinner pools of potential local-only advertisers, and greater scope for sales growth through regional or national bundles that only multi-market conglomerates can offer, as we describe in our Theoretical Expectations Section below. In addition, acquisitions in larger markets pose greater regulatory concerns, as FCC regulations limit a single owner's national audience reach.

Figure 2: Map of First Year of Conglomerate Entry by DMA



Notes: This figure shows the first year of conglomerate entry across DMAs. Lighter colors correspond to later entry. Never treated DMAs are media markets that never experience conglomerate entry; always treated are DMAs that have at least one conglomerate-owned station at the beginning of the period (January 2010).

In Appendix D, we also investigate whether there are systematic differences in acquisition targeting across the three groups. Results of this exercise, reported in Figure D1 and Table D1, show that although their broad strategies are similar, there are a small number of station-level predictors which are group specific: Gray tends to acquire stations with higher-rated news programs at baseline, while Sinclair and Nexstar select stations with baseline lower news ratings, although this relationship is much weaker; their acquisitions are also somewhat targeted according to the volume and revenue of advertising sales. Importantly, we discuss in the Empirical Strategy section how we ensure that these systematic differences are not driving our results.[10]

2 Theoretical Expectations

How should we expect conglomerate owners to impact the operations of the local TV stations they acquire, if at all? In this section, we detail several economic incentives specific to cross-market ownership groups that could be at play. We pay particular attention to whether and how these economic incentives are likely to impact news content.

[10]In particular, the inclusion of DMA-by-month fixed effects controls for any difference in the type of markets the three groups operate in. We condition on baseline station characteristics interacted with month fixed effects to eliminate any differential trends in our outcomes of interest along these dimensions.

Economies of scale. First, conglomerate owners might present economies of scale (Dertouzos and Trautman 1990; Berry and Waldfogel 2010). These economies of scale might operate both on the operational and on the content production side. Operational savings could result from reducing duplication of overhead expenses such as administrative and marketing staff. More interesting from our perspective are economies of scale on the content production side. For an owner controlling multiple stations across several markets, there is potential to save on production costs by producing content once, and cross-syndicating it across the different stations the conglomerate operates, rather than producing content locally at multiple studios. Importantly, economies of scale of this form are not neutral with respect to topic: the more locally-tailored the topic, the more geographically limited is its appeal to viewers, and hence the smaller are the potential scale economies (L'Heudé 2023). The application of this principle to political coverage is clear: production-cost scale economies should favor coverage of politics at the national level and disfavor coverage of local- or state-level political issues and politicians. However, the principle is also likely to apply more generally to any locally-tailored coverage.

Marketing scope in advertising sales. Multi-market conglomerates offer a different product to advertisers than do independent stations: they can market bundles of advertising slots across multiple DMAs, reaching a regional or national audience (Stahl 2016). Conglomerates thus have the potential to expand the set of advertisers interested in advertising on local news broadcasts beyond local companies to regional or national brands. Because the total duration of a given broadcast is fixed, any such increase in advertising sales would necessarily shrink the "news hole"[11] and crowd out some kinds of coverage, presumably those types of coverage that have the least favorable ratio of viewer interest to production cost.

Pricing power and incentives to differentiate. Local TV stations are ad-financed, which makes them a classic two-sided platform, bringing together viewers and advertisers (Anderson and Waldfogel 2015). Viewers consume content and see ads, a nuisance that is generally seen as the price they pay for content; viewers' "eyeballs" are in turn sold to advertisers. What this entails is that content and advertising choices are interdependent (Fan 2013; L'Heudé 2023). Specifically,

[11] "News hole" refers to the portion of a news publication or broadcast that contains actual news content, as opposed to advertisements.

outlets might have incentives to differentiate their content to capture a specific viewers' niche and be able to raise their price (the quantity of advertising) as a result (Kerkhof 2024). While the dimension of differentiation is abstract, in our context a focal attribute on which to differentiate might be the "local-ness" of coverage.

Conglomerate owners might be able to capitalize on this in two ways, relative to independently-owned stations. First, if the investments needed to differentiate content come with a high fixed cost, they might be only viable to conglomerates presenting economies of scale and/or higher revenues from retransmission fees, or with access to better financing (George 2007).[12] Second, cross-market consolidation increases the bargaining power of stations in negotiations with multi-market advertisers, a prediction we show formally in Appendix C using a model that extends Gentzkow et al. (2024). This increased bargaining power translates into greater incentives to make costly investments to differentiate the combined ownership group from competing news outlets, relative to the independently-owned case.

Non-market political objectives. In addition to commercial motivations, media owners may have non-market political objectives, which may influence their editorial choices (Prat 2015). To the extent that owners' political objectives are national (for example, influencing regulatory policy pertinent to the TV industry), such objectives could manifest in greater coverage of national politics and political figures.

Summary. These incentives may push content in different directions. Which force will dominate is not obvious ex ante, and our empirical analysis will aim to determine which effects manifest most strongly in the data. Instead, the theoretical expectations are generally consistent with an increase in advertising quantity, although this might be realized in different ways.

3 Data Sources

To test these hypotheses about consolidation effects, we collect data on ownership, news content, advertising, news viewership, and political knowledge. We now outline specific data sources and

[12] In particular, both increasing national and local news coverage are likely to require large newsroom investments which might not be feasible for independently-owned stations.

procedures for cleaning data.

Stations data. Our starting sample includes all full-powered commercial stations that are affiliated to one of the big-four networks (ABC, CBS, FOX, and NBC). We collect information on the yearly affiliation and market served by each of these stations from BIA/Kelsey, an advisory firm focusing on the media industry. We also include in the sample low-powered stations affiliated to one of the big four networks and that are part of the TVEyes dataset (see below). For each of these stations, we collect information on potential call sign changes over time by scraping the FCC website.

Television ownership data. We collect information on each group's acquisitions from their annual reports to the shareholders and 10-K reports. In particular, for each station, we have information on the date in which the group took control over the station's programming, in addition to the identity of the previous owner. We also use the same sources to identify dates of Local Marketing Agreements (LMAs) and Shared Sales Agreements (SSAs).[13]

Content. We are interested in understanding how conglomerates impact local TV news.[14] To do so, we use comprehensive transcripts of all local TV newscasts covering covering roughly 650 stations across the US, derived from closed captions of broadcasts collected by the TVEyes media monitoring service and archived by Harmony Labs. This data covers the period from January 2013 to December 2019.

We use the text transcripts to construct two measures of the "local-ness" of television news content. First, we count mentions of municipalities belonging to the DMA served by each stations. Second, we count mentions of the full names of various politicians at the local level: candidates for or current holders of mayoral office, candidates and current office holders of state legislative seats,

[13]LMAs are agreements where the owner of a station leases out the station's entire airtime to another party, which provides the content and sells advertising against it. Because such arrangements give the lessee full control over the local news content that a station airs, we treat LMAs as equivalent to acquisitions in our analysis. SSAs usually refer to situations where the owner contracts out a smaller set of functions, such as advertising sales; we do not include these in our baseline estimates but do show results of models that also treat SSAs as acquisitions in Appendix E.

[14]Note that, in particular, we exclude nationally produced news shows such as *CBS Evening News* or *NBC Nightly News*, in addition to all entertainment programming that is mostly nationally produced.

and candidates and current office holders of US House seats.[15] We restrict attention to mentions of names of politicians either holding or running for an office that geographically overlaps with the DMA, in a specific year.

Advertising Revenues and Duration. We collect information on the advertising run on news programs from the Nielsen Ad Intel database. We focus on ads appearing on local newscasts in the 5:30pm-11:30pm time window. We aggregate the estimated total revenue (in dollars) and duration (in seconds) for each ad aired during a local newscast at the station-month level, and normalize it by the number of half hours transmitting local news in each station-month.[16] We use data for the 2011-2019 period for this part of the analysis.

Ratings and Impressions. We measure viewership using station-month average impressions and ratings for local news programs airing on each station using data from the Nielsen Ad Intel database 2011-2019. We focus on programs classified by Nielsen as local news, which aired in the 5pm-11:30pm time window. Impressions are the (estimated) number of television-owning households watching a given station for the time block in which each news program aired.[17,18] We average impressions over all news programs that aired in a given station-month. Ratings are measured in percentage points, and indicate the fraction of TV households in a media market who watched the program. We construct ratings by normalizing the average impressions by Nielsen's estimate of the

[15]For mayoral candidates, we use the list of candidate names in mayoral elections from Warshaw et al. (2022). For state legislative candidates, we use the list of candidate names of all candidates that filed with their respective state election authority, collected by the Follow the Money database. For US House candidates, we extract names from the candidate-level data compiled by Adam Bonica's (2023) Database on Ideology, Money in Politics, and Elections (DIME).

[16]As with impressions, advertising revenues and duration are reported continuously in the largest DMAs (the so-called Local People Meter (LPM) DMAs), but are aggregated to sweep months in all other DMAs. We distribute the sweep month aggregates over the respective measurement period to fill in the missing observations. After 2018, revenues and duration are reported more frequently in all DMAs, as can be seen in Appendix Figures A3 and A4. We show in Appendix E that our results are robust to these adjustments and decisions.

[17]Nielsen estimates impressions using the average fraction of Nielsen panelists watching the station in the same half-hour time block and the same day of the week, in the same month. Hence, the impression estimates are not specific to a single advertisement or a single program airing; nonetheless, impressions are station-specific and vary at sufficiently high frequency for our purposes. This means that we can use the ads impressions to estimate viewership during the local newscast the ad is aired in.

[18]Impressions are estimated continuously throughout the year in LPM DMAs. In all other DMAs, impressions are only reported for sweeps months (namely, February, May, July, and November). In these markets, we linearly interpolate impressions to fill in missing observations. In addition, the raw data show an unexplained spike in impressions from August 2013 to January 2014. We set these observations as missing. Appendix E shows that our results are robust to both adjustments.

number of TV households in the market in that year.

Political Knowledge. We measure political knowledge using the Cooperative Congressional Election Study (CCES) 2010-2020 (Kuriwaki 2023). CCES is a large scale rolling-cross-section survey conducted on a representative sample of roughly 50,000 voters per election cycle. CCES asks respondents several questions that allow us to gauge individuals' knowledge of politics. We focus in particular on respondents' knowledge of the member of the House of Representatives who represents them. We use the following three questions to measure knowledge: i) whether the respondent has heard of their representative before; ii) whether they are able to express approval of disapproval of the representative; iii) whether the respondent is able to express a preference as for the election outcome.[19] We also use individual socio-demographic characteristics (namely, age, gender, employment status, education, race, income) as controls, as well as the respondents geo-localisation in congressional districts to match them to a specific DMA.

3.1 Descriptive Statistics

In Appendix Table B1, we report descriptive statistics for the main station-level variables considered in the analysis. Further information on the distribution of these variables over time and across stations is provided in Appendix Figures A2 to A6. Appendix Table B2 provides the descriptive statistics for the CCES data.

4 Empirical Strategy

4.1 Identification

To identify the causal effect of conglomerates, we exploit the staggered timing of acquisitions across stations (or media markets) in a differences-in-differences design. Identification rests on a parallel

[19] More precisely, we construct our outcomes in the following way. First, we use the question *'Please indicate whether you have heard of this person and if so which party he or she is affiliated with'* and create an indicator equal to one when the response is *'Never Heard of Person.'* Second, we use the question *'Please indicate whether you approve or disapprove of the job that each of the following are doing'* and create an indicator equal to one when the response is *'Never heard of Person"*, *'Not sure'*, or *'I do not know.'* Note that this is because the coding of the responses vary slightly from year to year. Finally, we use the question *'In the general election for U.S. House of Representatives in your area, who do you prefer?'* and create a indicator variable equal to one when the response is *'I am not sure.'* This question is only available in election years.

trends assumption, i.e., that the timing of acquisitions is uncorrelated with the error term. The main threat to identification in this setting is that the timing of acquisitions might be endogenous to station or media market level trends. In other words, we worry that we might conflate the effect of a conglomerate acquisition with media-market level shocks that affect both outcomes and acquisitions. For example, declining population in some market might affect a station's ratings and also depress its market value, thus making it a more attractive acquisition target.

We address this concern in two ways. First, we complement our baseline approach with a triple-differences design that estimates the effect of conglomerate acquisition using only variation across stations within the same media market. In practice, as we detail below, we implement this specification by including DMA-by-month fixed effects, which capture any shocks that affect all stations in a media market at the same time. This allows us to explicitly control not only for DMA-level trends, but also shocks that might be contemporaneous with the timing of acquisitions. Second, we include in our specifications a set of baseline station characteristics identified by the analysis in Appendix D as predictors of acquisition by a specific group (namely, average log advertising duration and log revenue per half hour of local news and average news-program rating, all measured in 2010) interacted with month fixed effects. In this way, we allow stations with different advertising or viewership profiles in 2010 to be on different non-parametric trends. In combination with the DMA-by-month fixed effects, this makes the concern of endogenous stations' acquisition less likely. To sum up, we require that the timing of acquisitions is uncorrelated with the error term conditional on these controls. In addition to this, we provide supporting evidence for the parallel trends assumption in both our differences-in-differences and triple-differences design by estimating event study specifications in which we allow the effect of each group to vary in time since the acquisition. This allows us to test empirically for the presence of trends prior to treatment both overall and within market.

4.2 Specifications

To study the effect of conglomerate acquisitions on station-level outcomes, we use both a differences-in-differences and a triple-differences specification on a station by month panel. Our baseline

differences-in-differences specification is the following:

$$y_{st} = \sum_{g} \beta^{g} \text{Post-Acquisition}^{g}_{st} + X'_{s}\gamma_{t} + \delta_{s} + \delta_{t} + \epsilon_{st}, \tag{1}$$

where y_{st} is outcome y for station s in month t, Post-Acquisition$^{g}_{st}$ is an indicator variable equal to one after conglomerate $g \in \{Gray, Nexstar, Sinclair\}$ acquires the station, X_s are baseline station-level controls (namely average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, δ_s are station fixed effects, and δ_t are month fixed effects. Standard errors are clustered at the DMA level.

The station fixed effects (δ_s) control for station-specific differences in the outcome, while the month fixed effects (δ_t) control for month-specific shocks that affect all stations equally in a given month. The baseline stations characteristics interacted with month fixed effects ($X'_s\gamma_t$) flexibly control for trends that impact stations with different advertising or viewership profiles in 2010 differently. Our coefficient of interests are β^{Gray}, $\beta^{Nexstar}$, and $\beta^{Sinclair}$, that estimate the effect of each group acquiring the station on outcome y.

In addition, we estimate triple-differences specifications that include DMA-by-month fixed effects ($\delta_{m(s)t}$, where $m(s)$ represents the DMA that station s belongs to). These fixed effects ensure that the effect of a conglomerate acquisition is estimated only from variation across stations that belong to the same DMA. Note that this is our most restrictive and thus preferred specification for all the station-level analyses.

We also provide suggestive evidence supporting the parallel trends assumption by estimating event-study specifications (either using month fixed effects or DMA-by-month fixed effects) of the following form:

$$y_{st} = \sum_{g} \Big\{ \sum_{y=1}^{T_{min}} \beta^{g}_{y} * \text{Pre}^{g}_{s,t-y} + \sum_{y=0}^{T_{max}} \gamma^{g}_{y} * \text{Post}^{g}_{s,t+y} \Big\} + X'_{s}\gamma_{t} + \delta_{s} + \delta_{t} + \epsilon_{st}, \tag{2}$$

where all variables are defined as above. To reduce noise, we constrain the effect to be constant by semester since treatment.

Recent advances in the econometrics literature have highlighted that using two-way fixed effects regressions to estimate treatment effects in differences-in-differences designs is problematic. We

present estimates from two-way fixed effects regressions estimated using Ordinary Least Squares in the main text, but also show that our results are robust to using the robust estimator proposed by de Chaisemartin and d'Haultfoeuille (2024) in Appendix E.

5 Effect of Conglomerates on Content, Advertising, and Viewership

5.1 Content

We begin by analyzing how conglomerate acquisitions impact the "local-ness" of television content. Table 1 reports the effect of conglomerate acquisitions on the number of mentions of local places in a station's newscast in a month, normalized by the number of newscasts in our dataset for that station and month to take into account potential heterogeneity in the number of newscasts. Columns (1) and (2) report coefficient estimates from our differences-in-differences specification, with and without the baseline controls interacted with the month fixed effects. In columns (3) and (4), we report estimates from a specification including DMA-by-month fixed effects, thus only exploiting within market variation, always with and without the baseline controls.

Gray, Nexstar, and Sinclair follow highly heterogeneous strategies as far as local coverage is concerned. After Sinclair acquires a station, mentions of local places per show decrease by 1.5, relative to a baseline mean of around 15 (column (1)). The effect is significant at the 1% level. Instead, when Nexstar acquires a station, the effect goes in the opposite direction: mentions per show increase by 0.830 (effect significant at the 5% level). We do not estimate a significant effect on content for Gray acquisitions. The estimates are not driven by differential trends for stations with different baseline characteristics: adding baseline controls (column (2)) does not impact the results. We also find that the effects are not driven by market-level trends: including DMA-by-month fixed effects (columns (3) and (4)) does not impact the effect of Sinclair acquisitions, although it makes the estimated effect of Nexstar acquisitions slightly larger, at 1.264-1.218. Across all specifications, we are able to reject the null hypothesis of Sinclair acquisitions having the same effect as acquisitions of Gray and Nexstar (p-values equal to 0.007 and <0.001 respectively in our preferred specification). We discuss the robustness of our main results to different transformations of the outcome, sample

Table 1: Effect of Conglomerate Acquisitions on Local Coverage

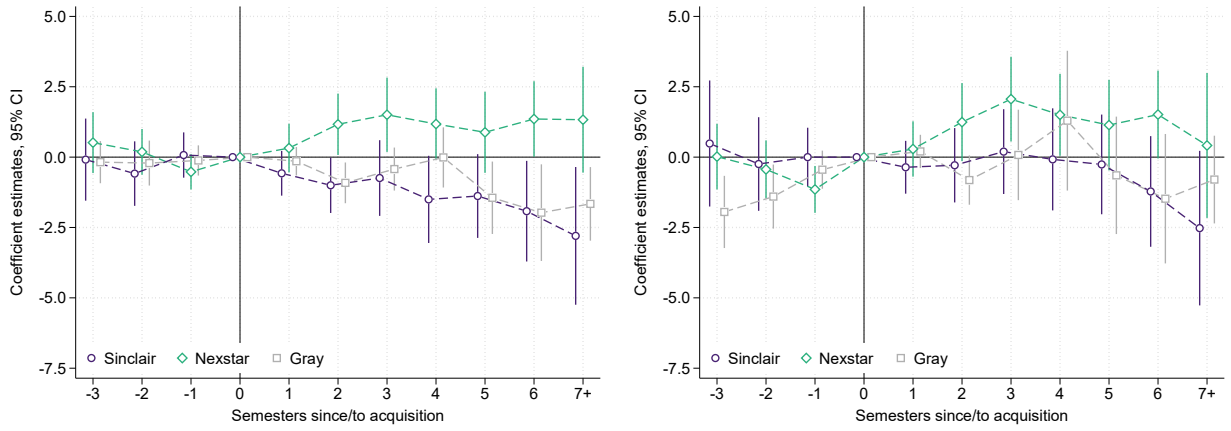
	Mentions/Shows			
	(1)	(2)	(3)	(4)
Post-Acquisition, Sinclair	-1.503***	-1.643***	-1.581**	-1.577**
	(0.503)	(0.510)	(0.631)	(0.611)
Post-Acquisition, Nexstar	0.830**	0.754**	1.264***	1.218**
	(0.362)	(0.369)	(0.460)	(0.469)
Post-Acquisition, Gray	-0.446	-0.442	0.699	0.762
	(0.316)	(0.325)	(0.520)	(0.523)
Station FEs	✓	✓	✓	✓
Month FEs	✓	✓		
DMA-By-Month FEs			✓	✓
Controls		✓		✓
Observations	52772	52772	50614	50614
Stations	638	638	613	613
DMAs (Clusters)	204	204	179	179
Mean Dep. Variable	14.737	14.737	14.975	14.975
Sinclair = Nexstar	0.000	0.000	0.000	0.000
Sinclair = Gray	0.103	0.069	0.011	0.007
Nexstar = Gray	0.004	0.008	0.397	0.496

Notes: This table shows the effect of conglomerate acquisitions on local coverage. In column (1), we regress mentions of same-DMA municipalities normalized by number of local newscasts on indicator variables for the station being respectively owned by Sinclair, Nexstar, or Gray, station fixed effects, and month fixed effects. Column (2) additionally controls for baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects (equation (1)). Column (3) and (4) further include DMA-by-month fixed effects, with and without baseline controls. The p-values reported at the bottom of the table are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2013-2019 period. Standard errors are clustered at the DMA level.

restrictions, treatment definitions, and concerns to heterogeneous effects in two-way fixed effects estimators in Appendix E.

Event Studies. These findings are not driven by pre-existing trends. In Figure 3, we report estimates from the event study equivalent of our differences-in-differences specification (panel (a)) and our triple-differences one (panel (b)). Before Sinclair acquires a station, coverage of local events is flat. After Sinclair acquires a station, however, there is an almost immediate decline in the mentions of local places by show. The effect becomes larger over time, and by the third year after the acquisition it corresponds to around 25% of the baseline mean. We similarly see no evidence of pre-trends for Nexstar acquisitions, but immediately after the acquisition takes place local coverage increases (the effect statistically significant by the end of the first year post-acquisition) and then plateaus. In line with our estimates in Table 1, there is no overall effect of Gray acquisitions, although there is some suggestive evidence of a negative effect potentially materializing in the medium run. Event studies estimated using our triple-differences specification

Figure 3: Effect of Conglomerate Ownership on Local Coverage, Event Studies



(a) Differences-in-Differences

(b) Triple-Differences

Notes: This figure shows the effect of conglomerate acquisitions on local coverage by semester since/to treatment. In panel (a), we report coefficient estimates and 95% confidence intervals from a regression of mentions of same DMA municipalities normalized by number of local newscasts on indicator variables for semesters since/to a Sinclair, Nexstar, or Gray acquisition, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects (equation (2)). Panel (b) additionally includes DMA-by-month fixed effects. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2013-2019 period. The sample excludes always treated stations. Standard errors are clustered at the DMA level.

show similarly flat pre-trends for Sinclair, although it now takes longer for the effect to materialize. The time pattern for Nexstar is overall comparable.

Local Politicians. In Table 2, we examine whether these changes in general local coverage also extend to coverage of local politics. We measure coverage of local politicians: mayors, state legislators, and members of Congress who represent cities or districts within the station's home DMA. Our outcome is the total mentions of each type of local politician in each station's newscasts in a given month, normalized by the number of newscasts in our dataset. We find a very similar pattern as with coverage of local events: coverage of local politicians declines when Sinclair acquires a station and it increases when Nexstar does. The magnitude of these effects is quite large relative to the base levels, corresponding to 30-40% of the baseline mean. Similarly to the result on place names, Gray does not impact local politicians' coverage.

Table 2: Effect of Conglomerate Ownership on Coverage of Local Politicians

	Mayors		State Legislators		Members of Congress	
	(1)	(2)	(3)	(4)	(5)	(6)
Post-Acquisition, Sinclair	-0.056***	-0.040**	-0.048***	-0.046***	-0.015	-0.031**
	(0.017)	(0.016)	(0.017)	(0.011)	(0.022)	(0.013)
Post-Acquisition, Nexstar	0.030**	0.042***	0.027*	0.043***	0.033	0.022*
	(0.014)	(0.016)	(0.015)	(0.011)	(0.022)	(0.013)
Post-Acquisition, Gray	0.006	0.007	0.006	0.003	0.018	0.025
	(0.011)	(0.012)	(0.014)	(0.016)	(0.023)	(0.018)
Station FEs	✓	✓	✓	✓	✓	✓
Month FEs	✓		✓		✓	
DMA-By-Month FEs		✓		✓		✓
Controls	✓	✓	✓	✓	✓	✓
Observations	52772	50614	52772	50614	52772	50614
Stations	638	613	638	613	638	613
DMAs (Clusters)	204	179	204	179	204	179
Mean Dep. Variable	0.118	0.121	0.110	0.110	0.150	0.153
Sinclair = Nexstar	0.001	0.001	0.002	0.000	0.104	0.003
Sinclair = Gray	0.002	0.016	0.014	0.015	0.306	0.014
Nexstar = Gray	0.200	0.058	0.256	0.031	0.607	0.903

Notes: This table shows the effect of conglomerate acquisitions on coverage of local politicians. Each outcome is the total mentions of the names of any incumbent politician of the indicated category representing a district contained in the DMA in which the station operates normalized by number of local newscasts. In columns (1), (3) and (5), we regress the outcome on indicator variables for the station being respectively owned by Sinclair, Nexstar, or Gray, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects (equation (1)). Columns (2), (4), and (6) further include DMA-by-month fixed effects. The p-values reported at the bottom of the table are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2013-2019 period. Standard errors are clustered at the DMA level.

5.2 Advertising

We turn next to our second hypothesis about business-model changes induced by consolidation, namely the effect on advertising. In particular, we examine the result of conglomerate acquisition on advertising duration and revenue for ads aired during local news broadcasts.

Table 3 displays results from difference-in-differences and triple-differences specifications using advertising outcomes. The outcomes are station-month-half hour averages of advertising duration and revenue, both in logs. In other words, the outcomes are standardized to revenue and duration per half hour of local news. Note that, considering our results in Appendix D, for the advertising outcomes it is particularly important to control for baseline station characteristics, which is why we focus the discussion on those specifications that include baseline station characteristics interacted with month fixed effects.

We find consistently across specifications that, after Sinclair acquires a station, advertising du-

Table 3: Effect of Conglomerate Ownership on Advertising Duration and Revenue

	Log Duration				Log Revenue			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Acquisition, Sinclair	0.044*	0.055***	0.064***	0.064***	0.013	0.027	0.069*	0.074*
	(0.025)	(0.020)	(0.024)	(0.023)	(0.037)	(0.035)	(0.036)	(0.039)
Post-Acquisition, Nexstar	0.043**	0.053***	0.030**	0.043***	0.053**	0.059**	0.076***	0.085***
	(0.017)	(0.014)	(0.014)	(0.012)	(0.026)	(0.024)	(0.025)	(0.025)
Post-Acquisition, Gray	0.062**	0.039*	-0.029	0.002	0.022	0.026	-0.057	0.016
	(0.028)	(0.022)	(0.024)	(0.024)	(0.042)	(0.030)	(0.044)	(0.039)
Station FEs	✓	✓	✓	✓	✓	✓	✓	✓
Month FEs	✓	✓			✓	✓		
DMA-By-Month FEs			✓	✓			✓	✓
Controls		✓		✓		✓		✓
Observations	68651	68651	65665	65665	68651	68651	65665	65665
Stations	644	644	617	617	644	644	617	617
DMAs (Clusters)	206	206	179	179	206	206	179	179
Mean Dep. Variable	6.096	6.096	6.130	6.130	8.324	8.324	8.357	8.357
Sinclair = Nexstar	0.980	0.932	0.217	0.417	0.367	0.423	0.882	0.813
Sinclair = Gray	0.636	0.602	0.010	0.091	0.885	0.984	0.053	0.351
Nexstar = Gray	0.533	0.584	0.034	0.148	0.473	0.327	0.010	0.134

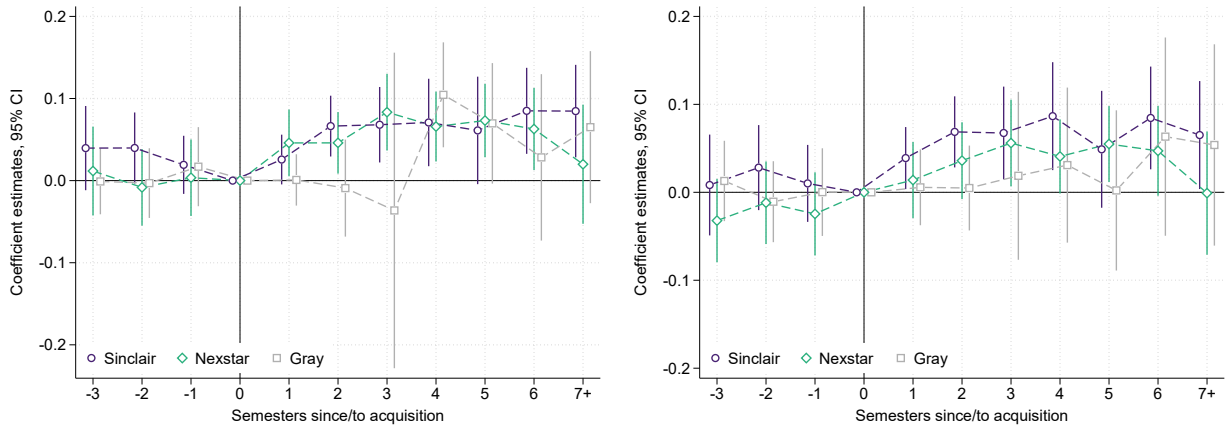
Notes: This table shows the effect of conglomerate acquisitions on advertising. The outcomes are log average duration and revenue per half hour of local news. In columns (1) and (5), we regress the outcome on indicator variables for the station being respectively owned by Sinclair, Nexstar, or Gray, station fixed effects, and month fixed effects. Columns (2) and (6) additionally control for baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects (equation (1)). Columns (3), (4), (7) and (8) further include DMA-by-month fixed effects, with and without baseline controls. The p-values reported at the bottom of the table are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. Standard errors are clustered at the DMA level.

ration during local newscasts increases by 5.5-6.5%. The effect of Sinclair acquisitions on revenue is more mixed: we find only find a positive and statistically significant effect using the triple-differences specification. The effects on advertisement duration, though slightly smaller in magnitude, are also present for Nexstar, for which we find an increase of about 4.3-5.3%. Moreover, Nexstar acquisitions exhibit a pronounced effect on revenues which is remarkably stable across specifications.

For reference in interpreting these outcomes, the average half hour show in our sample runs 8.5 ($sd = 3.8$) minutes of advertising worth \$8,247 ($sd = \$12,082$). A 5% increase in ads duration corresponds to ads lasting approximately 25 seconds longer, which corresponds to almost a full ad per half hour of local news (at 30 seconds per ad). The increase in revenues is significant in magnitude, with a 5% increase in revenue yielding an increase of \$412 per half hour newscast.

The evidence from looking at Gray is more mixed: while we find increased in advertising duration that are not reflected into revenues using the differences-in-differences specifications, it appears

Figure 4: Effect of Conglomerate Ownership on Advertising Duration, Event Studies



(a) Differences-in-Differences

(b) Triple Diff

Notes: This figure shows the effect of conglomerate acquisitions on advertising duration by semester since/to treatment. In panel (a), we report coefficient estimates and 95% confidence intervals from a regression of log advertising duration per half hour of local news on indicator variables for semesters since/to a Sinclair, Nexstar, or Gray acquisition, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects (equation (2)). Panel (b) additionally includes DMA-by-month fixed effects. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. The sample excludes always treated stations. Standard errors are clustered at the DMA level.

that some of the effect might be driven by overall media market trends. In fact, we see limited effects on duration and revenues when using our preferred, more restrictive, within media market specification. As before, we discuss the robustness of our main results to different transformations of the outcome, sample restrictions, treatment definitions, and concerns to heterogeneous effects in two-way fixed effects estimators in Appendix E.

Event Studies. In Figure 4, we report estimates from the event study equivalent of our differences-in-differences (panel (a)) and our triple-differences specification (panel (b)). Before Sinclair acquires a station, advertising duration shows a slight downward trend, which however fades away in the triple-difference specification. After a Sinclair acquisition, there is a rapid increase in advertising duration that persists over time. Very similarly, we do not see pre-trends for Nexstar and we observe a significant increase after the acquisition with a tendency to plateau towards the end of the period. Coherently with the estimates of Table 3, there is no overall effect of Gray acquisitions. Looking at the event studies for revenues (see Appendix Figure A7) shows similar patterns as the ones for duration.

Advertisers' Types. While both Sinclair and Nexstar increase the advertising duration and revenue in the stations they acquire, they might achieve this by selling to different types of advertisers. To better understand each group's advertising strategy, we explore heterogeneity along a dimension that might be particularly relevant for conglomerates: whether an advertiser operates in a single or in multiple DMAs. In Appendix Table B3, we show that Sinclair's increase in duration and revenues appears to be driven by multi-market advertisers. If anything, the effect of a Sinclair acquisition on the duration and revenue of ads sold to single-market advertisers is negative (although not statistically significant in our preferred triple-differences specification). Instead, Nexstar increases both duration and revenues for both types of advertisers by approximately the same amount. These patterns are also reflected in the composition of advertisers, as we show in Appendix Table B4.

Cost-Per-Mile. How does the pricing of advertising change after acquisitions? In Appendix Table B5, we estimate specifications that use as outcome cost-per-mile for different advertisers' types. Cost-per-mile, the standard price measure used in the marketing literature, is defined as advertising spending (the revenue on the stations' side) per 1000 impressions. Sinclair appears to be moving along the demand curve of multi-market advertisers: focusing on the triple-differences specification, we see that after Sinclair acquires a station, the CPM decreases by \$0.5 (2% of the baseline mean). But because the average cost-per-mile paid by multi-market advertisers is higher than the one paid by single-market advertisers even after this 'discount,' the decrease is not reflected into lower revenues. Instead, Nexstar and Gray do not alter their advertising prices after their acquisitions.

Non-Local News Programs. Sinclair and Nexstar might adjust ads duration and revenues during local newscasts only, or might increase ads across the board. In Appendix Table B6, we find that after Sinclair acquires a station, ads duration increases in non-local news programs by a similar amount. The effect on log revenues is instead no longer statistically significant. The evidence for Nexstar is more mixed. In particular, we no longer find positive coefficients in advertising duration, although we estimate a similar effect on advertising revenues, suggesting either changes in prices or changes in viewership of non-local news programs.

Table 4: Effect of Conglomerate Acquisitions on Viewership

	News Ratings				Log Impressions			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Acquisition, Sinclair	0.070	0.055	0.103	0.086	0.027	0.021	0.031	0.033
	(0.112)	(0.098)	(0.118)	(0.096)	(0.025)	(0.024)	(0.025)	(0.023)
Post-Acquisition, Nexstar	0.171**	0.084	0.225*	0.148*	0.027	0.013	0.044*	0.033
	(0.083)	(0.058)	(0.117)	(0.079)	(0.017)	(0.017)	(0.023)	(0.021)
Post-Acquisition, Gray	-0.766***	0.003	-0.700***	0.156	-0.035	0.013	-0.040	0.023
	(0.208)	(0.144)	(0.207)	(0.137)	(0.022)	(0.021)	(0.029)	(0.025)
Station FEs	✓	✓	✓	✓	✓	✓	✓	✓
Month FEs	✓	✓			✓	✓		
DMA-By-Month FEs			✓	✓			✓	✓
Controls		✓		✓		✓		✓
Observations	64955	64955	62183	62183	64955	64955	62183	62183
Stations	644	644	617	617	644	644	617	617
DMAs (Clusters)	206	206	179	179	206	206	179	179
Mean Dep. Variable	5.033	5.033	4.744	4.744	9.694	9.694	9.742	9.742
Sinclair = Nexstar	0.451	0.798	0.448	0.604	0.982	0.779	0.696	0.992
Sinclair = Gray	0.001	0.770	0.002	0.687	0.062	0.814	0.086	0.778
Nexstar = Gray	0.000	0.598	0.000	0.959	0.017	0.977	0.019	0.762

Notes: This table shows the effect of conglomerate acquisitions on viewership. The outcomes are average news ratings and log average impressions of local news. In columns (1) and (5), we regress the outcome on indicator variables for the station being respectively owned by Sinclair, Nexstar, or Gray, station fixed effects, and month fixed effects. Columns (2) and (6) additionally control for baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects (equation (1)). Columns (3), (4), (7) and (8) further include DMA-by-month fixed effects, with and without baseline controls. The p-values reported at the bottom of the table are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. Standard errors are clustered at the DMA level.

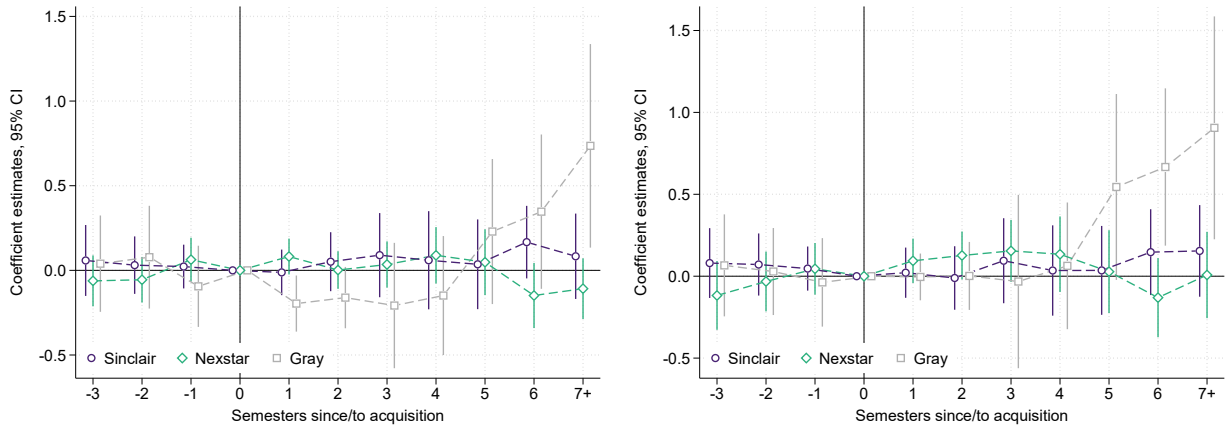
5.3 Viewership

If viewers have a preference for coverage of local events or dislike advertising, we expect them to react to the changes induced by Sinclair or Nexstar acquisitions by switching out or in. This is not what we find.

Table 4 shows that, after Sinclair acquires a station, the ratings of the station's local newscasts are not affected. In particular, our differences-in-differences estimates allow us to rule out declines in ratings corresponding to 2.2-2.7% of the baseline mean. We similarly estimate a null effect of Sinclair acquiring a station using log impressions as the outcome.

The effect of Nexstar acquisitions on ratings is more mixed. In particular, we estimate positive effects on news ratings, significant at the 10% level when estimating our differences-in-differences and triple-differences specification without controls (columns (1) and (3)). When we control for baseline station characteristics, the size of the coefficient decreases and, in the differences-

Figure 5: Effect of Conglomerate Ownership on Viewership, Event Studies



(a) Differences-in-Differences

(b) Triple Diff

Notes: This figure shows the effect of conglomerate acquisitions on viewership by semester since/to treatment. In panel (a), we report coefficient estimates and 95% confidence intervals from a regression of average news ratings on indicator variables for semesters since/to a Sinclair, Nexstar, or Gray acquisition, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects (equation (2)). Panel (b) additionally includes DMA-by-month fixed effects. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. The sample excludes always treated stations. Standard errors are clustered at the DMA level.

in-differences specification, is no longer statistically significant. We generally do not estimate a statistically significant increase in viewership when using log impressions as the outcome. In addition, it is important to note that, differently from all the other results we discussed, this result is less robust to alternative sample and treatment definition choices (see Appendix Table E4). Overall, we interpret this result as weak evidence of a potentially small increase in viewership.

Finally, we find that Gray acquisition also have no effect on viewership (the negative coefficients being likely explained by the stations that Gray acquires being systematically subject to mean-reversion in their audience size).

Event Studies. In Figure 5, we report estimates from the event study equivalent of our differences-in-differences (panel (a)) and our triple-differences specification (panel (b)) (see Appendix Figure A8). These figures show no evidence of pre-trends and that the null effects we estimate are not masking heterogeneity over time. As usual, Appendix E provides for further information on the robustness of these estimates.

Heterogeneity by Demographics. Because we are using aggregate viewership data, it is still possible that our null results on average ratings could be explained by in and out movements of different demographic groups. While we do not have access to individual viewership data that would allow us to test this precisely, we can rely on ratings for specific demographic groups to look for evidence still at the aggregate, but finer, level. In Appendix Table B7, we find no evidence of the null effect we estimate for Sinclair being driven by heterogeneous effects by age (above/below 50) or gender. Instead, we see some suggestive evidence in line with an increase in viewership of individuals over 50 and women following Nexstar's acquisitions, both when we measure the outcome as a rating and as log impressions.

Non-Local News Programs. A possibility for the limited effects on viewership of local newscasts is that individuals' consumption behavior might depend on factors that are unrelated to local news. For example, viewers might choose to watch a channel because of its entertainment programs and then consumer local news as part of the stations' content bundle. To explore whether this is the case, we look at viewership of non-local news program. In Appendix Table B8, we find patterns that are very much in line with what we see for local newscasts, suggesting similar responses across the board.

Summary. Overall, we find that viewers limitedly respond to changes in the attention devoted to local politics and local events more generally in their newscasts by altering their local TV news consumption behavior: Sinclair's decrease in local coverage has no effect on viewership, while we only find weak evidence of Nexstar's increase attracting core local news viewers.

This potentially puzzling result can be rationalized in different ways. First, it is possible that demand for local news is only one of the drivers of local TV consumption. This is in line with recent evidence showing that local elections increase attention to local politics, but not the consumption of local news (McCrain and Peterson 2023). Second, this could be explained by there being inertia in TV consumption behavior. This is particularly likely in this case, where acquisitions are opaque from the point of view of the viewer, as there are no changes to salient aspects of local news such as anchors, channel, or overall programming.

5.4 Strategic Stations' and Groups' Responses

Our triple-differences specification has the advantage of allowing us to improve identification by flexibly controlling for media market specific trends. However, it comes at the cost of potentially masking responses from same media market stations that are not themselves acquired by a conglomerate but might be responding to the new actor in the market.

Our results suggest that strategic response from other stations when a conglomerate enters a DMA are limited. In general, our differences-in-differences and triple-differences specifications tend to yield fairly similar estimates. This hints to the fact that same-DMA stations are likely to follow similar content and advertising strategies as non-treated stations in other DMAs, as they offer similar counterfactuals.

Alternatively, we might be concerned of strategic reactions across groups operating in the same markets. We test directly for such interactions by estimating our differences-in-differences and triple-differences specifications while restricting the control group to stations or media markets that never experience an acquisition by other conglomerates. Appendix Tables E6-E11 show what we find when we implement this exercise looking at local coverage, advertising duration, and news ratings.[20] Across the board, we estimate similar effects when removing from the control group stations or media markets affected by other conglomerates. This suggests that each conglomerate follows a separate independent strategy overall. This for example excludes the possibility of Nexstar's increase in local coverage being a direct response to Sinclair's decrease in specific markets. Overall, this shows that our findings are not driven by strategic interactions across groups.

5.5 Discussion

Conglomerate ownership has large effects on local TV news' coverage of local events and politicians, but that these are effects are highly heterogeneous across groups. Instead, both groups we focus on appear to increase advertising duration and revenues—although they realize this increase in different ways.

[20] Each panel in these tables refers to a specific conglomerate. In column (1), we estimate our baseline specification group-by-group (this is then slightly different than equation (1)). Columns (2)-(4) sequentially drop stations ever owned by the group specified in the column header, and column (5) drops stations ever owned by the two other conglomerates. Similarly, columns (6)-(8) sequentially drop DMAs with stations ever owned by the group specified in the column header, and column (9) drops DMAs with stations ever owned by the two other conglomerates.

Turning back to our discussion of the theoretical expectations, we can rationalize Sinclair's and Nexstar's heterogeneous strategies as follows. Sinclair's decrease in local news coverage is consistent with both non-market objectives and economies of scale in news production leading to news nationalization. On the advertising side, the shifts towards multi-market advertisers (while moving along their demand curve thus lowering their price) suggests an increase consistent with economies of scope in advertising sales.

Considering the cost of producing local news and the fact that they are not likely to be financed through economies of scale (although an argument in this direction could still be made for regional content), Nexstar's strategy to differentiate their content by increasing coverage of local events might be surprising at first glance. However, it can be rationalized by an attempt to "capture" viewers interested in local news and willing to pay a higher price in terms of advertising quantity (an investment that might just not be viable for independently-owned stations). The weak increase in viewership among these core viewers, and the fact that the increase in advertising duration is equally driven by single-market and multi-market advertisers provide further support to this explanation.

6 Effect of Conglomerates on Political Knowledge

Our analysis reveals that when media conglomerates acquire local TV stations there is a group-specific effect on local coverage and, in particular, on the coverage of local politicians. It is therefore natural to investigate whether these acquisitions also have an effect on political knowledge. In this section, we explore this question, exploiting individual-level survey data from CCES.

6.1 Empirical Strategy & Specification

To understand how conglomerate ownership impacts political knowledge, we estimate the following specification:

$$y_i = \sum_g \beta^g \text{Post-Acquisition}^g_{d(i)t(i)} + X_i^{'}\gamma + \delta_{d(i)c(i)} + \delta_{t(i)} + \epsilon_{st}, \tag{3}$$

where y_i is outcome y for individual i, $\text{Post-Acquisition}^g_{d(i)t(i)}$ is an indicator variable equal to one if conglomerate $g \in \{Gray, Nexstar, Sinclair\}$ is present in media market $d(i)$ in survey year

$t(i)$, X_i are individual-level control (namely, age, gender, race, education, income, employment status), $\delta_{d(i)c(i)}$ are DMA-by-congressional district fixed effects, and $\delta_{t(i)}$ are survey year fixed effects. Standard errors are clustered at the DMA level.

Note that we are unable to match respondents to the specific TV station that they watch (if at all). As a result, we now aggregate the treatment at the DMA level. This also means that we can only estimate differences-in-differences specification exploiting the staggered entry of each conglomerate in a DMA, rather than our more restrictive, and therefore preferred, triple-differences specification.

The fact that we now use an aggregated treatments has two important implications for this part of the analysis. First, identification in this section relies on a parallel trends assumption at the media market level. Second, the effects we estimate are now going to be a weighted average of effects for different population subgroups, that might be more or less exposed to the change in content.

6.2 Results

Table 5 reports the effect of conglomerates on political knowledge. Overall, we are not able to reject the null that conglomerate acquisitions do not affect citizens' knowledge of their representatives.[21]

There are two possible interpretations of these results. First, it is possible that local TV news is simply not an important source of information for political knowledge. Existing evidence is mixed in this regard: while Huber and Tucker (2024) show that coverage of Members of Congress is limited and only relevant in the immediate pre-election period, Balles, Matter and Stutzer (2023) show that the amount of coverage translates into political knowledge. In Table 6, we provide evidence that TV is indeed quite relevant for citizens' political knowledge using an exogenous source of variation for MC's coverage on local TV: whether the congressional district they represent is *congruent* with the station's media market.[22] The intuition for this measure is that local stations have incentives to

[21] Specifically, after Sinclair enters a media market, we are able to reject an increase in respondents' inability to identify their MOC by 0.9 percentage points (16% of the baseline mean), to express an opinion on their MOC by 3.4 percentage points (16% of the baseline mean), and to express an intention to vote by for or against their MOC by 2.3 percentage points (14% of the baseline mean). Instead, after Nexstar enters a media market, we are able to reject a decrease in respondents' inability to identify their MOC by 0.8 percentage points (14% of the baseline mean), to express an opinion on their MOC by 2 percentage points (10% of the baseline mean), and to express an intention to vote by for or against their MOC by 0.4 percentage points (2.5% of the baseline mean).

[22] Following Snyder and Strömberg (2010), a congressional district's congruence is defined as the fraction of all

Table 5: Effect of Conglomerate Ownership on Political Knowledge

	Never Heard of Representative	Not Able to Evaluate Representative	Has No Preference over Election
	(1)	(2)	(3)
Post-Acquisition, Sinclair	-0.001	0.014	0.003
	(0.005)	(0.010)	(0.010)
Post-Acquisition, Nexstar	0.001	-0.001	0.014
	(0.005)	(0.009)	(0.009)
Post-Acquisition, Gray	0.002	0.011	-0.017
	(0.006)	(0.011)	(0.015)
DMA-By-CD FEs	✓	✓	✓
Year FEs	✓	✓	✓
Controls	✓	✓	✓
Observations	380146	378969	223543
CDs	444	444	444
DMAs (Clusters)	205	205	205
Mean Dep. Variable	0.058	0.211	0.165
Sinclair = Nexstar	0.691	0.294	0.400
Sinclair = Gray	0.631	0.869	0.316
Nexstar = Gray	0.904	0.439	0.097

Notes: this table shows the effect of conglomerate acquisitions on political knowledge. The outcomes are indicator variables for whether the individual reports never having heard of the name of their representative (column (1)), not being able to evaluate the representative (column (2)), or not having a preference over the result of the election (column (3)). We regress the outcome on indicator variables for respondent's DMA having at least one station respectively owned by Sinclair, Nexstar, or Gray, DMA-by-congressional district fixed effects, year fixed effects, and individual-level controls (namely: gender, employment status, race, education, marriage status, age, and income). All regressions are weighted by the inverse of the total number of respondents per DMA and congressional district. Standard errors are clustered at the DMA level.

provide more local news coverage of the elected officials who are important for their audience, that is, congressional districts with higher congruence. In line with this, Panel A shows that TV stations cover MCs in more-congruent districts substantially more. This is true within-station and within-district; in a Congressional district that is split into multiple DMAs, Congressional candidates get more coverage in the more-congruent part of the district.

Panel B shows that this coverage difference translates into greater knowledge. Respondents living in the same congressional district, but in a part of the district that is more congruent with the TV market, are better able to identify and express an opinion about their MC. The effect is large in magnitude, and corresponds to 20-50% of the baseline mean. These findings together establish the continuing importance of television coverage in informing the public about their representatives.

The second explanation for our result has to do with the specific market structure of local TV, and the fact that we are now estimating an intent-to-treat effect at the individual level.

voters in a given DMA that reside in both the congressional district and the DMA.

Table 6: Effect of Congruence on Content and Political Knowledge

	Panel A: Content	
	Mentions/Show	
	(1)	(2)
Above Median Congruence	0.031***	0.031***
	(0.003)	(0.003)
Station FEs	✓	✓
CD FEs		✓
Month FEs	✓	✓
Controls	✓	✓
Observations	335868	335868
Stations	636	636
CDs	432	432
DMAs (Clusters)	203	203
Mean Dep. Variable	0.023	0.023

	Panel B: Political Knowledge					
	Never Heard of Representative		Not Able to Evaluate Representative		Has No Preference over Election	
	(1)	(2)	(3)	(4)	(5)	(6)
Above Median Congruence	-0.027***	-0.030***	-0.073***	-0.077***	-0.028***	-0.032***
	(0.004)	(0.004)	(0.008)	(0.008)	(0.008)	(0.010)
DMA FEs	✓	✓	✓	✓	✓	✓
CD FEs		✓		✓		✓
Year FEs	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
Observations	380156	380156	378977	378977	223562	223562
CDs	444	444	444	444	444	444
DMAs (Clusters)	205	205	205	205	205	205
Mean Dep. Variable	0.058	0.058	0.211	0.211	0.165	0.165

Notes: this table shows the effect of congruence on MCs' coverage in local TV newscasts and on individuals' political knowledge. Panel A reports the estimates for news coverage. The outcome is the number of time the MC is mentioned in a station's newscast in a given month normalized by the number of shows. In column (1), we regress the outcome on an indicator variable for the congruence of the congressional district represented by the MC being above the median, station fixed effects, and month fixed effects. Column (2) additionally includes congressional districts fixed effects. Panel B reports the estimates for political knowledge. The outcomes are indicator variables for whether the individual reports never having heard of the name of their representative (columns (1) and (2)), not being able to evaluate the representative (columns (3) and (4)), or not having a preference over the result of the election (columns (5) and (6)). In columns (1), (3), and (5), we regress the outcome on an indicator variable for the congruence of the congressional district represented by the MC being above the median, DMA fixed effects, month fixed effects, and individual-level controls (namely: gender, employment status, race, education, marriage status, age, and income). Columns (2), (4), and (6) additionally include congressional districts fixed effects. All regressions in panel B are weighted by the inverse of the total number of respondents per DMA and congressional district. Standard errors are clustered at the DMA level.

Unlike newspapers, which tend to be local monopolies or duopolies, there are usually three or four news producing stations in each media market. Congruence impacts the coverage of all stations equally, and therefore affects all voters who rely on TV news coverage. Instead, a conglomerate acquisition impacts only one out of (typically) four stations, therefore leading to a much smaller effect on average knowledge at the media market level. Overall, this suggests that the specific

market structure of local TV retains a relatively high level of competition at the local level, even in presence of significant ownership concentration.[23]

7 Conclusion

Over the past few decades, the United States experienced a long-lasting wave of consolidation in media ownership. In the local television news market on which our study focuses, we identify 218 full-power, major-network affiliated television stations that were acquired by one of the three large multi-market conglomerates in the decade from 2010 to 2020. But this phenomenon is by no means specific to television. Newspaper chains have grown in size as well, with the Gannett company today controlling one-sixth of all US dailies (Doctor 2019). And despite the decentralizing promise of the Internet, in reality digital news is also characterized by concentration in the hands of a few large companies (Hindman 2018).

We show that the effects of this consolidation for the news coverage that outlets produce are highly dependent on the identity of the acquirer. Rather than a general effect of consolidation per se, consolidation-driven changes in news content appear to vary widely depending on who is doing the acquiring. The more consistent effect of consolidation is on the advertising side of the business, where large conglomerate owners are able to expand the volume of advertising sales relative to independent owners and smaller groups.

Similarly consistent is the non-response of news viewers. Acquirers who increase, decrease, or maintain constant the level of locally-focused coverage at their stations see similar, small changes in viewership. We observe empirical variation on the generic local dimension corresponding to roughly $\pm 10\%$ of the baseline average level, and even higher variation—ranging from 20 to 40% of the sample mean—on specific coverage of local politicians. Station owners therefore have substantial latitude in setting editorial policy at their stations without fearing noticeable backlash from viewers, particularly when it comes to coverage of local politics.

Editorial choices in local news matter because of their impact on the political environment, by

[23] A final possibility is that these null effects are driven by media market specific trends and the fact that we rely on the stronger cross-market parallel trends identification assumption here, unlike our station-level analyses which can limit to only within-market comparisons. To provide evidence on this, we implement a triple-differences specification exploiting variation in congruence across different congressional districts that are part of the same DMA. We find again no evidence of effects on political knowledge using this more stringent specification.

shaping what citizens know about their representatives. We show that local TV news is collectively quite important for political knowledge: voters living in parts of Congressional districts that align poorly with their TV market see much less coverage of their member of Congress, and consequently are less able to express an opinion on the member's performance or state an intention to vote in the Congressional election, compared to peers *in the same Congressional district* but in more-congruent TV markets. But changes in coverage implemented by new owners are not as large as the congruence-driven variation we observe, and apply to only one station rather than all of the available stations; as a result, we do not detect an effect of consolidation on knowledge in our sample.

Given the weak demand-driven constraints on owners' choices and the aggregate import of TV news for political knowledge, broadcast regulators should not treat this null result as evidence favoring a more hands-off approach to ownership changes. First, restrictions on concentration at the local level (i.e., within media market) appear to be important in limiting impacts on knowledge and should not be undermined. In addition, an implication of the flat viewership response to local coverage changes is that stricter enforcement of regulations on public-service content would have low costs to license holders, at least on the margin.[24] Our results together indicate that owner identity, more than size, matters in predicting content changes. Consolidation produces countervailing economic forces on news content, and which prevails depends on the idiosyncratic judgement (or non-market objectives) of specific owners and managers.

[24]There is of course some point at which the inertia in viewership would break down; see e.g. Knight and Tribin (2019) on viewer responses to Hugo Chavez' interruptions of TV programming in Venezuela to air lengthy political speeches for an extreme example. That point is, however, somewhere beyond the range of variation we observe in our sample.

References

Anderson, Simon P and Joel Waldfogel. 2015. Preference Externalities in Media Markets. In *Handbook of Media Economics*. Vol. 1 Elsevier pp. 3–40.

Angelucci, Charles, Julia Cagé and Michael Sinkinson. 2024. "Media Competition and News Diets." *American Economic Journal: Microeconomics* 16(2):62–102.

Balles, Patrick, Ulrich Matter and Alois Stutzer. 2023. "Television Market Size and Political Accountability in the US House of Representatives." *European Journal of Political Economy* 80:102459.

Berry, Steven and Joel Waldfogel. 2010. "Product Quality and Market Size." *The Journal of Industrial Economics* 58(1):1–31.

Berry, Steven T and Joel Waldfogel. 2001. "Do Mergers Increase Product Variety? Evidence from Radio Broadcasting." *The Quarterly Journal of Economics* 116(3):1009–1025.

Bonica, Adam. 2023. "Database on Ideology, Money in Politics, and Elections.".
URL: *https://data.stanford.edu/dime*

Cagé, Julia, Moritz Hengel, Nicolas Hervé and Camille Urvoy. 2024. "Hosting Media Bias: Evidence from the Universe of French Broadcasts, 2002-2020." *Available at SSRN 4036211* .

de Chaisemartin, Clément and Xavier d'Haultfoeuille. 2024. "Difference-in-Differences Estimators of Intertemporal Treatment Effects." *Review of Economics and Statistics* pp. 1–45.

Dertouzos, James N and William B Trautman. 1990. "Economic Effects of Media Concentration: Estimates from a Model of the Newspaper Firm." *The Journal of Industrial Economics* pp. 1–14.

Djourelova, Milena, Ruben Durante and Gregory J. Martin. 2023. "The Impact of Online Competition on Local Newspapers: Evidence from the Introduction of Craigslist." *Review of Economic Studies* Forthcoming.

Doctor, Ken. 2019. "The potential GateHouse/Gannett merger shows "more scale!" is still the newspaper industry's top strategy.".

URL: *https://www.niemanlab.org/2019/05/newsonomics-the-potential-gatehouse-gannett-merger-shows-more-scale-is-still-the-newspaper-industrys-real-strategy/*

Dunaway, Johanna and Regina G. Lawrence. 2015. "What Predicts the Game Frame? Media Ownership, Electoral Context, and Campaign News." *Political Communication* 32(1):43–60.

Fan, Ying. 2013. "Ownership Consolidation and Product Characteristics: A Study of the US Daily Newspaper Market." *American Economic Review* 103(5):1598–1628.

Garz, Marcel and Jonna Rickardsson. 2024. "Media Competition, Multimarket Contact, and Viewpoint Diversity." *Multimarket Contact, and Viewpoint Diversity (January 1, 2024)* .

Gentzkow, Matthew. 2006. "Television and Voter Turnout." *The Quarterly Journal of Economics* 121(3):931–972.

Gentzkow, Matthew, Jesse M. Shapiro, Frank Yang and Ali Yurukoglu. 2024. "Pricing Power in Advertising Markets: Theory and Evidence." *American Economic Review* 114(2):500–533.

Gentzkow, Matthew, Jesse M. Shapiro and Michael Sinkinson. 2011. "The Effect of Newspaper Entry and Exit on Electoral Politics." *American Economic Review* 101:2980–3018.

George, Lisa. 2007. "What's Fit to Print: The Effect of Ownership Concentration on Product Variety in Daily Newspaper Markets." *Information Economics and Policy* 19(3-4):285–303.

Grullon, Gustavo, Yelena Larkin and Roni Michaely. 2019. "Are US Industries Becoming More Concentrated?*." *Review of Finance* 23(4):697–743.

Hindman, Matthew. 2018. *The Internet Trap*. Princeton: Princeton University Press.

Huber, Gregory A and Patrick D Tucker. 2024. "House Members on the News: Local Television News Coverage of Incumbents." *British Journal of Political Science* 54(2):503–513.

Kerkhof, Anna. 2024. "Advertising and Content Differentiation: Evidence from YouTube." *The Economic Journal* .

Knight, Brian and Ana Tribin. 2019. "The limits of propaganda: Evidence from Chavez's Venezuela." *Journal of the European Economic Association* 17(2):567–605.

Kuriwaki, Shiro. 2023. "Cumulative CES Common Content.".
URL: *https://doi.org/10.7910/DVN/II2DB6*

Kwon, Spencer Y., Yueran Ma and Kaspar Zimmermann. 2024. "100 Years of Rising Corporate Concentration." *American Economic Review* 114(7):2111–40.

Levendusky, Matthew S. 2022. "How does Local TV News Change Viewers' Attitudes? The Case of Sinclair Broadcasting." *Political Communication* 39(1):23–38.

L'Heudé, Lucie. 2023. "The Decline of Local News Coverage: Evidence from US Newspapers.". Working Paper.

Martin, Gregory J. and Joshua McCrain. 2019. "Local News and National Politics." *American Political Science Review* 113(2):372–384.

Mastrorocco, Nicola and Arianna Ornaghi. 2024. "Who Watches the Watchmen? Local News and Police Behavior in the United States." *Forthcoming at the American Economic Journal: Economic Policy* .

McCrain, Joshua and Erik Peterson. 2023. "Local Elections do not Increase Local News Demand." *Political Science Research and Methods* pp. 1–11.

Miho, Antonela. 2023. "Small Screen, Big Echo? Estimating the Political Persuasion of Local Television News Bias using Sinclair Broadcast Group as a Natural Experiment." Working Paper.

Nicolaou, Anna. 2019. "Surge in M&A activity among US local television networks.".
URL: *https://www.ft.com/content/3e55e6de-0548-11e9-99df-6183d3002ee1*

Prat, Andrea. 2015. Media Capture and Media Power. In *Handbook of Media Economics*. Vol. 1 Elsevier pp. 669–686.

Prat, Andrea. 2018. "Media Power." *Journal of Political Economy* 126(4):1747–1783.

Rolnik, Guy, Julia Cagé, Joshua Gans, Ellen Goodman, Brian Knight, Andrea Prat and Anya Schiffrin. 2019. Protecting journalism in the age of digital platforms PhD thesis George J. Stigler Center for the Study of the Economy and the State; The ....

Snyder, James M. and David Strömberg. 2010. "Press Coverage and Political Accountability." *Journal of Political Economy* 118(2):355–408.

Stahl, Jessica Calfee. 2016. "Effects of Deregulation and Consolidation of the Broadcast Television Industry." *American Economic Review* 106(8):2185–2218.

Sweeting, Andrew. 2010. "The Effects of Mergers on Product Positioning: Evidence from the Music Radio Industry." *The RAND Journal of Economics* 41(2):372–397.

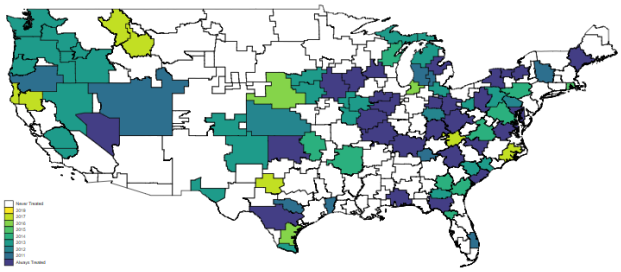
Warshaw, Christopher, Justin de Benedictis-Kessner, Dan Thompson and Yamil Velez. 2022. "United States Local Elections Dataset.".

Widmer, Philine, Sergio Galletta and Elliott Ash. 2023. "Media Slant is Contagious.". Working Paper.

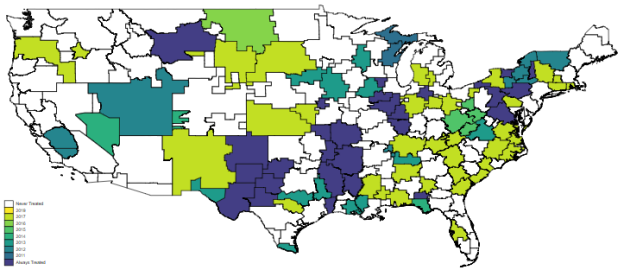
Appendices

A Appendix Figures

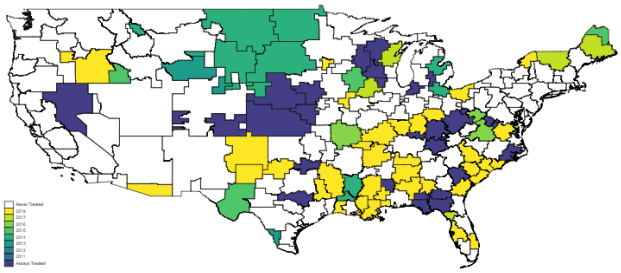
Figure A1: Map of First Conglomerate Entry by DMA



(a) Sinclair



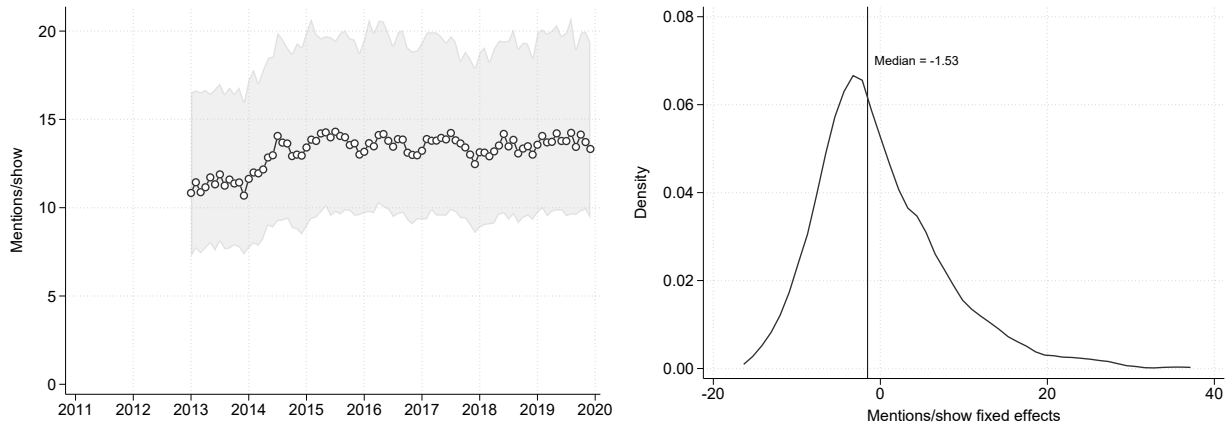
(b) Nexstar



(c) Gray

Notes: These figures show the first year of conglomerate entry across DMAs, separately for Sinclair, Nexstar, and Gray. Lighters colors correspond to later entry. Never treated DMAs are media markets that never experience an acquisition by the specific group; always treated are DMAs that have at least one station owned by the specific group at the beginning of the period (January 2010).

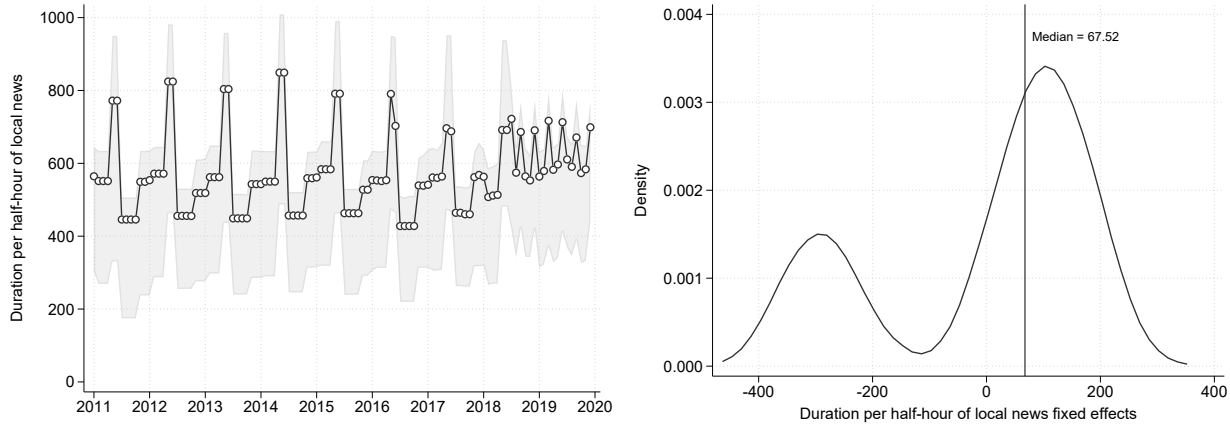
Figure A2: Local Coverage, Descriptive Figures



(a) Over Time (b) Distribution Across Stations

Notes: This figure shows two views of the distribution of our measure of local coverage (mentions of same-DMA municipalities normalized by number of local newscasts). Panel (a) shows the median (dark line) and 25th-75th interquartile range (shaded area) each month 2013-2019. Panel (b) shows the distribution of station fixed effects in a linear regression of mentions/show on station and month fixed effects (included to adjust for sample unbalancedness).

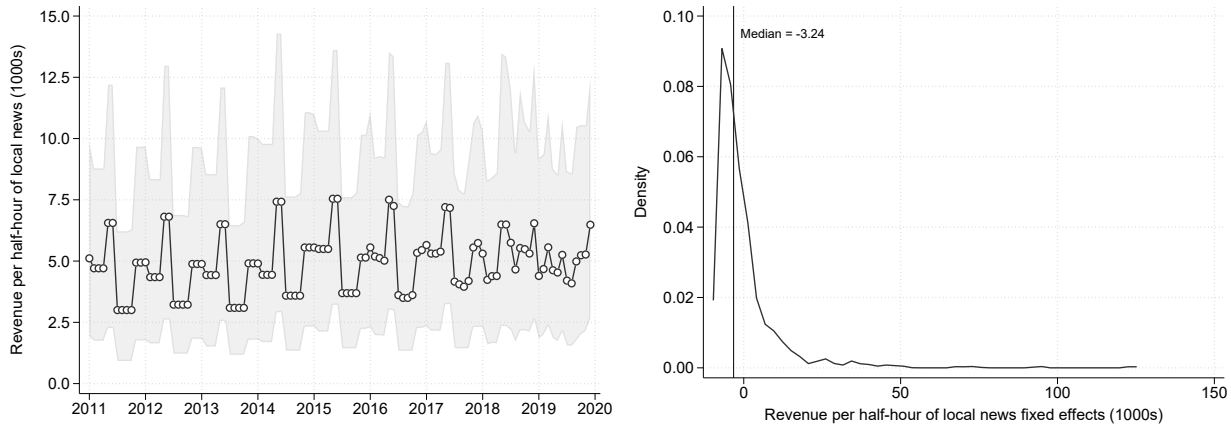
Figure A3: Advertising Duration, Descriptive Figures



(a) Over Time (b) Distribution Across Stations

Notes: This figure shows two views of the distribution of advertising duration per half-hour of local news. Panel (a) shows the median (dark line) and 25th-75th interquartile range (shaded area) each month 2011-2019. Panel (b) shows the distribution of station fixed effects in a linear regression of advertising duration per half-hour of local news on station and month fixed effects (included to adjust for sample unbalancedness).

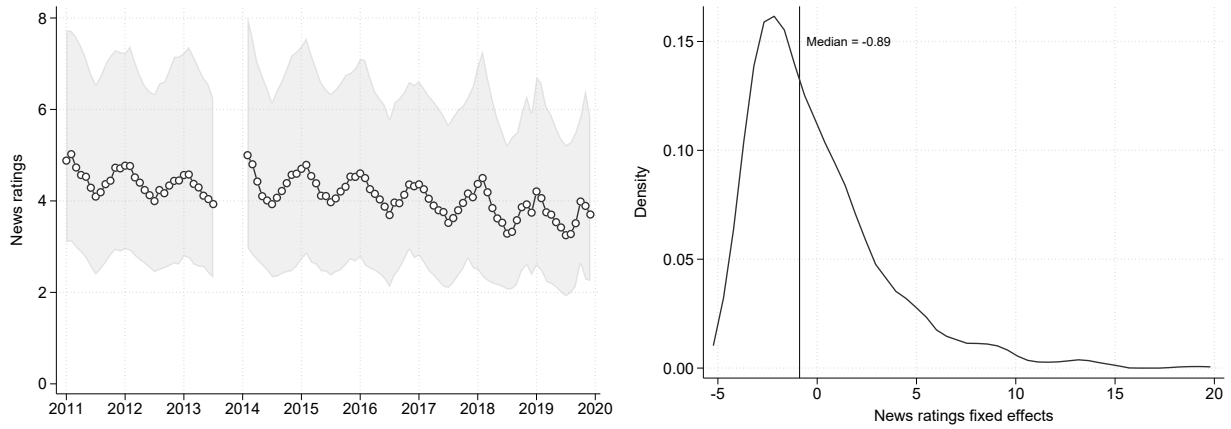
Figure A4: Advertising Revenue, Descriptive Figures



(a) Over Time (b) Distribution Across Stations

Notes: This figure shows two views of the distribution of advertising revenue per half-hour of local news. Panel (a) shows the median (dark line) and 25th-75th interquartile range (shaded area) each month 2011-2019. Panel (b) shows the distribution of station fixed effects in a linear regression of advertising revenue per half-hour of local news on station and month fixed effects (included to adjust for sample unbalancedness).

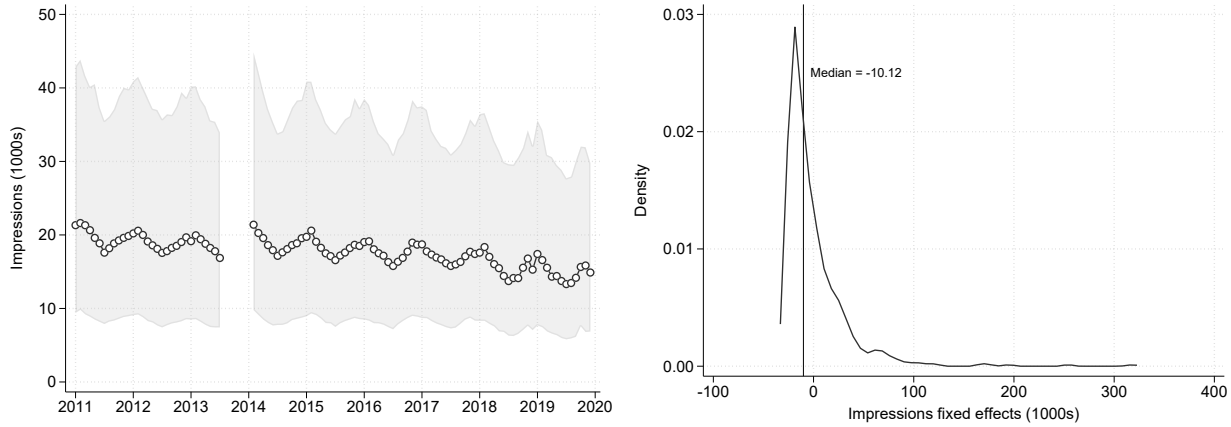
Figure A5: News Ratings, Descriptive Figures



(a) Over Time (b) Distribution Across Stations

Notes: This figure shows two views of the distribution of news ratings. Panel (a) shows the median (dark line) and 25th-75th interquartile range (shaded area) each month 2011-2019. Panel (b) shows the distribution of station fixed effects in a linear regression of news ratings on station and month fixed effects (included to adjust for sample unbalancedness).

Figure A6: Impressions, Descriptive Figures

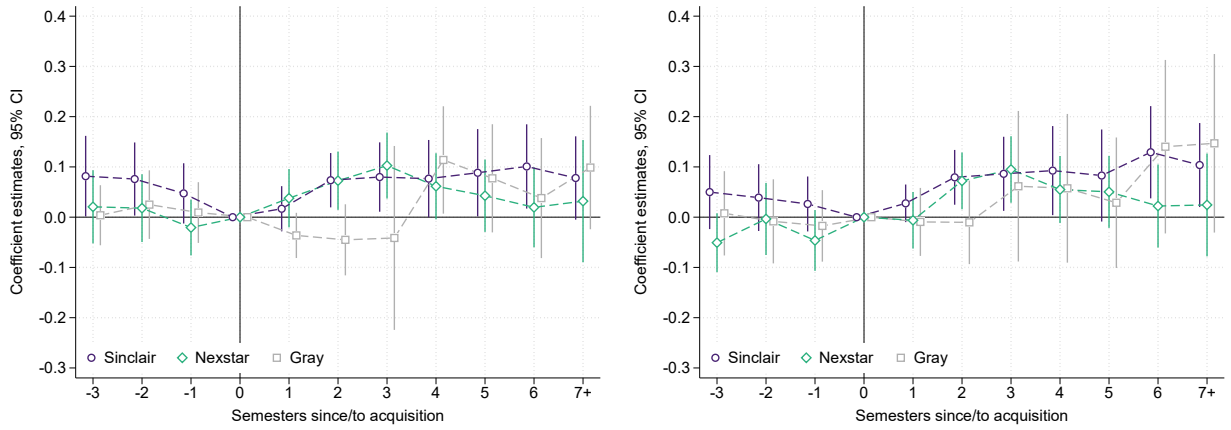


(a) Over Time

(b) Distribution Across Stations

Notes: This figure shows two views of the distribution of impressions. Panel (a) shows the median (dark line) and 25th-75th interquartile range (shaded area) each month 2011-2019. Panel (b) shows the distribution of station fixed effects in a linear regression of news ratings on station and month fixed effects (included to adjust for sample unbalancedness).

Figure A7: Effect of Group Ownership on Advertising Revenue, Event Studies

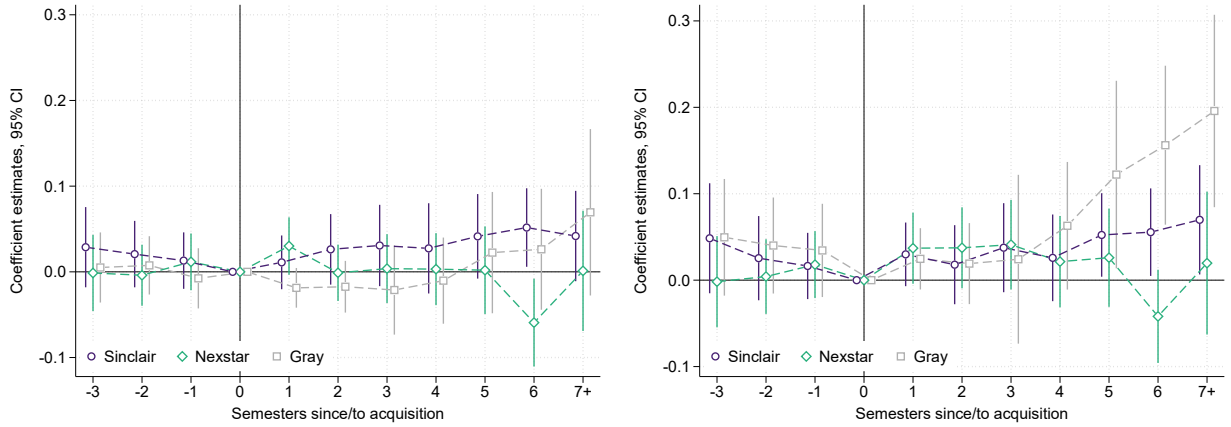


(a) Differences-in-Differences

(b) Triple-Differences

Notes: This figure shows the effect of conglomerate acquisitions on advertising revenue by semester since/to treatment. In panel (a), we report coefficient estimates and 95% confidence intervals from a regression of log advertising revenue per half hour of local news on indicator variables for semesters since/to a Sinclair, Nexstar, or Gray acquisition, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects (equation (2)). Panel (b) additionally includes DMA-by-month fixed effects. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. The sample excludes always treated stations. Standard errors are clustered at the DMA level.

Figure A8: Effect of Group Ownership on Impressions, Event Studies



(a) Differences-in-Differences

(b) Triple-Differences

Notes: This figure shows the effect of conglomerate acquisitions on viewership by semester since/to treatment. In panel (a), we report coefficient estimates and 95% confidence intervals from a regression of log average impressions of local news on indicator variables for semesters since/to a Sinclair, Nexstar, or Gray acquisition, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects (equation (2)). Panel (b) additionally includes DMA-by-month fixed effects. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. The sample excludes always treated stations. Standard errors are clustered at the DMA level.

B Appendix Tables

Table B1: Descriptive Statistics

	Observations	Mean	SD	Min	Median	Max
	Panel A: Content					
Mentions/Shows	52772	14.737	8.417	0.000	13.211	82.043
Mayors' Mentions/Shows	52772	0.118	0.210	0.000	0.044	7.716
State Legislators' Mentions/Shows	52772	0.110	0.240	0.000	0.048	11.890
Members of Congress' Mentions/Shows	52772	0.150	0.489	0.000	0.036	18.194
	Panel B: Advertising					
Duration	68651	510.381	232.768	3.333	532.970	1350.075
Log Duration	68651	6.096	0.585	1.204	6.278	7.208
Revenue	68651	8247.227	12082.073	2.000	4779.223	239740.234
Log Revenue	68651	8.324	1.268	0.693	8.472	12.387
	Panel C: Viewership					
News Ratings	64955	5.033	3.547	0.225	4.148	29.240
Impressions	64955	27569.574	32907.508	167.642	17512.385	470602.875
Log Impressions	64955	9.694	1.096	5.122	9.771	13.062

Notes: This table reports descriptive statistics for the main variables used in the analysis.

Table B2: Descriptive Statistics, CCES

	Observations	Mean	SD
Never Heard of Representative	428144	0.058	0.233
Not Able to Evaluate Representative	426708	0.211	0.408
Has No Preference over Election	251877	0.166	0.372
Male	433688	0.452	0.498
Employed	433571	0.539	0.498
Race: Black	433688	0.114	0.318
Race: Hispanic	433688	0.083	0.275
Race: Asian	433688	0.023	0.150
Race: Other	433688	0.046	0.210
Has Graduated College	433688	0.462	0.499
Married	433366	0.529	0.499
Family Income Above $60,000	385405	0.432	0.495
Age	433688	49.641	16.833

Notes: This table reports descriptive statistics for the main variables used in the analysis and the individual characteristics we use as controls in the CCES analysis.

Table B3: Effect of Conglomerate Ownership on Advertising Duration and Revenue by Type of Advertiser

	Log Duration				Log Revenue			
	Multi-Market		Single-Market		Multi-Market		Single-Market	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Acquisition, Sinclair	0.077***	0.082***	-0.075**	-0.050	0.046	0.090**	-0.074*	-0.024
	(0.020)	(0.023)	(0.035)	(0.030)	(0.036)	(0.039)	(0.040)	(0.043)
Post-Acquisition, Nexstar	0.047***	0.034**	0.046*	0.052*	0.055**	0.078***	0.040	0.090**
	(0.015)	(0.014)	(0.027)	(0.030)	(0.026)	(0.027)	(0.034)	(0.035)
Post-Acquisition, Gray	0.045*	0.013	-0.031	-0.038	0.032	0.026	-0.064	-0.029
	(0.023)	(0.025)	(0.034)	(0.039)	(0.030)	(0.040)	(0.046)	(0.046)
Station FEs	✓	✓	✓	✓	✓	✓	✓	✓
Month FEs	✓		✓		✓		✓	
DMA-By-Month FEs		✓		✓		✓		✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓
Observations	68651	65665	52464	50860	68651	65665	52464	50860
Stations	644	617	625	560	644	617	625	560
DMAs (Clusters)	206	179	204	162	206	179	204	162
Mean Dep. Variable	5.912	5.939	4.769	4.822	8.136	8.163	7.192	7.269
Sinclair = Nexstar	0.217	0.073	0.005	0.013	0.836	0.813	0.023	0.032
Sinclair = Gray	0.299	0.057	0.375	0.815	0.770	0.309	0.876	0.950
Nexstar = Gray	0.946	0.465	0.058	0.070	0.517	0.283	0.047	0.033

Notes: This table shows the effect of conglomerate acquisitions on advertising by multi-market and single-market advertisers. The outcomes are log average duration and revenue per half hour of local news for multi- and single-market advertisers, where we define an advertiser to be multi-market if they advertise in more than one DMA in a given year. In columns (1), (3), (5) and (7), we regress the outcome on indicator variables for the station being respectively owned by Sinclair, Nexstar, or Gray, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects (equation (1)). Columns (2), (4), (6) and (8) further include DMA-by-month fixed effects. The p-values reported at the bottom of the table are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. Standard errors are clustered at the DMA level.

Table B4: Effect of Conglomerate Ownership on Share of Duration and Spending by Multi-Markets Advertisers

	Share Multi-Market Advertisers			
	By Duration		By Revenue	
	(1)	(2)	(3)	(4)
Post-Acquisition, Sinclair	0.018***	0.015***	0.016***	0.013***
	(0.006)	(0.005)	(0.006)	(0.005)
Post-Acquisition, Nexstar	-0.004	-0.005	-0.003	-0.004
	(0.005)	(0.005)	(0.005)	(0.005)
Post-Acquisition, Gray	0.005	0.009	0.005	0.008
	(0.004)	(0.005)	(0.004)	(0.005)
Station FEs	✓	✓	✓	✓
Month FEs	✓		✓	
DMA-By-Month FEs		✓		✓
Controls	✓	✓	✓	✓
Observations	68651	65665	68651	65665
Stations	644	617	644	617
DMAs (Clusters)	206	179	206	179
Mean Dep. Variable	0.841	0.836	0.838	0.833
Sinclair = Nexstar	0.005	0.005	0.012	0.016
Sinclair = Gray	0.086	0.372	0.131	0.520
Nexstar = Gray	0.113	0.048	0.153	0.068

Notes: This table shows the effect of conglomerate acquisitions on the share of advertising duration and spending by multi-market advertisers. The outcome is the share of advertising duration or spending by multi-market advertisers, where we define an advertiser to be multi-market if they advertise in more than one DMA in a given year. In columns (1) and (3), we regress the outcome on indicator variables for the station being respectively owned by Sinclair, Nexstar, or Gray, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects (equation (1)). Columns (2) and (4) further include DMA-by-month fixed effects. The p-values reported at the bottom of the table are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. Standard errors are clustered at the DMA level.

Table B5: Effect of Conglomerate Ownership on Cost-per-Mile

	Cost-per-Mile					
	All		Multi-Market		Single-Market	
	(1)	(2)	(3)	(4)	(5)	(6)
Post-Acquisition, Sinclair	-1.423**	-0.503**	-1.437**	-0.519**	-0.535	-0.230
	(0.636)	(0.226)	(0.635)	(0.224)	(0.488)	(0.221)
Post-Acquisition, Nexstar	-0.527	-0.023	-0.505	-0.020	-0.465	0.038
	(0.413)	(0.236)	(0.413)	(0.242)	(0.417)	(0.218)
Post-Acquisition, Gray	0.289	-0.308	0.303	-0.313	-1.154	0.032
	(1.573)	(0.386)	(1.565)	(0.383)	(1.050)	(0.384)
Station FEs	✓	✓	✓	✓	✓	✓
Month FEs	✓		✓		✓	
DMA-By-Month FEs		✓		✓		✓
Controls	✓	✓	✓	✓	✓	✓
Observations	64780	61961	64780	61961	49425	47936
Stations	644	617	644	617	607	543
DMAs (Clusters)	206	179	206	179	201	155
Mean Dep. Variable	20.549	18.528	20.530	18.511	17.202	16.266
Sinclair = Nexstar	0.183	0.116	0.167	0.104	0.898	0.351
Sinclair = Gray	0.309	0.659	0.301	0.639	0.548	0.539
Nexstar = Gray	0.590	0.540	0.593	0.528	0.458	0.989

Notes: This table shows the effect of conglomerate acquisitions on advertising cost-per-mile for all, multi-market, and single-market advertisers respectively. The outcome is average advertising revenue per impression per half hour of local news. We define an advertiser to be multi-market if they advertise in more than one DMA in a given year. In columns (1), (3), and (5), we regress the outcome on indicator variables for the station being respectively owned by Sinclair, Nexstar, or Gray, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects (equation (1)). Columns (2), (4), and (6) further include DMA-by-month fixed effects. The p-values reported at the bottom of the table are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. Standard errors are clustered at the DMA level.

Table B6: Effect of Conglomerate Ownership on Advertising Duration and Spending in Non-Local News Programs

	Log Duration		Log Revenue	
	(1)	(2)	(3)	(4)
Post-Acquisition, Sinclair	0.049***	0.065***	0.005	0.054
	(0.016)	(0.022)	(0.035)	(0.044)
Post-Acquisition, Nexstar	0.019	0.003	0.050*	0.051*
	(0.013)	(0.013)	(0.027)	(0.027)
Post-Acquisition, Gray	0.017	-0.012	0.020	-0.016
	(0.017)	(0.019)	(0.031)	(0.033)
Station FEs	✓	✓	✓	✓
Month FEs	✓		✓	
DMA-By-Month FEs		✓		✓
Controls	✓	✓	✓	✓
Observations	69024	66093	69024	66093
Stations	644	617	644	617
DMAs (Clusters)	206	179	206	179
Mean Dep. Variable	5.240	5.268	7.586	7.635
Sinclair = Nexstar	0.104	0.012	0.291	0.963
Sinclair = Gray	0.195	0.019	0.748	0.197
Nexstar = Gray	0.935	0.505	0.432	0.092

Notes: This table shows the effect of conglomerate acquisitions on advertising in non-local news programs. The outcomes are log average duration and revenue per half hour of local news. In columns (1) and (3), we regress the outcome on indicator variables for the station being respectively owned by Sinclair, Nexstar, or Gray, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects (equation (1)). Columns (3) and (4) further include DMA-by-month fixed effects. The p-values reported at the bottom of the table are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. Standard errors are clustered at the DMA level.

Table B7: Effect of Conglomerate Ownership on Viewership of Different Demographics

	News Ratings					Log Impressions				
	Full	50-	50+	M	F	Full	50-	50+	M	F
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Panel A: Differences-in-Differences									
Post-Acquisition, Sinclair	0.055	-0.033	0.003	-0.002	-0.018	0.021	-0.009	0.012	0.003	0.010
	(0.098)	(0.046)	(0.096)	(0.058)	(0.076)	(0.024)	(0.031)	(0.022)	(0.023)	(0.026)
Post-Acquisition, Nexstar	0.084	0.008	0.105	0.044	0.080*	0.013	-0.013	0.016	0.001	0.018
	(0.058)	(0.029)	(0.076)	(0.044)	(0.047)	(0.017)	(0.024)	(0.020)	(0.020)	(0.019)
Post-Acquisition, Gray	0.003	-0.087	0.028	-0.013	-0.050	0.013	-0.014	0.018	0.011	0.005
	(0.144)	(0.072)	(0.174)	(0.092)	(0.130)	(0.021)	(0.028)	(0.025)	(0.023)	(0.025)
Station FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Month FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	64955	64955	64955	64955	64955	64955	64955	64955	64955	64955
Stations	644	644	644	644	644	644	644	644	644	644
DMAs (Clusters)	206	206	206	206	206	206	206	206	206	206
Mean Dep. Variable	5.033	1.579	5.467	3.022	3.737	9.694	8.528	9.640	9.108	9.372
Sinclair = Nexstar	0.798	0.438	0.395	0.518	0.263	0.779	0.921	0.903	0.954	0.799
Sinclair = Gray	0.770	0.536	0.901	0.916	0.834	0.814	0.906	0.868	0.807	0.889
Nexstar = Gray	0.598	0.208	0.691	0.575	0.339	0.977	0.975	0.950	0.737	0.659
	Panel B: Triple-Differences									
Post-Acquisition, Sinclair	0.086	-0.024	0.058	0.023	0.007	0.033	0.017	0.024	0.022	0.024
	(0.096)	(0.049)	(0.102)	(0.059)	(0.076)	(0.023)	(0.034)	(0.023)	(0.024)	(0.026)
Post-Acquisition, Nexstar	0.148*	0.043	0.165*	0.078	0.135**	0.033	0.004	0.039*	0.019	0.043*
	(0.079)	(0.034)	(0.099)	(0.054)	(0.064)	(0.021)	(0.026)	(0.023)	(0.024)	(0.022)
Post-Acquisition, Gray	0.156	0.012	0.145	0.049	0.099	0.023	0.013	0.020	0.011	0.012
	(0.137)	(0.058)	(0.189)	(0.093)	(0.112)	(0.025)	(0.030)	(0.031)	(0.028)	(0.028)
Station FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
DMA-By-Month FEs	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	62183	62183	62183	62183	62183	62183	62183	62183	62183	62183
Stations	617	617	617	617	617	617	617	617	617	617
DMAs (Clusters)	179	179	179	179	179	179	179	179	179	179
Mean Dep. Variable	4.744	1.481	5.139	2.836	3.499	9.742	8.579	9.685	9.155	9.418
Sinclair = Nexstar	0.604	0.265	0.422	0.468	0.179	0.992	0.751	0.612	0.908	0.561
Sinclair = Gray	0.687	0.640	0.692	0.818	0.506	0.778	0.930	0.914	0.757	0.755
Nexstar = Gray	0.959	0.631	0.932	0.790	0.791	0.762	0.819	0.617	0.822	0.387

Notes: This table shows the effect of conglomerate acquisitions on viewership of different demographic groups. The outcomes are average ratings and log average impressions of non-local news programs for individuals of different genders and age. In panel A, we regress the outcome on indicator variables for the station being respectively owned by Sinclair, Nexstar, or Gray, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects (equation (1)). The regressions in panel B further include DMA-by-month fixed effects. The p-values reported at the bottom of each panel are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. Standard errors are clustered at the DMA level.

Table B8: Effect of Conglomerate Ownership on Viewership, Non-Local News Programs

	Ratings		Log Impressions	
	(1)	(2)	(3)	(4)
Post-Acquisition, Sinclair	0.085	0.095	0.014	0.019
	(0.119)	(0.126)	(0.033)	(0.039)
Post-Acquisition, Nexstar	0.054	0.126	0.025	0.048*
	(0.070)	(0.090)	(0.019)	(0.025)
Post-Acquisition, Gray	0.202**	0.128	0.042*	0.018
	(0.097)	(0.123)	(0.025)	(0.030)
Station FEs	✓	✓	✓	✓
Month FEs	✓		✓	
DMA-By-Month FEs		✓		✓
Controls	✓	✓	✓	✓
Observations	65166	62397	65166	62397
Stations	644	617	644	617
DMAs (Clusters)	206	179	206	179
Mean Dep. Variable	4.059	3.950	9.555	9.620
Sinclair = Nexstar	0.823	0.831	0.779	0.505
Sinclair = Gray	0.457	0.853	0.499	0.985
Nexstar = Gray	0.217	0.991	0.567	0.443

Notes: This table shows the effect of conglomerate acquisitions on viewership of non-local news programs. The outcomes are average ratings and log average impressions of non-local news programs. In columns (1) and (3), we regress the outcome on indicator variables for the station being respectively owned by Sinclair, Nexstar, or Gray, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects (equation (1)). Columns (2) and (4) further include DMA-by-month fixed effects. The p-values reported at the bottom of the table are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. Standard errors are clustered at the DMA level.

Table B9: Effect of Conglomerate Ownership on Local Coverage, Spillovers Differences-in-Differences

	Baseline	Drops Stations				Drops DMAs			
		Sinclair	Nexstar	Gray	Both	Sinclair	Nexstar	Gray	Both
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Panel A: Sinclair								
Post-Acquisition, Sinclair	-1.673***		-1.612***	-1.781***	-1.745***		-2.356***	-1.208**	-1.574**
	(0.517)		(0.521)	(0.510)	(0.512)		(0.743)	(0.516)	(0.653)
Observations	52772		44767	45346	37341		26875	31089	16686
Stations	638		542	547	451		323	373	200
DMAs (Clusters)	204		203	191	183		113	118	67
Mean Dep. Variable	14.737		14.852	15.341	15.608		15.442	16.325	17.149
	Panel B: Nexstar								
Post-Acquisition, Nexstar	0.824**	0.607*		0.748*	0.469	0.594		0.907*	0.698
	(0.370)	(0.358)		(0.384)	(0.371)	(0.544)		(0.509)	(0.821)
Observations	52772	45920		45346	38494	29738		31089	16495
Stations	638	555		547	464	361		373	198
DMAs (Clusters)	204	203		191	189	127		118	68
Mean Dep. Variable	14.737	14.773		15.341	15.490	14.958		16.325	17.012
	Panel C: Gray								
Post-Acquisition, Gray	-0.441	-0.566*	-0.367		-0.510	-0.459	-0.145		0.228
	(0.324)	(0.327)	(0.334)		(0.338)	(0.410)	(0.534)		(0.664)
Observations	52772	45920	44767		37915	29738	26875		16571
Stations	638	555	542		459	361	323		199
DMAs (Clusters)	204	203	203		201	127	113		78
Mean Dep. Variable	14.737	14.773	14.852		14.915	14.958	15.442		16.632

Notes: This table shows the effect of conglomerate acquisitions on local coverage controlling for potential spillovers across groups. Each panel focuses on a specific group. In column (1), we regress mentions of same-DMA municipalities normalized by number of local newscasts on indicator variables for the station being owned by the specified group, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects. Note that, relatively to our baseline specification, we estimate the effect of each group from a separate regression. Columns (2) to (5) exclude from the sample stations that are ever owned by one of the other two groups, or both. Columns (6) to (9) exclude from the sample media markets that have at least one station ever owned by one of the other two groups, or both. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2013-2019 period. Standard errors are clustered at the DMA level.

Table B10: Effect of Conglomerate Ownership on Local Coverage, Spillovers Triple-Differences

	Baseline	Drops Stations				Drops DMAs			
		Sinclair	Nexstar	Gray	Both	Sinclair	Nexstar	Gray	Both
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Panel A: Sinclair								
Post-Acquisition, Sinclair	-1.718***		-1.444**	-1.470**	-1.125		-2.267***	-1.280*	-1.768**
	(0.607)		(0.681)	(0.613)	(0.721)		(0.709)	(0.694)	(0.778)
Observations	50614		41892	43025	34606		24804	30021	15704
Stations	613		511	522	420		299	361	189
DMAs (Clusters)	179		172	166	152		89	106	56
Mean Dep. Variable	14.975		15.178	15.688	15.974		15.966	16.584	17.655
	Panel B: Nexstar								
Post-Acquisition, Nexstar	1.248***	1.052**		1.255**	1.114*	1.260*		1.219*	0.351
	(0.470)	(0.508)		(0.539)	(0.614)	(0.647)		(0.645)	(0.904)
Observations	50614	43639		43025	35816	27667		30021	15513
Stations	613	529		522	434	337		361	187
DMAs (Clusters)	179	177		166	159	103		106	57
Mean Dep. Variable	14.975	15.056		15.688	15.938	15.388		16.584	17.509
	Panel C: Gray								
Post-Acquisition, Gray	0.689	0.718	0.844		0.927*	1.186*	1.036		2.592**
	(0.528)	(0.534)	(0.642)		(0.527)	(0.602)	(0.780)		(1.159)
Observations	50614	43639	41892		33309	27667	24804		14585
Stations	613	529	511		408	337	299		176
DMAs (Clusters)	179	177	172		150	103	89		55
Mean Dep. Variable	14.975	15.056	15.178		15.425	15.388	15.966		17.639

Notes: This table shows the effect of conglomerate acquisitions on local coverage controlling for potential spillovers across groups. Each panel focuses on a specific group. In column (1), we regress mentions of same-DMA municipalities normalized by number of local newscasts on indicator variables for the station being owned by the specified group, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and DMA-by-month fixed effects. Note that, relatively to our baseline specification, we estimate the effect of each group from a separate regression. Columns (2) to (5) exclude from the sample stations that are ever owned by one of the other two groups, or both. Columns (6) to (9) exclude from the sample media markets that have at least one station ever owned by one of the other two groups, or both. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2013-2019 period. Standard errors are clustered at the DMA level.

Table B11: Effect of Conglomerate Ownership on Advertising Duration, Spillovers Differences-in-Differences

	Baseline	Drops Stations				Drops DMAs			
		Sinclair	Nexstar	Gray	Both	Sinclair	Nexstar	Gray	Both
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Panel A: Sinclair								
Post-Acquisition, Sinclair	0.049**		0.051**	0.054***	0.059***		0.085**	0.050**	0.072
	(0.020)		(0.020)	(0.021)	(0.021)		(0.038)	(0.021)	(0.045)
Observations	68651		58292	58769	48410		35007	40214	21693
Stations	644		548	552	456		329	376	203
DMAs (Clusters)	206		205	192	184		116	119	69
Mean Dep. Variable	6.096		6.102	6.122	6.135		6.090	6.119	6.068
	Panel B: Nexstar								
Post-Acquisition, Nexstar	0.047***	0.052***		0.053***	0.059***	0.073***		0.040**	0.058
	(0.014)	(0.013)		(0.014)	(0.014)	(0.021)		(0.019)	(0.041)
Observations	68651	59728		58769	49846	39040		40214	21578
Stations	644	561		552	469	368		376	202
DMAs (Clusters)	206	205		192	190	130		119	70
Mean Dep. Variable	6.096	6.079		6.122	6.106	5.985		6.119	6.060
	Panel C: Gray								
Post-Acquisition, Gray	0.033	0.037*	0.035		0.041*	0.048	0.061		0.086
	(0.022)	(0.022)	(0.022)		(0.022)	(0.031)	(0.037)		(0.053)
Observations	68651	59728	58292		49369	39040	35007		21704
Stations	644	561	548		465	368	329		205
DMAs (Clusters)	206	205	205		203	130	116		81
Mean Dep. Variable	6.096	6.079	6.102		6.082	5.985	6.090		6.034

Notes: This table shows the effect of conglomerate acquisitions on advertising duration controlling for potential spillovers across groups. Each panel focuses on a specific group. In column (1), we regress the log advertising duration per half hour of local news on indicator variables for the station being owned by the specified group, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects. Note that, relatively to our baseline specification, we estimate the effect of each group from a separate regression. Columns (2) to (5) exclude from the sample stations that are ever owned by one of the other two groups, or both. Columns (6) to (9) exclude from the sample media markets that have at least one station ever owned by one of the other two groups, or both. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. Standard errors are clustered at the DMA level.

Table B12: Effect of Conglomerate Ownership on Advertising Duration, Spillovers Triple-Differences

	Baseline	Drops Stations				Drops DMAs			
		Sinclair	Nexstar	Gray	Both	Sinclair	Nexstar	Gray	Both
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Panel A: Sinclair								
Post-Acquisition, Sinclair	0.058**		0.061**	0.059***	0.066***		0.078*	0.056**	0.066
	(0.023)		(0.025)	(0.021)	(0.024)		(0.045)	(0.022)	(0.046)
Observations	65665		54415	55866	45005		32132	38797	20384
Stations	617		515	527	425		303	363	191
DMAs (Clusters)	179		172	167	153		90	106	57
Mean Dep. Variable	6.130		6.148	6.152	6.172		6.155	6.143	6.105
	Panel B: Nexstar								
Post-Acquisition, Nexstar	0.036***	0.040***		0.035***	0.038***	0.054***		0.036**	0.066**
	(0.013)	(0.013)		(0.013)	(0.013)	(0.019)		(0.017)	(0.032)
Observations	65665	56484		55866	46370	36163		38797	20270
Stations	617	532		527	438	342		363	190
DMAs (Clusters)	179	176		167	159	104		106	58
Mean Dep. Variable	6.130	6.120		6.152	6.140	6.036		6.143	6.098
	Panel C: Gray								
Post-Acquisition, Gray	-0.006	-0.003	0.020		0.024	0.006	0.038		0.100
	(0.025)	(0.025)	(0.026)		(0.026)	(0.037)	(0.044)		(0.066)
Observations	65665	56484	54415		43453	36163	32132		18938
Stations	617	532	515		414	342	303		180
DMAs (Clusters)	179	176	172		152	104	90		56
Mean Dep. Variable	6.130	6.120	6.148		6.130	6.036	6.155		6.133

Notes: This table shows the effect of conglomerate acquisitions on advertising duration controlling for potential spillovers across groups. Each panel focuses on a specific group. In column (1), we regress the log advertising duration per half hour of local news on indicator variables for the station being owned by the specified group, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and DMA-by-month fixed effects. Note that, relatively to our baseline specification, we estimate the effect of each group from a separate regression. Columns (2) to (5) exclude from the sample stations that are ever owned by one of the other two groups, or both. Columns (6) to (9) exclude from the sample media markets that have at least one station ever owned by one of the other two groups, or both. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. Standard errors are clustered at the DMA level.

Table B13: Effect of Conglomerate Ownership on Viewership, Spillovers Differences-in-Differences

	Baseline	Drops Stations				Drops DMAs			
		Sinclair	Nexstar	Gray	Both	Sinclair	Nexstar	Gray	Both
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Panel A: Sinclair								
Post-Acquisition, Sinclair	0.048		0.064	0.047	0.066		0.212	0.197	0.483*
	(0.098)		(0.099)	(0.098)	(0.099)		(0.164)	(0.135)	(0.258)
Observations	64955		55172	55625	45842		33089	38010	20472
Stations	644		548	552	456		329	376	203
DMAs (Clusters)	206		205	192	184		116	119	69
Mean Dep. Variable	5.033		5.135	4.461	4.463		5.186	4.760	4.616
	Panel B: Nexstar								
Post-Acquisition, Nexstar	0.080	0.078		0.082	0.085	0.193**		0.094	0.342***
	(0.058)	(0.058)		(0.059)	(0.059)	(0.079)		(0.082)	(0.128)
Observations	64955	56532		55625	47202	36945		38010	20360
Stations	644	561		552	469	368		376	202
DMAs (Clusters)	206	205		192	190	130		119	70
Mean Dep. Variable	5.033	5.115		4.461	4.457	5.212		4.760	4.702
	Panel C: Gray								
Post-Acquisition, Gray	-0.005	0.002	-0.013		-0.005	-0.006	-0.082		-0.015
	(0.144)	(0.144)	(0.146)		(0.147)	(0.184)	(0.216)		(0.283)
Observations	64955	56532	55172		46749	36945	33089		20535
Stations	644	561	548		465	368	329		205
DMAs (Clusters)	206	205	205		203	130	116		81
Mean Dep. Variable	5.033	5.115	5.135		5.253	5.212	5.186		5.378

Notes: This table shows the effect of conglomerate acquisitions on viewership controlling for potential spillovers across groups. Each panel focuses on a specific group. In column (1), we regress average news ratings on indicator variables for the station being owned by the specified group, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month fixed effects. Note that, relatively to our baseline specification, we estimate the effect of each group from a separate regression. Columns (2) to (5) exclude from the sample stations that are ever owned by one of the other two groups, or both. Columns (6) to (9) exclude from the sample media markets that have at least one station ever owned by one of the other two groups, or both. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. Standard errors are clustered at the DMA level.

Table B14: Effect of Conglomerate Ownership on Viewership, Spillovers Triple-Differences

	Baseline	Drops Stations				Drops DMAs			
		Sinclair	Nexstar	Gray	Both	Sinclair	Nexstar	Gray	Both
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Panel A: Sinclair								
Post-Acquisition, Sinclair	0.062		0.087	0.063	0.107		0.194	0.118	0.262
	(0.096)		(0.103)	(0.103)	(0.114)		(0.164)	(0.127)	(0.256)
Observations	62183		51595	52871	42501		30422	36670	19234
Stations	617		515	527	425		303	363	191
DMAs (Clusters)	179		172	167	153		90	106	57
Mean Dep. Variable	4.744		4.706	4.323	4.306		4.629	4.567	4.273
	Panel B: Nexstar								
Post-Acquisition, Nexstar	0.131	0.136		0.164**	0.173**	0.274**		0.184*	0.415***
	(0.079)	(0.085)		(0.079)	(0.082)	(0.118)		(0.104)	(0.155)
Observations	62183	53511		52871	43917	34276		36670	19123
Stations	617	532		527	438	342		363	190
DMAs (Clusters)	179	176		167	159	104		106	58
Mean Dep. Variable	4.744	4.756		4.323	4.297	4.719		4.567	4.361
	Panel C: Gray								
Post-Acquisition, Gray	0.135	0.137	0.106		0.113	0.166	0.173		0.377*
	(0.138)	(0.142)	(0.145)		(0.155)	(0.172)	(0.204)		(0.197)
Observations	62183	53511	51595		41300	34276	30422		17971
Stations	617	532	515		414	342	303		180
DMAs (Clusters)	179	176	172		152	104	90		56
Mean Dep. Variable	4.744	4.756	4.706		4.685	4.719	4.629		4.496

Notes: This table shows the effect of conglomerate acquisitions on viewership controlling for potential spillovers across groups. Each panel focuses on a specific group. In column (1), we regress average news ratings on indicator variables for the station being owned by the specified group, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and DMA-by-month fixed effects. Note that, relatively to our baseline specification, we estimate the effect of each group from a separate regression. Columns (2) to (5) exclude from the sample stations that are ever owned by one of the other two groups, or both. Columns (6) to (9) exclude from the sample media markets that have at least one station ever owned by one of the other two groups, or both. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period. Standard errors are clustered at the DMA level.

Table B15: Effect of Conglomerate Ownership on Political Knowledge by Congruence

	Never Heard of Representative		Not Able to Evaluate Representative		Has No Preference over Election	
	(1)	(2)	(3)	(4)	(5)	(6)
Above Median Congruence	-0.026***		-0.071***		-0.034***	
	(0.006)		(0.009)		(0.011)	
Post-Acquisition, Sinclair	-0.001	0.001	-0.001	0.026	-0.016	-0.008
	(0.009)	(0.009)	(0.017)	(0.020)	(0.015)	(0.021)
Post-Acquisition, Sinclair × Above Median Congruence	-0.004	-0.003	-0.001	-0.021	0.020	0.020
	(0.009)	(0.010)	(0.015)	(0.021)	(0.015)	(0.022)
Post-Acquisition, Nexstar	0.009	0.006	0.009	-0.004	0.030*	0.023
	(0.008)	(0.010)	(0.014)	(0.020)	(0.017)	(0.016)
Post-Acquisition, Nexstar × Above Median Congruence	-0.010	-0.008	-0.018	0.006	-0.047***	-0.015
	(0.010)	(0.010)	(0.015)	(0.021)	(0.018)	(0.015)
Post-Acquisition, Gray	0.001	0.000	0.009	0.008	-0.054***	-0.042
	(0.009)	(0.012)	(0.019)	(0.023)	(0.020)	(0.034)
Post-Acquisition, Gray × Above Median Congruence	0.003	0.004	0.001	0.006	0.051**	0.041
	(0.009)	(0.012)	(0.019)	(0.024)	(0.022)	(0.034)
DMA FEs	✓		✓		✓	
CD FEs	✓		✓		✓	
DMA-by-CD FEs		✓		✓		✓
Year FEs	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
Observations	380156	380146	378977	378969	223562	223543
CDs	444	444	444	444	444	444
DMAs (Clusters)	205	205	205	205	205	205
Mean Dep. Variable	0.058	0.058	0.211	0.211	0.165	0.165

Notes: This table shows the effect of conglomerate acquisitions on political knowledge by congruence. The outcomes are indicator variables for whether the individual reports never having heard of the name of their representative (columns (1) and (2)), not being able to evaluate the representative (columns (3) and (4)), or not having a preference over the result of the election (columns (5) and (6)). In columns (1), (3), and (5), we regress the outcome on an indicator variable for the congruence of the congressional district represented by the MC being above the median, indicator variables for respondent's DMA having at least one station respectively owned by Sinclair, Nexstar, or Gray, the interaction of these indicators with the congruence indicator, DMA fixed effects, congressional district fixed effects, year fixed effects, and individual-level controls (namely: gender, employment status, race, education, marriage status, age, and income). Columns (2), (4), and (6) additionally include DMA-by-congressional districts fixed effects. All regressions are weighted by the inverse of the total number of respondents per DMA and congressional district. Standard errors are clustered at the DMA level.

C A Model of Consolidation Effects on Advertising Prices and Content

We develop here a simple model of the effects of cross-market consolidation on advertising prices, beginning from the "reach-only" model of Gentzkow et al. (2024). We suppose that there are two markets, A and B, which each are served by two television stations, (A_1, A_2) and (B_1, B_2), respectively. Each market contains a unit mass of viewers.

Viewer behavior We assume that a viewer in market A watches either of the stations A_1, A_2 with probability α and either of the stations B_1, B_2 with probability β, and symmetrically a viewer in market B watches either of the stations A_1, A_2 with probability β and either of the stations B_1, B_2 with probability α. We suppose $\alpha >> \beta$ to capture the fact that local stations are more likely to be watched than non-local ones.

Advertisers There are two types of advertisers: local and regional. Local advertisers assign value of 1 to consumers in their home market (either A or B) and value of 0 to consumers in the other. Regional advertisers assign value of 1 to consumers in both markets.

C.1 Consolidation and Prices

Lemma 1. *Cross-market conglomerates charge higher prices to regional advertisers than do single-market owners. Both types of station charge the same price to local advertisers.*

Proof. Consider first the situation where all stations are independently owned. Applying Corollary 1 of Gentzkow et al. (2024), each commands a price per viewer to regional (R) and local (L) advertisers of:

$$p_0^R = \underbrace{\alpha(1-\alpha)(1-\beta)^2}_{p^* \text{ for viewers in } A} + \underbrace{\beta(1-\beta)(1-\alpha)^2}_{p^* \text{ for viewers in } B} \qquad p_0^L = \underbrace{\alpha(1-\alpha)(1-\beta)^2}_{p^* \text{ for viewers in } A \text{ or } B}$$

$$= (1-\alpha)(1-\beta)\left(\alpha+\beta-2\alpha\beta\right) \qquad = (1-\alpha)(1-\beta)(\alpha-\alpha\beta)$$

Consider a merger of stations A_1 and B_1 to form a cross-market conglomerate AB_1, under the

assumption that the merger has no effect on viewer behavior. It is clear that the price that local advertisers are willing to pay is unchanged by such a merger. For regional advertisers, though, the AB_1 combination now commands a greater share of exclusive viewer attention, which allows it to raise the prices it charges to those advertisers:

$$\begin{aligned} p^R_{AB_1} &= 2\left(1-(1-\alpha)(1-\beta)\right)(1-\alpha)(1-\beta) \\ &= 2\left(\alpha+\beta-\alpha\beta\right)(1-\alpha)(1-\beta) \\ &> 2p^R_0 \end{aligned}$$

The regional price charged by the remaining single-market firms A_2 and B_2 is unchanged, as they continue to capture the same share of viewers, and the same share of their own viewers continue to multi-home with other outlets that they do not own. Hence, these firms form a stable control group for comparisons with changes resulting from the combination of A_1 and B_1 into the conglomerate firm AB_1. □

C.2 Consolidation and Content Choices

To understand the effects of multi-market consolidation on content, we need to extend the model above to endogenize the probabilities that viewers watch either channel as a function of content choice. To do this, we assume that there is a single station-level content characteristic $\theta_s \in [0, 2\pi]$. Consumers in both markets are endowed with an ideal value of this characteristic, $\tilde{\theta}_i$, and ideal values are uniformly distributed around the unit circle in both markets. Viewers will watch a station in their home market with probability α, as before, but only if the station is located within a distance Δ of their ideal. They similarly will watch a station in the other market with probability $\beta << \alpha$, but again only if the station is located within a distance Δ of their ideal. Firms can choose to set θ at cost $k\theta^2$.[25]

Figure C1 depicts the situation where each firm locates at 0. Consumers in the arc segment from $-\Delta$ to Δ in each market split time (probabilistically) between all four stations, and the remaining

[25] I.e., investing in differentiating away from 0 is costly; we think of this as a cost of investing in higher-quality news reporting. We assume here that this cost is the same regardless of ownership structure.

consumers do not watch at all.

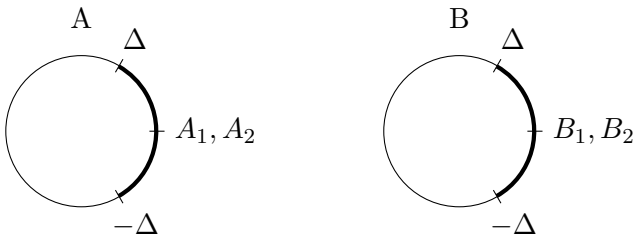


Figure C1: The distribution of viewers and location of firms in each market. Viewers are uniformly distributed around the unit circle, and stations are initially located at 0. Viewers watch a station if they are within distance Δ of the station's location on the circle.

Lemma 2. *Cross-market conglomerates gain strictly more profit by investing in differentiation (changing θ away from zero) at one of their stations than would a single-market owner operating the same station.*

Proof. Suppose that station A_1 considers a small movement of size $d\theta$ away from 0 while controlled by a single-station owner. The viewership situation here is depicted in Figure C2. This change partitions the consumers in each market into three types:

1. The segment from Δ to $\Delta + d\theta$ who are willing to watch A_1 but no other station, and who do so with probability α (in market A) or β (in market B).

2. The segment from $-\Delta + d\theta$ to Δ who are willing to watch all four channels. These consumers watch home-market stations with probability α and other-market stations with probability β, just as before.

3. The segment from $-\Delta$ to $-\Delta + d\theta$, who will no longer watch A_1 but watch the remaining three as before.

Again applying Corollary 1 of Gentzkow et al. (2024), we can compute the resulting changes in prices for A_1 in the situation where it is a single market firm, versus the situation where it is part of a conglomerate also owning B_1. We will consider only the changes in prices for regional advertisers, as for local advertisers the firm's ownership status makes no difference and both single and multi-market owners will get the same price change from differentiation.

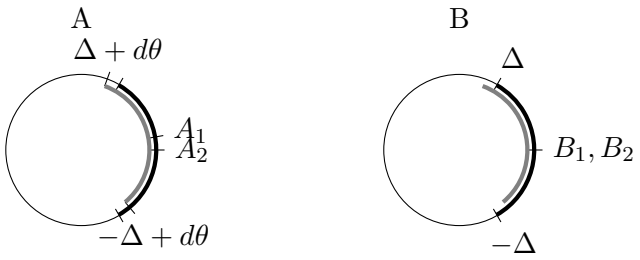


Figure C2: Illustration of a change in content by station A_1 from 0 to $d\theta$, while all other stations remain at 0. Viewers in the region shaded gray only (from Δ to $\Delta + d\theta$) watch only station A_1. Viewers in the region where gray and black overlap (from $-\Delta + d\theta$ to Δ) watch all four stations. Viewers in the region shaded black only (from $-\Delta$ to $\Delta + d\theta$) watch A_2, B_1, B_2.

In the case of a single market firm, consumers in segment 3 ($-\Delta$ to $-\Delta + d\theta$) in either market do not watch A_1 at all. Consumers in segment 1 (Δ to $\Delta + d\theta$) in both markets are exclusive viewers, watching with probability α in market A and β in market B. Consumers in segment 2 have the same behavior as before, and command the same price. Hence the new price per viewer for A_1 is:

$$\begin{aligned} p_{A_1}^{d\theta} =& \int_{-\Delta}^{-\Delta+d\theta} 0 \;\; d\theta' + \\ & \int_{-\Delta+d\theta}^{\Delta} \alpha(1-\alpha)(1-\beta)^2 + \beta(1-\beta)(1-\alpha)^2 d\theta' + \\ & \int_{\Delta}^{\Delta+d\theta} (\alpha+\beta) d\theta' \\ =& (2\Delta - d\theta)(1-\alpha)(1-\beta)(\alpha+\beta-2\alpha\beta) + (\alpha+\beta)d\theta \end{aligned}$$

And the difference in price realized by A_1 relative to its initial position is:

$$\begin{aligned} p_{A_1}^{d\theta} - p_{A_1}^{0} =& d\theta \left[\alpha+\beta-(1-\alpha)(1-\beta)(\alpha+\beta-2\alpha\beta)\right] \\ =& d\theta \left[2\alpha\beta + (\alpha+\beta-\alpha\beta)(\alpha+\beta-2\alpha\beta)\right] \end{aligned}$$

Which is positive, as $2\alpha\beta \leq 2\beta < \alpha + \beta$ under our assumption that $\alpha > \beta$.

For the combined firm AB_1, moving content in A_1 from 0 to $d\theta$ yields a new price per viewer of:

$$
\begin{aligned}
p_{AB_1}^{d\theta} = & \int_{-\Delta}^{-\Delta+d\theta} \left[\beta(1-\alpha)(1-\beta) + \alpha(1-\alpha)(1-\beta)\right] \; d\theta' + \\
& \int_{-\Delta+d\theta}^{\Delta} 2\left(1-(1-\alpha)(1-\beta)\right)(1-\alpha)(1-\beta)d\theta' + \\
& \int_{\Delta}^{\Delta+d\theta} (\alpha+\beta)d\theta'
\end{aligned}
$$

Implying a price difference of:

$$
\begin{aligned}
p_{AB_1}^{d\theta} - p_{AB_1}^{0} = & d\theta\left[\alpha+\beta+(\alpha+\beta)(1-\alpha)(1-\beta) - 2(\alpha+\beta-\alpha\beta)(1-\alpha)(1-\beta)\right] \\
= & d\theta\left[2\alpha\beta + (\alpha+\beta-\alpha\beta)(\alpha+\beta-2\alpha\beta)\right]
\end{aligned}
$$

Which is exactly the same change in per viewer price observed by the single-market owner when making the same change. But, the conglomerate AB_1 is larger, and hence it derives a strictly larger revenue gain from the same movement compared with A_1 under sole ownership.

□

D Predictors of Acquisition

To understand whether there are systematic differences in the acquisition strategy of each group, we estimate propensity models that predict, for each not-yet-acquired station in each 6-month period from 2013 to 2020, the station's predicted propensity of being acquired by each of the three large groups in that 6 month period. The data for this model is a station by semester (6 months) panel, where any station not yet acquired by one of the three groups is included.[26] We include a set of 44 possible predictors covering the size, urbanity, income, political leanings, education level, racial composition, age and family structure composition of the media market, and station-level measures of ratings, advertising length, and advertising revenues on both news and non-news programs (measured in 2010). The outcomes are indicators for acquisition of the station by each of the three large groups in that semester.

We estimate the propensity model using an L1-penalized logistic regression (binomial LASSO, implemented in the R package `glmnet`), followed by unpenalized logistic regression on the set of predictors selected by the LASSO. We use 10-fold cross-validation to choose the penalty level in the LASSO step; folds are randomized such that the fraction of acquired stations is balanced across folds. Figure D1 shows the resulting selected predictors and coefficient estimates for each group. Note that all variables are standardized to have mean zero and standard deviation of 1 prior to model fitting, so that coefficient magnitudes are comparable across predictors. Gray's acquisition strategy is the simplest to predict: it tends to acquire stations in lower-income, less-urban markets with above-average ratings for news programs. It also appears to follow Nexstar, acquiring stations in markets where Nexstar already controls another station.

Nexstar and Sinclair's strategies are different from Gray but fairly similar to one another. Both are much less likely to acquire a station in a market where they already have an ownership interest, as expected. Nexstar appears to select stations with *below*-average ratings for news programs, and Sinclair is less likely to acquire a station whose news ratings rank first or second among stations in its DMA. Both select stations that have relatively low advertising revenues per minute of local programming, possibly capturing the advertising-market-expansion motive for conglomeration. And both acquire targets in less-urban markets with lower household incomes, lower non-white

[26] The panel is thus unbalanced, as stations drop out after they are acquired.

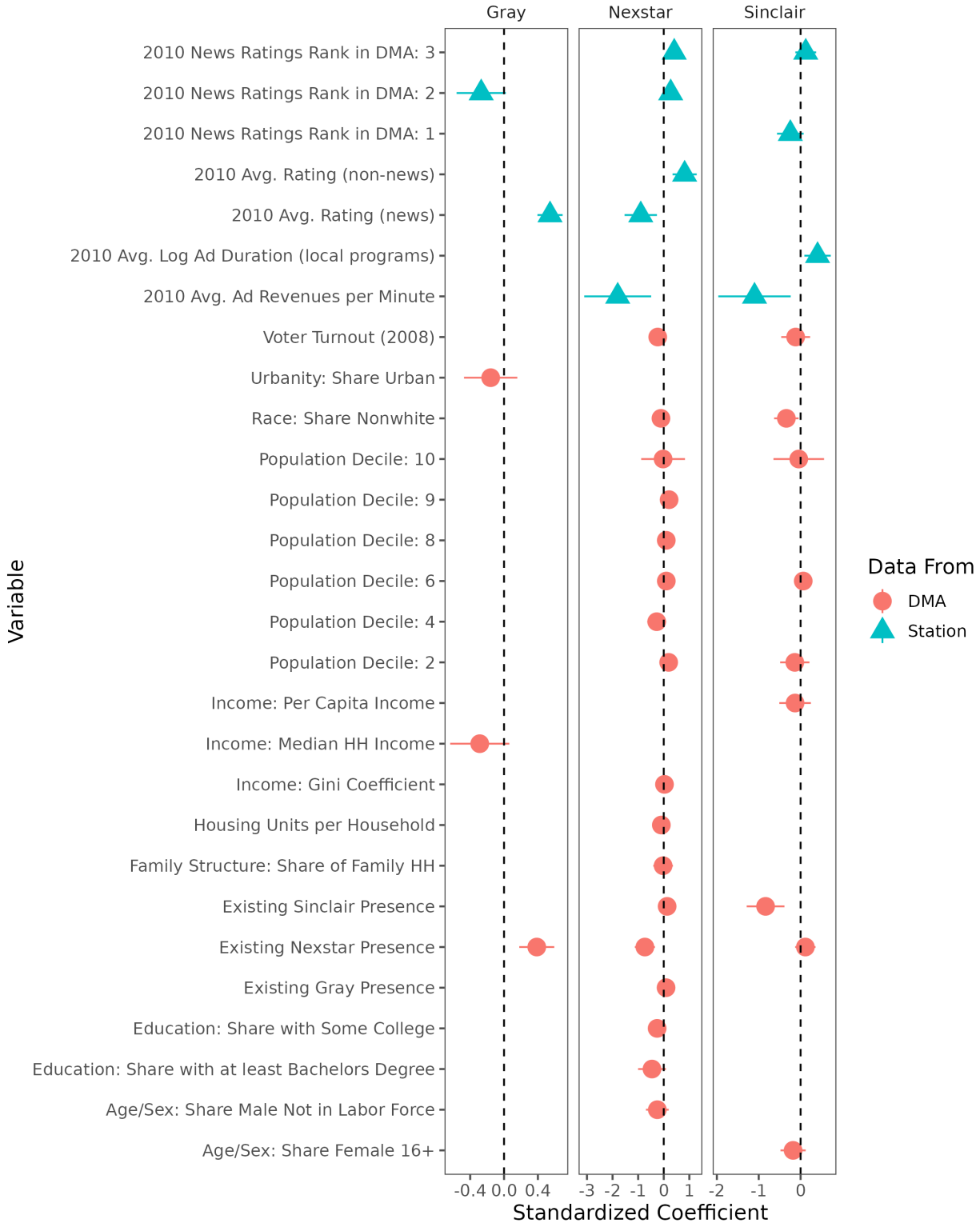


Figure D1: Model estimates from L1-penalized logistic regression of an indicator for acquisition by each of the three large groups on station- and media-market-level characteristics.

Table D1: Logit Estimates of Acquisition Propensity (Within-market).

Acquirer	Gray	Nexstar	Sinclair
	(1)	(2)	(3)
2010 Avg. Log Ad Revenue (local programs)	-1.297	-0.5976	0.6636
	(1.883)	(0.9663)	(0.6114)
2010 Avg. Log Ad Revenue (non-local programs)	-1.126	-0.1134	-0.3570
	(1.038)	(0.8298)	(0.6675)
2010 Avg. Log Ad Duration (local programs)	0.5186	1.019*	0.4998
	(1.025)	(0.5889)	(0.8241)
2010 Avg. Log Ad Duration (non-local programs)	0.4269	-0.5748	-0.5172
	(0.7889)	(0.5554)	(0.5756)
2010 Avg. Rating (news)	3.049**	-0.9838	-0.6472
	(1.269)	(0.6614)	(0.4262)
2010 Avg. Rating (non-news)	-0.5427	1.123**	0.3732
	(0.7512)	(0.5000)	(0.3568)
Existing Gray Presence	-0.8839*	0.4965*	-4.650***
	(0.4928)	(0.2662)	(0.3710)
Existing Nexstar Presence	2.743***	-1.611***	7.640***
	(0.7339)	(0.4948)	(0.0647)
Existing Sinclair Presence	2.913***	1.132***	-8.934***
	(0.6597)	(0.2865)	(0.4126)
DMA FEs	✓	✓	✓
Observations	3,197	3,638	3,081

Notes: The table reports coefficient estimates from a logistic regression model where the dependent variable is an indicator for having been acquired by the indicated group. The dataset is an unbalanced panel of station by semester observations, where stations exit the dataset once they have been acquired by the relevant group. There are fewer observations for Sinclair because Sinclair's acquisitions occur relatively early in the panel, and more for Gray and Nexstar because they occur relatively late. All regressions include DMA fixed effects, and standard errors are clustered at DMA level.

population shares, and so on.

We also estimated a within-market version of the propensity model that includes DMA fixed effects, effectively controlling for any socio-demographic factors that vary at market level but are slow-moving over time. This version, reported in Table D1, is an unpenalized logistic regression with DMA fixed effects. The sample is the same as that described for the LASSO model above.

This table shows that the strongest predictors are simply the presence of a station controlled by one of the three groups. All of the own-control indicators are negative, indicating as expected that it is more difficult for a group to acquire a second station in a single market. Many of the cross-group indicators are positive, indicating that the groups appear to be following each other in selecting markets to target for acquisition. We again find evidence that Gray acquires stations with higher-rated news programs. Sinclair and Nexstar select stations with lower news ratings, although this relationship is much weaker; their acquisitions are also somewhat targeted according to volume and revenue of advertising sales.

E Robustness Checks

E.1 Robustness to Heterogeneous Effects in TWFE Models

Recent advances in the econometrics literature have highlighted that using two-way fixed effects regressions to estimate treatment effects in differences-in-differences designs is potentially problematic. Here, we show that our results do not change when using alternative estimators that are robust to effects being heterogeneous.

In particular, for each of our main outcomes we show three sets of event studies. First, we show event studies estimated using two-way fixed effects regressions that differ from the event-studies shown in the text in two ways: 1) we aggregate the data at the station-by-semester level; 2) we estimate the event study for each group in separate regressions; 3) we do not include baseline controls interacted with the time fixed effects. Because these are changes to our standard procedure that are necessary to implement the robust estimators, we report the TWFE versions as well to enhance comparability across estimators and ensure that these additional changes to do not matter for our estimates. We show event studies both from the differences-in-differences and triple-differences specifications. Second, we show event studies recovered using the estimator proposed by de Chaisemartin and d'Haultfoeuille (2024). We estimate the triple-differences version of these event studies by only using within media market variation when constructing the counterfactual for our treated units. Third, we show the same event studies, but including baseline controls.

Overall, Appendix Figures E1-E5 we find across all three outcomes that our baseline estimates are remarkably robust when using the estimators proposed by de Chaisemartin and d'Haultfoeuille (2024). While including baseline controls makes our estimates significantly more imprecise, especially when estimating the triple-differences specification, point estimates are not affected.

E.2 Robustness of the Effect on Content

Appendix Table E1 shows that our results are robust to a number of concerns, both as far as our differences-in-differences (Panel A) and triple-differences (Panel B) specifications are concerned. Column (1) reports our baseline estimates for reference. We begin by probing robustness to using different transformations of the outcome. Winsorizing mentions per show at the 99% level (column (2)), taking the log of the number of mentions (column (3)), using mentions in levels and estimating

a Poisson regression model (column (4)), and normalizing mentions per word rather than per show (column (5)) yields very similar results. Restricting the sample to stations continuously present in the data, as we do in column (6), also yields comparable estimates. Finally, our results are also robust to using different treatment definitions: defining acquisitions using only owned and operated stations (column (7)) or including SSAs (column (8)) leads to virtually identical estimates.

E.3 Robustness of the Effect on Advertising Duration and Spending

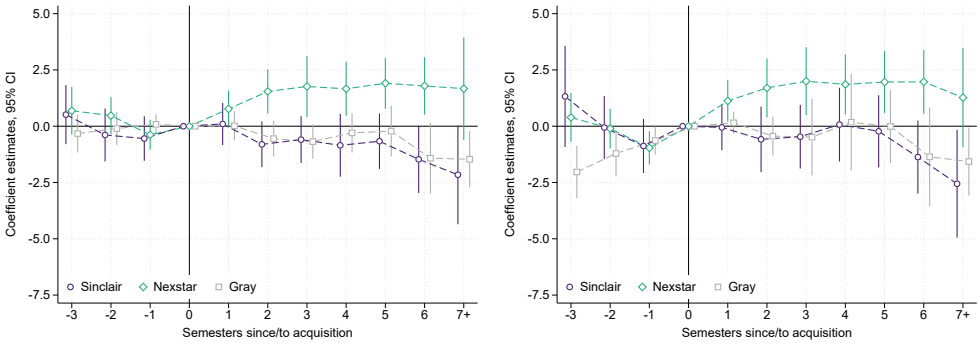
Appendix Tables E2 and E3 explore the robustness of the effect of conglomerate acquisitions on advertising duration and spending. In both tables, Panel A reports estimates from our baseline differences-in-differences specification, Panel B reports estimates from our triple-differences specification, and column (1) reports our baseline estimates for reference. We begin by checking whether the effect is driven by outlier observations. This is not the case: winsorizing the outcomes at the 99% level does not impact the results (column (2)). We then test whether our results are robust to different sample restrictions. First, we show that restricting the sample to a sample of stations continuously present in the data yields comparable estimates (column (3)). Restricting the sample to the period before 2018 (column (4)) generally leads to comparable estimates. Finally, defining acquisitions using only owned and operated stations (column (5)) or including SSAs (column (6)) leads to virtually identical estimates.

E.4 Robustness of the Effect on Viewership

In Appendix Table E4 and E5, we show that null findings on viewership are robust to a number of concerns. Panel A reports estimates from our baseline differences-in-differences specification and Panel B reports estimates from our triple-differences specification. Column (1) reports our baseline estimates for reference. First, we show that our findings are not explained by the fact that we are using an unbalanced sample (column (1)). In addition, restricting the analysis to the post-2014 period (column (3)) or to sweep months only (column (4)) does not substantially change the results, although the effect of Nexstar in the triple-differences specification is not longer significant. Finally, we show that using different ways of defining the treatment also minimally impacts our estimates (column (5) and (6)).

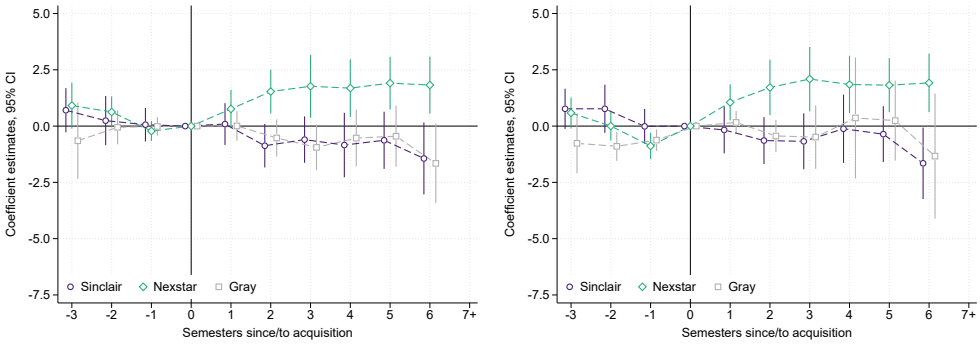
Figure E1: Effect of Conglomerate Ownership on Local Coverage, Event Studies Robustness

Panel A: TWFE



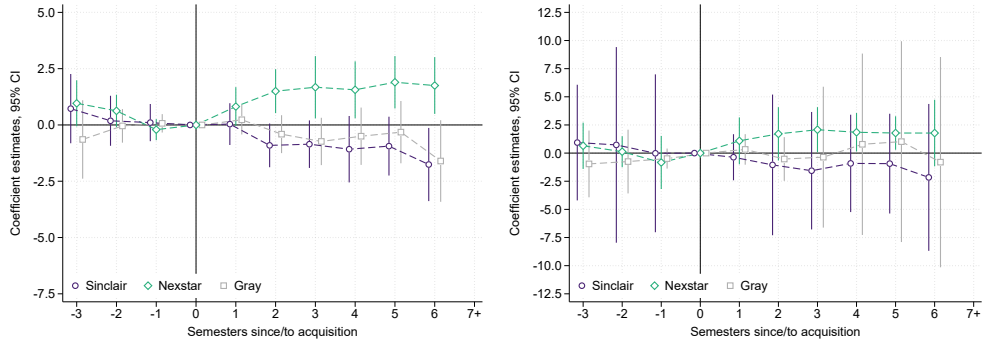
(A.i) Differences-in-Differences (A.ii) Triple-Differences

Panel B: De Chaisemartin and d'Haultfoeuille (2024)



(B.i) Differences-in-Differences (B.ii) Triple-Differences

Panel C: De Chaisemartin and d'Haultfoeuille (2024) with Controls

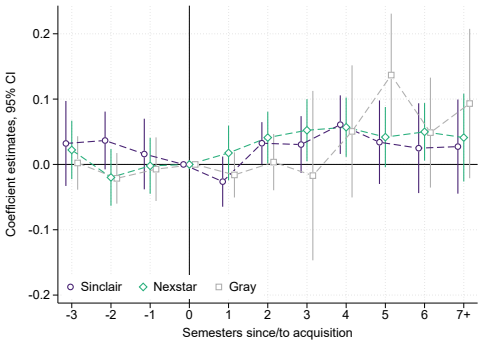


(C.i) Differences-in-Differences (C.ii) Triple-Differences

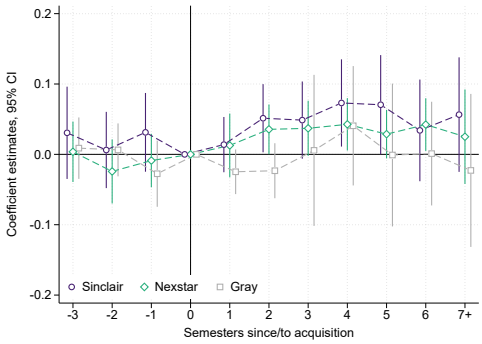
Notes: This figure shows the robustness of the effect of conglomerate acquisitions on local coverage by semester since/to treatment. In panel A, we report coefficient estimates and 95% confidence intervals from regressions of mentions of same DMA municipalities normalized by number of local newscasts on indicator variables for semesters since/to a group acquisition, station fixed effects, and month (or DMA-by-month) fixed effects. We estimate a separate regression per group using OLS. The sample excludes always treated stations. Panel B reports coefficient estimates and 95% confidence intervals obtained using the robust estimator proposed by de Chaisemartin and d'Haultfoeuille (2024). Finally, panel C reports estimates and 95% confidence intervals obtained using the same estimator as in panel B, but including baseline station controls (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with semester fixed effects. Regressions are estimated on a station by semester unbalanced panel covering the 2013-2019 period. Standard errors are clustered at the DMA level throughout.

Figure E2: Effect of Conglomerate Ownership on Advertising Duration, Event Studies Robustness

Panel A: TWFE

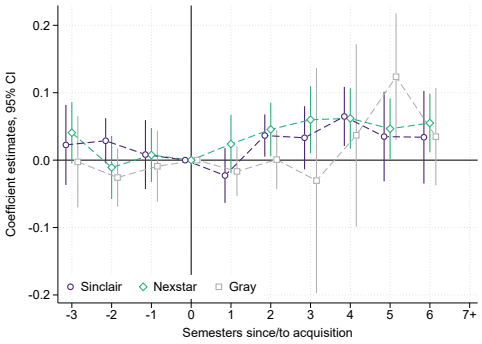


(A.i) Differences-in-Differences

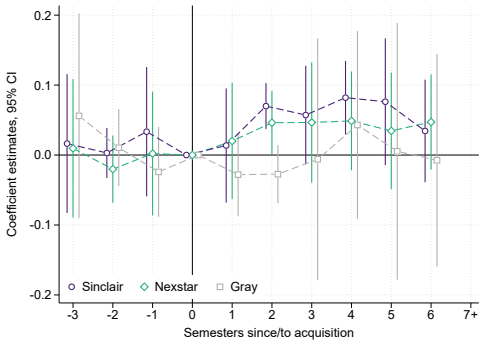


(A.ii) Triple-Differences

Panel B: De Chaisemartin and d'Haultfoeuille (2024)

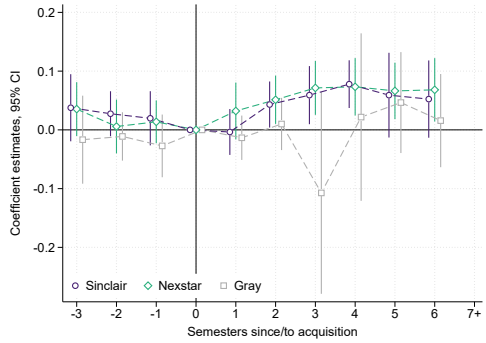


(B.i) Differences-in-Differences

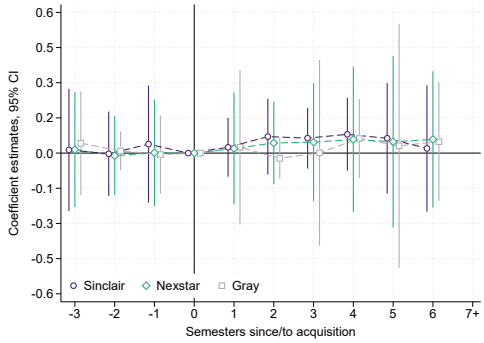


(B.ii) Triple-Differences

Panel C: De Chaisemartin and d'Haultfoeuille (2024) with Controls



(C.i) Differences-in-Differences

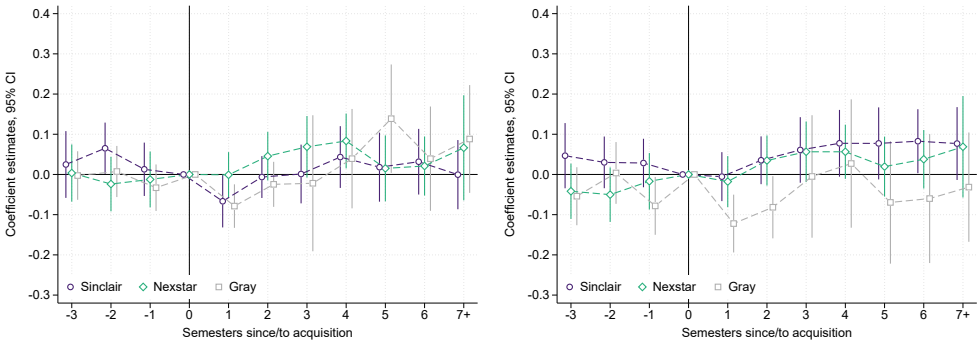


(C.ii) Triple-Differences

Notes: This figure shows the robustness of the effect of conglomerate acquisitions on advertising duration by semester since/to treatment. In panel A, we report coefficient estimates and 95% confidence intervals from regressions of average advertising duration during local newscasts on indicator variables for semesters since group entry, station fixed effects, and month (or DMA-by-month) fixed effects. We estimate a separate regression per group. The sample excludes always treated stations. Panel B reports coefficient estimates and 95% confidence intervals obtained using the robust estimator proposed by de Chaisemartin and d'Haultfoeuille (2024). Finally, panel C reports estimates and 95% confidence intervals obtained using the same estimator as in panel B, but including baseline station controls (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with semester fixed effects. Regressions are estimated on a station by semester unbalanced panel covering the 2013-2019 period. Standard errors are clustered at the DMA level throughout.

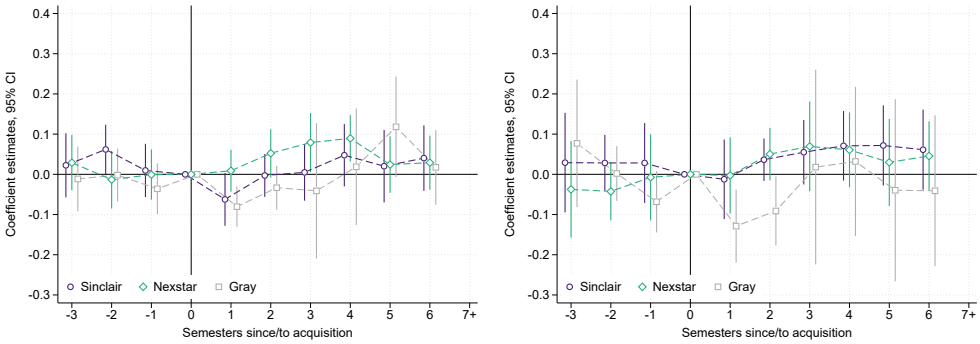
Figure E3: Effect of Conglomerate Ownership on Advertising Revenue, Event Studies Robustness

Panel A: TWFE



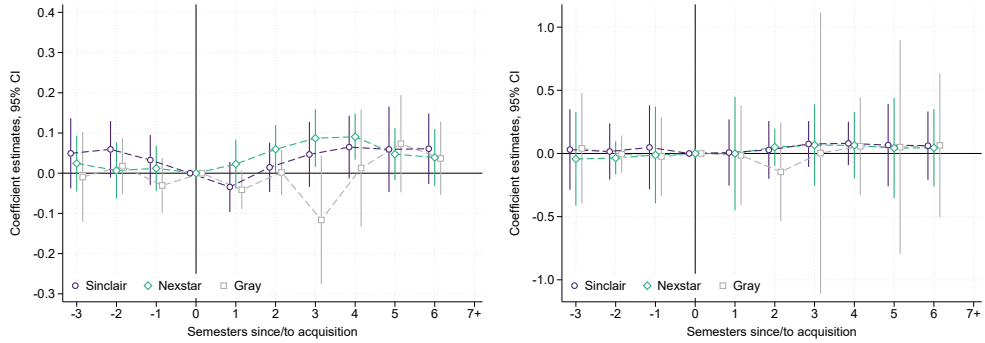
(A.i) Differences-in-Differences (A.ii) Triple-Differences

Panel B: De Chaisemartin and d'Haultfoeuille (2024)



(B.i) Differences-in-Differences (B.ii) Triple-Differences

Panel C: De Chaisemartin and d'Haultfoeuille (2024) with Controls

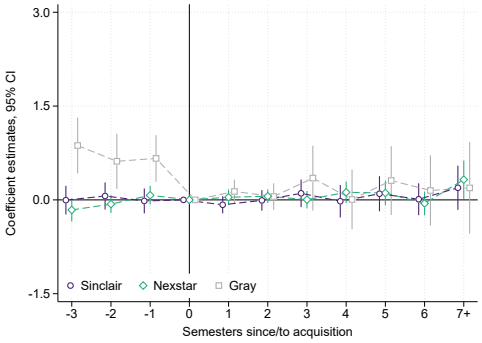


(C.i) Differences-in-Differences (C.ii) Triple-Differences

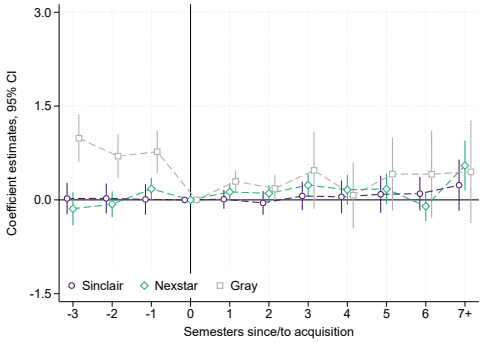
Notes: This figure shows the robustness of the effect of conglomerate acquisitions on advertising revenue by semester since/to treatment. In panel A, we report coefficient estimates and 95% confidence intervals from regressions of of average advertising revenue during local newscasts on indicator variables for semesters since group entry, station fixed effects, and month (or DMA-by-month) fixed effects. We estimate a separate regression per group. The sample excludes always treated stations. Panel B reports coefficient estimates and 95% confidence intervals obtained using the robust estimator proposed by de Chaisemartin and d'Haultfoeuille (2024). Finally, panel C reports estimates and 95% confidence intervals obtained using the same estimator as in panel B, but including baseline station controls (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with semester fixed effects. Regressions are estimated on a station by semester unbalanced panel covering the 2013-2019 period. Standard errors are clustered at the DMA level throughout.

Figure E4: Effect of Conglomerate Ownership on News Ratings, Event Studies Robustness

Panel A: TWFE

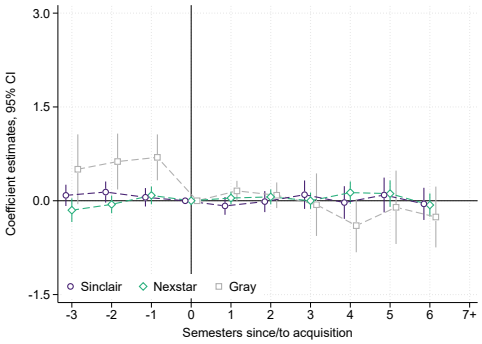


(A.i) Differences-in-Differences

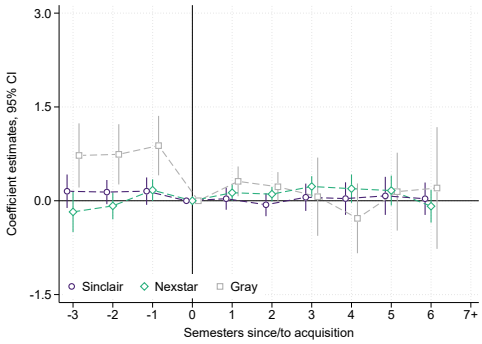


(A.ii) Triple-Differences

Panel B: De Chaisemartin and d'Haultfoeuille (2024)

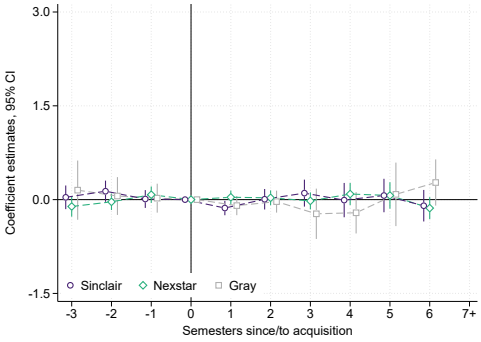


(B.i) Differences-in-Differences

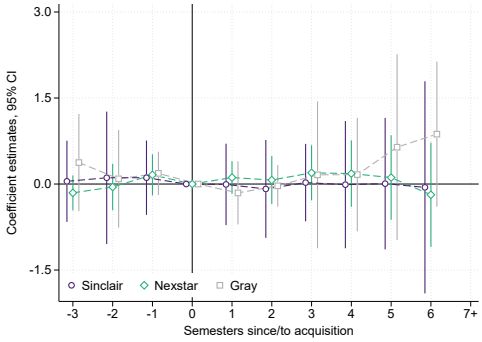


(B.ii) Triple-Differences

Panel C: De Chaisemartin and d'Haultfoeuille (2024) with Controls



(C.i) Differences-in-Differences

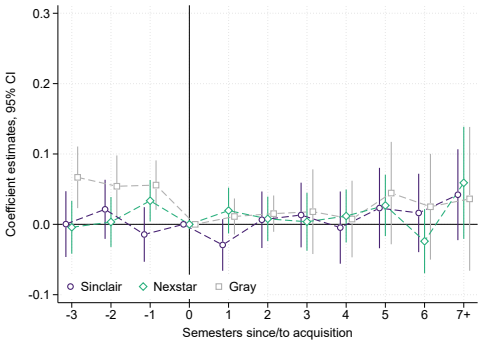


(C.ii) Triple-Differences

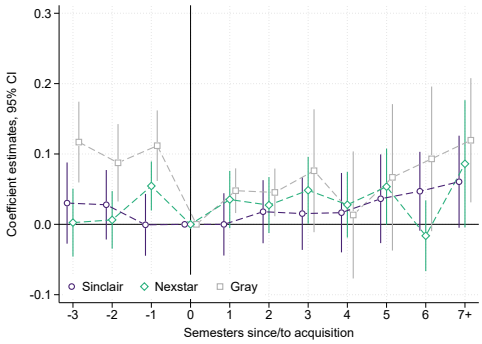
Notes: This figure shows the robustness of the effect of conglomerate acquisitions on viewership by semester since/to treatment. In panel A, we report coefficient estimates and 95% confidence intervals from regressions of news ratings on indicator variables for semesters since/to group entry, station fixed effects, and month (or DMA-by-month) fixed effects. We estimate a separate regression per group. The sample excludes always treated stations. Panel B reports coefficient estimates and 95% confidence intervals obtained using the robust estimator proposed by de Chaisemartin and d'Haultfoeuille (2024). Finally, panel C reports estimates and 95% confidence intervals obtained using the same estimator as in panel B, but including baseline station controls (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with semester fixed effects. Regressions are estimated on a station by semester unbalanced panel covering the 2013-2019 period. Standard errors are clustered at the DMA level throughout.

Figure E5: Effect of Conglomerate Ownership on Impressions, Event Studies Robustness

Panel A: TWFE

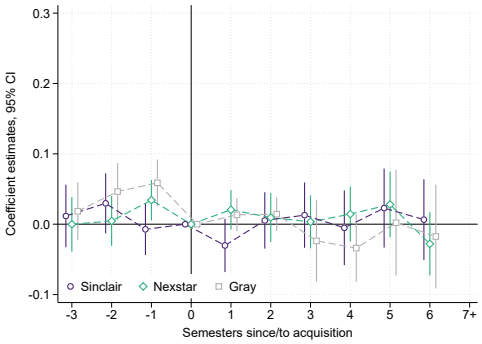


(A.i) Differences-in-Differences

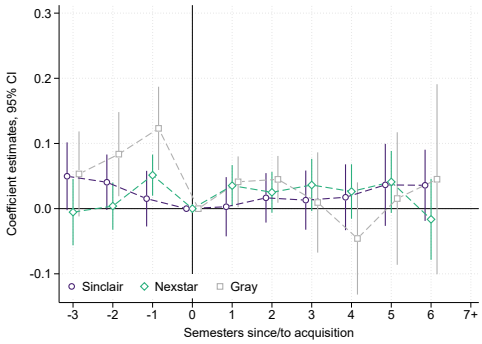


(A.ii) Triple-Differences

Panel B: De Chaisemartin and d'Haultfoeuille (2024)

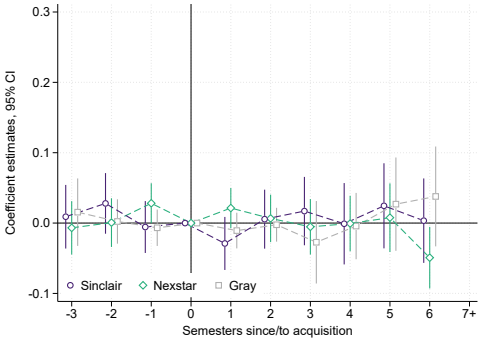


(B.i) Differences-in-Differences

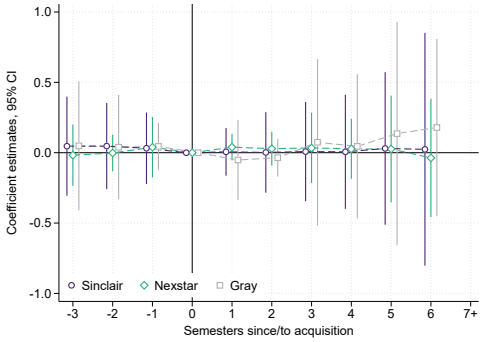


(B.ii) Triple-Differences

Panel C: De Chaisemartin and d'Haultfoeuille (2024) with Controls



(C.i) Differences-in-Differences



(C.ii) Triple-Differences

Notes: This figure shows the robustness of the effect of conglomerate acquisitions on viewership by semester since/to treatment. In panel A, we report coefficient estimates and 95% confidence intervals from regressions of log average impressions of local news on indicator variables for semesters since/to group entry, station fixed effects, and month (or DMA-by-month) fixed effects. We estimate a separate regression per group. The sample excludes always treated stations. Panel B reports coefficient estimates and 95% confidence intervals obtained using the robust estimator proposed by de Chaisemartin and d'Haultfoeuille (2024). Finally, panel C reports estimates and 95% confidence intervals obtained using the same estimator as in panel B, but including baseline station controls (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with semester fixed effects. Regressions are estimated on a station by semester unbalanced panel covering the 2013-2019 period. Standard errors are clustered at the DMA level throughout.

Table E1: Effect of Conglomerate Ownership on Local Coverage, Robustness

	Baseline	Outcome				Sample	Treatment	
		Winsor.	Mentions (Log)	Mentions (Poisson)	Mentions/ Word*100	Balanced	O&O	SSA/JSA
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Panel A: Differences-in-Differences							
Post-Acquisition, Sinclair	-1.643***	-1.650***	-0.143**	-0.121***	-0.029***	-2.142***	-1.719***	-1.696***
	(0.510)	(0.489)	(0.061)	(0.035)	(0.010)	(0.530)	(0.542)	(0.480)
Post-Acquisition, Nexstar	0.754**	0.760**	0.058	0.080***	0.010	0.861**	0.772**	0.715**
	(0.369)	(0.366)	(0.054)	(0.026)	(0.007)	(0.385)	(0.359)	(0.345)
Post-Acquisition, Gray	-0.442	-0.445	-0.043	-0.031	-0.010	-0.294	-0.441	-0.487
	(0.325)	(0.323)	(0.045)	(0.029)	(0.007)	(0.329)	(0.326)	(0.324)
Station FEs	✓	✓	✓	✓	✓	✓	✓	✓
Month FEs	✓	✓	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓
Observations	52772	52772	52282	52772	52772	49140	52772	52772
Stations	638	638	636	638	638	585	638	638
DMAs (Clusters)	204	204	204	204	204	200	204	204
Mean Dep. Variable	14.737	14.674	7.423	2426.944	0.340	14.792	14.737	14.737
Sinclair = Nexstar	0.000	0.000	0.019	0.000	0.003	0.000	0.000	0.000
Sinclair = Gray	0.069	0.060	0.200	0.064	0.128	0.007	0.065	0.054
Nexstar = Gray	0.008	0.008	0.154	0.004	0.032	0.015	0.007	0.006
	Panel B: Triple-Differences							
Post-Acquisition, Sinclair	-1.577**	-1.574***	-0.136*	-0.110***	-0.030**	-2.017***	-1.780***	-1.581***
	(0.611)	(0.576)	(0.073)	(0.039)	(0.014)	(0.694)	(0.628)	(0.596)
Post-Acquisition, Nexstar	1.218**	1.179**	0.149**	0.104***	0.018*	1.190**	1.102**	1.292***
	(0.469)	(0.465)	(0.075)	(0.032)	(0.010)	(0.483)	(0.463)	(0.446)
Post-Acquisition, Gray	0.762	0.707	0.055	0.027	0.013	0.590	0.733	0.716
	(0.523)	(0.504)	(0.075)	(0.029)	(0.010)	(0.528)	(0.521)	(0.524)
Station FEs	✓	✓	✓	✓	✓	✓	✓	✓
DMA-By-Month FEs	✓	✓	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓
Observations	50614	50614	50072	50609	50614	46872	50614	50614
Stations	613	613	611	613	613	558	613	613
DMAs (Clusters)	179	179	179	179	179	173	179	179
Mean Dep. Variable	14.975	14.909	7.453	2483.991	0.344	15.032	14.975	14.975
Sinclair = Nexstar	0.000	0.000	0.005	0.000	0.009	0.000	0.000	0.000
Sinclair = Gray	0.007	0.006	0.069	0.005	0.018	0.006	0.004	0.007
Nexstar = Gray	0.496	0.473	0.394	0.062	0.726	0.395	0.578	0.386

Notes: This table shows the robustness of the effect of conglomerate acquisitions on local coverage, estimated using our differences-in-differences (Panel A) and Triple-Differenceserences (Panel B) specifications. In column (1) we regress mentions of same-DMA municipalities normalized by number of local newscasts on indicator variables for the station being respectively owned by Sinclair, Nexstar, or Gray, on baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month (or DMA-by-month) fixed effects. In column (2) the outcome is winsorized at the 99% level, while in column (3) the outcome is the log number of mentions. Column (4) uses the count of mentions as the outcome and estimates a Poisson regression model. In column (5) we normalize the number of mentions by the overall number of words rather than by the number of newscasts. In column (6) we restrict the sample to stations that continuously appear in the content data. Finally, in column (7) we consider a station to be owned by a group if it is owned and operated by the group (thus excluding LMAs), while in column (8) we also consider under group ownership stations that have a SSA or a JSA with a station owned and operated by the group. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2013-2019 period (unless specified). The p-values reported at the bottom of each panel are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. Standard errors are clustered at the DMA level.

Table E2: Effect of Conglomerate Ownership on Advertising Duration, Robustness

	Baseline	Outcome	Sample		Treatment	
		Winsor.	Balanced	Pre-2018	O&O	SSA/JSA
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A: Differences-in-Differences					
Post-Acquisition, Sinclair	0.055***	0.055***	0.062***	0.038**	0.045**	0.048**
	(0.020)	(0.020)	(0.020)	(0.018)	(0.018)	(0.018)
Post-Acquisition, Nexstar	0.053***	0.053***	0.054***	0.040**	0.052***	0.047***
	(0.014)	(0.013)	(0.014)	(0.016)	(0.014)	(0.013)
Post-Acquisition, Gray	0.039*	0.039*	0.037	0.026	0.041*	0.042*
	(0.022)	(0.022)	(0.023)	(0.044)	(0.022)	(0.022)
Station FEs	✓	✓	✓	✓	✓	✓
Month FEs	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
Observations	68651	68651	65124	53594	68651	68651
Stations	644	644	603	644	644	644
DMAs (Clusters)	206	206	201	206	206	206
Mean Dep. Variable	6.096	6.096	6.111	6.066	6.096	6.096
Sinclair = Nexstar	0.932	0.932	0.751	0.926	0.758	0.989
Sinclair = Gray	0.602	0.591	0.410	0.791	0.904	0.837
Nexstar = Gray	0.584	0.571	0.499	0.750	0.676	0.819
	Panel B: Triple-Differences					
Post-Acquisition, Sinclair	0.064***	0.064***	0.068***	0.045**	0.051***	0.053**
	(0.023)	(0.023)	(0.024)	(0.021)	(0.018)	(0.022)
Post-Acquisition, Nexstar	0.043***	0.043***	0.041***	0.035**	0.037***	0.033**
	(0.012)	(0.012)	(0.012)	(0.016)	(0.013)	(0.013)
Post-Acquisition, Gray	0.002	0.002	0.000	0.017	0.006	0.007
	(0.024)	(0.024)	(0.026)	(0.046)	(0.024)	(0.025)
Station FEs	✓	✓	✓	✓	✓	✓
DMA-By-Month FEs	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
Observations	65665	65665	61992	51265	65665	65665
Stations	617	617	574	617	617	617
DMAs (Clusters)	179	179	172	179	179	179
Mean Dep. Variable	6.130	6.129	6.146	6.101	6.130	6.130
Sinclair = Nexstar	0.417	0.416	0.317	0.714	0.518	0.418
Sinclair = Gray	0.091	0.091	0.076	0.582	0.118	0.188
Nexstar = Gray	0.148	0.148	0.147	0.716	0.229	0.360

Notes: This table shows the robustness of the effect of conglomerate acquisitions on advertising duration, estimated using our differences-in-differences (Panel A) and Triple-Differenceserences (Panel B) specifications. In column (1) we regress the log average advertising duration per half hour of local news on indicator variables the station being respectively owned by Sinclair, Nexstar, or Gray, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month (or DMA-by-month) fixed effects. In column (2) the outcome is winsorized at the 99% level. In column (3) we restrict the sample to stations that continuously appear in the advertising data and in column (4) to the pre-2018 period. Finally, in column (5) we consider a station to be owned by a group if it is owned and operated by the group (thus excluding LMAs), while in column (6) we also consider under group ownership stations that have a SSA or a JSA with a station owned and operated by the group. The p-values reported at the bottom of each panel are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period (unless specified). Standard errors are clustered at the DMA level.

Table E3: Effect of Conglomerate Ownership on Advertising Revenue, Robustness

	Baseline	Outcome	Sample		Treatment	
		Winsor.	Balanced	Pre-2018	O&O	SSA/JSA
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A: Differences-in-Differences					
Post-Acquisition, Sinclair	0.027	0.027	0.026	0.029	0.007	0.003
	(0.035)	(0.035)	(0.035)	(0.033)	(0.027)	(0.033)
Post-Acquisition, Nexstar	0.059**	0.059**	0.065***	0.039	0.063***	0.036
	(0.024)	(0.024)	(0.024)	(0.029)	(0.024)	(0.024)
Post-Acquisition, Gray	0.026	0.025	0.023	0.065	0.024	0.026
	(0.030)	(0.030)	(0.031)	(0.040)	(0.030)	(0.030)
Station FEs	✓	✓	✓	✓	✓	✓
Month FEs	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
Observations	68651	68651	65124	53594	68651	68651
Stations	644	644	603	644	644	644
DMAs (Clusters)	206	206	201	206	206	206
Mean Dep. Variable	8.324	8.320	8.372	8.295	8.324	8.324
Sinclair = Nexstar	0.423	0.423	0.353	0.809	0.082	0.403
Sinclair = Gray	0.984	0.974	0.945	0.503	0.661	0.617
Nexstar = Gray	0.327	0.316	0.220	0.584	0.255	0.774
	Panel B: Triple-Differences					
Post-Acquisition, Sinclair	0.074*	0.075*	0.074*	0.054	0.054*	0.052
	(0.039)	(0.039)	(0.041)	(0.036)	(0.029)	(0.037)
Post-Acquisition, Nexstar	0.085***	0.085***	0.079***	0.065**	0.091***	0.064***
	(0.025)	(0.025)	(0.024)	(0.030)	(0.025)	(0.024)
Post-Acquisition, Gray	0.016	0.017	0.010	0.103*	0.019	0.014
	(0.039)	(0.039)	(0.040)	(0.054)	(0.039)	(0.038)
Station FEs	✓	✓	✓	✓	✓	✓
DMA-By-Month FEs	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
Observations	65665	65665	61992	51265	65665	65665
Stations	617	617	574	617	617	617
DMAs (Clusters)	179	179	172	179	179	179
Mean Dep. Variable	8.357	8.354	8.408	8.330	8.357	8.357
Sinclair = Nexstar	0.813	0.824	0.923	0.816	0.296	0.802
Sinclair = Gray	0.351	0.350	0.331	0.483	0.488	0.514
Nexstar = Gray	0.134	0.138	0.141	0.540	0.109	0.265

Notes: This table shows the robustness of the effect of conglomerate acquisitions on advertising revenue, estimated using our differences-in-differences (Panel A) and triple-differences (Panel B) specifications. In column (1) we regress the log average advertising revenue per half hour of local news on indicator variables for the station being respectively owned by Sinclair, Nexstar, or Gray, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month (or DMA-by-month) fixed effects. In column (2) the outcome is winsorized at the 99% level. In column (3) we restrict the sample to stations that continuously appear in the advertising data and in column (4) to the pre-2018 period. Finally, in column (5) we consider a station to be owned by a group if it is owned and operated by the group (thus excluding LMAs), while in column (6) we also consider under group ownership stations that have a SSA or a JSA with a station owned and operated by the group. The p-values reported at the bottom of each panel are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period (unless specified). Standard errors are clustered at the DMA level.

Table E4: Effect of Conglomerate Ownership on News Ratings, Robustness

	Baseline	Sample			Treatment	
		Balanced	Post 2014	Sweep Months	O&O	SSA/JSA
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A: Differences-in-Differences					
Post-Acquisition, Sinclair	0.055	0.048	0.204	0.062	0.049	0.021
	(0.098)	(0.101)	(0.237)	(0.096)	(0.100)	(0.090)
Post-Acquisition, Nexstar	0.084	0.089	0.068	0.070	0.087	0.056
	(0.058)	(0.060)	(0.063)	(0.060)	(0.058)	(0.052)
Post-Acquisition, Gray	0.003	0.026	-0.203	-0.011	0.001	-0.009
	(0.144)	(0.142)	(0.129)	(0.146)	(0.145)	(0.143)
Station FEs	✓	✓	✓	✓	✓	✓
Month FEs	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
Observations	64955	61914	45005	22497	64955	64955
Stations	644	607	643	644	644	644
DMAs (Clusters)	206	201	206	206	206	206
Mean Dep. Variable	5.033	5.030	4.890	5.046	5.033	5.033
Sinclair = Nexstar	0.798	0.722	0.588	0.938	0.728	0.731
Sinclair = Gray	0.770	0.902	0.140	0.684	0.790	0.861
Nexstar = Gray	0.598	0.682	0.059	0.602	0.567	0.668
	Panel B: Triple-Differences					
Post-Acquisition, Sinclair	0.086	0.037	0.053	0.083	0.087	0.029
	(0.096)	(0.091)	(0.233)	(0.094)	(0.098)	(0.092)
Post-Acquisition, Nexstar	0.148*	0.117	0.061	0.139*	0.164**	0.093
	(0.079)	(0.084)	(0.094)	(0.080)	(0.078)	(0.073)
Post-Acquisition, Gray	0.156	0.091	-0.075	0.146	0.159	0.133
	(0.137)	(0.139)	(0.122)	(0.141)	(0.137)	(0.137)
Station FEs	✓	✓	✓	✓	✓	✓
DMA-By-Month FEs	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
Observations	62183	59058	43070	21544	62183	62183
Stations	617	579	616	617	617	617
DMAs (Clusters)	179	173	179	179	179	179
Mean Dep. Variable	4.744	4.724	4.611	4.758	4.744	4.744
Sinclair = Nexstar	0.604	0.501	0.974	0.641	0.508	0.569
Sinclair = Gray	0.687	0.754	0.623	0.722	0.685	0.543
Nexstar = Gray	0.959	0.876	0.366	0.965	0.972	0.804

Notes: This table shows the effect of conglomerate acquisitions on news ratings, estimated using our differences-in-differences (Panel A) and triple-differences (Panel B) specifications. In column (1) we regress news ratings on indicator variables the station being respectively owned by Sinclair, Nexstar, or Gray, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month (or DMA-by-month) fixed effects. In column (2) we restrict the sample to stations that continuously appear in the content data, in column (3) to the post-2014 period, and in column (4) to sweep months (November, February, May and July). In column (5) we consider a station to be owned by a group if it is owned and operated by the group (thus excluding LMAs), while in column (6) we also consider under group ownership stations that have a SSA or a JSA with a station owned and operated by the group. The p-values reported at the bottom of each panel are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period (unless specified). Standard errors are clustered at the DMA level.

Table E5: Effect of Conglomerate Ownership on Impressions, Robustness

	Baseline	Sample			Treatment	
		Balanced	Post 2014	Sweep Months	O&O	SSA/JSA
	(1)	(2)	(3)	(4)	(5)	(6)
	Panel A: Differences-in-Differences					
Post-Acquisition, Sinclair	0.021	0.017	0.040	0.022	0.013	0.006
	(0.024)	(0.025)	(0.054)	(0.025)	(0.022)	(0.023)
Post-Acquisition, Nexstar	0.013	0.011	0.003	0.009	0.019	0.006
	(0.017)	(0.017)	(0.017)	(0.017)	(0.017)	(0.015)
Post-Acquisition, Gray	0.013	0.014	-0.017	0.011	0.012	0.010
	(0.021)	(0.022)	(0.019)	(0.021)	(0.022)	(0.021)
Station FEs	✓	✓	✓	✓	✓	✓
Month FEs	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
Observations	64955	61914	45005	22497	64955	64955
Stations	644	607	643	644	644	644
DMAs (Clusters)	206	201	206	206	206	206
Mean Dep. Variable	9.694	9.730	9.662	9.702	9.694	9.694
Sinclair = Nexstar	0.779	0.837	0.517	0.674	0.823	0.993
Sinclair = Gray	0.814	0.934	0.324	0.724	0.972	0.911
Nexstar = Gray	0.977	0.892	0.405	0.963	0.786	0.883
	Panel B: Triple-Differences					
Post-Acquisition, Sinclair	0.033	0.027	0.030	0.030	0.026	0.018
	(0.023)	(0.024)	(0.039)	(0.024)	(0.022)	(0.022)
Post-Acquisition, Nexstar	0.033	0.023	0.023	0.029	0.040*	0.024
	(0.021)	(0.021)	(0.023)	(0.021)	(0.021)	(0.019)
Post-Acquisition, Gray	0.023	0.011	-0.023	0.022	0.023	0.017
	(0.025)	(0.026)	(0.022)	(0.026)	(0.025)	(0.025)
Station FEs	✓	✓	✓	✓	✓	✓
DMA-By-Month FEs	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓
Observations	62183	59058	43070	21544	62183	62183
Stations	617	579	616	617	617	617
DMAs (Clusters)	179	173	179	179	179	179
Mean Dep. Variable	9.742	9.774	9.711	9.750	9.742	9.742
Sinclair = Nexstar	0.992	0.894	0.872	0.964	0.632	0.808
Sinclair = Gray	0.778	0.665	0.241	0.839	0.914	0.997
Nexstar = Gray	0.762	0.718	0.146	0.854	0.598	0.828

Notes: This table shows the effect of conglomerate acquisitions on log average impressions of local news programs, estimated using our differences-in-differences (Panel A) and triple-differences (Panel B) specifications. In column (1) we regress log impressions of local news programs on indicator variables the station being respectively owned by Sinclair, Nexstar, or Gray, baseline station characteristics (namely, average advertising duration and revenue per half hour of local news in logs and average news ratings, all measured in 2010) interacted with month fixed effects, station fixed effects, and month (or DMA-by-month) fixed effects. In column (2) we restrict the sample to stations that continuously appear in the content data, in column (3) to the post-2014 period, and in column (4) to sweep months (November, February, May and July). In column (5) we consider a station to be owned by a group if it is owned and operated by the group (thus excluding LMAs), while in column (6) we also consider under group ownership stations that have a SSA or a JSA with a station owned and operated by the group. The p-values reported at the bottom of each panel are from a test of the difference between the effect of Sinclair and Nexstar, Sinclair and Gray, and Nexstar and Gray. All regressions are estimated by OLS on a station by month unbalanced panel covering the 2011-2019 period (unless specified). Standard errors are clustered at the DMA level.