Small screen, big echo? Political persuasion on the local TV news: evidence from Sinclair

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Working Paper

Friday 18th August, 2023

Abstract

Little attention is given to partisan bias in local news, despite being one of the most watched and trusted source of news in many countries. This paper investigates the effect of exposure to partisan local TV news on political outcomes and opinions in the United States, exploiting the timing of a change in content by a major broadcasting company, Sinclair Broadcast Group. I trace back Sinclair's practice of bias to the run-up to the 2004 election, though they operate stations since 1971. Using an event study methodology estimated through a two way fixed effect model, I find that exposure to the change in content since 2004 corresponds to a 2.5% point increase in the Republican presidential two party vote share during the 2012 election, an effect that doubles during the 2016/2020 election, in addition to Republican gains in Congress. The effect is concentrated among "isolated" counties–proxied by population decline and the share of native born and the non college educated–, in contrast to economic factors. Using a nationally representative survey of voters, I find a congruent increase in the probability to vote for the Republican (presidential and congressional) candidate in 2016. I note a rise in (self-declared) xenophobic attitudes and tolerance for racial inequality among non-college educated respondents, yet no increases in support for traditionally Republican policy positions or populist rhetoric. A series of robustness checks rule out competing explanations.

Keywords: Elections, Voting, Democracy, Broadcasting, Media bias, Local news.

JEL Classification: D72, P16, L82.

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1. Introduction

The broadcasting industry[1] plays a multifaceted role in society and the pursuit of democratic self-governance. It wields the power and responsibility to inform, engage, and mobilize citizen, thus facilitating the democratic process, especially in isolated communities (Stromberg (2004), Campante and Hojman (2013), Perlman (2016), Newton (2016), Buckley et al. (2008), Naaikuur et al. (2022), Prat and Strömberg (2013), Sobbrio (2014). The focus of this paper on the case of the local television news in the United States, yet, broadcasting, including local media, plays a central role in the lives of citizens worldwide (*Digital News Report 2021* 2021). Delivered three times a day, local television news continues to inform communities across the United States of local issues, sports, weather, and events. Yet this power of the broadcast media can be co-opted to serve private interests, which ultimately undermines the institution itself (Wang (2021), DellaVigna (2007), Pickard (2015)).

The history of regulation of the broadcast industry in the United States understood this delicate balance. Given the limited capacity of the electromagnetic spectrum, the earliest regulation emphasized its responsibility to serve the public interest when assigning broadcast licenses. Guided by these two principles of scarcity and public interest, the Federal Communications Commission, the main broadcasting regulatory body in the United States, took an early stance against editorializing by broadcast station owners, through the Mayflower doctrine, and later, the more moderate Fairness doctrine[2], which obligated broadcasters to present all sides of controversial issues. Although the latter did not survive the wave of deregulation in the 1980s, the issue of partisanship in the news media and its impact on democratic self-governance continues to occupy the public debate.

Yet, modern evidence on the effect of political slant in local broadcasting is scant. First, the structure of the broadcast industry is such that a few large owners have many different stations in distinct communities. Consequently, the primary focus of news production revolves around creating economies of scale and, in accordance with Hotelling's law, attempt to appeal to the median viewer, such that instances of political slant are rare. Second, the localism of radio and television stations makes it difficult to disentangle the slant of a particular station from the inherent demand for political news of that community.

To overcome these challenges, I exploit a supply-side shock to local television news rhetoric: the introduction of a conservative slant to the local news by one of the largest

[1]The broadcasting industry is defined by the electronic transmission of radio and television signals that are intended for general public reception, and is distinct from cable or satellite, which use private signals to specific receivers.

[2]It should not be confused with the, still applicable, equal time rule that says that broadcasters must provide equivalent access to competing political candidates.

owners of television stations in the United States, the Sinclair Broadcast Group. In response to the threat of bankruptcy in the early 2000s, Sinclair began to experiment with centralizing the production of local news, feeding national stories to its stations across the United States, as a way to cut costs. Coupled with a desire to distinguish themselves from well-established local news shows in the same market and a belief that controversial content increases viewership, they injected the national news they created with a slight conservative slant and hired conservative lobbyists to deliver that news (Bachman, 2002). They continue this practice through their use of "must run" segments, brief video commentaries or scripts sent to stations, whose staff are then instructed to weave into the local newscast, regardless of the prior political preferences of the market. Notably, in the 2016 election, Sinclair entered into a deal to air interviews with the Republican candidate, without further commentary, in exchange for exclusive access to the Trump campaign (Gillette, 2017). Lastly, a causal textual analysis of Sinclair coverage supports the claim that Sinclair local news coverage is implicitly conservatively slanted and focuses more on national issues (Martin and Mcrain, 2019).

This natural experiment has several features that make it attractive for studying the causal effect of slanted coverage in local broadcast television news on political outcomes and opinions. First, I take advantage of the fact that Sinclair owned these stations for many years or decades, before introducing a conservative slant prior to the 2004 presidential election, and that these stations are spread out across the country. So, it is unlikely that the change is driven by consumer demand for slanted news. Indeed, the counties where Sinclair owned a station before 2004 were predominantly Democratic-leaning counties (Figure 4). Furthermore, the variation in pre-treatment community demographics allows me to consider the conditions which amplify or mitigate the persuasion effect.

Next, the experiment concerns a common change in content, while keeping ownership, and all else constant. Thus, the change likely passed under the radar of the viewers of these stations and is orthogonal to their partisan preferences, avoiding selection biases in news consumption. For one, local television news is branded by the major affiliate logo (ABC, CBS, NBC, etc.) and the channel number, rather than an owner-specific logo, making it highly unlikely that viewers know which companies own their local television stations. Next, all other programming on these stations stayed the same and is identical throughout the country, since besides the local television news, the programming of these station is decided at the national level by the major affiliate.

Lastly, the local television news is unique given that it has a (non-binding) public interest mandate and so, its public perception is different from privately owned channels. Its diversity and localism contribute to it being the most trusted and reliable source of news across the

political spectrum (Fowler et al. (2007), *Digital News Report 2021* (2021)). Thus, local news has no implicit partisan connotation, in contrast to cable news or certain newspapers. Thus, it will allow me to consider individual heterogeneity in the degree and direction of the political persuasion.

Estimation depends on several sources of public and restricted access survey data. Outcome variables at the sub-national county level include presidential, and congressional electoral returns, as well as data on turnout and voter registration, over the period 1992 to 2020. I supplement this with individual-level data on voting and political opinions from restricted access geo-localized electoral survey data, the American National Election Study (1972 to 2016), and the Cooperative Election Survey (2006 to 2020). Data on viewership comes from Warren's Television and Cable Factbook.

Causal identification of the persuasion of Sinclair bias will follow an event study methodology with regard to the timing of this bias. The identifying assumption is that the within-county evolution of electoral outcomes would have been the same, absent the availability of biased Sinclair coverage, after controlling for observable differences. The "event" is thus the first presidential election year after exposure to Sinclair bias. The treatment concerns the set of counties in media markets with Sinclair stations before 2004, which experienced a change in the content of their local news towards conservative rhetoric and national politics.

Ideally, I would have data on local news content before and after this change. Unfortunately, this data does not exist, as the time period studied is too early. However, I provide suggestive evidence by counting the number of mentions in the news media of Sinclair's conservative bias from 1996 to 2023 and comparing it to the another large broadcaster, Nexstar Media Group (Figure 3). There is a large spike in the number of mentions just prior to the 2004 election, and again in 2017, consistent with the qualitative evidence, while mentions of Nexstar's bias are nonexistent. I argue that this is an experiment of an exogenous shock to local news rhetoric while keeping ownership constant. However, one may still be concerned by the presence of unobservables correlated with treatment timing and outcomes.

Figure4 illustrates the main pattern in the data for the county-level vote for president. It shows the trend in the mean difference in the Republican two-party presidential vote share between treated and non-treated counties. The difference is mostly flat up to 2008, the second election year after the introduction of bias, and increases with each following election year. Before 2004, Sinclair counties where content changed and were then exposed to biased programming, had a mean Republican two party vote share that was about 2% lower than counties never exposed to Sinclair bias. By 2020, that mean difference increases to be 2% higher than the control group, a change of about 4% points in favor of Republicans.

Event study results through a two-way fixed fixed effect model suggest that county-

level response to exposure to Sinclair bias on electoral outcomes is heterogeneous across time. In counties that experienced the change in Sinclair content since 2004, the availability of Sinclair major affiliate station corresponds to a 2.5%-point increase in the presidential Republican vote share during the 2012 election, an effect that doubles during the 2016/2020 elections.I also find evidence of Republican gains in Congress, increasing the probability that the Republican congressional candidate wins the election by 15% points, and accompanying gains to the congressional two-party vote share. I then consider the electoral mechanisms behind these gains, but find no evidence of a complementary increase in turnout for the first treatment group, suggesting that there is selection is who turns out, with weak evidence of mobilization. In line with the descriptive evidence of Table 4, previously Democratic counties contributed most to this average effect, followed by previously swing counties and finally Republican counties. Coupled with the lag to the effect, this provides evidence that Sinclair bias was able to change county allegiances through its bias, rather than meeting some kind of latent demand for conservative local news.

Regarding magnitudes, persuasion rates are in line with the literature. Sinclair persuaded 4.7% of its potential audience to vote for the Republican presidential candidate in 2008-2012, and 14.4% of its audience in 2016-2020. Yet, a back of the envelope exercise using the 2016 election reveals large implications for the outcome of this historic election. Taking the three states with the smallest Republican margin of victory: Michigan, Pennsylvania and Wisconsin, I find that without the effect of Sinclair bias, the vote margin would have been reversed in the favor of Democrats, in each of these three states, assuming a constant treatment effect and no effect on turnout. Given that these three states represent 46 electoral votes total, compared to the 38 needed for Democrats to win the election, exposure to Sinclair bias could have shifted the vote by more than the margin of victory, and thus may have contributed to Republicans winning.

Next, I turn to consider if this effect differed given county characteristics, not related to voting. These interactions reveal a common trend to the effect of Sinclair bias: demographic characteristics are important factors in explaining when persuasion work, in contrast to economic or historical shocks. Specifically, the effect is amplified in counties that experienced population decline between 2000-2016 and have a higher share of native born and non college educated in 2000. Economic conditions, such as import pressure (Autor, Dorn, Hanson, and Majlesi, 2020), a distressed communities index, or the poverty rate, have no supplemental effect. This suggests that these culturally "isolated" counties are more prone to be persuaded by biased local news, instead of increased vulnerability given a decline in economic conditions.

I use individual level survey data to not only corroborate the county level evidence, but also to look at how individual factors affect the chance of persuasion. Given the use of

DMA-level fixed effects, I consider individuals exposed to the exact same biased rhetoric. Individual level survey data corroborate county level evidence, where I find a 9% and 11% point increase in the probability to vote for the Republican presidential and congressional candidate, respectively, in 2016 from 2000. Using the Cooperative Election Survey, available only from 2006, yields a 2.5% and 3% point increase in these probabilities, since the 2012 election. In line with the county-level evidence of partisan switching, individuals are also more likely to identify as Republican, but not conservative, given exposure to Sinclair bias.

Individual mechanisms suggest heterogeneity by the level of educational attainment of the respondent. Using CES data, I find that having a college education almost completely negates the increase in the probability to vote Republican. This heterogeneity also applies to policy attitudes. I find evidence of a rise in self-declared xenophobic attitudes, related to preferences for less immigrants and more border security, as well as tolerance for racial inequality, captured through a PCA score combining several questions on disagreement with racial equality, for example, "conditions make it difficult for blacks to succeed," for non-college educated individuals. There is suggestive evidence of educational polarization: especially in the 10% differential change in sentiments towards the Republican presidential candidate given the respondent's level of education, but it is not precisely estimated. In contrast, there is weak evidence that Sinclair bias also differentially, again given the respondent's level of education, increases support for traditionally Republican policy positions, measured through the PCA score aggregating statements of support for small government or less redistribution, but this is not robust to the use of the CES survey. There is little to no evidence that exposure to Sinclair bias increases populist rhetoric, captured by the PCA score considering statements of disillusionment with government, and dummies with disagreement that the individual feels heard in political debates and agreement with isolationism.

At the individual level, I consider alternative explanations to educational heterogeneity. I find that other demographic groups that are also heavy watchers of local TV news, the over 50 years old population, do not exhibit similar trends in the effect. I also consider individuals with low (self-reported) news interest, and find that, although not being interested in the news does amplify the persuasion effect of Sinclair bias, it does not fully explain it. Together with the county level heterogeneity findings, it leads us to conclude that bias towards a political party from a trusted news source can have profound impacts on voting and policy preferences, and that this impact accumulates with the degree and length of exposure to this bias, and is more effective on affect-laden topics. Living in more diverse and lively communities where there is likely more exposure to outside information or seeking out information yourself, can mitigate these persuasion effects.

These county and individual level findings are robust to the exclusion or inclusion of

a variety of controls, and to changing definitions of the outcome and treatment variables. Furthermore, I perform a series of sanity checks and a placebo regression at the county and individual level to argue against alternative explanations. Overall, these checks add credibility to the argument that the effects I isolate are related to an exposure effect in the change in content towards conservative rhetoric that Sinclair promoted since 2004.

This work contributes to the literature in a variety of ways. First, the strength of the empirical strategy that relies on a exogenous change in content, while keeping ownership and all other aspects constant. Furthermore, this leads to the first (to my knowledge) estimate of political persuasion over multiple election periods. Other similar studies exploit staggered introductions, which exploit changes in ownership, arguing for exogeneity conditional on obesrvables, and so, are not able to comment on how this effect changes over time, since there is no more variation to exploit (DellaVigna and Kaplan (2007), Stromberg, 2004). Second, is the unique "non-partisan" context of local news, which has not been exploited before (to my knowledge) when considering media bias. As the effect of voting behavior is shown to depend on the type of media, and given the important differences between local and cable news (which has been extensively studied in the literature), this project represents a novel contribution. This paper also contributes to the literature of political persuasion in the context of the rise of populist rhetoric (Martin and Mcrain (2019), Autor, Dorn, Hanson, and Majlesi, 2020). I show that exogenous exposure to biased news media can have repercussion beyond elections, to impact voters' tolerance and opinions towards immigrants and minorities. Lastly, there is a growing literature on the repercussions of the Sinclair Broadcast Group, for example, on the reporting of crime and on the production of news (Martin and Mcrain (2019), Mastrorocco and Ornaghi (2020)). This paper considers their repercussions on electoral politics and political opinions.

The paper proceeds as follows. Section 2 offers a description of the context of this experiment: the local TV news market in the United States and of Sinclair Broadcast Group. Section 3 presents the main sources of data and the event study methodology using the timing of the introduction of biased content, while keeping ownership constant. Section 4 presents the county and individual results and robustness checks. Section 5 concludes.

2. Background

2.1. The Specificities of the Local TV Industry

Local television broadcasting is distinct from other types of mass media like movies and cable TV due to its public good nature. The electromagnetic spectrum on which broadcasting

operates is non-excludable, since the signal is freely available over the air, and non-rival, since your neighbor's TV consumption cannot affect your ability to watch TV. In contrast, cable TV news, such as Fox News Channel, MSNBC, CNN, is privately owned and operates as a specific channel that is subscription-only (usually included as a bundle of cable TV channels). Programming on cable TV news is the same nationally[3]. Thus, these channels focus on national news, and are often specialized to be conservative/liberal leaning. In contrast, local news is much more diverse and programming depends on the geographic location of the viewer.

The founding document of Federal Communications Commission (FCC), the organization charged with managing and regulating the public broadcast industry in the United States, explicitly states the public interest obligation of broadcasters, and the FCC operates under three guiding principles: competition, diversity and localism (Yanich, 2015). As such, in exchange for a license to operate a station, the programming of the station must meet the needs and interests of the community it serves. The community is often defined as the "Designated Market Area" (DMA), developed by the Nielsen Company (a market research and measurement company) to be a region where the population receives the same or similar media coverage.

In order to ensure this, the FCC maintains limits on horizontal and cross local TV ownership, such as the "Main Studio Rule", which requires local TV and radio broadcasters to maintain studios in the communities where they are licensed, not allowing joint-ownership of a newspaper and TV station if they serve the same community, not allowing ownership of more than two stations in the same market with less than eight total stations, and putting a national ownership of TV stations cap at 25%. The FCC gradually relaxed these rules in the late 1990s, going even further in 2016 to retract the "Main Studio Rule" and the ban on cross-ownership of television and newspapers and to relax the limit on the number of stations to 50% ownership in the same market and 39% ownership of national TV households (Fung, 2017). Furthermore, the FCC recently reinstated a rule from the pre-digital transition era, which affects how the ownership percentages are calculated, called the "UHF discount"[4]. Each change in the rules relaxed ownership limitations and facilitated future mergers and acquisitions, leading to more concentrated control of local TV stations (Figure A5). This deregulation is in addition to other techniques, such as joint operating and local marketing agreements, whereby a company, either one formed specifically to hold the license or not,

[3]That is, a viewer in Michigan always receives the same content as one in Oregon (time differences aside)

[4]During the time of analog TV, only half the TV households reached by UHF (Ultra High Frequency) stations counted towards the 39% limit, since their signals were less powerful than the normal VHF (Very High Frequency) signals. With the digital transition in 2010, VHF and UHF signals are equally powerful and so, the rule was struck down in 2016 only to be reinstated a year later (Lieberman and Lieberman, 2016).

cedes operating control of the station to the parent company or another company.

Furthermore, within these markets, local stations are sometimes affiliated to a major network provider, which provides some national (mostly entertainment) programming. For example, there is usually an ABC, CBS, FOX[5], NBC, and CW affiliate in each media market, with their respective national programming[6]. However, the local news, which is broadcast at specific times during the day (morning, mid-day and evening) is usually produced by the station itself[7]. These stations are then owned by companies such as Sinclair, which own the facilities and are responsible for managing the stations, which involves, for example, maintaining the affiliate agreements and the production of local news, among others. Thus, local TV news, given this diversity and localism, is distinct from cable news, and is often presumed to be "neutral," which helps to limit selection biases in media consumption (Fowler et al., 2007).

2.1.1. The Relevance of Local News

Despite the technological advances of the recent decades and the surge in popularity of online news, local TV news still garners, more viewers, on average than cable and network news programs. From a study by the Pew Research Center, 57% of U.S. adults often get TV-based news, either from local TV (46%), cable (31%), network (30%) or some combination. They find that those who prefer to watch news still choose TV whereas those who have migrated online prefer to read news (Mitchell et al., 2016). Regardless, viewership has declined in all key time slots (A5). Since 2007, the average audience for late night newscasts has declined 31%, while morning and early evening audience fell 12% and 19%, respectively.

Yet, it remains a more traditional form of news media, reflected by its audience demographics. Table 2 gives the relationship between a set of demographic characteristics and watching the local TV for news in the past week[8]. Being 50 - 64 years old or over 65 years old increases the probability to get your news from the local TV by 16.8% and 11.5% points, respectively. It represents the greatest (positive in magnitude[9]) predictor of local TV news viewership, and is followed by being Protestant (10.4% points), married (10.4% points) and,

[5]Note that Fox network is not related to the Fox News Channel. They no longer share even a parent company.

[6]For example, sitcoms such as the Simpsons (FOX), or Grey's Anatomy (ABC), or national network news shows such as Nightline (ABC) or 60 minutes (CBS).

[7]News-sharing agreements, whereby the same newscast is broadcast by more than one station in the market, exist, but are not relevant to this analysis since it is usually when the stations are owned by the same company (Newslab and Matsa, 2014).

[8]I regress a dummy for responding "Got news" about politics and government from the local television news on a dummy for various demographics, one-by-one representing multiple OLS regressions.

[9]Being Asian or Asian-American is the greatest predictor in general but the correlation is significantly negative.

having completed high school or less (7.4% points). For example, using the results of a probit estimation (Column 2), I find that the predicted probability, keeping all other characteristics constant, of a non-college educated individual aged 50-64 or over 65 years old watching the local TV news is 64.5% and 63% respectively, compared to a college educated individual in the same age groups, this probability decreases by about 8% points to 56.7% and 55%, respectively. For a younger individual aged 18-29, this probability falls by more than 20% points to 32% and increases by 8% points for their non-college educated counterpart. Importantly, for the purpose of this analysis on voting, these demographic correlations, with the exception of education, also closely mimic those of the electorate (Leighley and Nagler, 2014). Furthermore, there is no statistically significant correlation between party identification and the probability to get news from the local TV, yet the partisan distribution of the local news viewership population also resembles the electorate as a whole: in 2000, among those who rely on local news, 42% preferred George Bush and 46% preferred John Kerry, similar to the final vote shares (Fowler et al., 2007).

Although Americans express moderate trust in most news sources, they cite local news as the most trustworthy among the lot (*Digital News Report 2021* 2021). Only a quarter of adults surveyed by Pew Research Center trust local news "a lot" in 2017, whereas slightly less (20%) trust national news organization, and even less (5%) trust social media. Yet, a majority (60%) trust local news "some", also more than those who trust national news (52%) and social media (33%). Interestingly, there exists a correlation between trust in the news and loyalty in following the news and reliance on TV, as 54% of very loyal news consumers prefer to watch TV (Mitchell et al., 2016).

Lastly, despite falling viewership, financial incentives for broadcast companies to provide local news exist because of advertising revenue, namely from news sharing agreements and political advertising, and retransmission fees. Local broadcast companies earn the bulk of their revenue from advertising, and local news generates an increasing share of that revenue, up to 50% in 2013 from 39.7% in 2002 (*Local TV News Fact Sheet — Pew Research Center* 2017). News sharing agreements contribute to increased ad revenue since typically a station that provides services for another station gets to keep about a third of that channel's advertising revenue (Newslab and Matsa, 2014). Furthermore, local TV station revenue typically follows a cyclical pattern: increasing in election years and decreasing in non-election years. Following the 2010 Citizens United ruling, which allowed corporations to independently spend an unlimited amount towards political communications, advertising revenue among major companies increased to $3.1 billion in 2012 (Figure A7). This political ad revenue is disproportionately allocated to swing states, where presidential races are closely contested.

[10] Accordingly, many broadcasters, Sinclair included, explicitly changed strategies towards the acquisition of stations in these swing states. Revenue from retransmission fees paid by cable and satellite systems to carry local channels greatly contribute to increased revenue, as they have seen a meteoric rise in recent years, going from $215 million in 2006 to almost $8 billion in 2016 and are projected to reach $12.8 billion by 2023 by Kagan, a media research group within S&P Global Market Intelligence (*Local TV News Fact Sheet — Pew Research Center* 2017). The consolidation of broadcast companies happening at the same time may have allowed them greater bargaining power over cable and satellite companies in order to negotiate higher fees. Sinclair Broadcast Group is at the vanguard of these industry evolutions, such that, when coupled with their demonstrated conservative bias, it warrants an investigation into the possible political implications of these trends.

2.2. Sinclair Broadcast Group

Sinclair Broadcast Group is a public telecommunications company, which has rapidly grown to become the largest owner of local TV stations in the United States. Figures A1 and A2 of Appendix A provides a geographical overview of its historical expansion and sales. This paper interests in what I argue is an implicit conservative bias in Sinclair's local TV news programming evident since the run-up to the 2004 election and its possible repercussions on electoral behavior and political and social opinions.

2.2.1. History

Julian Smith founded Sinclair Broadcast Group (SBG) in 1971 with one independent station operating on UHF, a low powered station frequency, eventually adding two more (Jensen, 2004). In the early 1980s, David Smith, his son, joined the family business, and in 1990, along with his three brothers, bought the company from his parents. The company's station portfolio boomed under his leadership to 59 stations, and he took the company public in 1995. The rapid expansion is related to their innovative use of "local marketing agreement" used to circumvent ownership regulations, whereby Sinclair would buy the rights to operate a station from a sometimes closely associated broadcaster.[11]. Sinclair's rapid expansion neared

[10] A Television Bureau of Advertising study estimated that in 2012, of the political ad money paid to local stations, 53% of all candidate spending and 81% of presidential ad spending went to nine swing states (Colorado, Florida, Iowa, Ohio, Pennsylvania, Nevada, North Carolina, New Hampshire, and Virginia).

[11] For example, the Smith brother's mother, Carolyn Smith, became a majority owner of a company called Glencairn Ltd in the early 1990s. Glencairn would often buy a station (one which Sinclair could not due to anti-monopoly regulations) then sign an LMA with Sinclair, effectively giving Sinclair control over the station. In 2001, the media regulation authorities found this practice to be anti-competitive and fined each company $40,000 (Gillette, 2017). Despite frequent fines from the media regulation authorities, Sinclair continues this practice.

it to bankruptcy in the early 2000s, but after restructuring to sell many of its radio stations and some TV stations, it rebounded to more than double its number of stations in 2013.[12] Despite a failed attempt to buy Tribune Media in 2018, which would have significantly increased its market power, Sinclair remains one of the largest owners of local TV stations in the U.S., reaching the 40% share of U.S. households[13]. In 2021, Sinclair became a Fortune 500 company, having annual revenues of $5.9 billion in 2020 (Mirabella, 2021)[14]. Figure A3 shows the evolution of Sinclair Broadcast Group's annual revenue.

Besides Sinclair's tendency to focus on small and medium-size markets (most likely due to lower acquisition costs), there is no discernible acquisition strategy in their annual reports. A notable exception is their 2015 annual report when they remark that since 2012, they have followed a strategy to acquire stations in key swing states, in order to earn profits from a surge in political advertising, likely in light of the Citizens United Supreme Court decision in 2010. In addition to TV stations, Sinclair owns radio stations, sports-oriented cable networks and also delivers its broadcasting through multi-channel video program distributors and digital platforms, as well as a streaming service (Matsa, 2014) though on a much smaller scale compared to its ownership of local TV stations.

To offer as snapshot of key characteristics of Sinclair owned stations, Table 1 provides descriptive statistics of Designated media markets where Sinclair acquired a station, grouped by the acquisition period: before 2004 and after 2004. Before 2004, Sinclair owned stations in relatively large markets but later acquisitions, although more numerous, are in smaller markets. For the latter group, the median DMA rank out of all DMAs in the US (determined by the number of TV households) is 55 out of 210, in contrast to later acquisitions, whose median rank is over 101. In terms of TV households, this represents a difference of 257,620 in the median number of households, i.e. Sinclair's later acquisitions reached (on average) 257,620 fewer potential households that could watch its stations. Furthermore, the stations that were acquired after 2004 also had a lower viewership rate within the DMA than the set of stations Sinclair already owned before 2004 (Figure 2): while stations owned by Sinclair before 2004 were watched by about 62% of their potential audience on average, only 54% of households on average watched Sinclair stations acquired after 2004, a statistically significant

[12]In December 2012, at a UBS Media Conference in New York, Sinclair CEO David Smith boasted about this surge in acquisitions, adding his ultimate goal: "I'd like to have 80 percent of the country if I could get it. I'd like to have 90 percent." (Newslab and Matsa, 2014).

[13]The deal with Tribune would would have allowed it to reach 70% of U.S. households, and break into major media markets, such as New York, Los Angeles, and Chicago where before its portfolio concentrated on small and medium-sized media markets. In early August 2018, Tribune announced the termination of the merger agreement and filed a lawsuit for breach of contract, citing hostile behavior on the part of Sinclair towards regulators, which slowed government approval of the deal (Fischer, 2018).

[14]In doing so, the CEO, David Smith realized his goal as he explained to Forbes: "My father was too much of a visionary to care about profits...What I wanted was purely to make money." (Gillette, 2017).

difference of 7.5%. Notably, this analysis concerns DMAs of this first group of stations where news content changed from 2004, keeping ownership constant.

2.2.2. Existing Evidence of Sinclair's Political Bias

Next, I discuss the various manifestations of news bias. Then I present anecdotal evidence about Sinclair programming and its strategies in order to argue that the company's newscasts have been implicitly conservatively biased since the run-up to the 2004 election. This bias operates mainly through the filtering of available news stories and arises from predominately supply-side factors.

Bias can take many forms: it can be bias towards a political party, an individual, a policy, an ideology, etc. For simplicity, this paper considers the binary bias of liberal vs. conservative, where liberal implies following the Democratic Party and conservative following the Republican Party, as in DellaVigna and Kaplan, 2007 and Martin and Yurukoglu, 2017.[15] Then, bias may represent a distortion, whereby raw facts produce a misleading statement (for example, misreporting or not reporting a relevant fact or figure) or it can represent filtering, whereby the media condenses the raw facts to provide a misleading summary of events. These two concepts are closely linked, although filtering is more common in practice and in the literature on the political persuasion of the media.[16] Furthermore, this bias expresses itself in a variety of ways: it can be explicit, measured by endorsements of a candidate and editorials on policy, or it can be implicit. Implicit bias is commonly measured through the comparison approach (the coverage "talks like" a certain side), through issue intensity (an issue favorable to one side is more likely to be covered, in line with agenda-setting theory), or through tone (coverage of a one side is more intense and favorable than the other side). Lastly, I consider the origins of bias since the ideological position of a media outlet can be understood as the equilibrium of the interaction of supply and demand side factors. Multiple studies cite the pervasive influence of demand-side factors, in that the media's political slant is better explained by geographic partisan leanings than the ideological leaning of the outlet (Gentzkow and Shapiro, 2010; Anderson et al., 2016; Larcinese et al., 2011). Yet, there is empirical support to the opposite claim that the ideology of the media is sometimes counter to the partisan support in the market area it serves (Larcinese et al., 2011; Ansolabehere et al., 2006).

[15]Importantly, as Puglisi and Snyder (2015) remark, the multi-dimensionality of political conflict suggests that also of media bias. In this way, one can expect Sinclair's bias to be multi-dimensional and not strictly follow the Republican party line, however, this point is beyond the scope of this paper.

[16]To quote Puglisi and Snyder (2015), who paraphrase Coase (1937),"Distortions are islands of conscious misreporting of salient facts in an ocean of more or less salient facts that go through filtering and selection." (Anderson et al., 2016)

Sinclair delved into original news programming in 2002 with the launch of "News Central", a national news segment filmed in their headquarters in Washington D.C. and then sent to stations across the country for broadcast. Regarding the content, the CEO, David Smith, admitted to Adweek: *"Fox News Channel has demonstrated that people want a different level of truth, and if you can do it nationally, why not locally? If we're successful in creating meaningful, relevant controversy, we'll be doing a community service."* In invoking Fox news, Smith identifies the content as conservative (Gillette, 2017). While the program "News Central" lasted only until 2005, Sinclair continued to produce iterations of it through its use of "must-runs" and other shows featuring centralized political commentary. "Must-runs" refer to Sinclair's continued practice to produce brief video commentaries or scripts for their stations, whose staff are then instructed to weave it into the local newscast. The newscasts or scripts are sent to all stations, regardless of the prior political preferences of the market. Another example is the "Terrorism Alert Desk", a Sinclair mandated daily segment with updates on world terrorism-related news that ran from November 2015 (Ember, 2017). Thus, given the centralized and obligatory nature of Sinclair's media bias, I argue supply-side factors dominate[17].

Additionally, there is evidence that Sinclair's political slant intensified during presidential elections, with the aim to implicitly support the Republican candidate. These instances ran the gamut of running commentary/stories which promote Republican policy objectives ("talk like"), not allowing coverage of issues unfavorable to Republicans (issue intensity), and uneven coverage of candidates, both in time and scrutiny (tone).[18] Notably, in the 2016 election, Sinclair entered into a deal to air interviews with the Republican candidate, without further commentary, in exchange for extended access to their campaign (Gillette, 2017). Lastly, Martin and Mcrain (2019) compare Sinclair-owned stations' coverage patterns to those of other stations in the same market, exploiting variation from Sinclair acquisitions in 2017. Comparing ratings data and transcripts for each station from mid-2017 to early 2018 (during which Sinclair added 14 stations in 10 markets), they find that upon acquisition by Sinclair, the station's news coverage is more nationally oriented (by 25%), less locally oriented (by 10%), shifts significantly to the right in ideological slant, and suffers a small loss in viewership. This empirical analysis of Sinclair coverage supports the claim that

[17]Sinclair executives argue that these instances of "must runs" are few and clearly labeled as commentary, but critics disagree and cite instances where it is not the case. For an example, refer to an article by the online site *Deadspin* entitled "How America's Largest Local TV Owner Turned Its News Anchors Into Soldiers In Trump's War On The Media" showing a video of local news anchors of Sinclair owned stations reading one of the scripted "must runs", with nothing labeling it as commentary. Even so, critics argue that it is unethical to have the news anchors deliver their political commentary, as they are regarded as reporters, not political analysts (Weinstein, 2018)

[18]For a non-exhaustive detailed list of examples, please refer to Table A1.

Sinclair local news coverage is implicitly and conservatively slanted.

3. Methodology

In this section, I present the data sources and subsequent datasets used in this analysis, and present descriptive statistics and tests in support of the identification strategy.

3.1. Data

This paper exploit several types of data from different sources to construct a county-year panel of electoral returns from 1992 to 2020, as well as individual-level datasets from electoral surveys. The general methodological framework relates the availability of Sinclair biased programming to an increase in support for the Republican party and changes in social and political opinions. This analysis is organized at the county-level since counties are sub-components of DMAs, the level at which Sinclair biased programming is available. A critical component of this empirical analysis is the time component, since Sinclair develops its conservative bias in the 2004 election, thus Sinclair availability after 2004 is the main explanatory variable of interest.

Sinclair bias availability: For the main treatment variable, I construct a historical series of stations owned, operated, or engaged in an agreement with Sinclair. This information comes from Sinclair company annual reports filed to the Securities Exchange Commission, which list the call signs (station identifiers), network affiliations, and DMAs of stations owned, operated, or in an agreement with Sinclair. These annual company reports are publicly available from 1995 to 2021. Using backward induction of information from the annual reports and news reports, I complete the series from 1995 to 1992 (the start of this analysis).

A limitation of this data is that it does not specify which stations broadcast the local news. Therefore, I proxy the availability of the local news with the station being affiliated to a major network (ABC, CBS, CW, FOX, NBC, WB). Stations with major network affiliations have generally higher viewership since people are interested in the network shows, and thus, stations have a greater incentive and capacity (due to higher advertising revenue) to also produce the local news. I argue this is a reasonable assumption and that any measurement error introduced by this assumption would lead to a downward bias on the estimates presented since I would be considering untreated DMAs as treated. Another limitation is that this paper uses the DMA as the geographical boundaries of treatment. I argue that this definition is relevant given that Nielsen Media Research, the foremost media research

firm in the U.S., defines these boundaries to identify areas where individuals share coverage of broadcast media. Furthermore, the digital transition in June 2009, which mandated that all U.S. based television signals must be transmitted digitally, makes the risk of coverage spillovers into adjacent DMAs highly unlikely (Sewall, 2009). Finally, I collapse this series to arrive at a dataset, which describes by year the number of Sinclair stations and stations with major network affiliates (ABC, CBS, CW, FOX, NBC, WB) per DMA. Our main treatment variable is thus defined as a county within a DMA with a Sinclair major affiliate station available after 2004[19]. The spatial distribution of treatment is presented in Figure 1.

Voting and opinions: My analysis focuses on voting outcomes at the county and individual level. The latter covers all presidential and congressional elections from 1992 to 2020, compiled at the county level and the county-congressional district cell level. The former comes from electoral surveys geolocalized to the county level.

Data on presidential electoral returns (the number and percentage of votes attributed to each candidate, including third-party) is compiled at the U.S. county-level as provided mainly by CQ Press for the period 1992 - 2020 (CQ Press, 2022)[20]. Data on congressional returns and voting turnout and registration comes from Dave Leip's Atlas of US Presidential Elections (Leip, 2022). This data on electoral returns is the most commonly used source of data in the literature on electoral outcomes in the United States, for example, DellaVigna and Kaplan (2007), Autor, Dorn, Hanson, and Majlesi (2020). For vote share outcomes, I consider the two party vote share in order to control for years where the third party candidates were more prominent and to arrive at a consistent measure of the Republican vote share across election years. Voter turnout is defined as the share of votes out of all registered voters. Voter registration is the share of registered voters out of the voting age (20+ population).

Individual level voting outcomes and opinions come from two electoral surveys: the American National Election Study (1992-2016) and the Cooperative Election Study (2006 to 2020) (ANES (2022), Kuriwaki (2022)). The former dataset is desirable due to its long timespan and that it contains a wide-ranging and consistent set of questions on voting preferences as well as on policy and social opinions. The county of respondents is considered restricted-access data, and access is given after approval of the application. Geographic information is publicly available online for the latter dataset. Despite its limited number of years and questions, the CES has a sample of respondents many times larger than that of ANES and many more years. Both datasets are representative of the national adult

[19]This analysis will only consider these major affiliate stations, and so, for simplicity, I will refer to these Sinclair major affiliate stations as Sinclair stations.

[20]Alaska is excluded from the analysis because the data is at the electoral district level whose boundaries do not correspond to counties, and thus, DMAs.

population; the CES is also representative at the state level. The ANES study design is a cross-section, equal probability, sample, and so the respondents do not need to be weighted to compensate for unequal probabilities of selection in order to restore the "representativeness" of the sample. The survey is conducted face-to-face or over the phone. The CES is conducted online by YouGov each year and consists of two waves in election years. It comprises of a dataset of demographic and political information and a policy preferences dataset, which I combine by respondent ID to arrive at one final dataset. Weights based on matching and post-stratification are needed to restore the representativeness of the sample.

Viewership data: Data on viewership is manually compiled for each station owned by Sinclair from Warren's Television and Cable Factbook for the year 2001 (*Television & Cable Factbook* 2001). The Factbook is directory of all television stations operating in the year 2001, and in particular has detailed information on the total number of households watching each station, as well as on a weekly and daily basis. The estimated station totals are sums of the Nielsen TV and Cable TV household estimates for each county in which the station registers viewing of more than 5% as per the Nielsen Survey Methods, based on the year 2000. The main criticism of the Factbook is that it is not regularly and consistently updated, however it is sufficient for the purpose of providing a static picture of the initial viewership for Sinclair stations before the introduction of biased programming (Martin and Yurukoglu, 2017). I take DMA-level averages of station viewership when using initial viewership as the explanatory variable.

County attributes: County-level attributes come from a variety of sources. Total population estimates, as well as by age, race/ethnicity, and gender for the period 1990-2016 are provided by the U.S. Census Bureau, and are compiled by DataPlanet (U.S. Census Bureau, 2020b). Population estimates by educational attainment are provided by the United States Department of Agriculture in 10-year intervals from 1990 to 2000 (Agriculture, 2020). Data on educational attainment is completed from 2005 to 2020 from five year estimates from the American Community Survey compiled by Social Explorer (U.S. Census Bureau, 2020a). Data on unemployment rates is obtained from the United States Bureau of Labor Statistics, available yearly from 1990 to 2020 (Bureau of Labor Statistics, 2020). Information on income and poverty come from the U.S. Census Bureau's Small Area Income and Poverty Estimates program which produces single-year estimates for all U.S. states and counties (U.S. Census Bureau, 2020c). Data on religion are available in 10 year intervals from the Religious Congregations and Membership Study, also available through Social Explorer (Religion Data Archives, 1990). Where yearly data is not available, I input the population estimates of the closest available year. All population estimates are provided at the county level. A limitation of this data is that these are not precise counts, but estimates based

on past census and current surveys. Also, these estimates are only available for certain age groups. Notably, there is no voting age population group, so I proxy it by the closest available (the 20 and over population group) when computing turnout rates. I also use county-level information from the Economic Innovation Group's Distressed Communities Index for the year 2000 and 2010 (EIG, 2000). The seven component metrics of the index are (1) No high school diploma; (2) Housing vacancy rate; (3) Adults not working; (4) Poverty rate; (5) Median income ratio; (6) Change in employment; (7) Change in establishments. County-level import pressure comes from the replication files of Autor, Dorn, Hanson, and Majlesi (2020).

Other data: For all data sources, a DMA to County crosswalk file provided by Sood (2018) on the Harvard Dataverse is used to match each county to their assigned DMA (or vice-versa), as defined by Nielsen in Fall 2016. This is possible because a Designated Media Area (DMA) is by definition a set of counties and that set is normally stable across years.

For descriptive purposes of local TV news viewership, I use the American Trends Panel Wave 1 of the Pew Research Center, administered between March 19th and April 19th, 2014 (Pew, 2022). The survey is web-based. The survey notably asks respondents about their main sources of news about politics and government in the past week, one of the options being the local news (Question 22 of the survey). In order to restore the representativeness of the sample for the national U.S. population, the survey results must be weighted.

Summary statistics for all variables used in the estimation are presented separately for each dataset in Tables A1 and A.2.

3.2. Identification Strategy

The causal effect of media bias on voting outcomes is difficult to isolate, given various endogeneity concerns. One arises from differences in demographic characteristics between treated areas and non-treated areas, as well as the choice of entry into a market which could be correlated with county characteristics, which in turn could be correlated with voting behaviors, such as population, racial demographics and education or unobservables. There also exists endogeneity at the individual level, since one's choice to watch Sinclair-produced local news is likely to be correlated with an individual's observable and unobservable characteristics that could also influence voting behavior.

A common technique of the literature in order to uncover a causal effect of the media on political outcomes is to exploit a natural experiment using a difference in difference identification strategy with panel data, arguing exogenous variation conditional on a set of controls (Gentzkow, 2006; DellaVigna and Kaplan, 2007; Enikolopov et al., 2011).

In order to overcome these challenges, I employ an event study methodology, with regard

to the introduction of Sinclair biased programming in the DMA. The identifying assumption is that the within-county evolution of electoral outcomes would have been the same, absent the availability of biased Sinclair coverage, after controlling for observable differences. The "event" is thus the first presidential election year after exposure to Sinclair bias. Ideally, in order to empirically argue for the change in content in 2004, I would have transcript data on what was said on the local news programs in markets with Sinclair stations before and after 2004. There I should observe a sharp discontinuity in the tone of the rhetoric, where before 2004, it should resemble other non-Sinclair stations in the market, and after 2004, it should exhibit a conservative slant, the degree of which I would be able to trace over time. Unfortunately, this data does not exist, as the time period studied (the early 2000s) is too early. However, I provide suggestive evidence by considering reports in the news media that mention this shift in content. I count the number of mentions in the news media of Sinclair's conservative bias from 1996 to 2023, compared to another large broadcaster, Nexstar Media Group (Figure 3). There is a large spike in the number of mentions just prior to the 2004 election, and again in 2017, consistent with the qualitative evidence, while mentions of Nexstar's bias are nonexistent.

This shock leads to two different treatments depending on the year of entry in the media market. The first treatment concerns the set of counties in media markets with Sinclair stations before 2004 and through 2020, which experienced a change in the *content* of their local news towards conservative rhetoric and national politics. Thus, this is an experiment of an exogenous shock to local news rhetoric while keeping ownership constant. The strength of this experiment lies in (1) the fact that there is no change in ownership or introduction of anything new except for content; (2) the timing of treatment in 2004, before the highly polarized era, as such, one can expect less partisan sorting than in later periods; (3) network affiliations and their primetime shows (i.e. what attracts viewers most viewers to the channel)) do not change with treatment. However, one may still be concerned by the presence of unobservables correlated with treatment timing and outcomes.

The second treatment concerns the set of counties in media markets where Sinclair acquired a station after 2004, and they experienced a change in ownership and a change in the content of their local news. Thus, it is less clean-cut than the first experiment and selection bias in consumption may be an issue, as in cable news. This could also lead to potential problems of endogeneity in Sinclair's acquisition strategy, which was to go into small and medium sized markets (in terms of the number of TV households) and in swing states, where the political media landscape is already saturated around elections. For this reason, this analysis focuses on the first group, for which the exogenous nature of the experiment is more likely. Later acquisitions by Sinclair are excluded from the analysis. For explanations

on these potential problems of endogeneity for the expansion group and basic results, refer to Appendix C.

The main specification compares the changes in our outcome variable within the set of counties with access to major affiliate Sinclair stations and those without, before and after the start of Sinclair's pro-conservative bias.[21] In this way, the initial differences in levels of the two comparison groups do not enter the estimation, because I instead consider the difference in the evolution (i.e., the average change within the groups among years and between sets of counties where Sinclair stations are available or not) of the variables considered across election year. The event study specification allows us to control for the variation *in* the same county at different points in time, purging the estimate of time-invariant effects from county characteristics. It is thus less likely that the results are driven by these observable and unobservable county characteristics and so, reduces the bias compared to cross-sectional specifications. It also improves upon the pooled regression framework since I control for changes in the average difference in voting outcomes between counties with major affiliate Sinclair station availability and those without, essentially adding period fixed effects. Furthermore, given that all DMAs are treated at the same time, I avoid the issue of traditional two-way fixed estimator which may be biased when there is variation in treatment timing across groups and especially in the presence of heterogeneous effects (de Chaisemartin and D'Haultfoeuille (2020); Goodman-Bacon (2018); Abraham and Sun (2018))[22].

Indeed, Table 3 presents demographic differences between counties with a Sinclair station and those without, in the election year prior to the start of Sinclair bias (the year 2000). Relative to the control, Sinclair counties tend to be less dense, less educated and less poor, with a smaller share of non-Christians among the religious. Yet, these differences are absorbed by the county fixed effects. A potential threat to identification is if these demographics change differentially between treated and untreated units and are correlated with the timing of the introduction of Sinclair bias in 2004 and changes in voting preferences and opinions. Table 4 shows the results of balancing tests, whereby the demographic variables are regressed one-

[21] As argued in the previous section, Sinclair did not express a conservative bias from its founding in 1971. Their present slant only became evident in the run-up to the 2004 election. Even then, they received significant backlash from other media groups and the online community in response to the biased coverage and actions, notably in response to their desire to air a debunked anti-Kerry documentary on their stations. Sinclair succumbed to the pressure and did not air the documentary in the end, opting for a more balanced commentary on Kerry instead (Ammori, 2005). As such, I consider the treatment period to be all elections inclusive of and after 2004.

[22] For t the sake of thoroughness: I estimated the associated DID weights, and all are positive, meaning that the bias these papers document does not exist. Figure A1 also plots the coefficients of the dynamic effect, using the estimator proposed by de Chaisemartin and D'Haultfoeuille (2020). The results looks almost identical to the event study estimation.

by-one on a dummy for Sinclair bias availability, controlling for county and year fixed effects. Reassuringly, none of the variables are significant at any conventional level, indicating that within-county demographic changes are not correlated with the availability of Sinclair bias.

Nonetheless, a causal estimate of the effect of slanted local news depends on the common trends assumption: absent the availability of a biased Sinclair major affiliate station in the DMA, the evolution of electoral outcomes of the two sets of counties would have been the same. Although no statistical test of the common trends assumption is available, I consider techniques common in the literature to establish robustness, such as a graphical representation of the lack of pre-trends, placebo tests, and sensitivity to controls and specification changes.

3.3. Econometric framework

The base specification for the county-level regressions is an event study of the form:

$$\begin{aligned} Y_{d,t} = {} & \delta_{-3} D_{d,t}^{1992} + \delta_{-2} D_{d,t}^{1996} + \delta_0 D_{d,t}^{2004} + \delta_1 D_{d,t}^{2008} + \delta_2 D_{d,t}^{2012} + \delta_3 D_{d,t}^{2016} + \delta_4 D_{d,t}^{2020} \\ & + \omega P_{d,t} + \sigma' \mathbf{X}_{d,t} + \phi_d + \tau_t + \epsilon_{d,t} \end{aligned} \tag{1}$$

where $Y_{d,t}$ is the outcome of interest (the Republican two-party vote share for president or congress; the turnout rate; voter registration rate). $D_{d,t}^{e}$ is the dummy for a Sinclair station in year t, where e denotes the election year. I exclude the year before the change in content, the year 2000. All estimates are referenced to this base year. Then, I include a series of controls: $P_{d,t}$ is prediction of the differential trend of the outcome in pre-period including county controls; $\mathbf{X}_{d,t}$ is a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians. ϕ_d are county fixed effect and τ_t are year fixed effects. $\epsilon_{d,t}$ is the heteroskedasticity-robust error term clustered at the level of treatment, the DMA. Here, $\delta_{0\ \mathbf{to}\ 4}$ are the coefficients of interest of the average treatment effect of the change in Sinclair content within a county in years 2004 to 2020.

When estimating individual level outcomes using the ANES dataset, I follow this same methodology, with the additional inclusion of a vector of individual level controls: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, for level of educational attainment and the income group. Given the limited number of observations and that the panel is unbalanced (there are not always respondents of each county every year), I include DMA-level fixed effects instead of county-level fixed effects in all individual level equations.

I also estimate an analogue of this specification, which more closely resembles a difference-

in-difference framework:

$$Y_{d,t} = \delta_1 SinclairBias_{d,t} + \delta_2 SinclairBias_{d,t} \times \mathbb{1}[t >= 2016] + \omega P_{d,t} + \sigma^{'}\mathbf{X}_{d,t} + \phi_d + \tau_t + \epsilon_{d,t} \quad (2)$$

Here, *SinclairBias* is a dummy variable equal to one after 2004 for a county with a Sinclair station before 2004 and through 2020, i.e. where content changed to introduce the Sinclair conservative bias. I interact this term with a dummy variable equal to one for the 2016 and 2020 elections, to capture any differential effect during the later elections. Indeed, anecdotally, Sinclair bias amplified during the 2016 election due to Sinclair's exclusive deal with the Republican candidate to air interviews and exclusives without further commentary. All other variables are the same.

This is the preferred specification when considering heterogeneity of the effect because of the ease of interpretation when considering interactions. I also employ this specification when using the CES dataset. Since the first year of CES is after the introduction of Sinclair bias, I can only estimate this differential effect of Sinclair bias during the later elections. Given it is a the individual level, I also control for a vector of individual level controls: age, age^2; a dummy for female, Hispanic origin, being in a union, having no health insurance, having a child, and not having a relation to the military; and dummy categories for marital status, race, educational attainment, income group, and religious group[23]. I also include probability sampling weights in all CES results in order to account for the structure of the survey.

For robustness, I also estimate specifications using a continuous definition of treatment, the log of TV households that watched Sinclair stations before the change in content, as well as the share of TV households in the DMA that watched Sinclar stations before the change in content.

4. Results

4.1. The effect on county level electoral outcomes

Figure 5 presents the results of the estimation of Equation 1. Exposure to Sinclair bias lead to an about 2 percentage point increase in the Republican two-party vote share in 2012, an effect that doubles by the 2020 election to over 5 percentage points. In the pre-period

[23]The individual controls differ from those in ANES simply because either the extra demographic variables are not available in ANES or I elect for a more parsimonious definition of the variable given the lower number of observations available in ANES.

(i.e. before 2004), the coefficients are non-significant and close to zero, giving credence to the parallel trends assumptions crucial to identification. In terms of magnitude, the effect is politically meaningful in that it represents a 4% and a 8.5% increase relative to the mean two-party vote share. Furthermore, the increase over time in the effect of exposure to Sinclair bias suggests that it is indeed a response to exposure, in contrast to a response given latent demand. If the change in Sinclair content was indeed responding to some latent demand for pro-Republican local news in the community, one should observe a level shift that stays constant through each election. Table A2 presents the robustness to these results as controls are gradually added or changed. Importantly, the sign and significance of the coefficients stay relatively constant across specifications, indicating that the effect I find is not sensitive to controls.

Next, I consider the effect on congressional elections. Figure 6 presents the results of a variant of Equation 1.The equations differ in that, here, I estimate each Congressional election year, i.e. every two years instead of every four years. Furthermore, to account for the fact that counties are often split across more than one congressional district, the regressions are estimated at the county-congressional district cell level. In order to restore the representativeness of the sample, when the outcome is whether the Republican congressional candidate won, I weigh the regressions by the share of the county vote out of all votes in the district. This gives each congressional district a weight of one. When then outcome is the Republican congressional two-party vote share, I weigh by the share of the county vote attributed to the district out of the total county vote. This gives each county a weight of one. Finally, the standard errors are now clustered by DMA and the congressional district of the county. Counties exposed to Sinclair bias have an about 18%-point greater chance to elect the Republican congressional candidate in their district in 2020, up from about a 10%-point increase in this probability in 2012. Relative to the mean, Sinclair bias increased Republican congressional chances to win the election by 29% and 16% in 2020 and 2012, respectively. I also observe an increase in the Congressional two-party vote share of 7.8% points, or about a 14% increase relative to the mean. I investigate the robustness to controls of these results in Table A3. When the outcome is the electoral win of the Republican candidate, the coefficients are stable across specifications, and importantly, I do not observe any significance in the pre-bias periods. In contrast, the results using the vote share as the outcome are sensitive to the inclusion of the control of the pre-treatment prediction of the vote share. When no controls are added to the regression, the coefficients are in the same direction but differ in magnitude and significance from the main specification. In line with the results of previous literature, the congressional vote share is a much more volatile outcome than the Republican winning the election, and congressional wins are often determined at

the margin (i.e. a very small shift in the vote share leads can lead to victory), and so are difficult to capture (Autor, Dorn, Hanson, and Majlesi, 2020).

I now turn to investigate the electoral mechanisms behind these observed changes in election outcomes: can these Republican gains be attributed to an increase in the mobilization of Republican voters and past non-voters? To answer this question, I consider the turnout rate and the share of registered voters as outcomes. Figure 7 plots these results, with the full results available in Table A4. There is weak evidence of a congruent increase in turnout and decrease in share of registered voters in 2020: none of the coefficients after the introduction of Sinclair bias are significant for either the turnout rate among registered voters nor the share of registered voters. Thus, it is more likely that the electoral mechanism is selection in who turns out to vote among voters, with weak evidence of the mobilization of non-voters.

4.1.1. Heterogeneity

In order to better understand the conditions conducive to persuasion of Sinclair bias, I interact exposure to Sinclair bias with a set of county characteristics. Notably, I consider social-demographic and economic characteristics in Panel A and B, respectively, of Table 5. For demographics, I consider the county-level population decline, defined as the percentage change in the population from 2016 to 2000; the share of native born and share with no college degree in year 2000, i.e. before the change in Sinclair content. The effect of exposure to Sinclair bias remains, yet it is amplified given an increase in all three demographic variables. This suggests that counties that experienced population loss, that have a greater share of individuals that are born in the United States or that did not go to college, are more prone to be persuaded by Sinclair bias. A one standard deviation increase in population decline (equivalent to an 18.54% decline in population from 2000 to 2016), increases the persuasion effect of Sinclair bias on the Republican two party vote share in 2016 and 2020 by 2.54% points. For the share of native born in 2000, this differential increase is 4.9% points for a one-standard deviation increase, or an increase of 4.7% points. And finally, for the share of the population without a college degree, a one-standard deviation increase, or a 11.3% increase in this share, the differential increase is 2.2% points. In contrast, economic considerations do not differentially affect the effect of exposure to Sinclair bias on the Republican two-party vote share. When I interact the county-level import pressure, as calculated by Autor, Dorn, and Hanson (2013), or a composite score proxying for the "distress" of a community[24], or the poverty rate, with exposure to Sinclair bias, none of the coefficients are significant. This

[24]Distressed communities score comes from the Economic Innovation Group. The seven component metrics are (1) No high school diploma; (2) Housing vacancy rate; (3) Adults not working; (4) Poverty rate; (5) Median income ratio; (6) Change in employment; (7) Change in establishments.

suggests that county-level cultural isolation, but not economic insecurity, plays a role in amplifying the effect of Sinclair bias.

A last related question is whether Sinclair bias contributed to partisan polarization, given the pre-treatment partisan leanings of the county. Table A5 presents the results of the estimation of Equation 2 interacted with a categorical variable representing the pre-treatment partisan leaning of the county[25]. The estimated increase in the Republican two party vote share can be attributed most to prior Democratic counties, and is marginally lower in swing counties and even more so in Republican counties . This result is in line with prior studies which found that the persuasion effect of biased conservative news is lower in Republican areas, as in DellaVigna and Kaplan, 2007[26]. Given the large magnitude of the effect on the Republican two party presidential vote share, this results can speak to the fact that in prior Democratic and swing counties there was a greater margin to persuade than in counties with an already high Republican two-party presidential vote share. Coupled with the results of a non-effect on the turnout rate and voter registration, the results suggest that exposure to Sinclair bias convinced at least some voters in these counties to switch their vote from the Democratic to the Republican party. Absent individual-level panel data where one observes the same individual's vote over time, it is not possible to give a definitive answer on if individual voters switched their votes, nor on what proportion of the estimated effect on the presidential vote can be attributed to this persuasion to switch vote or to selection in who turns out to vote.

4.1.2. Discussion of county-level effect

Overall, I find evidence that exposure to the change in Sinclair content to include a pro-Republican bias is associated with an increase of the Republican two party vote share within a given county. In order to draw comparisons between the persuasive power of Sinclair's bias and the persuasive power of bias found in other studies, it is necessary to compute persuasion rates. Generally, persuasion rates reflect the fraction of the audience convinced by the media message to act a certain way. I adopt the methodology of DellaVigna and Kaplan (2007), who defined the persuasion rate as:

[25]Partisan leaning is defined as the average of the two-party vote Republican vote share in 1992 through 2000. A Democratic county has an vote share of a range [.097, .485]. A swing county has a range [.485, .580]; a Republican county has a range [.581, .891].

[26]Note that DellaVigna and Kaplan (2007) use the post-treatment vote share in their definition of partisanship of the district, while I use the pre-treatment vote share (see notes of Table IV).

$$f = \frac{(v_T - v_C)}{(e_T - e_C)(1-r)} \times \frac{(1-r)t_C t_T}{d} \tag{3}$$

where $(v_T - v_C)$ represents the estimated within-county difference in the Republican two party vote share between treatment and control counties; $(e_T - e_C)$ represents the difference in the fraction of the population exposed to Sinclair bias in treatment and control counties; r is the share of Republican voters and d the share of Democratic voters in the county; and $t_C t_T$ is the product of the turnout rates in treatment and control counties.

For e_T, I take the sum of coefficients of Equation 1 for the relevant time period. For exposure rates, I use the average share of TV households out of all TV households that watched Sinclair before the change in content (i.e. in 2000). I assume no spillover of Sinclair bias in counties in DMAs without a Sinclair station that experienced a change in content ($e_C = 0$). As explained in section 3, the digital transition makes cross over of broadcast signals very unlikely. Also even before the transition, I argue this assumption is reasonable not only because of presumably improved signal quality but also because the local news would be more relevant for that viewer. The turnout rate t is the average number of votes as a share of registered voters over the relevant time span. And, finally, following DellaVigna and Kaplan (2007), d is the product of the turnout rate and the average weighted Democratic two party vote share.

Table 7 presents the results of the calculation of persuasion rates for our various estimates of the treatment effect. This paper find similar persuasion rates across the various estimates of the effect of Sinclair bias on the Republican two-party vote share. Depending on the time period considered, I find that conservative bias in Sinclair local news programming convinced 7.5% to 14.4% of those exposed and not already convinced (i.e. individuals that did not already vote Republican and that watched Sinclair stations) to vote for the Republican candidate, on average, over the time period considered. The magnitude of this estimate is smaller than that found in the literature on the persuasive power of the media. For example, DellaVigna and Kaplan (2007) found persuasion rates of around 8% using county fixed effects; Enikolopov et al. (2011) also found a persuasion rate of 8% for the positive media message that encouraged voters to vote for a certain party; and Gerber et al. (2009) found persuasion rates of around 11% in a field experiment that gave free subscriptions to the left-leaning Washington Post.

Yet, the implication of exposure to Sinclair bias on the outcome of elections could be important. I consider the 2016 election, given the importance of this election for U.S. democracy and that it is when the first robust evidence of the effect of Sinclair bias manifests.

Democrats needed 38 electoral votes in order to win the election. I consider the three states with the smallest Republican margin of victory: Michigan, Pennsylvania, and Wisconsin, which represent 46 electoral votes total. I then calculate the number of votes that shifted possibly due to Sinclair exposure as the product of the share of the voting-age population exposed to Sinclair bias, the effect in 2016 (5.1 percentage points) and the number of votes cast. I assume a constant treatment effect across units and no effect on turnout, the latter of which is justified by the non effect of turnout I find. In each of these three states, the Sinclair vote shift is greater than the Republican margin of victory (Table 8). Thus, this simple back of the envelope calculation suggests large ramifications of exposure to Sinclair bias on election outcomes, as it could have shifted the vote by more than the margin of victory, and thus may have contributed to Republicans winning the 2016 election.

4.1.3. Robustness

In the previous section, I established robustness to the inclusion (or not) of a variety of controls for the main county-level results. Table A7 in the Appendix also establishes robustness to the definition of the main outcome variable: the Republican two-party vote share. I obtain similar results when considering instead the Republican all party vote share or when considering the Republican vote as a share of registered voters, as well as to the inclusion (or not) of controls.

In this section, I also present a series of sanity checks and placebo tests to argue that the effect I isolate is indeed attributable to Sinclair's change in content towards a conservative bias. The sanity checks I perform are related to treatment intensity. The event study regressions have already shown that the effect increases over time, i.e. the effect is greater the longer counties are exposed to the Sinclair bias. Given information on viewership before the change in Sinclair content and information on the number of TV stations that Sinclair owns in the DMA, I re-define the treatment variable to three continuous measures that reflect treatment intensity: (1) the log of the number of TV households that watched Sinclair stations in the DMA in the year 2000, (2) the share of TV households that watched Sinclair stations out of all TV households in the DMA in the year 2000 and (3) the number of Sinclair stations in the DMA in the year 2020[27]. Each of these variables are set to zero before the year 2004 and are zero for the control group, so that they can stand in for treatment. Table A6 presents these results. The results confirm that increased exposure to Sinclair biased programming after the change in content leads to a higher increase in the effect on the

[27]Note that I still only consider DMAs where Sinclair had a station before the change in content in 2004. I take the year 2020 to account for the fact that Sinclair sometimes added on stations in later years in DMAs where they were already present.

Republican two-party presidential vote share.

Nest, I consider placebo tests to rule out alternative explanations of the effect I find. Table 6 shows these tests. Columns (1)-(5) present the placebo tests where I interact a dummy for the presence of each major affiliate owned by Sinclair in the DMA. The effect of Sinclair bias after 2016, i.e. where I find the main effect, is positive and highly significant no matter the affiliation of the station in the DMA. This suggests that the effect isolate is Sinclair-specific and not due to a possible confounding bias of a specific major network affiliation. In Column (6), I consider the possibility that Sinclair selected to acquire new stations in DMAs where they already knew they were influencing the vote. Instead of exposure, this selection bias by Sinclair would instead explain the increasing effect in later election years. Reassuringly, the coefficient on Sinclair bias and Sinclair bias in the 2016 and 2020 election remains positive and significant, arguing against this selection. If anything, the coefficient on the interaction of Sinclair bias with a dummy for DMAs where Sinclair added on a station after 2004 is negative. Lastly, Column (7) exploits that Sinclair sold stations that it owned prior to the change in content. Given that these counties were never exposed to Sinclair bias, only to Sinclair ownership, one should not expect any change in the Republican two party vote share. I confirm that this is indeed the case, giving credence to the claim that the effects I observe are due to the change in content towards pro-Republican rhetoric.

4.2. The effect on individual level voting outcomes and opinions

The previous section discussed the change in county-level voting outcomes: counties that experienced a change in content in 2004 towards Sinclair's pro-Republican biased programming increased their vote share towards the Republican presidential candidate and were more likely to elect a Republican congressman, starting from the 2012 election. This section will investigate how voting choices and policy opinions evolved for individuals living in those counties.

To this end, this paper makes use of the American National Election Survey[28]. I use restricted-access information on the county of residence of respondents to match these respondents and their voting and policy preferences to their (potential) exposure to Sinclair bias, for the years 1992 to 2016. Comparing demographic differences across respondents in counties exposed to Sinclair bias and counties that were never exposed, I find that respondents in counties where Sinclair content changed are more likely to be white, female, native born, Protestant, less likely to have completed college and have lower income, relative to respondents in control counties (A9). Yet, when performing the balance test which mimics the

[28]See Section3.1 for a description.

final specification with DMA and year fixed effects and so, reflects within-DMA changes in demographic variables correlated with exposure to Sinclair bias, very few differences remain (A11). These observable differences are controlled for in all estimations of the results[29].

To consider voting outcomes, I use questions that ask individuals who they voted for in that election. Figure 8 presents the change in the probability to vote for the Republican candidate during the presidential and congressional election for individuals living in counties exposed to Sinclair bias. The size of the effect is similar across election types: exposure to Sinclair's change in content towards pro-Republican bias lead to an about 8 and 11% point increase in the probability to vote for the Republican candidate for the presidential and congressional election in 2016, respectively. In magnitude, this effect is substantial: it represents an approximately 25% increase in relation to the mean probability of voting for either Republican candidate. In table A13, the coefficients of this figure are reported, and the robustness of these results is established with the gradual inclusion of the controls. Furthermore, I re-estimate these results using another electoral survey, the Cooperative Election Survey. The CES is only available from 2006, so I can only estimate the supplemental effect of Sinclair bias after the 2016 [30]. Table A14 presents the results of the estimation of Equation 2 for the CES sample of U.S. citizen respondents[31]. Continued exposure to Sinclair bias during and after the 2016 election lead to an extra 2.5% point increase and an extra 3.5% point increase in the probability to vote for the Republican presidential and congressional candidate, respectively, compared to exposure during the earlier elections (2006 to 2014). Overall, I find that the county-level increase in the vote is also estimated at the individual level and is robust to the use of a different survey, which is important to add credibility to the effects I find.

Given the observed increase in support for the Republican party, a related question is if Sinclair bias also affected the partisan identity and ideology of individuals exposed to this bias. I regress the partisan identification of respondents on exposure to Sinclair bias. Table A15 reports these results for respondents in both the ANES and CES surveys, separately. Exposure to Sinclair bias leads respondents to be more likely to identify as Republicans, but not conservatives. This results confirms anecdotal evidence that Sinclair bias operated in support of the Republican party rather than for the conservative ideology.

Motivated by the county-level heterogeneity results, I now focus on heterogeneity given

[29]The only one at the individual level, the dummy for having completed high school, is negatively associated with exposure to Sinclair bias. Given table 2 that non-college educated individuals are more likely viewers of the local news, this difference would only bias the estimates downwards.

[30]For descriptive statistics and balance for the CES sample of respondents, refer to Table A10 and A12.

[31]The CES samples the entire adult population in the United States. Since this paper is interested in impacts on voting, I condition on the respondent being a U.S. citizen.

the educational attainment of the respondent. Specifically, I estimate equation 2 interacted with a dummy for whether the respondent completed college, presented in Table 9. Columns (2) and (4) give the results using ANES and CES respondents, respectively. For comparison purposes, the main (non-interacted effect) is given by odd columns. The results suggest that having a college education lowers the estimated effect of Sinclair bias on the probability to vote for the Republican presidential candidate. This difference is significant for the CES sample of respondents but marginally insignificant using the ANES survey (likely due to the lower sample size, the estimate is less precise). Overall, this provides suggestive evidence that exposure to the pro-Republican change in Sinclair content more effectively persuaded non-college educated individuals.

4.2.1. Policy opinions

This secion investigates possible shifts in opinions regarding social and economic policy. Coupled with the results on the differential effect of Sinclair bias given educational attainment, it also considers changes in policy opinions through this lens. I present results for three broad categories: social policy that concerns attitudes towards minorities and immigrants, traditional conservative policy and populist rhetoric. The choice of the first two categories are motivated by anecdotal content of Sinclair's broadcast which focused on threats of terrorism through the use of the "Terrorism Alert Desk", and its exclusive deal with the Trump campaign. The last category represents traditional conservative policy preferences.

The results on these policy preferences are reported in Table 10 for social policies and Table 11 for traditional Republican (Columns 1-4) and populist rhetoric (Columns 4-8). As a proxy for pre-treatment partisan identity, I control for the pre-treatment partisanship of the county of respondent (a three category dummy for Democrat, swing or Republican) using the average Republican vote share in 1992 to 2000, as in Table A5.[32]. For social policy preferences, I consider as outcomes, agreement that the U.S. should decrease the number of immigrants, the normalized score for the first Principal component of a set of questions that disagree with racial equality[33], and support for the increase in border security between the U.S. and Mexico. There is a positive effect of exposure to Sinclair bias for each of these outcomes, with a negative coefficient on the interaction term with the dummy for

[32]Given that partisan identity is itself an outcome of Sinclair bias (Table A21), it is not possible to control for the political affiliation of the respondent, since it would be a bad control. Yet, policy preferences are nonetheless dependent on the political affiliation of the respondent. Ideally, one would have information on the partisan identity of the respondent before the change in Sinclair content. This variable is not available in either of the datasets.

[33]Racial inequality attitudes refers to disagreement with the following questions: (1) " Blacks have gotten less than they deserve" (2) "Conditions make it difficult for blacks to succeed" (3) "Blacks should have special favors to succeed" (4) "Blacks must try harder to succeed".

having completed college[34]. For Republican party preferences, I consider the first Principal component of a set of questions that agree with a small government[35] and with less redistribution[36]; as well as dummies for the responding preferring most domestic spending cuts (to military spending cuts or taxes) and preferring least taxes (to either type of spending: domestic or military). I find some evidence that exposure to Sinclair bias increased support for Republican party preferences in the ANES sample of respondents, yet this increase is not mirrored in the questions using the much larger CES survey. Lastly, I consider populist rhetoric using the first Principal component of a set of questions that reflect a sense of disillusionment with government[37], disagreement that the respondent's opinions matter when it comes to government policy, a desire for isolationism, and finally, sentiments towards the Republican presidential candidate[38][39]. The majority of coefficients are insignificant and/or go in the opposite sign than all the other results, which leads to the conclusion that Sinclair bias did not provoke a general populist mood in the population potentially exposed. The exception is with regard to sentiments towards the Republican presidential candidate, which I use as a proxy for the cult of personality that populism often promotes (Skach (2012), Barber (2019)). This finding is in line with previous results on partisan identity indicating an increased loyalty towards the Republican party, itself, rather than its ideas or policy measures. In Figure 9, I investigate this finding further by estimating equation 1 on college-educated and non-college educated respondents, separately. I find evidence of educational polarization whereby there is a significantly positive effect for the non-college educated from the 2008/2012 election onward, and a negative effect for the college-educated (significant for 2008/2012 and marginally insignificant for 2016). I interpret this finding as suggestive evidence that Sinclair bias encouraged "rally around the party" sentiments even before the rise of the personality-based campaigning style of the 2016 Republican candidate, potentially setting the stage for the compound effects of Sinclair bias this paper documents during the 2016 and 2020 elections.

Overall, I find suggestive evidence of an increase in (self-reported) xenophobic and racist attitudes for the non-college educated, and educational polarization towards sentiments to-

[34]The coefficient is insignificant in the estimations using the smaller ANES sample of respondents.

[35]Agreement with (1) "Free market can handle economy (vs government)"; (2) "Less government better (vs government should do more)."

[36]Agreement with (1) "Decrease federal spending on poor"; (2) "Decrease federal spending on welfare"; (3) "Should worry less about how equal people are."

[37]Agreement with (1) "Federal Government run by few interests"; (2) "Not satisfied with democracy in the US"; (3) "Federal Government wastes tax money a lot."

[38]Feeling thermometer on a scale of 0 to 100.

[39]As Wuttke et al., 2020 note, populist rhetoric is multi-dimensional and difficult to break up into sub-components as this paper attempts to do, nonetheless, I argue that it is a sufficient approximation for noting shifts in opinions related to populism.

wards the Republican presidential candidate. There is weak evidence of a congruent increase in Republican policy preferences for small government and less redistribution. In contrast, there is no evidence of an associated increase in support for populist rhetoric. Due to the small sample size of ANES respondents, where the majority of these questions were asked[40], the estimates lack precision to give a definitive statement about the shift in policy preferences given exposure to Sinclair bias.

4.2.2. Robustness

Regarding the individual-level results, this paper established robustness for the effects estimated to a variety of controls, as well as the use of two different surveys. Yet, potential threats to identification remain. In this section, I perform several checks. One is to re-estimate the main results using different definitions of treatment, specifically using the level and share of initial viewership of Sinclair stations (Table A21). For the sample of CES respondents, I re-estimate the effect after the introduction of biased content using other measures: the number of years since exposure to the change in Sinclair content and a pseudo event study that uses only presidential years and compares the evolution of the effect for each successive presidential election. The results indicate that the results are not sensitive to these changes in the definition of treatment.

There exists also potential confounders to the results suggestive of educational heterogeneity, and in some cases, polarization. The correlations in Table 2 indicate that non-college educated individuals are more likely to report that they watch the local news as a source of information about politics and current events. Thus, it could be that the differential effect is simply due to greater exposure: non-college educated individuals have a greater propensity to be exposed to Sinclair bias. In order to investigate this mechanism, I consider heterogeneity by another high local news exposure demographic group: the elderly. Indeed, being over 50 years old is an even greater predictor of watching the local news than educational attainment: the 50-64 age group and the 65+ age group have an about 17% and 12% greater chance to watch the local news, compared to 7.4% for the non-college educated.Another explanation for the differential effect by educational attainment could be the lack of outside sources of information: non-college educated individuals may be less likely or interested to seek out other sources of information about politics and current events. To consider this mechanism, I use a question available in the CES survey which asks the individual how interested they are in the news. Table 12 gives the results of the estimation of equation 2 interacted with the age group of the respondent (Columns (1) and (2)) and the self-reported news interest

[40]unlike the CES sample of respondents which asks a much more limited set of questions

of the respondent (Column 3). In all specifications, the main effect of Sinclair bias remains. For the group of respondents aged 50 and over, the coefficient on the interaction of a dummy for this age group and Sinclair bias is not significant. These results suggest that the effects I find are not specific to a demographic predicted to be a heavy viewer of TV local news, and thus, the differential effect of Sinclair bias given educational attainment cannot be solely explained by greater news consumption. In contrast, the coefficient on the interaction term for the respondent self-reporting a lack of interest in the news and the availability of Sinclair bias is positive and significant at the 5% level. This suggests that a lack or reduced exposure to outside sources of information amplifies the persuasion effect of Sinclair bias, although it is not the only determinant.

5. Conclusion

This paper investigates the political persuasion of biased local news on electoral outcomes, using the introduction of biased local news programming of Sinclair Broadcast Group, a publicly traded broadcasting company in the United States, as a natural experiment of a change in news content while keeping ownership constant. Using an event study methodology in the form of a two-way fixed effect model, I argue that the within-county evolution of electoral outcomes and political opinions would have been the same, absent Sinclair's change in content towards a pro-Republican bias. This identifying assumption allows a causal interpretation of the effect of conservatively biased local TV news on electoral outcomes and political opinions.

I find that this shift in content to benefit the Republican party was especially effective in increasing the within-county presidential vote share by as much as 5% points in the 2016/2020 elections, as well as leading to Republican gains in Congress in the post 2010 era, and increased the associated individual level probabilities to vote for the Republican candidate in presidential and congressional elections by about 8 and 11% points, respectively. Given that this shift was concentrated among previously Democratic counties and led to individuals being more likely to identify with the Republican party, it implies potentially profound consequences on the outcome of these presidential elections, and on the partisan distribution of the electorate.

The persuasion effect of Sinclair bias is not monolithic, however. I find considerable heterogeneity in the magnitude and size of its effect depending on county demographics and individual characteristics. Notably, "isolated" counties which have experienced population decline, have a high share of the native born and non-college educated individuals, responded most to Sinclair bias. At the individual level, I find that individuals living in the same media

market and exposed to the same biased content, were more likely to vote for Republican candidates if they were not college educated. This differential shift in preferences also extends to policy. Specifically, it led to an associated increase in self-declared xenophobic attitudes and tolerance for racial inequality, but otherwise few changes to policy opinions related to traditional conservative policy or populist rhetoric. There is also suggestive evidence of educational polarization related to sentiments towards the Republican presidential candidate, although it is imprecisely estimated.

The totality of our results suggest that political persuasion is a dynamic process that is sensitive to environmental and personal characteristics. This finding relates to the rich psychological literature on motivated reasoning [41]. Common findings are that people are heterogeneous in their propensity to engage in motivated reasoning.Having a prior opinion on the issue (such as when following the party "cue") is a main source of directional preferences. These preferences often operate through affect (gut feelings) or identity threat, and can be modulated by source effects, issue salience, education and knowledge, and social background (Flynn et al., 2017). Although the evidence is anecdotal, Sinclair's biased programming often focused on emotional issues, such as the threat of terrorism through its"Terrorism Alert Desk," or on personality politics given their exclusive deal with the Trump campaign. Thus, viewers were likely exposed to xenophobic content more than conservative policy points. Furthermore, given the demographic isolation of where they live, they may have had little outside information with which to counter the claims about migrants and minorities they encountered through Sinclair local news programming.

The finding also relates to the aftermath of the deregulation of the public broadcasting industry in the United States. Past regulation focuses on limiting owner concentration in the local market, but other measures such as "attention share," as promulgated by (Prat, 2018), may be more appropriate in the context of motivated reasoning and media bias. There is also past regulation, such as the FCC fairness doctrine abolished in 1987, which required broadcasters to devote some airtime to discussing controversial issues of public interest with contrasting views of these issues[42].

In a broad sense, the project concerns questions of information processing and avoidance, so that these insights could be applied beyond political outcomes and their economic repercussion. This paper also encourages future research to expand on the possible repercussions of biased local news provision beyond electoral outcomes. For example, what are the possible

[41]Motivated reasoning concerns which goals are activated when people process information: directional goals (trying to reach a desired conclusion) or accuracy goals (trying to process information as dispassionately as possible) (Flynn et al., 2017).

[42]While both sides needed to be covered, it was not necessarily in equal proportion. Broadcasters could also choose the type of programming.

repercussions of this bias on political accountability and public good provision and redistribution on both the local and national level. Considering the rise of media conglomerates, these issues are of paramount importance to better inform the public debate, and in turn, policymaking.

References

Abraham, Sarah and Liyang Sun (2018). "Estimating dynamic treatment effects in event studies with heterogeneous treatment effects". In: *arXiv preprint arXiv:1804.05785*.

Agriculture, U.S. Department of (2020). *County-level Data Sets*. URL: https://www.ers.usda.gov/data-products/county-level-data-sets/.

Ammori, Marvin (2005). "A shadow government: Private regulation, free speech, and lessons from the Sinclair blogstorm". In: *Mich. Telecomm. & Tech. L. Rev.* 12, p. 1.

Anderson, Simon P, Joel Waldfogel, and David Strömberg (2016). *Handbook of media economics*. OCLC: 940541966. Amsterdam; Boston: Elsevier : North-Holland.

ANES (2022). *Time Series Cumulative Data File*. URL: www.electionstudies.org.

Ansolabehere, Stephen, Erik C. Snowberg, and James M. Snyder (Nov. 1, 2006). "Television and the Incumbency Advantage in U.S. Elections". In: *Legislative Studies Quarterly* 31.4, pp. 469–490. ISSN: 1939-9162. DOI: 10.3162/036298006X201896. URL: https://onlinelibrary.wiley.com/doi/abs/10.3162/036298006X201896.

Autor, David, David Dorn, and Gordon Hanson (Oct. 2013). "The China Syndrome: Local Labor Market Effects of Import Competition in the United States". In: *American Economic Review*.

Autor, David, David Dorn, Gordon Hanson, and Kaveh Majlesi (Oct. 2020). "Importing Political Polarization? The Electoral Consequences of Rising Trade Exposure". In: *American Economic Review* 110.10, pp. 3139–83. DOI: 10.1257/aer.20170011. URL: https://www.aeaweb.org/articles?id=10.1257/aer.20170011.

Bachman, Katy (Oct. 7, 2002). "Resembling Local News". In: *Adweek*.

Barber, N. W. (Apr. 2019). "Populist leaders and political parties". In: *German Law Journal* 20.2, pp. 129–140. ISSN: 2071-8322. DOI: 10.1017/glj.2019.9. URL: https://www.cambridge.org/core/product/identifier/S2071832219000099/type/journal_article (visited on 11/09/2022).

Buckley, Steve et al. (2008). *Broadcasting, Voice, and Accountability: A Public Interest Approach to Policy, Law, and Regulation*. Ann Arbor, MI: digitalculturebooks. ISBN: 978-0-472-03272-3. DOI: 10.3998/nmw.5661153.0001.001. URL: https://www.fulcrum.org/concern/monographs/jq085n040 (visited on 06/15/2023).

Bureau of Labor Statistics (2020). *Labor force data by county*. COUNTY DATA. URL: https://www.bls.gov/lau/#cntyaa.

Campante, Filipe R. and Daniel A. Hojman (Apr. 2013). "Media and polarization". In: *Journal of Public Economics* 100, pp. 79–92. ISSN: 00472727. DOI: 10.1016/j.jpubeco.2013.

02.006. URL: https://linkinghub.elsevier.com/retrieve/pii/S0047272713000340 (visited on 06/15/2023).

CQ Press (2022). *Voting and Elections Collection*. URL: https://library.cqpress.com/elections/ (visited on 06/11/2022).

de Chaisemartin, Clement and Xavier D'Haultfoeuille (Sept. 2020). "Two-Way Fixed Effects Estimators with Heterogeneous Treatment Effects". In: *American Economic Review* 110.9, pp. 2964–96. DOI: 10.1257/aer.20181169. URL: https://www.aeaweb.org/articles?id=10.1257/aer.20181169.

DellaVigna, Stefano (2007). "The Political Impact of Media Bias". In:

DellaVigna, Stefano and Ethan Kaplan (2007). "The Fox News effect: Media bias and voting". In: *The Quarterly Journal of Economics* 122.3, pp. 1187–1234.

Digital News Report 2021 (2021). Reuters Institute for the Study of Journalism. URL: https://reutersinstitute.politics.ox.ac.uk/digital-news-report/2021.

EIG (2000). *Distressed Communities Index*. URL: https://eig.org/distressed-communities/.

Ember, Sydney (May 12, 2017). "Sinclair Requires TV Stations to Air Segments That Tilt to the Right". In: *New York Times*. URL: https://www.nytimes.com/2017/05/12/business/media/sinclair-broadcast-komo-conservative-media.html.

Enikolopov, Ruben, Maria Petrova, and Ekaterina Zhuravskaya (Dec. 2011). "Media and Political Persuasion: Evidence from Russia". In: *American Economic Review* 101.7, pp. 3253–3285. ISSN: 0002-8282. DOI: 10.1257/aer.101.7.3253. URL: https://www.aeaweb.org/articles?id=10.1257/aer.101.7.3253.

Fischer, Sara (2018). *Tribune Media breaks off $3.9 billion merger with Sinclair*. Axios. URL: https://www.axios.com/tribune-media-sinclair-merged-terminated-c9cdff73-6f13-4dea-83e7-457edafccdd0.html (visited on 08/25/2018).

Flynn, D.J., Brendan Nyhan, and Jason Reifler (Feb. 2017). "The Nature and Origins of Misperceptions: Understanding False and Unsupported Beliefs About Politics". In: *Political Psychology* 38, pp. 127–150.

Fowler, Erika Franklin et al. (2007). "Does local news measure up". In: *Stan. L. & Pol'y Rev.* 18, p. 411.

Fung, Brian (Nov. 16, 2017). "The FCC just repealed a 42-year-old rule blocking broadcast media mergers". In: *Washington Post*. ISSN: 0190-8286. URL: https://www.washingtonpost.com/news/the-switch/wp/2017/11/16/the-fcc-just-repealed-decades-old-rules-blocking-broadcast-media-mergers/.

Gentzkow, Matthew (2006). "Television and Voter Turnout". In: *The Quarterly Journal of Economics* 121.3, pp. 931–972. URL: https://econpapers.repec.org/article/oupqjecon/v_3a121_3ay_3a2006_3ai_3a3_3ap_3a931-972..htm.

Gentzkow, Matthew and Jesse Shapiro (2010). "What Drives Media Slant? Evidence From U.S. Daily Newspapers". In: *Econometrica* 78.1, pp. 35–71. ISSN: 0012-9682. DOI: 10.3982/ECTA7195. URL: http://doi.wiley.com/10.3982/ECTA7195.

Gerber, Alan S., Dean Karlan, and Daniel Bergan (Apr. 2009). "Does the Media Matter? A Field Experiment Measuring the Effect of Newspapers on Voting Behavior and Political Opinions". In: *American Economic Journal: Applied Economics* 1.2, pp. 35–52. DOI: 10.1257/app.1.2.35. URL: http://www.aeaweb.org/articles?id=10.1257/app.1.2.35.

Gillette, Felix (July 20, 2017). "The Sinclair Revolution Will Be Televised. It'll Just Have Low Production Values". In: *Bloomberg.com*. URL: https://www.bloomberg.com/news/features/2017-07-20/the-sinclair-revolution-will-be-televised-it-ll-just-have-low-production-values.

Goodman-Bacon, Andrew (2018). *Difference-in-differences with variation in treatment timing*. Tech. rep. National Bureau of Economic Research.

Jensen, Elizabeth (Oct. 9, 2004). "Conservative TV Group to Air Anti-Kerry Film". In: *Los Angeles Times*. ISSN: 0458-3035. URL: http://articles.latimes.com/2004/oct/09/nation/na-sinclair9.

Kuriwaki, Shiro (2022). *Cumulative CCES Common Content*. Version V7. DOI: 10.7910/DVN/II2DB6. URL: https://doi.org/10.7910/DVN/II2DB6.

Larcinese, Valentino, Riccardo Puglisi, and James M. Snyder (2011). "Partisan bias in economic news: Evidence on the agenda-setting behavior of U.S. newspapers". In: *Journal of Public Economics* 95.9. Special Issue: The Role of Firms in Tax Systems, pp. 1178–1189. ISSN: 0047-2727. DOI: https://doi.org/10.1016/j.jpubeco.2011.04.006.

Leighley, Jan E. and Jonathan Nagler (2014). "Demographics of Turnout". In: *Who Votes Now?: Demographics, Issues, Inequality, and Turnout in the United States*. Princeton University Press, pp. 16–51. ISBN: 9780691159348. URL: http://www.jstor.org/stable/j.ctt4cgcqb.8 (visited on 11/09/2022).

Leip, David (2022). *Dave Leip's Atlas of U.S. Presidential Elections*. URL: http://uselectionatlas.org (visited on 05/11/2022).

Lieberman, David and David Lieberman (Sept. 7, 2016). *FCC Dumps 30-Year Rule That Helped Big TV Companies Buy UHF Stations*. Deadline. URL: http://deadline.com/2016/09/fcc-abolishes-uhf-rule-tv-station-mergers-1201814754/.

Local TV News Fact Sheet — Pew Research Center (2017). URL: http://www.journalism.org/fact-sheet/local-tv-news/.

Martin, Gregory and Joshua Mcrain (May 2019). "Local News and National Politics". In: *American Political Science Review* 113.2, pp. 372–384.

Martin, Gregory and Ali Yurukoglu (Sept. 2017). "Bias in Cable News: Persuasion and Polarization". In: *American Economic Review* 107.9, pp. 2565–2599. (Visited on 05/16/2019).

Mastrorocco, Nicola and Arianna Ornaghi (Feb. 2020). *Who Watches the Watchmen? Local News and Police Behavior in the United States*. Trinity Economics Papers tep0720. Trinity College Dublin, Department of Economics. URL: https://ideas.repec.org/p/tcd/tcduee/tep0720.html.

Matsa, Katerina Eva (May 12, 2014). *The acquisition binge in local TV*. Pew Research Center. URL: http://www.pewresearch.org/fact-tank/2014/05/12/the-acquisition-binge-in-local-tv/.

Mirabella, Lorraine (June 21, 2021). "Hogan, officials applaud rise to Fortune 500 by Sinclair Broadcast, McCormick and T. Rowe Price at new Sinclair office". In: *Baltimore Sun*.

Mitchell, Amy et al. (July 7, 2016). *1. Pathways to news*. Pew Research Center's Journalism Project. URL: http://www.journalism.org/2016/07/07/pathways-to-news/.

Naaikuur, Lawrence, Africanus Lewil Diedong, and Wilberforce S. Dzisah (May 1, 2022). "Stakeholders and community radio: Promoting participatory governance in Ghana". In: *Legon Journal of the Humanities* 32.2, pp. 118–144. ISSN: 2458-746X, 0855-1502. DOI: 10.4314/ljh.v32i2.6. URL: https://www.ajol.info/index.php/ljh/article/view/224916 (visited on 06/15/2023).

Newslab, Deborah Potter of and Katerina Eva Matsa (Mar. 26, 2014). *A Boom in Acquisitions and Content Sharing Shapes Local TV News in 2013*. Pew Research Center's Journalism Project. URL: http://www.journalism.org/2014/03/26/a-boom-in-acquisitions-and-content-sharing-shapes-local-tv-news-in-2013/.

Newton, Ken (2016). "Public Service and Commercial Broadcasting: Impacts on Politics and Society". In: *The Political Quarterly* 87.1, pp. 31–38. DOI: https://doi.org/10.1111/1467-923X.12214. eprint: https://onlinelibrary.wiley.com/doi/pdf/10.1111/1467-923X.12214. URL: https://onlinelibrary.wiley.com/doi/abs/10.1111/1467-923X.12214.

Perlman, Allison (2016). *Public interests: media advocacy and struggles over U.S. television*. New Brunswick, New Jersey: Rutgers University Press. 241 pp. ISBN: 978-0-8135-7230-7 978-0-8135-7229-1.

Pew (2022). *American Trends Panel Wave 1*. URL: https://www.pewresearch.org/journalism/dataset/american-trends-panel-wave-1/ (visited on 06/11/2022).

Pickard, Victor W. (2015). *America's battle for media democracy: the triumph of corporate libertarianism and the future of media reform*. OCLC: 893477344. New York: Cambridge University Press. ISBN: 978-1-139-81479-9.

Prat, Andrea (2018). "Media power". In: *Journal of Political Economy* 126.4, pp. 1747–1783.

Prat, Andrea and David Strömberg (May 13, 2013). "The Political Economy of Mass Media". In: *Advances in Economics and Econometrics*. Ed. by Daron Acemoglu, Manuel Arellano, and Eddie Dekel. 1st ed. Cambridge University Press, pp. 135–187. ISBN: 978-1-107-01605-7 978-1-107-67416-5 978-1-139-06002-8. DOI: 10.1017/CBO9781139060028.004. URL: https://www.cambridge.org/core/product/identifier/CBO9781139060028A013/type/book_part (visited on 06/15/2023).

Puglisi, Riccardo and James M. Snyder (2015). "Chapter 15 - Empirical Studies of Media Bias". In: *Handbook of Media Economics*. Ed. by Simon P. Anderson, Joel Waldfogel, and David Strömberg.

Religion Data Archives, Association of (1990). *Religious Congregations and Membership Study*. URL: https://www.socialexplorer.com/data/RCMS_2010.

Sewall, Sam (Nov. 2009). "The Switch from Analog to Digital TV". In: *The Nielsen Company*. URL: https://www.nielsen.com/insights/2009/the-switch-from-analog-to-digital-tv/.

Skach, Cindy (2012). "Political Parties". In: *The Oxford handbook of comparative constitutional law*. Ed. by Michel Rosenfeld and András Sajó. 1st ed. Oxford, U.K: Oxford University Press. ISBN: 978-0-19-957861-0.

Sobbrio, Francesco (Mar. 28, 2014). "The political economy of news media: theory, evidence and open issues". In: *A Handbook of Alternative Theories of Public Economics*. Ed. by Francesco Forte, Ram Mudambi, and Pietro Maria Navarra. Edward Elgar Publishing. ISBN: 978-1-78100-471-5 978-1-78100-470-8. DOI: 10.4337/9781781004715.00021. URL: https://china.elgaronline.com/view/edcoll/9781781004708/9781781004708.00021.xml (visited on 06/15/2023).

Sood, Gaurav (2018). "Geographic Information on Designated Media Markets". In: DOI: 10.7910/DVN/IVXEHT. URL: https://doi.org/10.7910/DVN/IVXEHT.

Stromberg, D. (Feb. 1, 2004). "Radio's Impact on Public Spending". In: *The Quarterly Journal of Economics* 119.1, pp. 189–221. ISSN: 0033-5533, 1531-4650. DOI: 10.1162/003355304772839560. URL: https://academic.oup.com/qje/article-lookup/doi/10.1162/003355304772839560 (visited on 05/16/2019).

Television & Cable Factbook (2001). Vol. 69. Warren Communications News. ISBN: 1-57696-035-8.

U.S. Census Bureau (2020a). *American Community Surveys (5-year estimates)*. URL: https://www.socialexplorer.com.

— (2020b). *Population Estimates - Detail*. URL: https://doi.org/10.6068/DP1625E76CFEC79.

— (2020c). *Small Area Income and Poverty Estimates*. U.S. Census Bureau. URL: https://www.census.gov/programs-surveys/saipe/data/api.html.

Wang, Tianyi (Sept. 1, 2021). "Media, Pulpit, and Populist Persuasion: Evidence from Father Coughlin". In: *American Economic Review* 111.9, pp. 3064–3092. ISSN: 0002-8282. DOI: 10.1257/aer.20200513. URL: https://pubs.aeaweb.org/doi/10.1257/aer.20200513 (visited on 06/15/2023).

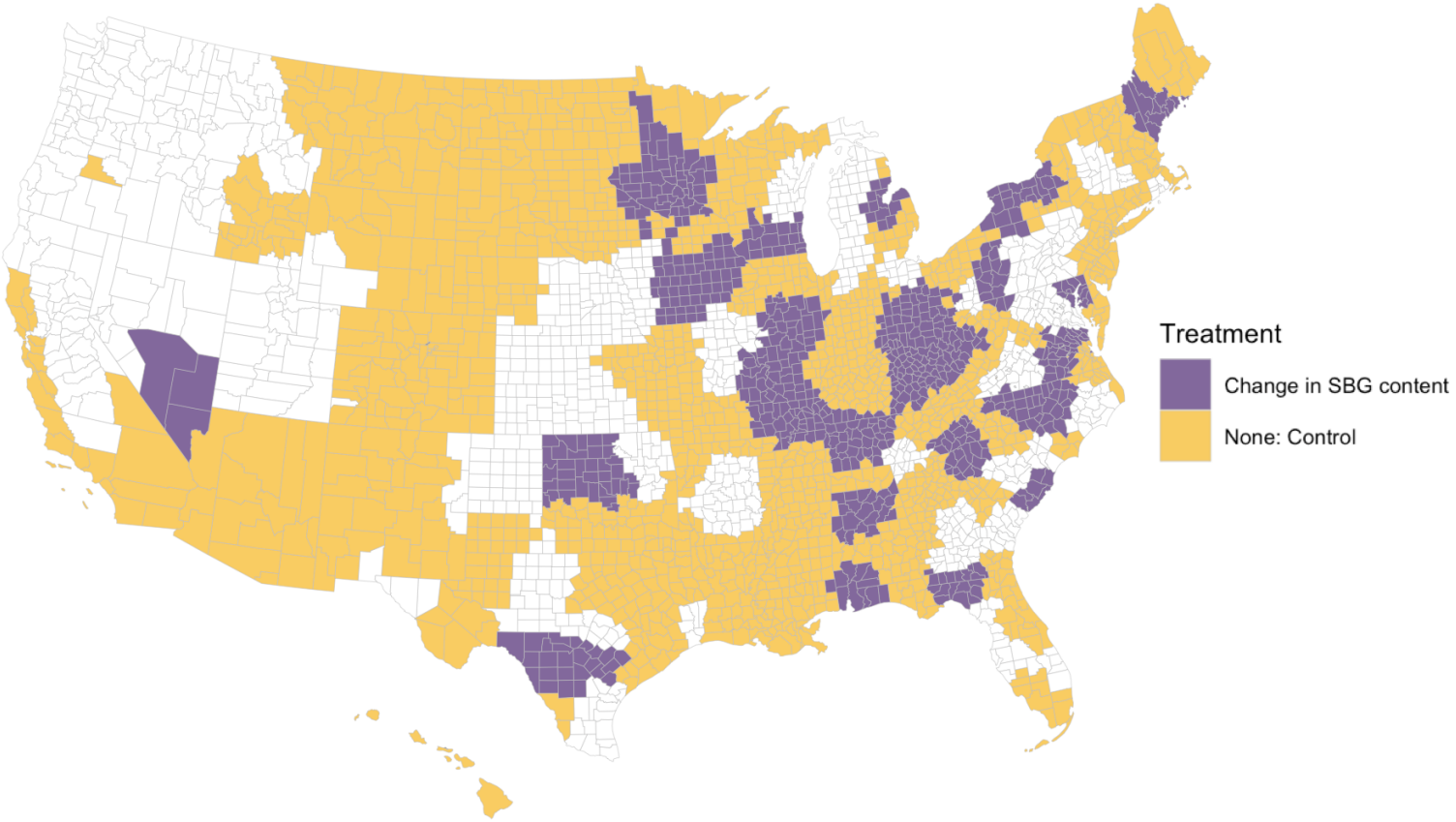
Weinstein, Bruce (2018). *Should You Care About What Sinclair Is Doing With Your Local News?* Forbes. URL: https://www.forbes.com/sites/bruceweinstein/2018/04/09/should-you-care-about-what-sinclair-is-doing-with-your-local-news/.

Wuttke, Alexander, Christian Schimpf, and Harald Schoen (May 2020). "When the Whole Is Greater than the Sum of Its Parts: On the Conceptualization and Measurement of Populist Attitudes and Other Multidimensional Constructs". In: *American Political Science Review* 114.2, pp. 356–374. ISSN: 0003-0554, 1537-5943. DOI: 10.1017/S0003055419000807. URL: https://www.cambridge.org/core/product/identifier/S0003055419000807/type/journal_article (visited on 11/07/2022).

Yanich, Danilo (July 3, 2015). "Local TV, Localism, and Service Agreements". In: *Journal of Media Economics* 28.3, pp. 162–180. ISSN: 0899-7764, 1532-7736. DOI: 10.1080/08997764.2015.1063500. URL: http://www.tandfonline.com/doi/full/10.1080/08997764.2015.1063500.

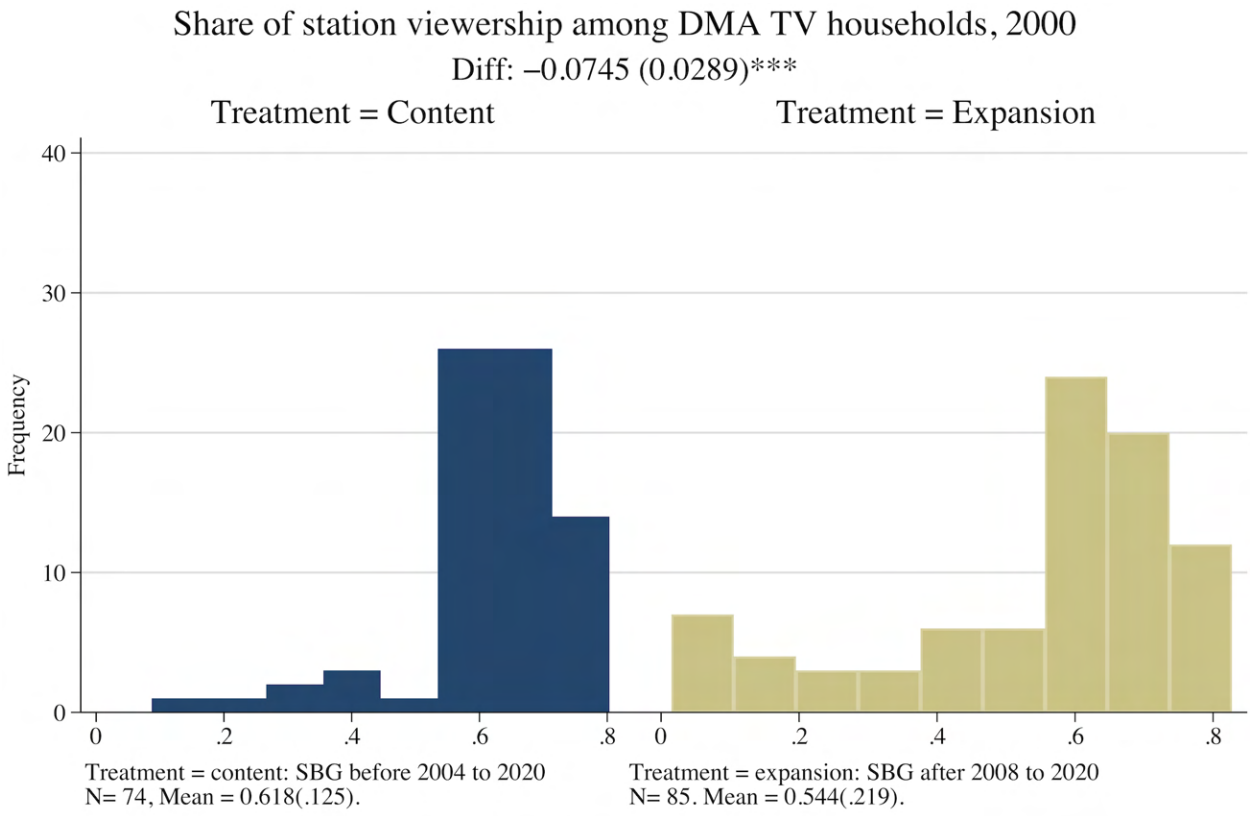
Main Figures and Tables

Fig. 1. Sinclair Broadcast Group, change in content



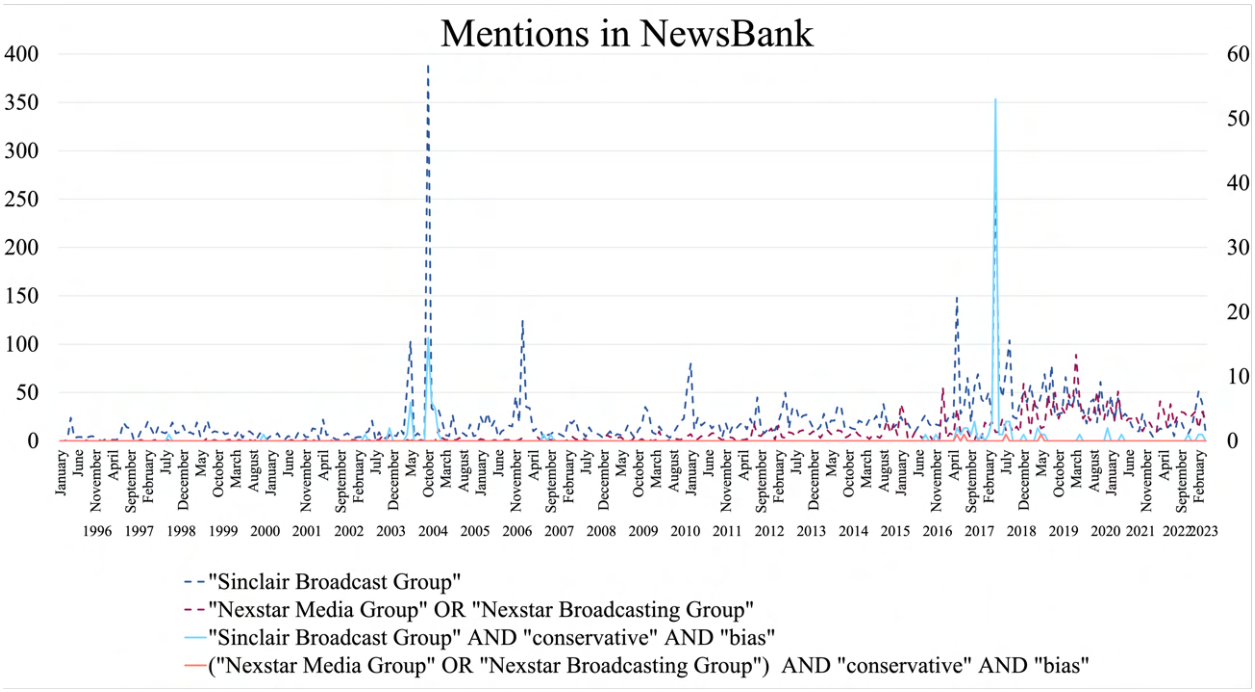
Note: The map displays the set of counties in DMAs within a Designated Media Market (DMA) served by at least one Sinclair owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before 2004 and through the 2020 election. These are the set of counties that experienced a change in Sinclair content. The control group are all counties which are never exposed to Sinclair biased programming. Counties in white are not included in the analysis. Grey lines are county contours. Alaska is excluded from the analysis and does not appear on the map.

Fig. 2. Sinclair viewership in year 2000 by group of year of Sinclair acquisition



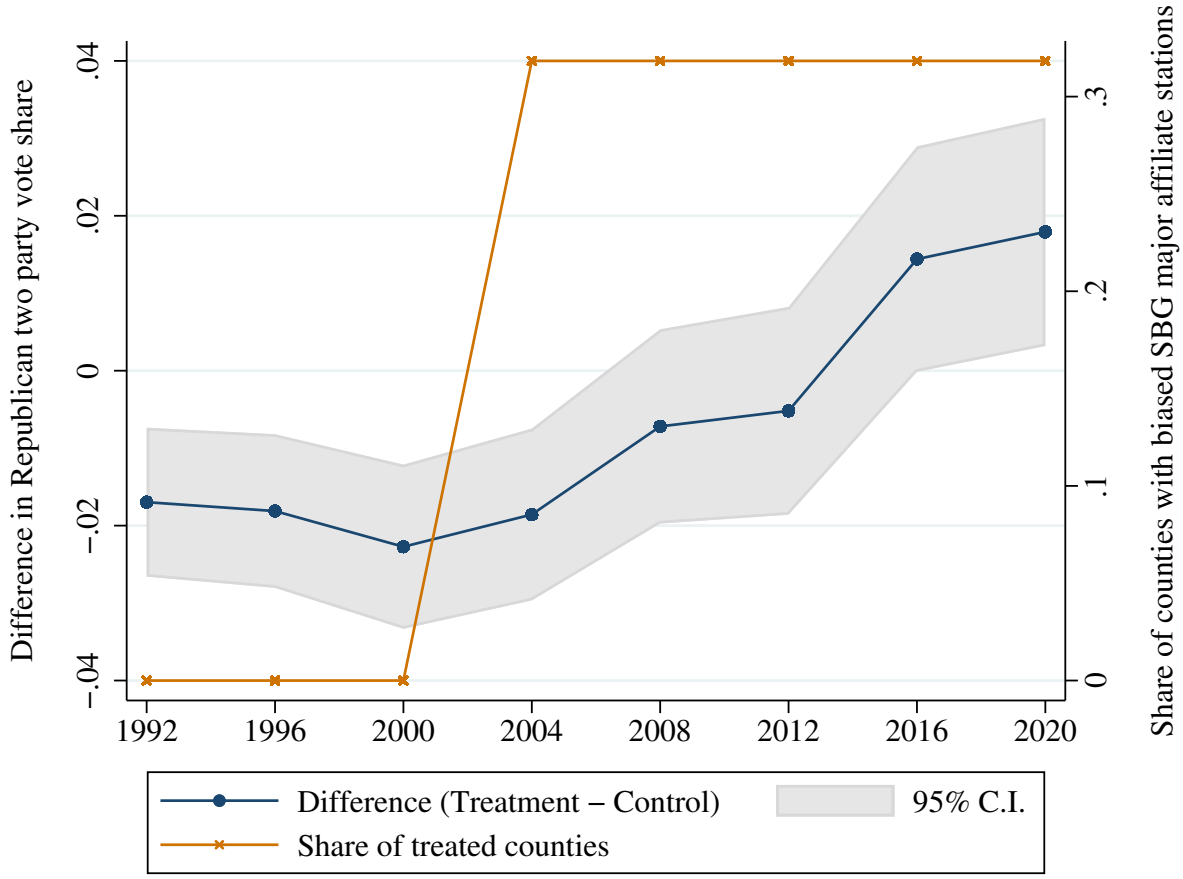
Note: The figure shows the distribution of the station share of viewership among all TV households in the DMA for the year 2000. The level of observation is the station. "Diff" refers to the difference in the mean share of station viewership for the Expansion treatment group minus the Content treatment group. Data on viewership is from Warren's Television and Cable Factbook (*Television & Cable Factbook* 2001). Viewership is defined as the estimated station totals are sums of the Nielsen TV and Cable TV household estimates for each county in which the station registers viewing of more than 5% as per the Nielsen Survey Methods, based on the year 2000. For both treatment types, the treatment is defined as a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The treatment type depends on the year of station acquisition by Sinclair (before the introduction of Sinclair bias = Content; after the introduction of Sinclair bias = Expansion). The control group are all counties which are never exposed to Sinclair biased programming.

Fig. 3. Mentions of Sinclair and main competitor, Nexstar, in the media



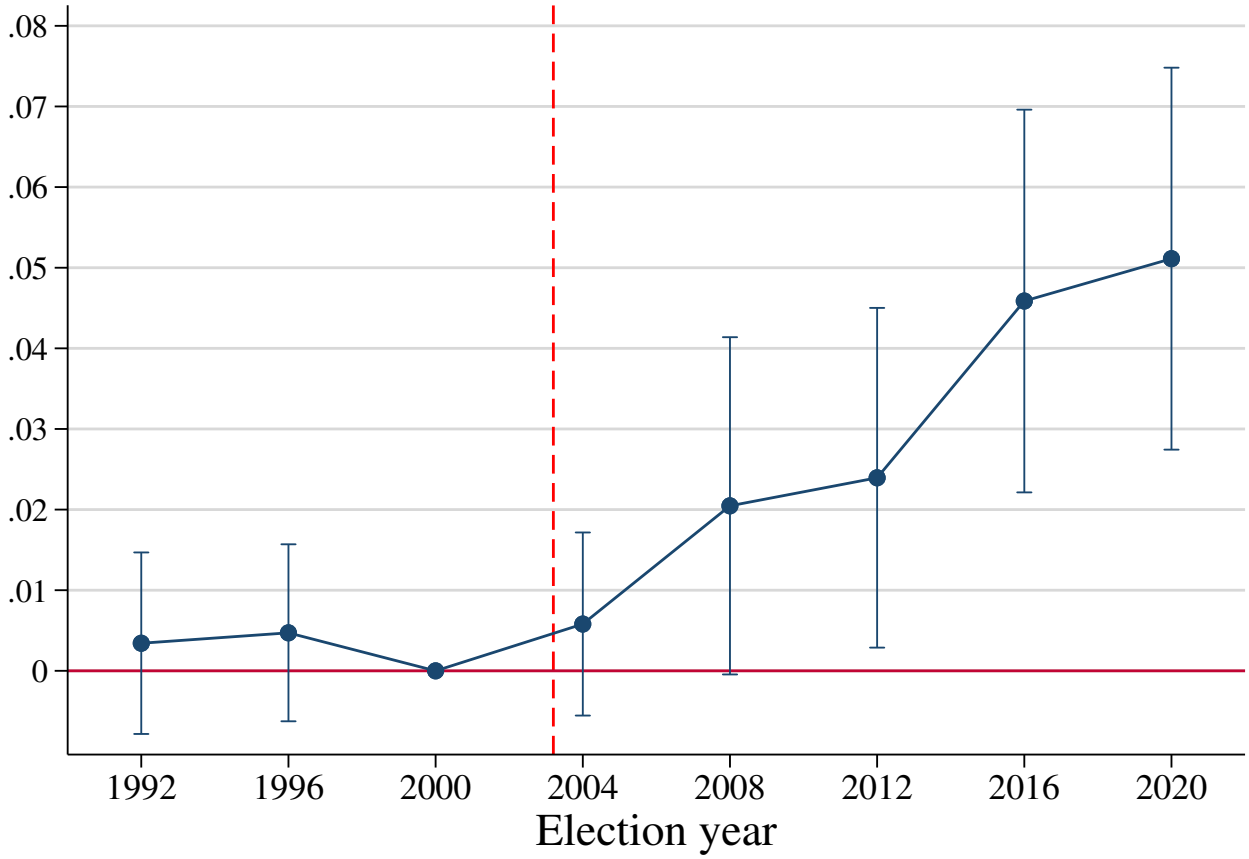
Note: The figure shows the number of mentions in the news media for Sinclair Broadcast Group and Nexstar Media Group, their main competitor from 1996 to May 2023. The number of mentions is collected from Newsbank, a database of archival media publications that consolidates current and archived information from thousands of newspaper titles, as well as newswires, web editions, blogs, videos, broadcast transcripts, business journals, periodicals, government documents and other publications.

Fig. 4. Trend in the naive difference



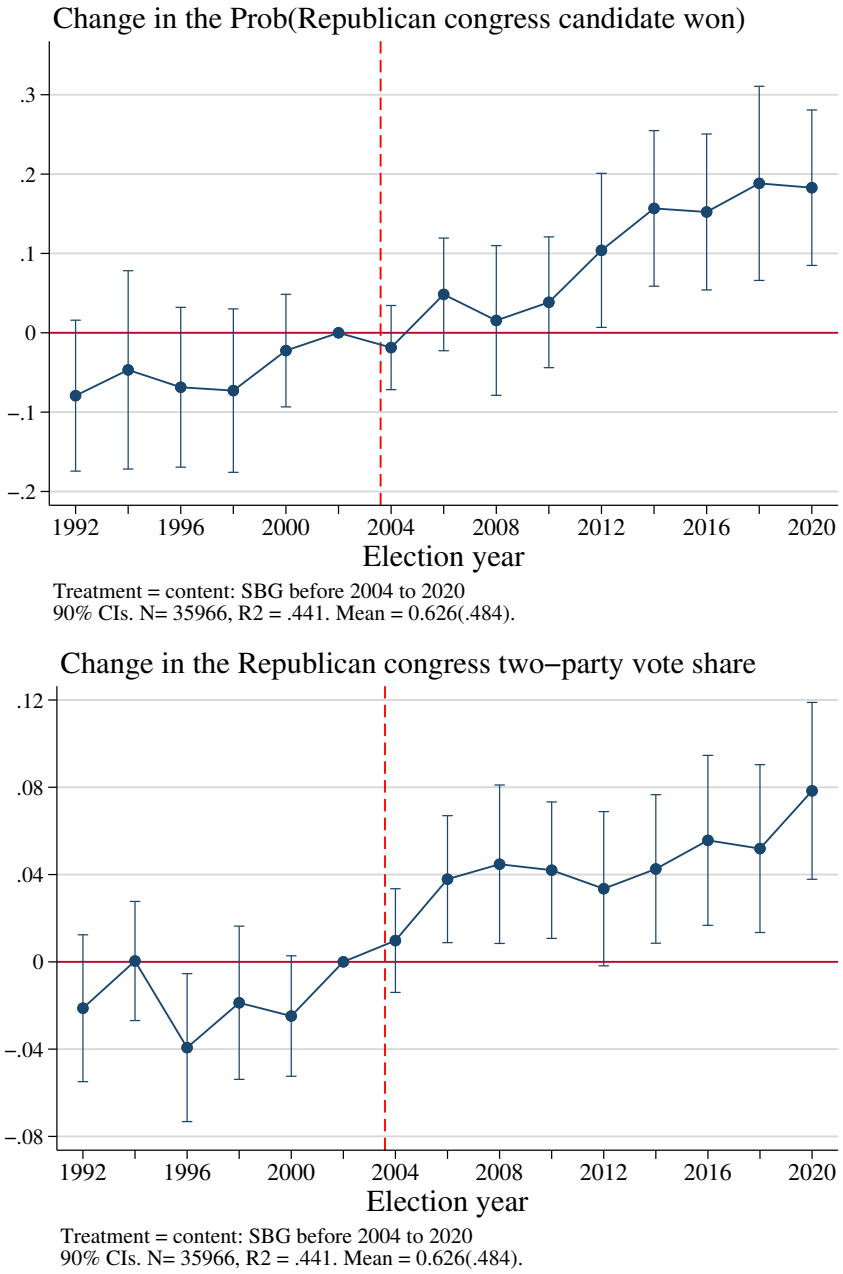
Note: SBG major affiliate (the treatment group) is defined as a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

Fig. 5. Within county change in the Republican two-party vote share for president



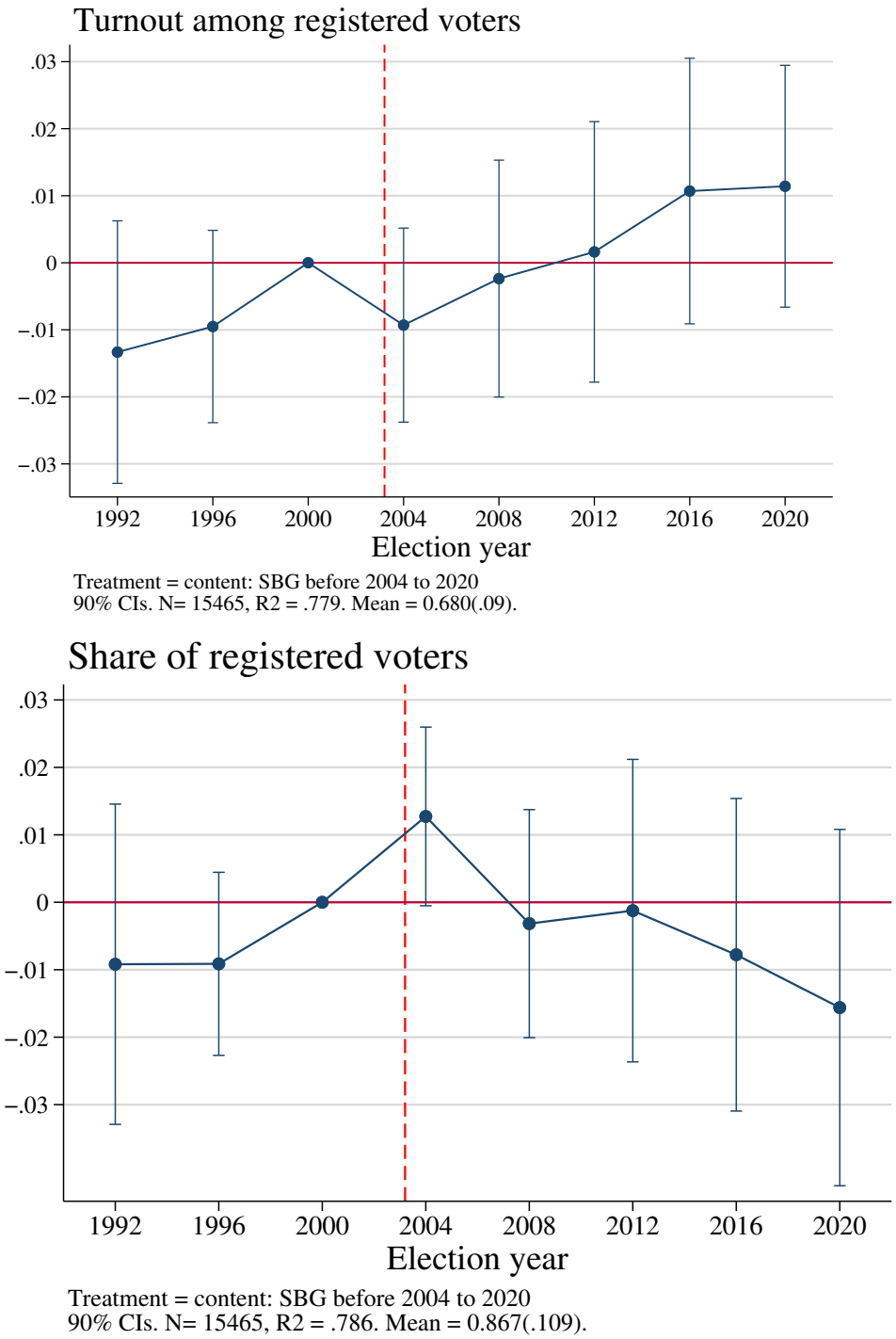
Note: The figure plots the coefficients and 90% confidence intervals from the estimation of Equation1. Controls include a prediction of the differential trend of vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and county and year fixed effects. Standard errors are clustered at the DMA level. The red dotted line indicates the treatment: the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

Fig. 6. Within county change in Congressional electoral outcomes



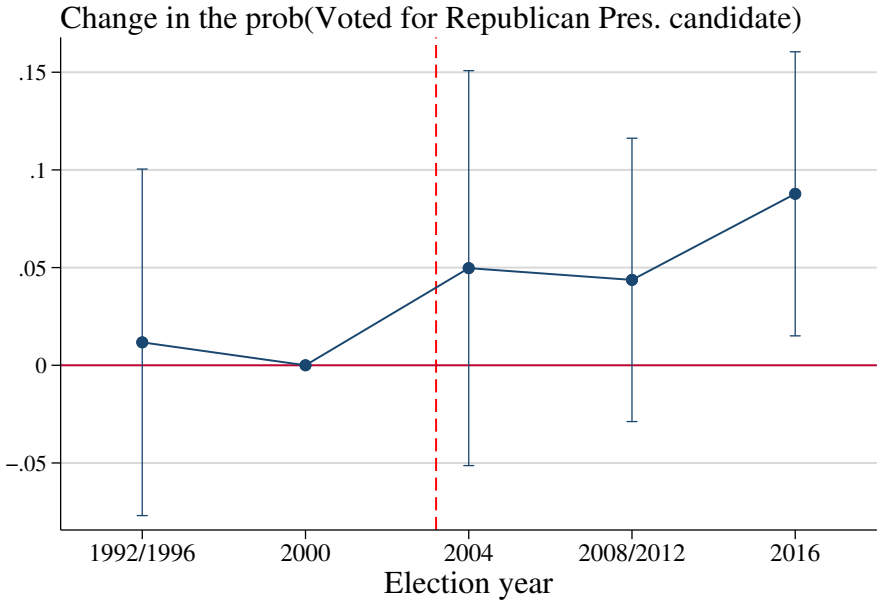
Note: The figure plots the coefficients and 90% confidence intervals from the estimation of Equation 1, including all congressional election year. Controls include a prediction of the differential trend of vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and county and year fixed effects. Standard errors are clustered at the DMA level and congressional district level. When the outcome is whether the Republican congressional candidate won, I weigh the regressions by the share of the county vote out of all votes in the district. When then outcome is the Republican congressional two-party vote share, I weigh by the share of the county vote attributed to the district out of the total county vote. The red dotted line indicates the treatment: the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

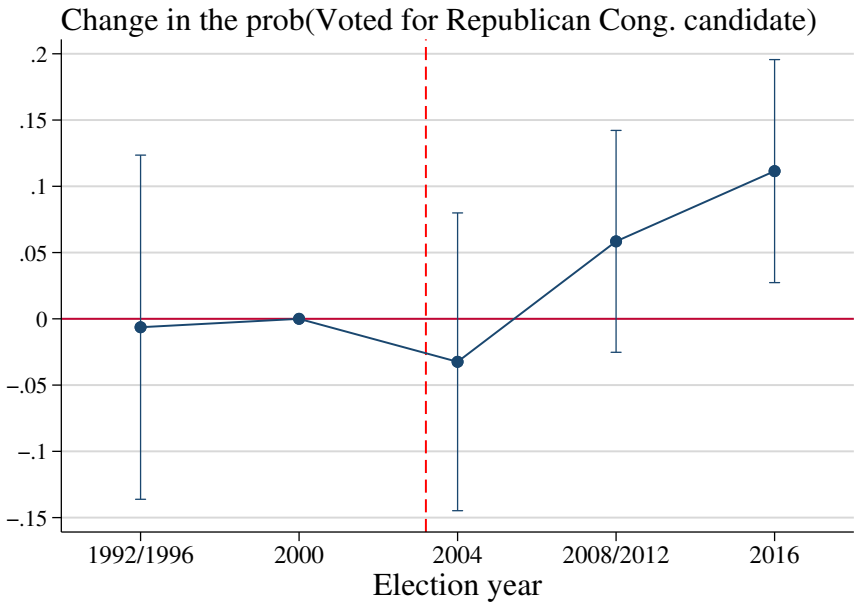
Fig. 7. Within county change in the turnout rate and the share of registered voters



Note: The figure plots the coefficients and 90% confidence intervals from the estimation of Equation1. Controls include a linear trend of the outcome in the last pre-period; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and county and year fixed effects. Standard errors are clustered at the DMA level. The red dotted line indicates the treatment: the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

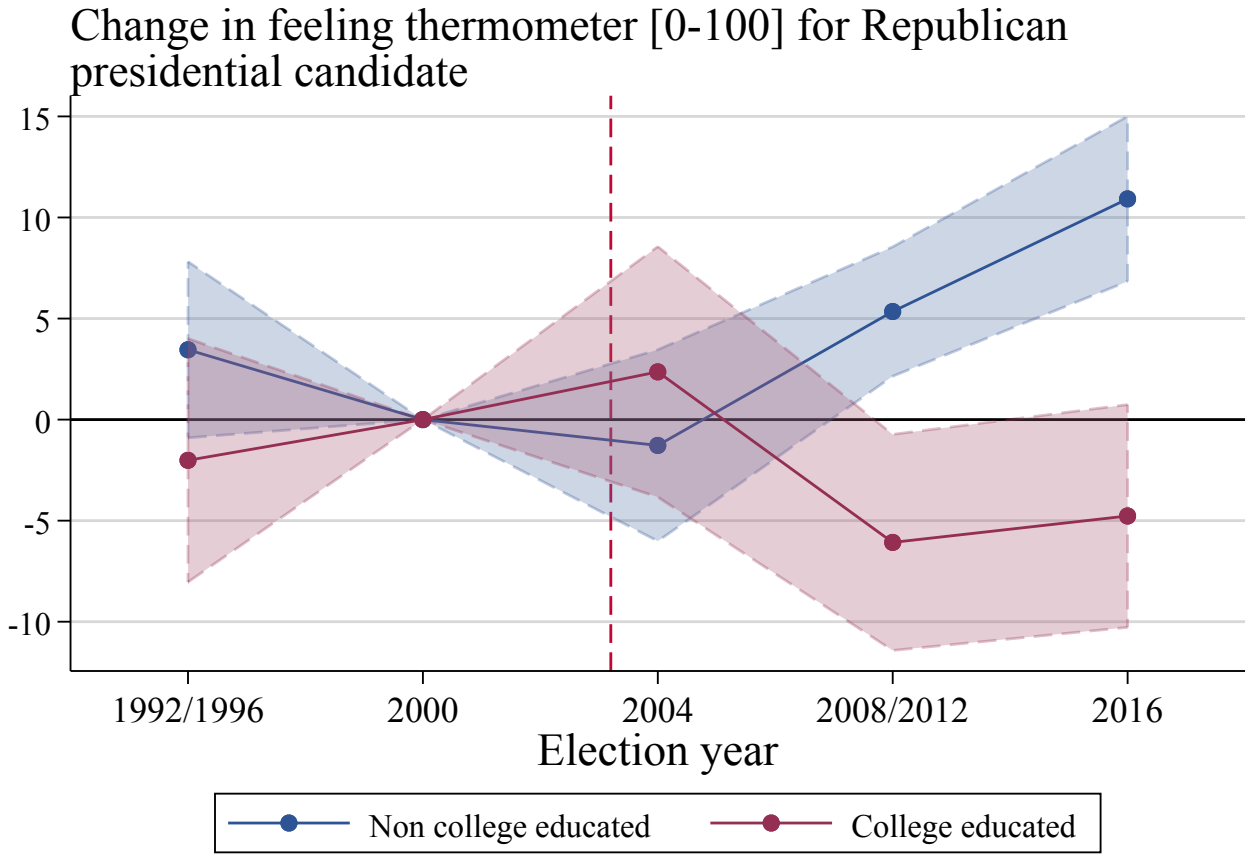
Fig. 8. Change in the probability to vote for the Republican candidates, ANES respondents, 1992 to 2016





Note: The figure plots the coefficients and 90% confidence intervals from the estimation of Equation1 for the years 1992 to 2016. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, for level of educational attainment and the income group. Standard errors are clustered at the DMA level. When the outcome is for congressional elections, I also cluster by congressional district. The red dotted line indicates the treatment: the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Fig. 9. Change in sentiments towards the Republican presidential candidate, ANES respondents



Note: The figure plots the coefficients and 90% confidence intervals from the estimation of Equation1 estimated separately for the sample of college-educated and non-college educated ANES respondents.. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; dummy categories for the pre-treatment county partisan identity, a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, and the income group. Standard errors are clustered at the DMA level. When the outcome is for congressional elections, I also cluster by congressional district. The red dotted line indicates the treatment: the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Table 1: DMA characteristics by group of year of Sinclair acquisition, 2000

DMA characteristics by SBG acquisition group					
	Median	SD	Min	Max	N
SBG before 2004-2020					
DMA rank	55.00	26.66	13.00	112.00	33
Number of TV households in 000s	515.16	297.07	231.35	1510.13	33
SBG after 2008-2020					
DMA rank	101.50	48.72	8.00	199.00	54
Number of TV households in 000s	257.54	353.58	48.60	2047.34	54
No SBG					
DMA rank	134.50	64.47	1.00	210.00	116
Number of TV households in 000s	171.78	971.04	4.88	6935.61	116
Total					
DMA rank	104.00	60.16	1.00	210.00	203
Number of TV households in 000s	252.50	768.12	4.88	6935.61	203

Note: The table presents descriptive statistics of DMA characteristics in 2016 by acquisition group year by Sinclair. DMA rank refers to the rank of the DMA determined by the number of TV households out of all DMAs. A lower rank indicates a greater number of potential viewers, TV households. There are seven DMAs that are excluded from the analysis: three are due to excluding Alaska, three are DMAs where Sinclair sold a station, and the last is a DMA that covers only one-third of a county - the county was instead assigned to the DMA that covered the majority of the county.

Table 2: Determinants of local TV news viewership, 2014

Dependent variable:	Got news from Local TV in past week					
Estimation:	OLS			Probit		
	COEF	SE	N	COEF	SE	N
Age Group: 18-29	-0.184***	(0.028)	2,887	-	-	-
Age Group: 30-49	-0.037	(0.025)	2,887	0.295***	(0.096)	2,630
Age Group: 50-64	0.168***	(0.024)	2,887	0.647***	(0.096)	2,630
Age Group: 65+	0.115***	(0.028)	2,887	0.607***	(0.106)	2,630
Female	0.027	(0.023)	2,901	0.063	(0.064)	2,630
Hispanic origin	0.023	(0.042)	2,894	0.233*	(0.133)	2,630
Race: White	0.051*	(0.030)	2,869	-	-	-
Race: Black or African-American	0.000	(0.043)	2,869	0.091	(0.119)	2,630
Race: Asian or Asian-American	-0.230***	(0.063)	2,869	-0.331	(0.212)	2,630
Race: Mixed Race	-0.017	(0.061)	2,869	-0.085	(0.164)	2,630
Race: Or some other race	-0.006	(0.064)	2,869	-0.125	(0.193)	2,630
Completed high school or less	0.074***	(0.028)	2,898	0.199**	(0.084)	2,630
Completed some college	-0.031	(0.025)	2,898	0.071	(0.068)	2,630
Completed college	-0.042**	(0.021)	2,898	-	-	-
US Citizen	0.152**	(0.072)	2,900	0.394*	(0.217)	2,630
Married	0.078***	(0.023)	2,896	0.082	(0.072)	2,630
Protestant	0.104***	(0.024)	2,877	0.121*	(0.068)	2,630
Low income: 0-50k	0.001	(0.024)	2,763	-	-	-
Middle income: 50-100k	0.001	(0.012)	2,763	-0.042	(0.077)	2,630
High income: 100k plus	-0.002	(0.009)	2,763	-0.070	(0.090)	2,630
Republican	0.032	(0.027)	2,812	-	-	-
Democrat	0.006	(0.025)	2,812	0.041	(0.088)	2,630
Independent	-0.029	(0.024)	2,812	0.007	(0.081)	2,630

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. The table presents the results of multiple OLS estimations that regressed a dummy for responding "Got news"' about politics and government from the local television news in the past week on a dummy for each demographic characteristic in Column (1) and the results of a probit including all demographic variables in Column (2). "-" refers to the base category. All regressions weigh respondents by the sampling weight provided in the survey. Robust standard errors are reported in parentheses. Data comes from the American Trends Panel Wave 1, administered on March 14, 2014 by the Pew Research Center.

Table 3: Demographic differences in year 2000 between Sinclair and non-Sinclair counties

	Mean		T-test		
	SBG 2004	No SBG	No SBG - SBG 2004		
			COEF	SE	N
Population vars.:					
Population density (sq km)	0.066	0.127	0.061*	0.035	2202
Total population (ln)	10.404	10.262	-0.142**	0.064	2202
Population age 65 plus (ln)	8.455	8.296	-0.159***	0.060	2202
Voting age (age 20 plus) population (ln)	10.079	9.925	-0.154**	0.064	2202
Total female population (ln)	9.721	9.578	-0.143**	0.064	2202
Total white population (ln)	10.277	10.073	-0.205***	0.064	2202
Total asian population (ln)	4.789	4.809	0.021	0.104	2178
Total hispanic population (ln)	6.233	6.547	0.314***	0.096	2202
Socio-demographic vars.:					
People that completed high school (%)	0.362	0.340	-0.022***	0.003	2202
People that completed college (%)	0.155	0.169	0.014***	0.004	2202
Unemployment rate	0.043	0.044	0.001	0.001	2202
Log of household income	10.484	10.462	-0.023**	0.011	2202
Poverty rate	0.128	0.138	0.010***	0.003	2202
Religion vars.:					
Log of total religious adherents	9.683	9.593	-0.091	0.064	2201
Log of adherents of major religions	9.671	9.551	-0.120*	0.065	2201
Share of Christians among major religions	0.995	0.989	-0.006***	0.002	2202
Share of Protestants among major religions	0.299	0.262	-0.037***	0.008	2202
Share of Jewish among major religions	0.003	0.008	0.005***	0.001	2202

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. SBG major affiliate (the treatment group) is defined as a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

Table 4: Balance test of Sinclair coverage: within-county demographic changes correlated with the availability of SBG bias

Dependent variable:	Dummy for Sinclair bias availability		
	COEF	SE	N
Population vars.:			
Population density (sq km)	-0.007	(0.004)	17,616
Total population (ln)	0.005	(0.021)	17,616
Population age 65 plus (ln)	-0.006	(0.032)	17,613
Voting age (age 20 plus) population (ln)	0.000	(0.021)	17,613
Total female population (ln)	0.004	(0.022)	17,616
Total black population (ln)	-0.003	(0.117)	17,165
Total white population (ln)	-0.004	(0.034)	17,616
Total asian population (ln)	-0.027	(0.048)	17,196
Total hispanic population (ln)	0.101	(0.077)	17,556
Socio-demographic vars.:			
People that completed high school (%)	0.001	(0.007)	17,616
People that completed college (%)	0.001	(0.003)	17,616
Unemployment rate	0.001	(0.002)	17,616
Log of household income	-0.012	(0.011)	17,615
Poverty rate	0.005	(0.003)	17,614
Religion vars.:			
Log of total religious adherents	-0.019	(0.020)	17,577
Log of adherents of major religions	-0.039	(0.025)	17,577
Share of Christians among major religions	0.012	(0.007)	17,616
Share of Protestants among major religions	0.004	(0.006)	17,616

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard errors in parentheses. SBG major affiliate (the treatment group) is defined as a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming. The total number of counties per year is 2,202.

Table 5: County level heterogeneity of the effect of exposure to Sinclair bias

	(1)	(2)	(3)
Dependent variable:	Republican Two Party Vote Share		
Panel A: Demographics			
Demographic var., normalized:	Population decline 2000-2016 %Δ	Share in 2000 native born	Share in 2000 no college degree
Sinclair bias	0.0139	0.0085	0.0119
	(0.0106)	(0.0100)	(0.0099)
Sinclair bias × Demographic var.	-0.0059	0.0207***	0.0084*
	(0.0060)	(0.0069)	(0.0044)
Sinclair bias × Year ≥ 2016	0.0316***	0.0187***	0.0266***
	(0.0082)	(0.0071)	(0.0089)
Sinclair bias × Year ≥ 2016 × Demographic var.	0.0257***	0.0490***	0.0224***
	(0.0033)	(0.0090)	(0.0044)
Observations	17,612	17,581	17,581
R-squared	0.900	0.901	0.900
Mean of non-normalized demographic var.	-6.472	0.968	0.579
SD of demographic var.	18.54	0.0470	0.113
Panel B: Economic environment			
Economics var., normalized:	Import pressure	Distressed community score in year 2000	Poverty rate
Sinclair bias	0.0141	0.0140	0.0141
	(0.0103)	(0.0104)	(0.0106)
Sinclair bias × Economic var.	0.0001	0.0064	0.0011
	(0.0070)	(0.0054)	(0.0062)
Sinclair bias × Year ≥ 2016	0.0311***	0.0315***	0.0311***
	(0.0093)	(0.0091)	(0.0089)
Sinclair bias × Year ≥ 2016 × Economic var.	0.0037	0.0031	-0.0062
	(0.0058)	(0.0048)	(0.0064)
Observations	17,581	17,548	17,612
R-squared	0.898	0.899	0.899
Mean of non-normalized economic var.	1.267	50.17	0.135
SD of economic var.	0.966	29.34	0.0580
Clusters by DMA	✓	✓	✓
County and Year Fixed Effects	✓	✓	✓
Pre-treatment prediction	✓	✓	✓
Demographic Controls	✓	✓	✓
Mean of dependent var.	0.580	0.581	0.581
SD of dependent var.	0.148	0.148	0.148

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Distressed communities score comes from the Economic Innovation Group. The seven component metrics are (1) No high school diploma; (2) Housing vacancy rate; (3) Adults not working; (4) Poverty rate; (5) Median income ratio; (6) Change in employment; (7) Change in establishments. Import pressure comes from the replication files of Autor, Dorn, Hanson, and Majlesi (2020). Controls include a prediction of the differential trend of vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of Christians. Standard errors are clustered at the DMA level. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

Table 6: Alternative explanations of the effect from exposure to Sinclair bias

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable:	Republican two party presidential vote share						
Placebo test:	Affiliates					Later acquisitions in DMA	Sinclair exits DMA
Affiliate:	FOX	ABC	CBS	NBC	WB/CW		
Sinclair bias	0.0093	0.0155	0.0180*	0.0156	-0.0057	0.0230*	
	(0.0099)	(0.0126)	(0.0108)	(0.0116)	(0.0100)	(0.0122)	
Sinclair bias × Affiliate	0.0069	-0.0062	-0.0447***	-0.0104	0.0374***		
	(0.0141)	(0.0141)	(0.0135)	(0.0138)	(0.0139)		
Sinclair bias × Year ≥ 2016	0.0288**	0.0285***	0.0305***	0.0365***	0.0423***	0.0360***	
	(0.0133)	(0.0097)	(0.0094)	(0.0089)	(0.0120)	(0.0099)	
Sinclair bias × Year ≥ 2016 × Affiliate	0.0043	0.0129	0.0130	-0.0310	-0.0202		
	(0.0157)	(0.0180)	(0.0128)	(0.0212)	(0.0155)		
Sinclar bias × Added on station after 2004						-0.0315**	
						(0.0130)	
Sinclar bias × Year ≥ × Added on station after 2004						-0.0150	
						(0.0166)	
Sinclair exits DMA × Year ≥ 2004							0.0070
							(0.0178)
Sinclair exits DMA × Year ≥ 2016							0.0102
							(0.0219)
Observations	17,612	17,612	17,612	17,612	17,612	17,612	12,004
R-squared	0.899	0.899	0.899	0.899	0.900	0.900	0.901
Clusters by DMA	✓	✓	✓	✓	✓	✓	✓
County and Year Fixed Effects	✓	✓	✓	✓	✓	✓	✓
Pre-treatment prediction	✓	✓	✓	✓	✓	✓	✓
Demographic Controls	✓	✓	✓	✓	✓	✓	✓
Mean of dependent var.	0.580	0.580	0.580	0.580	0.580	0.580	0.583
SD of dependent var.	0.148	0.148	0.148	0.148	0.148	0.148	0.154

Note: *** p < 0.01, ** p < 0.05, * p < 0.10. Controls include a prediction of the differential trend of vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of Christians. Standard errors are clustered at the DMA level.

Table 7: Persuasion rates of exposure to Sinclair bias

Time period	Persuasion rate	95% C.I.s		$v_T - v_C$	e_T	d	t_T	t_c
2004 to 2020	0.075***	[0.132	0.018]	0.029**	0.888	0.262	0.704	0.704
	(0.029)			(0.011)	(0.101)	(0.109)	-	-
2008 to 2012	0.047*	[0.109	-0.006]	0.022*	0.888	0.279	0.667	0.673
	(0.027)			(0.013)	(0.101)	(0.108)	-	-
2016 to 2020	0.144***	[0.227	0.060]	0.049***	0.888	0.240	0.698	0.688
	(0.042)			(0.014)	(0.101)	(0.119)	-	-

Note: *** p < 0.01, ** p < 0.05, * p < 0.10. Methodology and definition of a persuasion rate based on DellaVigna and Kaplan (2007). The estimated effect is the sum of coefficients of Equation 1 for the relevant time period. Exposure rates are the average share of TV households out of all TV households that watched Sinclair before the change in content (i.e. in 2000). I assume no spillover of Sinclair bias in counties in DMAs without a Sinclair station that experienced a change in content ($e_C = 0$). The turnout rate t is the average number of votes as a share of registered voters over the relevant time span. The population not-yet persuaded is the product of the turnout rate and the average weighted Democratic two party vote share.

Table 8: Back of the envelope calculation using the 2016 election

State	**Republican margin**	**Share exposed to Sinclair**	**Number of votes**	**Sinclair vote shift**	**Margin without Sinclair**
Michigan	10,704	16%	3,206,563	27,000	-16,296
Pennsylvania	44.292	33%	4,035,611	67,380	-23,088
Wisconsin	22,748	76%	2,256,801	88,161	-65,413

Note: Sinclair vote shift is calculated as the product of the share of the voting age population exposed to Sinclair, the effect in 2016, and the number of votes. Crucial assumptions are that the treatment effect is constant across units and that exposure to Sinclair bias did not affect turnout.

Table 9: Effect given education attainment, ANES and CES Respondents

	(1)	(2)	(3)	(4)
Dependent variable:	Voted for Republican presidential candidate			
Survey:	American National Election		Cooperative Election	
Sinclair bias	0.0369	0.0429		
	(0.0303)	(0.0323)		
Sinclair bias × College educated		-0.0238		
		(0.0306)		
Sinclair bias × Year ≥ 2016	0.0434**	0.0366	0.0246**	0.0312***
	(0.0189)	(0.0294)	(0.0103)	(0.0114)
Sinclair bias × Year ≥ 2016 × College educated		-0.0079		-0.0284*
		(0.0626)		(0.0156)
Observations	10,728	10,728	175,565	175,565
R-squared	0.222	0.225	0.271	0.273
Clusters by DMA	✓	✓	✓	✓
DMA and Year Fixed Effects	✓	✓	✓	✓
Pre-treatment Prediction	✓	✓	✓	✓
Individual and County Controls	✓	✓	✓	✓
Mean of dependent var.	0.355	0.355	0.449	0.449
SD of dependent var.	0.478	0.478	0.497	0.497

Note: The table is the results of the estimation of Equation2 for ANES and CES respondents interacted with their educational attainment in even columns. The sample is all respondents that are also U.S. citizens. CES results are weighted to reflect the probability of sampling. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, for level of educational attainment and the income group. For CES, I also include a dummy for having no health insurance, having a child, and not having a relation to the military; and dummy categories for marital status, race, and religious group. Standard errors are clustered at the DMA level. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Table 10: Effect on social policy preferences, ANES and CES Respondents

	(1)	(2)	(3)
Dependent variable:	Decrease number of Immigrants	PCA score: Racial inequality attitudes	Supports increase in border security between US and Mexico
Survey:	American National Election		Cooperative Election
Sinclair bias	0.0795***	0.0296	
	(0.0285)	(0.0231)	
Sinclair bias × College educated	-0.0342	-0.0271	
	(0.0293)	(0.0345)	
Sinclair bias × Year ≥ 2016	0.0612*	0.0641**	0.0310**
	(0.0338)	(0.0299)	(0.0154)
Sinclair bias × Year ≥ 2016 × College educated	-0.0612	-0.0382	-0.0355**
	(0.0579)	(0.0660)	(0.0162)
Observations	12,495	5,352	66,432
R-squared	0.0860	0.206	0.0780
Clusters by DMA	✓	✓	✓
DMA and Year Fixed Effects	✓	✓	✓
Pre-treatment Prediction	✓	✓	✓
Individual and County Controls	✓	✓	✓
Mean of dependent var.	0.450	0.704	0.538
SD of dependent var.	0.498	0.355	0.499

Note: The table is the results of the estimation of Equation2 for ANES and CES respondents interacted with their educational attainment. Racial inequality attitudes refers to disagreement with the following questions: (1) " Blacks have gotten less than they deserve" (2) "Conditions make it difficult for blacks to succeed" (3) "Blacks should have special favors to succeed" (4) "Blacks must try harder to succeed". The sample is all respondents that are also U.S. citizens. In Column (1), I exclude black respondents. CES results are weighted to reflect the probability of sampling. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; dummy categories for the pre-treatment county partisan identity, a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, for level of educational attainment and the income group. For CES, I also include a dummy for having no health insurance, having a child, and not having a relation to the military; and dummy categories for marital status, race, and religious group. Standard errors are clustered at the DMA level. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Table 11: Effect on government policy preferences, ANES and CES Respondents

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Policy type:	Republicanism				Populism			
	PCA score:				PCA score:			
	Small	Less	Prefer most: cuts	Prefer least: taxes	Disillusionment with	Disagree:	Agree:	Thermometer:
Dependent variable:	government	redistribution	to domestic spending	to spending cuts	government	Own opinions matter	Isolationism	Republican Pres. candidate
Survey:	American National Election		Cooperative Election		American National Election			
Sinclair bias	0.0435**	0.0436**			0.0249	-0.0209	0.0077	0.7384
	(0.0219)	(0.0174)			(0.0156)	(0.0229)	(0.0283)	(1.1375)
Sinclair bias × College educated	-0.0445*	-0.0285			-0.0204	-0.0305	-0.0148	-0.9896
	(0.0264)	(0.0291)			(0.0153)	(0.0263)	(0.0279)	(1.8395)
Sinclair bias × Year ≥ 2016	0.0320	0.0028	-0.0106	0.0023	0.0077	0.0048	-0.0166	6.5264***
	(0.0214)	(0.0250)	(0.0146)	(0.0098)	(0.0184)	(0.0267)	(0.0280)	(2.0187)
Sinclair bias × Year ≥ 2016 × College educated	0.0541	-0.0347	0.0031	0.0026	-0.0119	-0.0029	0.0828*	-6.5192*
	(0.0367)	(0.0388)	(0.0020)	(0.0017)	(0.0221)	(0.0459)	(0.0452)	(3.4520)
Observations	10,860	9,754	101,318	101,318	12,731	13,737	12,973	13,612
R-squared	0.181	0.141	0.292	0.363	0.0750	0.0640	0.0700	0.196
Clusters by DMA	✓	✓	✓	✓	✓	✓	✓	✓
DMA and Year Fixed Effects	✓	✓	✓	✓	✓	✓	✓	✓
Pre-treatment Prediction	✓	✓	✓	✓	✓	✓	✓	✓
Individual and County Controls	✓	✓	✓	✓	✓	✓	✓	✓
Mean of dependent var.	0.418	0.318	0.109	0.128	0.606	0.301	0.313	46.34
SD of dependent var.	0.398	0.312	0.312	0.335	0.304	0.459	0.464	30.35

Note: The table is the results of the estimation of Equation2 for ANES and CES respondents interacted with their educational attainment. Column (1) is of agreement with (1) "Free market can handle economy (vs government)"; (2) "Less government better (vs government should do more)." Column (2) is of agreement with (1) "Decrease federal spending on poor"; (2) "Decrease federal spending on welfare"; (3) "Should worry less about how equal people are." Column (5) is of agreement with (1) "Federal Government run by few interests"; (2) "Not satisfied with democracy in the US"; (3) "Federal Government wastes tax money a lot." Column (7) is a binary variable agreeing with "Agree: Better off if U.S. Unconcerned with Rest of World." CES results are weighted to reflect the probability of sampling. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; dummy categories for the pre-treatment county partisan identity, a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, for level of educational attainment and the income group. For CES, I also include a dummy for having no health insurance, having a child, and not having a relation to the military; and dummy categories for marital status, race, and religious group. Standard errors are clustered at the DMA level. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Table 12: Effect given age and interest in news, ANES and CES Respondents

	(1)	(2)	(3)
Dependent variable:	Voted for Republican presidential candidate		
Survey:	American National Election	Cooperative Election	
Sinclair bias	0.0450		
	(0.0315)		
Sinclair bias × Age 50 and over	-0.0149		
	(0.0159)		
Sinclair bias × Year ≥ 2016	0.0568*	0.0242*	0.0188*
	(0.0317)	(0.0139)	(0.0107)
Sinclair bias × Year ≥ 2016 × Age 50 and over	-0.0247	0.0006	
	(0.0535)	(0.0128)	
Sinclair bias × Year ≥ 2016 × Lack news interest			0.0429**
			(0.0177)
Observations	10,728	175,565	173,784
R-squared	0.223	0.271	0.271
Clusters by DMA	✓	✓	✓
DMA and Year Fixed Effects	✓	✓	✓
Pre-treatment Prediction	✓	✓	✓
Individual and County Controls	✓	✓	✓
Mean of dependent var.	0.355	0.449	0.450
SD of dependent var.	0.478	0.497	0.498

Note: The table is the results of the estimation of Equation2 for ANES and CES respondents interacted with a dummy for the respondent being of age 50 and over in Columns (1) and (2), and a dummy for self-reported news interest in Column (3). The sample is all respondents that are also U.S. citizens. CES results are weighted to reflect the probability of sampling. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, for level of educational attainment and the income group. For CES, I also include a dummy for having no health insurance, having a child, and not having a relation to the military; and dummy categories for marital status, race, and religious group. Standard errors are clustered at the DMA level. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Appendix A. Additional tables and figures

A.1. County-level

Table A1: Summary statistics for the county-level estimation samples

	(1)				(2)			
Sample:	County				County-CD Cell			
	Mean	SD	Min	Max	Mean	SD	Min	Max
Outcome variables:								
Republican two party vote share	0.58	0.15	0.08	0.97				
Turnout as a share of registered voters	0.68	0.09	0.33	1.00				
Share of registered voters among voting age population	0.87	0.11	0.23	1.00				
Republican votes as a share of registered voters	0.38	0.12	0.04	0.97				
Republican all party vote share	0.55	0.16	0.00	0.96				
Republican candidate won election					0.63	0.48	0.00	1.00
Republican two party congressional vote					0.55	0.18	0.00	0.99
Treatment variables:								
Sinclair bias	0.20	0.40	0.00	1.00	0.19	0.39	0.00	1.00
Sinclair bias treatment group	0.32	0.47	0.00	1.00	0.32	0.47	0.00	1.00
Population decline 2000 - 2016	-6.47	18.54	-131.53	42.92				
Standardized population decline 2000 - 2016	-0.01	1.01	-6.85	2.69				
Share of native born in 2000	0.97	0.05	0.49	1.00				
Standardized share of native born in 2000	0.06	0.97	-9.82	0.71				
Share of non-college educated in 2000	0.58	0.11	0.15	0.83				
Standardized share of non-college educated in 2000	0.05	1.01	-3.82	2.29				
Import pressure	1.27	0.97	-0.34	6.37				
Standardized import pressure	0.07	1.02	-1.62	5.43				
DCI score in year 2000	50.17	29.34	0.03	100.00				
Standardized DCI score in year 2000	0.01	1.02	-1.73	1.73				
Poverty rate in 2000	0.13	0.06	0.02	0.42				
Standardized overty rate in 2000	0.03	1.03	-2.08	5.14				
Average pre-treatment Rep. two party vote share	0.52	0.11	0.13	0.89				
Log of pre-bias Sinclair viewership in DMA	2.63	5.28	0.00	14.09				
Share of pre-bias Sinclair viewership in DMA	0.18	0.37	0.00	1.00				
Number of biased Sinclair stations in DMA	0.41	0.92	0.00	5.00				
Fox affiliate Sinclair station in DMA	0.21	0.41	0.00	1.00				
ABC affiliate Sinclair station in DMA	0.08	0.27	0.00	1.00				
CBS affiliate Sinclair station in DMA	0.03	0.17	0.00	1.00				
NBC affiliate Sinclair station in DMA	0.06	0.23	0.00	1.00				
WB affiliate Sinclair station in DMA	0.17	0.37	0.00	1.00				
Sinclair added on station in DMA	0.09	0.29	0.00	1.00				
Sinclair exited DMA	0.02	0.13	0.00	1.00				
Control variables:								
Population density (sq km)	0.11	0.78	0.00	28.01	0.25	1.38	0.00	28.01
Voting age (age 20 plus) population (ln)	10.00	1.43	3.50	15.84	10.45	1.75	3.58	15.85
Total female population (ln)	9.63	1.44	3.00	15.45	10.08	1.76	3.09	15.45
Total white population (ln)	10.12	1.43	3.69	15.80	10.55	1.71	3.81	15.80
People with no high school education (%)	0.21	0.11	0.01	0.65	0.20	0.10	0.01	0.65
People that completed high school (%)	0.35	0.07	0.10	0.71	0.34	0.07	0.10	0.74
People that completed college (%)	0.18	0.09	0.00	0.68	0.19	0.10	0.00	0.68
Unemployment rate	0.06	0.03	0.01	0.35	0.06	0.03	0.01	0.36
Log of household income	10.57	0.33	9.26	11.85	10.61	0.33	9.26	11.85
Share of Christians	0.98	0.08	0.00	1.00	0.97	0.08	0.00	1.00
Republican two party vote share trend from year 2000	1155.72	237.58	239.04	1881.06				
Pre-treatment prediction of Rep. pres. vote share	-0.54	0.91	-2.60	0.99				
Trend in registered voter turnout from year 2000	1282.83	167.17	708.50	2206.12				
Trend in share of registered voters from year 2000	1741.38	295.85	573.00	8357.25				
Trend in Republican registered vote share from year 2000	719.36	186.47	94.04	1692.12				
Trend in Republican all party vote share from year 2000	1119.75	235.91	7.05	1867.89				
Dummy for 2016 and later	0.25	0.43	0.00	1.00				
Pre-treatment prediction of Rep. congress vote share					-0.44	0.77	-2.44	1.02
Observations	17612				35966			

Table A2: Event study of exposure to Sinclair bias on the Republican two party vote share for president

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable:	Republican two party presidential vote share						
1992 × Sinclair bias	0.0058	0.0042	0.0014	0.0102	0.0084	0.0034	0.0040
	(0.0091)	(0.0088)	(0.0067)	(0.0084)	(0.0083)	(0.0068)	(0.0068)
1996 × Sinclair bias	0.0046	0.0039	0.0024	0.0063	0.0054	0.0047	0.0053
	(0.0069)	(0.0068)	(0.0058)	(0.0074)	(0.0075)	(0.0066)	(0.0067)
2000 × Sinclair bias	0	0	0	0	0	0	0
	-	-	-	-	-	-	-
2004 × Sinclair bias	0.0042	0.0049	0.0063	0.0037	0.0047	0.0058	0.0052
	(0.0069)	(0.0068)	(0.0070)	(0.0069)	(0.0069)	(0.0069)	(0.0067)
2008 × Sinclair bias	0.0155	0.0170	0.0198	0.0197	0.0214	0.0205	0.0188
	(0.0142)	(0.0142)	(0.0136)	(0.0135)	(0.0134)	(0.0126)	(0.0123)
2012 × Sinclair bias	0.0175	0.0198	0.0240*	0.0205	0.0228	0.0239*	0.0226*
	(0.0156)	(0.0155)	(0.0139)	(0.0145)	(0.0144)	(0.0127)	(0.0122)
2016 × Sinclair bias	0.0371**	0.0401**	0.0458***	0.0394**	0.0425**	0.0459***	0.0443***
	(0.0184)	(0.0186)	(0.0150)	(0.0169)	(0.0170)	(0.0143)	(0.0134)
2020 × Sinclair bias	0.0406**	0.0444**	0.0514***	0.0423**	0.0460***	0.0511***	0.0495***
	(0.0193)	(0.0195)	(0.0153)	(0.0166)	(0.0170)	(0.0143)	(0.0132)
Observations	17,616	17,616	17,616	17,612	17,612	17,612	17,612
R-squared	0.839	0.842	0.893	0.866	0.870	0.899	0.904
Clusters by DMA	✓	✓	✓	✓	✓	✓	✓
County Fixed Effects	✓	✓	✓	✓	✓	✓	✓
Year Fixed Effects	✓	✓	✓	✓	✓	✓	✓
Pre-treatment outcome trend		✓			✓		✓
Pre-treatment prediction			✓			✓	✓
Demographic Controls				✓	✓	✓	✓
Mean of dependent var.	0.580	0.580	0.580	0.580	0.580	0.580	0.580
SD of dependent var.	0.148	0.148	0.148	0.148	0.148	0.148	0.148

Note: *** p < 0.01, ** p < 0.05, * p < 0.10. Controls include a prediction of the differential trend of vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of Christians. Standard errors are clustered at the DMA level. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

Table A3: Event study of exposure to Sinclair bias on Congressional electoral outcomes

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	Republican candidate won election			Republican two party vote share		
1992 × Sinclair bias	-0.068	-0.084	-0.079	0.001	-0.031	-0.021
	(0.064)	(0.058)	(0.057)	(0.022)	(0.021)	(0.020)
1994 × Sinclair bias	-0.036	-0.054	-0.047	0.016	-0.007	0.000
	(0.077)	(0.075)	(0.076)	(0.017)	(0.016)	(0.016)
1996 × Sinclair bias	-0.062	-0.076	-0.069	-0.026	-0.045**	-0.039*
	(0.059)	(0.058)	(0.061)	(0.020)	(0.020)	(0.020)
1998 × Sinclair bias	-0.075	-0.084	-0.073	-0.013	-0.026	-0.019
	(0.060)	(0.060)	(0.062)	(0.020)	(0.020)	(0.021)
2000 × Sinclair bias	-0.016	-0.020	-0.022	-0.022	-0.027	-0.025
	(0.044)	(0.043)	(0.043)	(0.016)	(0.017)	(0.017)
2002 × Sinclair bias	0	0	0	0	0	0
	-	-	-		-	-
2004 × Sinclair bias	-0.019	-0.020	-0.019	0.003	0.010	0.010
	(0.034)	(0.033)	(0.032)	(0.014)	(0.014)	(0.014)
2006 × Sinclair bias	0.029	0.032	0.048	0.023	0.036**	0.038**
	(0.044)	(0.044)	(0.043)	(0.018)	(0.018)	(0.018)
2008 × Sinclair bias	-0.008	-0.003	0.016	0.023	0.042*	0.045**
	(0.058)	(0.058)	(0.057)	(0.023)	(0.022)	(0.022)
2010 × Sinclair bias	0.013	0.021	0.038	0.018	0.043**	0.042**
	(0.051)	(0.049)	(0.050)	(0.020)	(0.019)	(0.019)
2012 × Sinclair bias	0.069	0.084	0.104*	0.002	0.035	0.034
	(0.062)	(0.059)	(0.059)	(0.023)	(0.022)	(0.021)
2014 × Sinclair bias	0.120*	0.139**	0.157***	0.004	0.045**	0.043**
	(0.064)	(0.059)	(0.059)	(0.023)	(0.022)	(0.021)
2016 × Sinclair bias	0.108	0.130**	0.152**	0.013	0.058**	0.056**
	(0.066)	(0.061)	(0.059)	(0.027)	(0.025)	(0.024)
2018 × Sinclair bias	0.137*	0.165**	0.188**	0.002	0.055**	0.052**
	(0.081)	(0.073)	(0.074)	(0.027)	(0.025)	(0.023)
2020 × Sinclair bias	0.129*	0.157***	0.183***	0.027	0.082***	0.078***
	(0.067)	(0.060)	(0.059)	(0.029)	(0.026)	(0.024)
Observations	35,972	35,972	35,966	35,935	35,935	35,929
R-squared	0.418	0.436	0.441	0.635	0.663	0.672
Clusters by DMA and CD	✓	✓	✓	✓	✓	✓
County and Year Fixed Effects	✓	✓	✓	✓	✓	✓
County-CD Weights	✓	✓	✓	✓	✓	✓
Demographic Controls			✓			✓
Pre-treatment prediction of vote share		✓	✓		✓	✓
Mean of dependent var.	0.626	0.626	0.626	0.552	0.552	0.552
SD of dependent var.	0.484	0.484	0.484	0.184	0.184	0.184

Note: *** p < 0.01, ** p < 0.05, * p < 0.10. Controls include a prediction of the differential trend of vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and county and year fixed effects. Standard errors are clustered at the DMA level and congressional district level. When the outcome is whether the Republican congressional candidate won, I weigh the regressions by the share of the county vote out of all votes in the district. When then outcome is the Republican congressional two-party vote share, I weigh by the share of the county vote attributed to the district out of the total county vote. The red dotted line indicates the treatment: the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020.

Table A4: Event study of exposure to Sinclair bias on turnout and voter registration

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	Voter turnout			Share of registered voters		
1992 × Sinclair bias	-0.0133	-0.0133	-0.0133	-0.0076	-0.0074	-0.0092
	(0.0121)	(0.0124)	(0.0118)	(0.0151)	(0.0149)	(0.0143)
1996 × Sinclair bias	-0.0092	-0.0093	-0.0095	-0.0082	-0.0085	-0.0091
	(0.0086)	(0.0087)	(0.0087)	(0.0081)	(0.0085)	(0.0082)
2000 × Sinclair bias	0	0	0	0	0	0
	-	-	-	-	-	-
2004 × Sinclair bias	-0.0075	-0.0084	-0.0093	0.0122	0.0124	0.0127
	(0.0086)	(0.0087)	(0.0087)	(0.0080)	(0.0079)	(0.0080)
2008 × Sinclair bias	-0.0013	-0.0016	-0.0024	-0.0029	-0.0008	-0.0032
	(0.0111)	(0.0109)	(0.0107)	(0.0115)	(0.0102)	(0.0102)
2012 × Sinclair bias	0.0009	0.0013	0.0016	0.0003	0.0047	-0.0012
	(0.0118)	(0.0118)	(0.0117)	(0.0155)	(0.0137)	(0.0135)
2016 × Sinclair bias	0.0108	0.0107	0.0107	-0.0058	-0.0012	-0.0078
	(0.0121)	(0.0121)	(0.0120)	(0.0161)	(0.0141)	(0.0140)
2020 × Sinclair bias	0.0109	0.0098	0.0114	-0.0124	-0.0073	-0.0156
	(0.0111)	(0.0110)	(0.0109)	(0.0193)	(0.0161)	(0.0160)
Observations	15,967	15,468	15,465	15,965	15,466	15,465
R-squared	0.778	0.774	0.779	0.744	0.764	0.786
Clusters by DMA	✓	✓	✓	✓	✓	✓
County and Year Fixed Effects	✓	✓	✓	✓	✓	✓
Pre-treatment outcome trend		✓	✓		✓	✓
Demographic Controls			✓			✓
Mean of dependent var.	0.680	0.680	0.680	0.868	0.867	0.867
SD of dependent var.	0.0920	0.0900	0.0900	0.108	0.109	0.109

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Controls include a linear trend of the outcome in the last pre-period; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of Christians. Standard errors are clustered at the DMA level. The turnout rate is defined as the vote as a share of registered voters. The share of registered voters is out of the voting age (20 plus) population. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

Table A5: Effect of the exposure to Sinclair bias given the prior partisanship of the county

	(1)
Dependent variable:	Republican two party presidential vote share
Sinclair bias	0.0242*
(base level= Democratic county)	(0.0138)
Sinclair bias × Swing county	-0.0166*
	(0.0089)
Sinclair bias × Republican county	-0.0197
	(0.0149)
Sinclair bias × Year ≥ 2016	0.0556***
(base level= Democratic county)	(0.0087)
Sinclair bias × Swing county × Year ≥ 2016	-0.0270***
	(0.0064)
Sinclair bias × Republican county × Year ≥ 2016	-0.0627***
	(0.0088)
Observations	17,612
R-squared	0.901
Clusters by DMA	✓
County and Year Fixed Effects	✓
Pre-treatment prediction	✓
Demographic Controls	✓
Mean of pre-period vote share	0.521
SD of pre-period vote share	0.108
Mean of dependent var.	0.580
SD of dependent var.	0.148

Note: *** p < 0.01, ** p < 0.05, * p < 0.10. Partisanship of a county is the average of the two-party vote Republican vote share in 1992 through 2000. A Democratic county has an vote share of a range [.097, .484]. A swing county has a range [.484, .580]; a Republican county has a range [.581, .891]. Controls include a prediction of the differential trend of vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of Christians. Standard errors are clustered at the DMA level. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

Table A6: Treatment intensity of Sinclair bias

Dependent variable:	Republican two party presidential vote share		
Log of pre-bias Sinclair viewership in DMA	0.0011		
	(0.0008)		
Log of pre-bias Sinclair viewership in DMA × Year ≥ 2016	0.0024***		
	(0.0007)		
Share of pre-bias Sinclair viewership in DMA		0.0135	
		(0.0113)	
Share of pre-bias Sinclair viewership in DMA × Year ≥ 2016		0.0331***	
		(0.0097)	
Number of biased Sinclair stations in DMA			0.0082*
			(0.0044)
Number of biased Sinclair stations in DMA × Year ≥ 2016			0.0101***
			(0.0038)
Observations	17,612	17,612	17,612
R-squared	0.899	0.898	0.898
Clusters by DMA	✓	✓	✓
County and Year Fixed Effects	✓	✓	✓
Pre-treatment prediction	✓	✓	✓
Demographic Controls	✓	✓	✓
Mean of dependent var.	0.580	0.580	0.580
SD of dependent var.	0.148	0.148	0.148

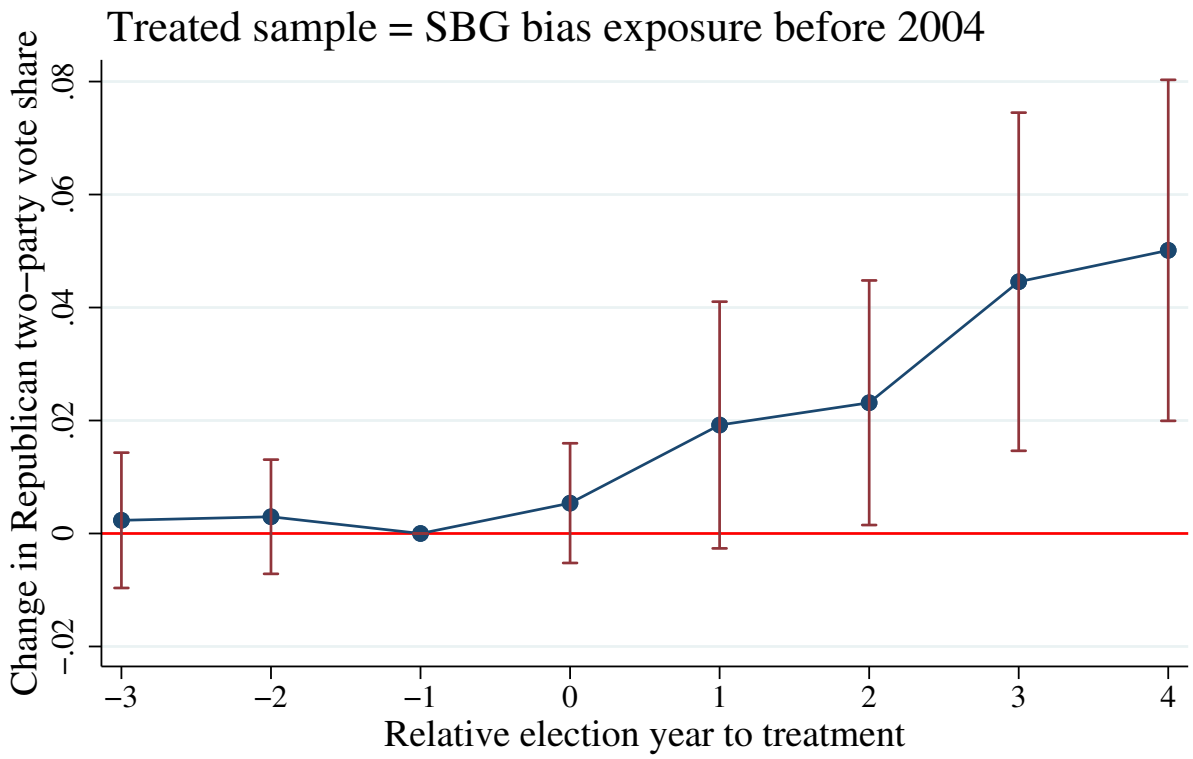
Note: *** p < 0.01, ** p < 0.05, * p < 0.10. Controls include a prediction of the differential trend of vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of Christians. Standard errors are clustered at the DMA level. The log of pre-bias Sinclair viewership in DMA refers to the log number of TV households that watched a Sinclair station in the DMA in the year 2000, interacted with a dummy for the period Sinclair bias. The share of pre-bias Sinclair viewership in DMA refers to the share of TV households that watched a Sinclair station out of all TV households in the DMA in the year 2000, interacted with a dummy for the period of Sinclair bias. The number of biased Sinclair stations in DMA refers to the number of Sinclair stations in the DMA as of 2020 interacted with a dummy for the period of Sinclair bias.

Table A7: Robustness to changes in the definition of the Republican vote share

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	Republican all party vote share			Republican registered voters share		
1992 × Sinclair bias	0.0124	0.0124	0.0166	0.0048	0.0039	0.0085
	(0.0107)	(0.0107)	(0.0108)	(0.0107)	(0.0104)	(0.0102)
1996 × Sinclair bias	0.0048	0.0048	0.0062	-0.0016	-0.0019	0.0012
	(0.0079)	(0.0079)	(0.0079)	(0.0060)	(0.0059)	(0.0059)
2000 × Sinclair bias	0	0	0	0	0	0
	-	-	-	-	-	-
2004 × Sinclair bias	0.0022	0.0022	0.0015	-0.0056	-0.0045	-0.0054
	(0.0059)	(0.0059)	(0.0060)	(0.0070)	(0.0070)	(0.0073)
2008 × Sinclair bias	0.0127	0.0127	0.0165	0.0078	0.0090	0.0109
	(0.0131)	(0.0131)	(0.0127)	(0.0105)	(0.0107)	(0.0108)
2012 × Sinclair bias	0.0153	0.0153	0.0180	0.0086	0.0100	0.0113
	(0.0145)	(0.0145)	(0.0137)	(0.0093)	(0.0096)	(0.0099)
2016 × Sinclair bias	0.0350*	0.0350*	0.0370**	0.0303**	0.0333***	0.0342***
	(0.0180)	(0.0180)	(0.0167)	(0.0118)	(0.0124)	(0.0124)
2020 × Sinclair bias	0.0374**	0.0374**	0.0393**	0.0305**	0.0320**	0.0326***
	(0.0184)	(0.0184)	(0.0162)	(0.0125)	(0.0133)	(0.0125)
Observations	17,616	17,616	17,612	15,967	15,468	15,465
R-squared	0.850	0.850	0.871	0.837	0.838	0.854
Clusters by DMA	✓	✓	✓	✓	✓	✓
County and Year Fixed Effects	✓	✓	✓	✓	✓	✓
Pre-treatment outcome trend		✓	✓		✓	✓
Demographic Controls			✓			✓
Mean of dependent var.	0.550	0.550	0.550	0.375	0.375	0.375
SD of dependent var.	0.156	0.156	0.156	0.116	0.116	0.116

Note: *** p < 0.01, ** p < 0.05, * p < 0.10. Controls include a linear trend of the outcome in the last pre-period; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of Christians. Standard errors are clustered at the DMA level. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

Fig. A1. Dynamic effect graph: Within county change in the Republican two-party vote share for president



Note: The figure plots the estimated treatment effects and placebos, and their 95% confidence intervals constructed using a normal approximation using the estimator of de Chaisemartin and D'Haultfoeuille (2020). Controls include a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and county and year fixed effects. Standard errors are clustered at the DMA level. The red dotted line indicates the treatment: the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

A.2. Individual-level

Table A8: Summary statistics for individual-level estimation samples

	(1)				(2)			
Survey:	American National Election				Cooperative Election			
	Mean	SD	Min	Max	Mean	SD	Min	Max
Outcome variables:								
Voted for Republican presidential candidate	0.35	0.48	0.00	1.00	0.44	0.50	0.00	1.00
Voted for Republican congressional candidate	0.46	0.50	0.00	1.00	0.45	0.50	0.00	1.00
Identifies as Republican	0.38	0.49	0.00	1.00	0.38	0.49	0.00	1.00
Identifies as Conservative	0.40	0.49	0.00	1.00	0.36	0.48	0.00	1.00
Decrease number of immigrants	0.44	0.50	0.00	1.00				
Racial inequality attitudes score from PC1	0.63	0.38	0.00	1.00				
Disagree: Blacks have gotten less than they deserve	0.63	0.48	0.00	1.00				
Disagree; Conditions make it difficult for blacks to succeed	0.49	0.50	0.00	1.00				
Disagree: Blacks should have special favors to succeed	0.75	0.44	0.00	1.00				
Disagree: Blacks must try harder to succeed	0.61	0.49	0.00	1.00				
Feeling thermometer for Republican pres. candidate	46.52	30.92	0.00	97.00				
Support for small government score from PC1	0.43	0.40	0.00	1.00				
Agree; Free market can handle economy (vs. government)	0.34	0.47	0.00	1.00				
Agree: government is too involved	0.48	0.50	0.00	1.00				
Agree: Less government is better	0.46	0.50	0.00	1.00				
Support for less redistribution score from PC1	0.32	0.32	0.00	1.00				
Agree: Decrease federal spending on poor	0.14	0.35	0.00	1.00				
Agree: Decrease federal spending on welfare	0.43	0.50	0.00	1.00				
Agree: Should worry less about how equal people are	0.51	0.50	0.00	1.00				
Agree: Better off if U.S. Unconcerned with Rest of World	0.29	0.46	0.00	1.00				
Disillusionment with government score from PC1	0.61	0.30	0.00	1.00				
Agree: Not satisfied with democracy in the US	0.23	0.42	0.00	1.00				
Agree: Federal Government run by few interests	0.76	0.42	0.00	1.00				
Agree: Federal Government wastes tax money a lot	0.69	0.46	0.00	1.00				
Disagree: own opinions on politics matter	0.33	0.47	0.00	1.00				
Supports increase border security between US and Mexico					0.56	0.50	0.00	1.00
Prefer to cut domestic spending most					0.12	0.33	0.00	1.00
Prefer least to raise taxes to spending cuts					0.13	0.33	0.00	1.00
Treatment variables:								
Sinclair bias	0.20	0.40	0.00	1.00				
Sinclair bias treatment group	0.27	0.44	0.00	1.00	0.28	0.45	0.00	1.00
Log of pre-bias Sinclair viewership in DMA	2.65	5.33	0.00	14.09	3.72	5.99	0.00	14.09
Share of TV HHS watching Sinclair in DMA	0.19	0.38	0.00	1.00	0.26	0.43	0.00	1.00
Number of years exposed to Sinclair bias					3.71	6.20	0.00	17.00
Sinclair bias $\times$ Year $\geq$ 2016					0.20	0.40	0.00	1.00
Dummy for age 50 and over	0.49	0.50	0.00	1.00	0.64	0.48	0.00	1.00
Dummy for lack of interest in the news					0.13	0.33	0.00	1.00
Control variables:								
Age	48.93	16.89	17.00	93.00	53.58	15.72	18.00	95.00
Female	0.53	0.50	0.00	1.00	0.55	0.50	0.00	1.00
Married	0.52	0.50	0.00	1.00	0.55	0.50	0.00	1.00
Separated					0.01	0.12	0.00	1.00
Divorced					0.13	0.33	0.00	1.00
Widowed					0.06	0.24	0.00	1.00
Single / Never Married					0.20	0.40	0.00	1.00

Domestic Partnership					0.04	0.20	0.00	1.00
White non-Hispanic	0.67	0.47	0.00	1.00				
Black non-Hispanic	0.17	0.37	0.00	1.00				
Hispanic	0.12	0.32	0.00	1.00				
Other or multiple races, non-Hispanic	0.05	0.21	0.00	1.00				
Race: White					0.82	0.39	0.00	1.00
Race: Black					0.11	0.32	0.00	1.00
Race: Hispanic					0.00	0.00	0.00	0.00
Race: Asian					0.02	0.15	0.00	1.00
Race: Native American					0.01	0.09	0.00	1.00
Race: Mixed					0.02	0.14	0.00	1.00
Race: Other					0.01	0.12	0.00	1.00
Race: Middle Eastern					0.00	0.04	0.00	1.00
Hispanic origin					1.97	0.16	1.00	2.00
Completed grade school or less	0.02	0.15	0.00	1.00	0.02	0.13	0.00	1.00
Completed high school	0.31	0.46	0.00	1.00	0.24	0.43	0.00	1.00
Completed some college	0.33	0.47	0.00	1.00	0.34	0.47	0.00	1.00
Completed college	0.34	0.47	0.00	1.00	0.40	0.49	0.00	1.00
Income group: low	0.32	0.47	0.00	1.00	0.43	0.50	0.00	1.00
Income group: middle	0.63	0.48	0.00	1.00	0.40	0.49	0.00	1.00
Income group: high	0.05	0.22	0.00	1.00	0.17	0.37	0.00	1.00
Protestant	0.50	0.50	0.00	1.00	0.41	0.49	0.00	1.00
Religion: Roman Catholic					0.20	0.40	0.00	1.00
Religion: Mormon					0.01	0.09	0.00	1.00
Religion: Eastern or Greek Orthodox					0.00	0.07	0.00	1.00
Religion: Jewish					0.03	0.17	0.00	1.00
Religion: Muslim					0.00	0.06	0.00	1.00
Religion: Buddhist					0.01	0.09	0.00	1.00
Religion: Hindu					0.00	0.05	0.00	1.00
Religion: Atheist					0.06	0.24	0.00	1.00
Religion: Agnostic					0.06	0.24	0.00	1.00
Religion: Nothing in Particular					0.16	0.37	0.00	1.00
Religion: Something Else					0.05	0.22	0.00	1.00
Member in a union	1.84	0.37	1.00	2.00	0.29	0.45	0.00	1.00
Parents are immigrants	0.17	0.37	0.00	1.00				
No health insurance					1.92	0.27	1.00	2.00
Home Ownership					1.33	0.54	1.00	3.00
Parent of Young Children					1.79	0.41	1.00	2.00
Unemployed					0.07	0.25	0.00	1.00
Military Status (None)					1.59	0.49	1.00	2.00
Population density (sq km)	0.84	2.52	0.00	28.01	0.87	2.85	0.00	28.01
Voting age (age 20 plus) population (ln)	12.57	1.63	7.33	15.84	12.58	1.55	5.90	15.84
Total female population (ln)	12.22	1.63	6.98	15.45	12.19	1.56	5.41	15.45
Total white population (ln)	12.60	1.57	6.69	15.80	12.59	1.49	6.11	15.79
People with no high school education (%)	0.17	0.07	0.02	0.51	0.12	0.05	0.02	0.44
People that completed high school (%)	0.29	0.07	0.11	0.52	0.28	0.07	0.10	0.55
People that completed college (%)	0.27	0.10	0.05	0.61	0.31	0.11	0.05	0.68
Unemployment rate	0.06	0.02	0.02	0.27	0.07	0.02	0.01	0.27
Log of household income	10.78	0.29	9.81	11.69	10.99	0.26	10.00	11.85
Share of Christians	0.93	0.09	0.00	1.00	0.93	0.07	0.02	1.00
Republican two party vote share trend from year 2000	989.03	267.22	239.04	1828.14	1001.52	262.81	241.44	1839.62
Pre-treatment prediction of Rep. pres. vote share	-0.82	0.87	-2.17	0.87	-1.72	0.35	-2.56	-0.71
Pre-treatment county partisanship (category)	1.66	0.74	1.00	3.00	1.68	0.75	1.00	3.00
Observations	17612				35966			

Table A9: Demographic differences for ANES reposndents exposed to Sinclair bias, 1992 to 2016

	Mean		**T-test**		
	SBG 2004	**No SBG**	**No SBG - SBG 2004**		
			COEF	**SE**	**N**
Age	48.611	48.155	-0.456	0.322	14730
Female	0.552	0.534	-0.018*	0.009	14873
Married	0.495	0.495	-0.000	0.009	14846
White non-Hispanic	0.711	0.637	-0.073***	0.009	14798
Black non-Hispanic	0.190	0.158	-0.032***	0.007	14798
Hispanic	0.058	0.150	0.093***	0.006	14798
Other or multiple races, non-Hispanic	0.042	0.054	0.012***	0.004	14798
Completed grade school or less	0.029	0.030	0.001	0.003	14759
Completed high school	0.369	0.340	-0.029***	0.009	14759
Completed some college	0.327	0.314	-0.013	0.009	14759
Completed college	0.276	0.316	0.040***	0.009	14759
Income group: 0-33 pctl	0.352	0.315	-0.037***	0.009	14905
Income group: 34-94 pctl	0.549	0.565	0.016*	0.009	14905
Income group: 95-100 pctl	0.033	0.052	0.019***	0.004	14905
Protestant	0.567	0.458	-0.109***	0.009	14853
Member in a union	1.851	1.846	-0.004	0.007	14829
Parents are immigrants	0.091	0.209	0.118***	0.007	14835

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. SBG 2004 (the treatment group) is defined as respondents living in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all respondents living in counties which are never exposed to Sinclair biased programming.

Table A10: Demographic differences for CES reposndents exposed to Sinclair bias, 2006 to 2020

	Mean		T-test		
	SBG 2004	No SBG	No SBG - SBG 2004		
			COEF	SE	N
Age	49.452	49.274	-0.056	0.061	377065
Female	0.552	0.539	-0.014***	0.002	377065
Married	0.559	0.532	-0.026***	0.002	375831
Separated	0.017	0.017	-0.000	0.000	375831
Divorced	0.109	0.110	0.001	0.001	375831
Widowed	0.047	0.047	0.001	0.001	375831
Single / Never Married	0.221	0.246	0.023***	0.002	375831
Domestic Partnership	0.047	0.047	0.001	0.001	375831
Race: White	0.799	0.706	-0.090***	0.002	377065
Race: Black	0.107	0.123	0.017***	0.001	377065
Race: Hispanic	0.043	0.097	0.052***	0.001	377065
Race: Asian	0.012	0.027	0.014***	0.001	377065
Race: Native American	0.008	0.007	-0.000	0.000	377065
Race: Mixed	0.016	0.021	0.005***	0.001	377065
Race: Other	0.015	0.016	0.002***	0.000	377065
Race: Middle Eastern	0.001	0.002	0.000***	0.000	377065
Hispanic origin	1.980	1.962	-0.017***	0.001	291972
Completed grade school or less	0.033	0.031	-0.003***	0.001	377009
Completed high school	0.299	0.264	-0.035***	0.002	377009
Completed some college	0.333	0.341	0.009***	0.002	377009
Completed college	0.335	0.363	0.029***	0.002	377009
Low income: 0-50k	0.520	0.480	-0.041***	0.002	312105
Middle income: 50-100k	0.373	0.376	0.004*	0.002	312105
High income: 100k plus	0.107	0.144	0.038***	0.001	312105
Religion: Protestant	0.428	0.365	-0.061***	0.002	349250
Religion: Roman Catholic	0.187	0.225	0.039***	0.002	349250
Religion: Mormon	0.008	0.010	0.002***	0.000	349250
Religion: Eastern or Greek Orthodox	0.004	0.006	0.002***	0.000	349250
Religion: Jewish	0.015	0.031	0.016***	0.001	349250
Religion: Muslim	0.004	0.006	0.002***	0.000	349250
Religion: Buddhist	0.007	0.009	0.003***	0.000	349250
Religion: Hindu	0.002	0.003	0.001***	0.000	349250
Religion: Atheist	0.048	0.050	0.002**	0.001	349250
Religion: Agnostic	0.055	0.057	0.002*	0.001	349250
Religion: Nothing in Particular	0.178	0.172	-0.007***	0.001	349250
Religion: Something Else	0.065	0.064	-0.001	0.001	349250
Union Member	0.245	0.251	0.007***	0.002	377065
No health insurance	1.896	1.887	-0.007***	0.001	325705
Home Ownership	1.370	1.405	0.033***	0.002	351218
Parent of Young Children	1.746	1.748	0.004**	0.002	349377
Unemployed	0.069	0.078	0.008***	0.001	377065
Military Status (None)	1.590	1.566	-0.021***	0.002	376998

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. SBG 2004 (the treatment group) is defined as respondents living in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all respondents living in counties which are never exposed to Sinclair biased programming.

Table A11: Balance test of Sinclair bias: ANES respondents, 1992 to 2016

Dependent variable:	**Dummy for Sinclair bias availability**		
	COEF	**SE**	**N**
Individual level:			
Age	0.569	(0.823)	15,018
Female	0.033*	(0.019)	15,164
Married	-0.029	(0.026)	15,136
White non-Hispanic	0.011	(0.031)	15,087
Black non-Hispanic	0.020	(0.029)	15,087
Hispanic	-0.025	(0.017)	15,087
Other or multiple races	-0.007	(0.008)	15,087
Completed grade school or less	-0.019	(0.014)	15,046
Completed high school	-0.053**	(0.026)	15,046
Completed some college	0.034	(0.022)	15,046
Completed college	0.037	(0.026)	15,046
Income group: 0-33 pctl	0.033	(0.030)	15,196
Income group: 34-95 pctl	0.002	(0.030)	15,196
Income group: 95-100 pctl	-0.009	(0.014)	15,196
Protestant	-0.010	(0.029)	15,144
Member in a union	0.010	(0.018)	15,118
Parents are immigrants	-0.010	(0.074)	15,123
County level:			
Population density (sq km)	-0.170*	(0.102)	15,196
Voting age (age 20 plus) population (ln)	-0.122	(0.184)	15,196
Total female population (ln)	-0.128	(0.186)	15,196
Total white population (ln)	-0.216	(0.176)	15,196
Unemployment rate	0.003	(0.002)	15,196
Log of household income	-0.020	(0.032)	15,196
Completed high school (%)	-0.004	(0.009)	15,196
Completed college (%)	0.012	(0.013)	15,196
Share of Christians	0.013	(0.018)	15,196

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. All regressions control for DMA and year fixed effects. Standard errors are clustered at the DMA-level. SBG 2004 (the treatment group) is defined as respondents living in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all respondents living in counties which are never exposed to Sinclair biased programming.

Table A12: Balance test of Sinclair bias: CES respondents, 2006 to 2020

Dependent variable:	Dummy for Sinclair bias exposure after 2016		
	COEF	**SE**	**N**
Individual level:			
Age	0.025	(0.286)	376,954
Female	-0.007	(0.006)	376,954
Married	-0.001	(0.008)	375,720
Separated	0.000	(0.002)	375,720
Divorced	0.005	(0.004)	375,720
Widowed	-0.004	(0.003)	375,720
Single / Never Married	-0.005	(0.007)	375,720
Domestic Partnership	0.005	(0.003)	375,720
Race: White	0.023***	(0.008)	376,954
Race: Black	-0.001	(0.006)	376,954
Race: Hispanic	-0.010***	(0.003)	376,954
Race: Asian	-0.013***	(0.004)	376,954
Race: Native American	0.002	(0.002)	376,954
Race: Mixed	-0.001	(0.002)	376,954
Race: Other	-0.000	(0.001)	376,954
Race: Middle Eastern	0.000	(0.000)	376,954
Hispanic origin	-0.005*	(0.003)	291,879
Completed grade school or less	-0.005	(0.006)	376,898
Completed high school	0.004	(0.009)	376,898
Completed some college	0.004	(0.008)	376,898
Completed college	-0.003	(0.006)	376,898
Low income: 0-50k	-0.011	(0.007)	312,012
Middle income: 50-100k	0.011*	(0.006)	312,012
High income: 100k plus	0.000	(0.004)	312,012
Religion: Protestant	-0.007	(0.006)	349,139
Religion: Roman Catholic	-0.010*	(0.006)	349,139
Religion: Mormon	0.001	(0.001)	349,139
Religion: Eastern or Greek Orthodox	0.000	(0.001)	349,139
Religion: Jewish	-0.002	(0.001)	349,139
Religion: Muslim	-0.002	(0.001)	349,139
Religion: Buddhist	-0.000	(0.001)	349,139
Religion: Hindu	-0.001	(0.001)	349,139
Religion: Atheist	0.004	(0.004)	349,139
Religion: Agnostic	0.007***	(0.003)	349,139
Religion: Nothing in Particular	0.008	(0.007)	349,139
Religion: Something Else	0.002	(0.003)	349,139
Union Member	0.001	(0.006)	376,954
No health insurance	-0.009	(0.007)	325,594
Home Ownership	0.000	(0.010)	351,109
Parent of Young Children	0.001	(0.007)	349,266
Unemployed	0.003	(0.004)	376,954
Military Status (None)	0.002	(0.008)	376,887
County level:			
Population density (sq km)	-0.157	(0.124)	376,954
Voting age (age 20 plus) population (ln)	-0.014	(0.025)	376,954
Total female population (ln)	-0.010	(0.026)	376,954
Total white population (ln)	-0.001	(0.024)	376,954
Unemployment rate	0.001	(0.002)	376,954
Log of household income	-0.010	(0.008)	376,954
People that completed high school (%)	-0.003	(0.002)	376,954
People that completed college (%)	0.000	(0.002)	376,954
Share of Christians	0.001	(0.003)	376,954

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. All regressions control for DMA and year fixed effects, and are weighted to account for sampling probability. Standard errors are clustered at the DMA-level. SBG 2004 (the treatment group) is defined as respondents living in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group are all respondents living in counties which are never exposed to Sinclair biased programming.

Table A13: Event study results on Republican vote, ANES respondents, 1992 to 2016

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dependent variable:	Voted for Republican presidential candidate					Voted for Republican congressional candidate				
1992/1996 × Sinclair bias	0.0008	-0.0023	-0.0006	0.0072	0.0117	0.0000	-0.0147	-0.0249	-0.0177	-0.0063
	(0.0571)	(0.0552)	(0.0546)	(0.0540)	(0.0536)	(0.0892)	(0.0779)	(0.0772)	(0.0814)	(0.0784)
2000 × Sinclair bias	0	0	0	0	0	0	0	0	0	0
	-	-	-	-	-	-	-	-	-	-
2004 × Sinclair bias	0.0291	0.0361	0.0525	0.0479	0.0497	-0.0113	-0.0040	-0.0288	-0.0358	-0.0324
	(0.0779)	(0.0772)	(0.0622)	(0.0611)	(0.0611)	(0.0714)	(0.0688)	(0.0677)	(0.0691)	(0.0679)
2008/2012 × Sinclair bias	0.0472	0.0389	0.0340	0.0446	0.0437	0.0540	0.0354	0.0456	0.0625	0.0584
	(0.0418)	(0.0420)	(0.0451)	(0.0435)	(0.0438)	(0.0632)	(0.0559)	(0.0516)	(0.0511)	(0.0506)
2016 × Sinclair bias	0.0922**	0.0822*	0.0863*	0.0880**	0.0878**	0.1238*	0.0991*	0.1059**	0.1143**	0.1115**
	(0.0442)	(0.0473)	(0.0454)	(0.0436)	(0.0439)	(0.0662)	(0.0565)	(0.0509)	(0.0522)	(0.0508)
Observations	11,675	11,675	10,728	10,728	10,728	8,623	8,623	7,936	7,936	7,936
R-squared	0.0619	0.0790	0.219	0.221	0.222	0.103	0.143	0.258	0.258	0.262
Clusters by DMA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Clusters by Congressional District						✓	✓	✓	✓	✓
DMA and Year Fixed Effects	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-treatment vote share prediction		✓	✓		✓		✓	✓		✓
Individual controls			✓	✓	✓			✓	✓	✓
County Controls				✓	✓				✓	✓
Mean of dependent var.	0.357	0.357	0.355	0.355	0.355	0.460	0.460	0.458	0.458	0.458
SD of dependent var.	0.479	0.479	0.478	0.478	0.478	0.498	0.498	0.498	0.498	0.498

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. The table is the results of the estimation of Equation1 for the years 1992 to 2016. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, for level of educational attainment and the income group. Standard errors are clustered at the DMA level. When the outcome is for congressional elections, I also cluster by congressional district. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Table A14: Republican vote, CES respondents, 2006 to 2020

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Dependent variable:	Voted for Republican presidential candidate					Voted for Republican congressional candidate				
Sinclair bias × Year ≥ 2016	0.0272**	0.0193**	0.0233**	0.0263**	0.0246**	0.0331**	0.0224*	0.0340***	0.0381***	0.0352***
	(0.0114)	(0.0094)	(0.0100)	(0.0109)	(0.0103)	(0.0146)	(0.0122)	(0.0111)	(0.0119)	(0.0114)
Observations	257,414	257,414	175,565	175,565	175,565	205,011	205,011	131,289	131,289	131,289
R-squared	0.0380	0.0750	0.270	0.270	0.271	0.0480	0.0880	0.257	0.255	0.258
Clusters by DMA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Clusters by Congressional District						✓	✓	✓	✓	✓
DMA and Year Fixed Effects	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pre-treatment vote share prediction		✓	✓		✓		✓	✓		✓
Individual controls			✓	✓	✓			✓	✓	✓
County Controls				✓	✓				✓	✓
Mean of dependent var.	0.460	0.460	0.449	0.449	0.449	0.465	0.465	0.455	0.455	0.455
SD of dependent var.	0.498	0.498	0.497	0.497	0.497	0.499	0.499	0.498	0.498	0.498

Note: *** p < 0.01, ** p < 0.05, * p < 0.10. The table is the results of the estimation of Equation2. The sample is all respondents that are also U.S. citizens. All results are weighted to reflect the probability of sampling. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, Hispanic origin, being in a union, having no health insurance, having a child, and not having a relation to the military; and dummy categories for marital status, race, educational attainment, income group, and religious group. Standard errors are clustered at the DMA level. When the outcome is for congressional elections, I also cluster by congressional district. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one Sinclair owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Table A15: Effect on partisan identity, ANES and CES Respondents

	(1)	(2)	(3)	(4)
Dependent variable:	Identifies as			
	Republican	Conservative	Republican	Conservative
Survey:	American National Election		Cooperative Election	
Sinclair bias	0.0637**	0.0322		
	(0.0291)	(0.0370)		
Sinclair bias × Year ≥ 2016	0.0145	0.0259	0.0218**	0.0017
	(0.0212)	(0.0270)	(0.0098)	(0.0086)
Observations	13,754	10,425	232,277	222,185
R-squared	0.193	0.105	0.201	0.148
Clusters by DMA	✓	✓	✓	✓
DMA and Year Fixed Effects	✓	✓	✓	✓
Pre-treatment vote share prediction	✓	✓	✓	✓
Individual and County Controls	✓	✓	✓	✓
Mean of dependent var.	0.361	0.393	0.363	0.357
SD of dependent var.	0.480	0.488	0.481	0.479

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. The table is the results of the estimation of Equation2 for ANES and CES respondents. The sample is all respondents that are also U.S. citizens. CES results are weighted to reflect the probability of sampling. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, for level of educational attainment and the income group. For CES, I also include a dummy for having no health insurance, having a child, and not having a relation to the military; and dummy categories for marital status, race, and religious group. Standard errors are clustered at the DMA level. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one Sinclair owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Table A16: Effect on components on PCA score of tolerance for racial inequality, ANES Respondents

	(1)	(2)	(3)	(4)	(5)
	PCA Score		Disagree:		
	Racial inequality	Blacks Gotten Less	Conditions Make it Difficult	Blacks Should Have	Blacks Must Try
Dependent var.:	attitudes score	than They Deserve	for Blacks to Succeed	Special Favors to Succeed	Harder to Succeed
Sinclair bias	0.0296	0.0059	0.0395	0.0362	0.0247
	(0.0231)	(0.0421)	(0.0453)	(0.0255)	(0.0257)
Sinclair bias × College educated	-0.0271	-0.0030	-0.0357	-0.0395	-0.0510
	(0.0345)	(0.0279)	(0.0359)	(0.0367)	(0.0364)
Sinclair bias × Year ≥ 2016	0.0641**	0.0795**	0.0595	0.0198	0.0438
	(0.0299)	(0.0388)	(0.0434)	(0.0226)	(0.0361)
Sinclair bias × Year ≥ 2016 × College educated	-0.0382	-0.0820	-0.0259	0.0011	-0.0392
	(0.0660)	(0.0649)	(0.0728)	(0.0601)	(0.0523)
Observations	5,352	7,236	8,209	8,010	7,631
R-squared	0.206	0.125	0.0970	0.138	0.155
Clusters by DMA	✓	✓	✓	✓	✓
DMA & Year Fixed Effects	✓	✓	✓	✓	✓
Pre-treatment Trend	✓	✓	✓	✓	✓
Individual & County Controls	✓	✓	✓	✓	✓
Mean of dependent var.	0.703	0.717	0.548	0.798	0.664
SD of dependent var.	0.356	0.450	0.498	0.402	0.472

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. The table is the results of the estimation of Equation2 for ANES respondents, interacted with a dummy for the respondent having completed college. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, for level of educational attainment and the income group. Standard errors are clustered at the DMA level. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one Sinclair owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Table A17: Effect on components on PCA score of support for small government, ANES Respondents

	(1)	(2)	(3)	(4)
	PCA Score	Agree:		
Dependent var.:	Small government attitudes score	Free market can handle economy (vs govt	Government is too involved	Less Government
Sinclair bias	0.0435**	0.0494	0.0378	0.0364
	(0.0219)	(0.0301)	(0.0351)	(0.0276)
Sinclair bias × College educated	-0.0445*	-0.0641**	-0.0602*	-0.0115
	(0.0264)	(0.0278)	(0.0361)	(0.0316)
Sinclair bias × Year ≥ 2016	0.0320	0.0019	0.0107	0.0797***
	(0.0214)	(0.0349)	(0.0230)	(0.0304)
Sinclair bias × Year ≥ 2016 × College educated	0.0541	0.0988**	0.0696	-0.0027
	(0.0367)	(0.0448)	(0.0498)	(0.0494)
Observations	10,860	11,099	11,151	11,154
R-squared	0.181	0.0990	0.120	0.162
Clusters by DMA	✓	✓	✓	✓
DMA and Year Fixed Effects	✓	✓	✓	✓
Pre-treatment Prediction	✓	✓	✓	✓
County and Individual Controls	✓	✓	✓	✓
Mean of dependent var.	0.418	0.336	0.473	0.444
SD of dependent var.	0.398	0.472	0.499	0.497

Note: *** p < 0.01, ** p < 0.05, * p < 0.10. The table is the results of the estimation of Equation2 for ANES respondents, interacted with a dummy for the respondent having completed college. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, for level of educational attainment and the income group. Standard errors are clustered at the DMA level. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one Sinclair owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Table A18: Effect on components on PCA score of support for less redistribution, ANES Respondents

	(1)	(2)	(3)	(4)
	PCA Score	Agree:		
Dependent var.:	Less redistribution attitudes score	Cut spending the poor	Spend less on welfare	Worry less about how equal people are
Sinclair bias	0.0436**	0.0391***	0.0516*	-0.0010
	(0.0174)	(0.0143)	(0.0284)	(0.0305)
Sinclair bias × College educated	-0.0285	-0.0022	-0.0045	-0.0087
	(0.0291)	(0.0235)	(0.0312)	(0.0382)
Sinclair bias × Year ≥ 2016	0.0028	-0.0104	0.0196	0.0014
	(0.0250)	(0.0187)	(0.0292)	(0.0372)
Sinclair bias × Year ≥ 2016 × College educated	-0.0347	-0.0198	-0.0551	-0.0376
	(0.0388)	(0.0351)	(0.0597)	(0.0498)
Observations	9,754	13,592	13,587	9,953
R-squared	0.141	0.0800	0.115	0.115
Clusters by DMA	✓	✓	✓	✓
DMA and Year Fixed Effects	✓	✓	✓	✓
Pre-treatment Prediction	✓	✓	✓	✓
County and Individual Controls	✓	✓	✓	✓
Mean of dependent var.	0.318	0.132	0.426	0.516
SD of dependent var.	0.312	0.339	0.495	0.500

Note: *** p < 0.01, ** p < 0.05, * p < 0.10. The table is the results of the estimation of Equation2 for ANES respondents interacted with a dummy for the respondent having completed college. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, for level of educational attainment and the income group. Standard errors are clustered at the DMA level. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one Sinclair owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Table A19: Effect on components on PCA score of disillusionment with government, ANES Respondents

	(1)	(2)	(3)	(4)
	PCA Score		Agree:	
Dependent var.:	Disillusionment with govt attitudes score	Dissatisfied with U.S. democracy	Government benefits few	Federal govt. wastes taxes
Sinclair bias	0.0249	0.0358*	0.0110	0.0385*
	(0.0156)	(0.0203)	(0.0205)	(0.0226)
Sinclair bias × College educated	-0.0204	-0.0118	-0.0035	-0.0640**
	(0.0153)	(0.0237)	(0.0205)	(0.0285)
Sinclair bias × Year ≥ 2016	0.0077	-0.0124	0.0081	0.0171
	(0.0184)	(0.0313)	(0.0253)	(0.0232)
Sinclair bias × Year ≥ 2016 × College educated	-0.0119	0.0172	0.0126	-0.0406
	(0.0221)	(0.0395)	(0.0353)	(0.0421)
Observations	12,731	13,754	12,769	13,687
R-squared	0.0750	0.0800	0.0610	0.0710
Clusters by DMA	✓	✓	✓	✓
DMA and Year Fixed Effects	✓	✓	✓	✓
Pre-treatment Prediction	✓	✓	✓	✓
County and Individual Controls	✓	✓	✓	✓
Mean of dependent var.	0.606	0.210	0.763	0.655
SD of dependent var.	0.304	0.408	0.425	0.475

Note: *** p < 0.01, ** p < 0.05, * p < 0.10. The table is the results of the estimation of Equation2 for ANES respondents interacted with a dummy for the respondent having completed college. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, for level of educational attainment and the income group. Standard errors are clustered at the DMA level. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one Sinclair owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Table A20: Event study results on feeling thermometer for Republican presidential candidate, ANES respondents, 1992 to 2016

	(1)	(2)
Dependent variable:	Feeling thermometer towards Republican Presidential Candidate	
Sample	Non-college educated	College-educated
1992/1996 × Sinclair bias	3.4569	-2.0145
	(2.6325)	(3.6343)
2000 × Sinclair bias	0	0
	-	-
2004 × Sinclair bias	-1.2776	2.3630
	(2.8602)	(3.7395)
2008/2012 × Sinclair bias	5.3475***	-6.0753*
	(1.9330)	(3.2251)
2016 × Sinclair bias	10.9209***	-4.7681
	(2.4663)	(3.3248)
Observations	9,402	4,200
R-squared	0.189	0.251
Clusters by DMA	✓	✓
DMA and Year Fixed Effects	✓	✓
Pre-treatment vote share prediction	✓	✓
Individual controls	✓	✓
County Controls	✓	✓
Mean of dependent var.	47.01	44.85
SD of dependent var.	29.82	31.45

Note: *** p < 0.01, ** p < 0.05, * p < 0.10. The table is the results of the estimation of Equation1, estimated separately for the sample of non-college educated (Column 1) and college educated respondents (Column 2). Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, for level of educational attainment and the income group. Standard errors are clustered at the DMA level. When the outcome is for congressional elections, I also cluster by congressional district. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Table A21: Effect given initial viewership, ANES and CES Respondents

	(1)	(2)	(3)	(4)
Dependent variable:	Voted for Republican Presidential Candidate			
Survey:	American National Election		Cooperative Election	
Log of pre-bias Sinclair viewership in DMA	0.0027			
	(0.0023)			
Log of pre-bias Sinclair viewership in DMA × Year ≥ 2016	0.0034**		0.0018**	
	(0.0014)		(0.0008)	
Share of pre-bias Sinclair viewership in DMA		0.0284		
		(0.0311)		
Share of pre-bias Sinclair viewership in DMA × Year ≥ 2016		0.0451**		0.0240**
		(0.0196)		(0.0108)
Observations	10,689	10,604	175,565	175,565
R-squared	0.223	0.222	0.271	0.271
Clusters by DMA	✓	✓	✓	✓
DMA and Year Fixed Effects	✓	✓	✓	✓
Pre-treatment vote share prediction	✓	✓	✓	✓
Individual and County Controls	✓	✓	✓	✓
Mean of dependent var.	0.355	0.355	0.449	0.449
SD of dependent var.	0.478	0.478	0.497	0.497

Note: *** p < 0.01, ** p < 0.05, * p < 0.10. The table is the results of the estimation of Equation2 for ANES and CES respondents. The sample is all respondents that are also U.S. citizens. CES results are weighted to reflect the probability of sampling. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, marital status, being a union member, Protestant, having immigrant parents; dummies for the race-category, for level of educational attainment and the income group. For CES, I also include a dummy for having no health insurance, having a child, and not having a relation to the military; and dummy categories for marital status, race, and religious group. Standard errors are clustered at the DMA level.

Table A22: Republican vote, CES respondents, 2006 to 2020

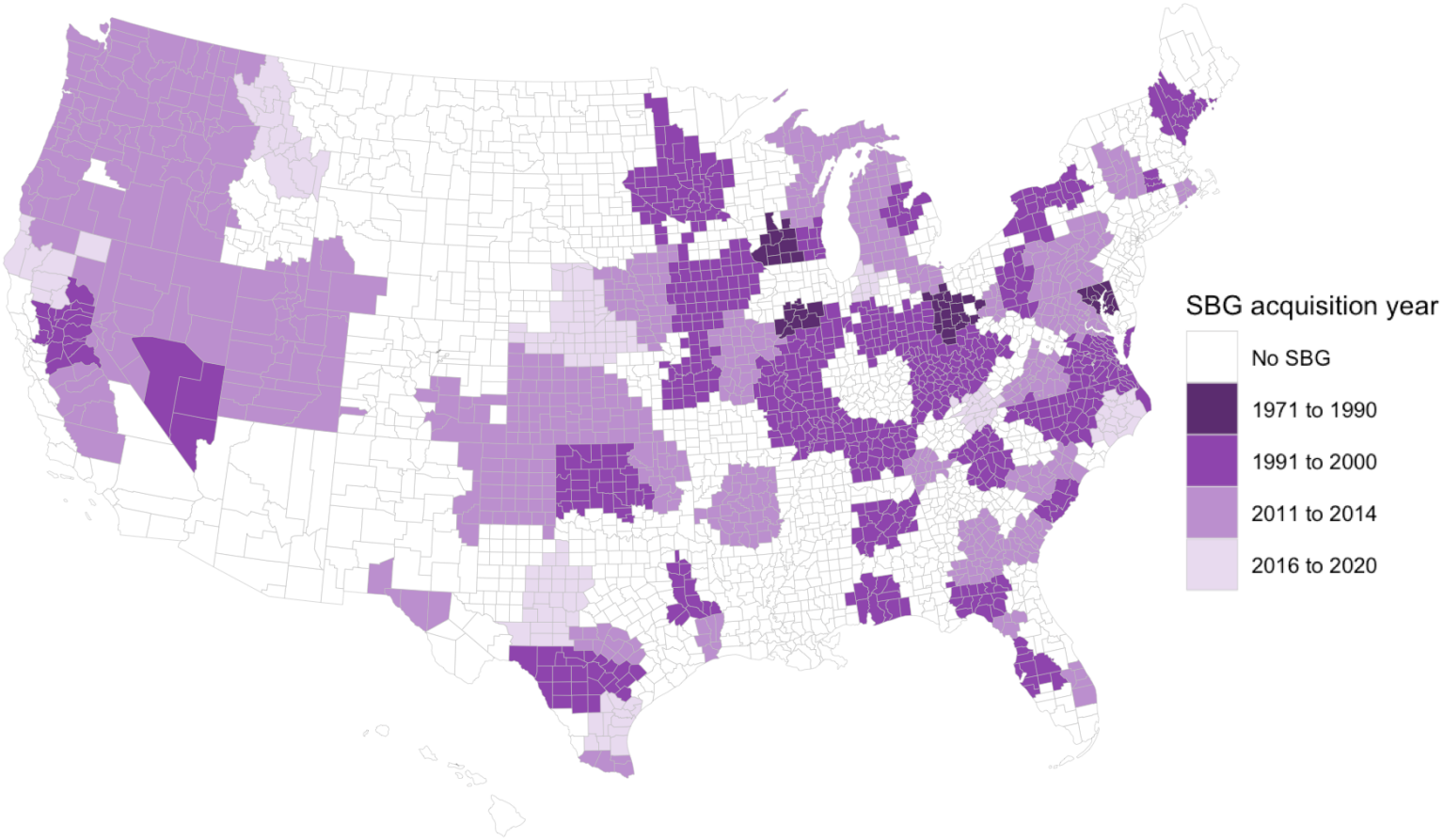
	(1)	(2)	(3)	(4)	(5)
Dependent variable:	Voted for Republican				
	presidential candidate		congressional candidate		
Number of years exposed to Sinclair bias	0.0036**		0.0046***		
	(0.0014)		(0.0016)		
Sinclair bias × 2014					0.0128
					(0.0195)
Sinclair bias × 2016		0.0379***		0.0377***	0.0506**
		(.0092)		(.0143)	(0.0216)
Sinclair bias × 2018					0.0328*
					(0.0174)
Sinclair bias × 2020		0.0387***		0.0270**	0.0397**
		(0.0105)		(0.0112)	(0.0177)
Observations	175,565	70,390	131,289	131,289	131,289
R-squared	0.271	0.263	0.257	0.257	0.258
Clusters by DMA	✓	✓	✓	✓	✓
Clusters by Congressional District			✓	✓	✓
DMA and Year Fixed Effects	✓	✓	✓	✓	✓
Pre-treatment vote share prediction	✓	✓	✓	✓	✓
Individual controls	✓	✓	✓	✓	✓
County controls	✓	✓	✓	✓	✓
Mean of dependent var.	0.449	0.442	0.455	0.455	0.455
SD of dependent var.	0.497	0.497	0.498	0.498	0.498

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. The table is the results of the estimation of Equation2. The sample is all respondents that are also U.S. citizens. In columns (1) and (3), the sample years are 2006 to 2020. In columns (2) and (4), the sample years are all years with a a presidential election. For column (5) the sample years are all years with a congressional election. All results are weighted to reflect the probability of sampling. Controls include a prediction of the differential trend of the Republican two-party vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and DMA and year fixed effects. Individual level controls are: age, age^2; a dummy for female, Hispanic origin, being in a union, having no health insurance, having a child, and not having a relation to the military; and dummy categories for marital status, race, educational attainment, income group, and religious group. Standard errors are clustered at the DMA level. When the outcome is for congressional elections, I also cluster by congressional district. The treatment is the post 2004 change in Sinclair content in a county served by DMA with at least one Sinclair owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) before the year 2004 and through the year 2020. The control group is respondents in all counties which are never exposed to Sinclair biased programming.

Appendix B. Additional background

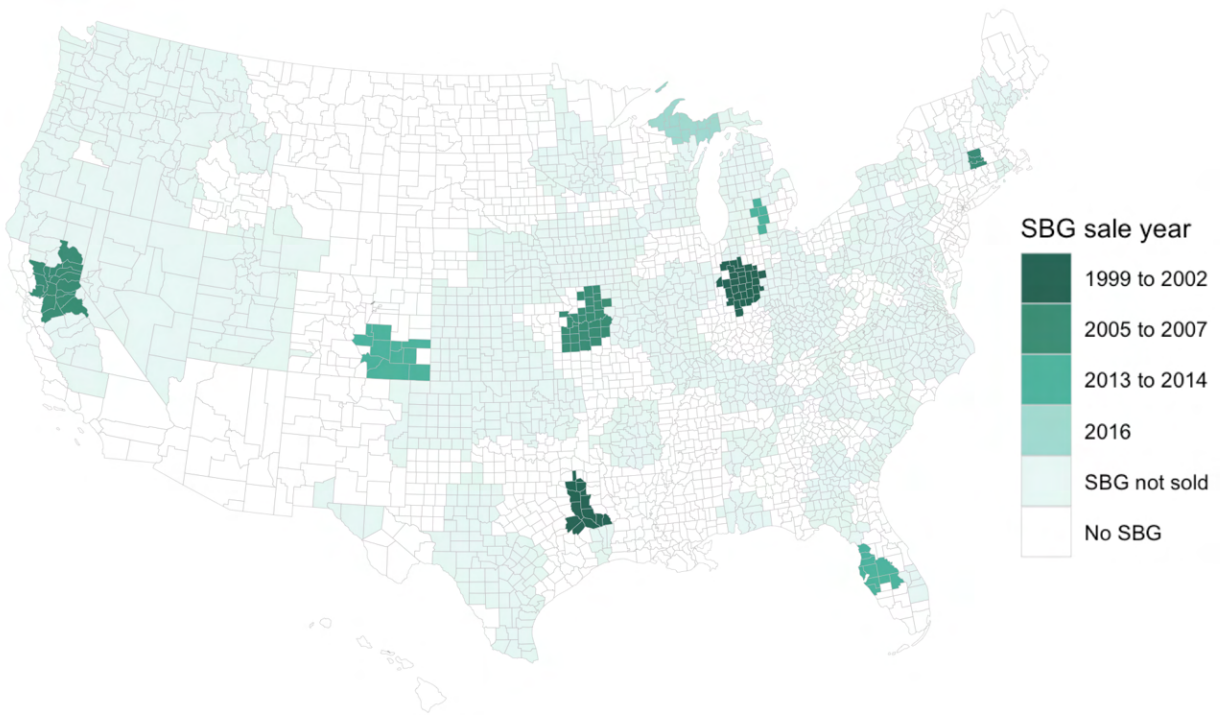
B.1. Background on the Sinclair Broadcast Group

Fig. A1. Sinclair Broadcast Group Expansion, 1971 - 2020



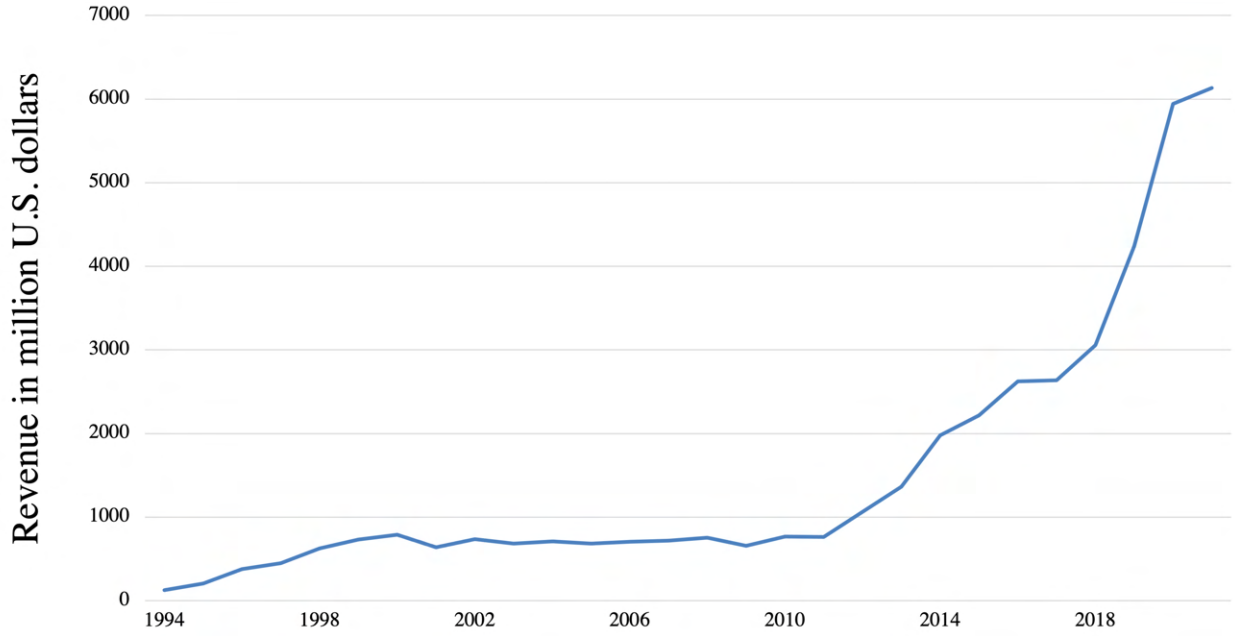
Note: Expansion is defined by entrance into a Designated Market Area, through the ownership/operation of a local TV station. Grey lines represent county boundaries. Alaska is excluded from the analysis and does not appear on the map.

Fig. A2. Sinclair Broadcast Group Exits, 1971 - 2020



Note: Exit is defined as no longer owning or operating a local TV station in the Designated Market Area. Grey lines represent county boundaries. Alaska is excluded from the analysis and does not appear on the map.

Fig. A3. Sinclair Broadcast Group: annual revenue 1994 to 2021, in millions



Source: Statista, Sinclair Annual Reports.

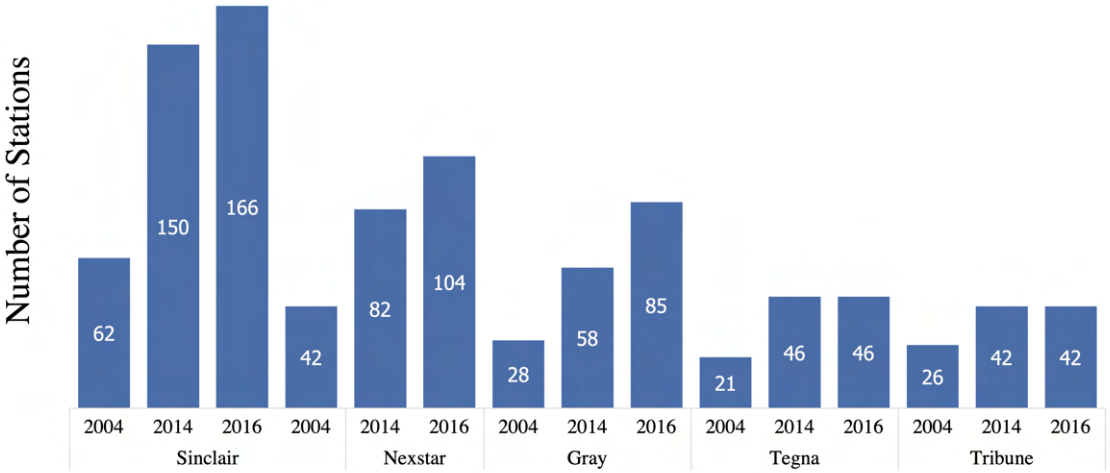
Table A1: Examples of Sinclair's pro-conservative bias

	Year	Description
"News Central" newscast	2002 - 2006	National news reports created at their Maryland headquarters and set to their stations to broadcast. Notably, the newscasts included a one-minute daily commentary called "The Point" by Mark Hyman, which gained notoriety for its controversial claims and rhetoric, such as calling the French "cheese-eating surrender monkeys."
Intended primetime airing of "Stolen Hour" partisan documentary	2004	Just prior to the 2004 presidential election, Sinclair planned to air the debunked anti John Kerry (the Democratic candidate) documentary during primetime on its stations. Critics were mounted a successful boycott of Sinclair's advertisers such that the company ultimately aired a shortened (and ad-free) version. Sinclair fired its Washington DC news bureau chief after he publicly resisted to the airing of the documentary.
Suppression of an episode of ABC's Nightline	2004	At a time of increasing criticism to Bush's Iraq War, Sinclair ordered its ABC affiliates to not run an episode of Nightline, a national prime time ABC news program, where the host read the names of every American soldier killed in the war up to that point. John McCain, a prominent Republican senator and Vietnam war veteran, called Sinclair's decision "a gross disservice to the public, and to the men and women of the United States Armed Forces" in a letter to Sinclair CEO David Smith.
Political commentary by Armstrong Williams	2005; 2016	Sinclair aired political commentary by Williams, although he was on the government payroll to promote Bush's education policies. The FCC fined the company $36,000 for failing to disclose this to viewers. Williams continued to provide political commentary while also the campaign advisor to Ben Carson who was a candidate for the Republican party nomination in the 2016 election. At the same time, Sinclair stations ran flattering news reports about Carson.
Airing of a false political attack ad against the 2008 Democratic presidential candidate, Barrack Obama	2008	Sinclair affiliates were the only to air a political ad linking Obama to the militant and radical founder of the Weather Underground, Bill Ayers. Obama responded to the ad by calling Ayers "somebody who engaged in detestable acts 40 years ago, when I was 8 years old." Both Fox News Channel and CNN declined to air the ad, due to legal concerns.
Corporate sponsor attire for news staff	2013	Sinclair issued jackets prominently featuring the logo of "L.L. Bean" a Maine-based outdoor clothing brand whose owners are large Republican donors to their Seattle based news staff. Both viewers and reporters complained about the obvious commercialization of their news.
"Terrorism Alert Desk"	2015	Daily segment of world terrorism-related news
Exclusive deal with the 2016 Trump presidential campaign	2016	Jarod Kushner (Trump's son in law) made a deal with Sinclair to give their reporters exclusive and additional coverage to the Trump campaign, in exchange for airing Trump's interviews without additional commentary. Smith, the company's CEO, admits telling the Trump campaign: "We're here to deliver your message." In the run-up to the 2016 presidential election, Sinclair stations aired 15 exclusive interviews with the Republican candidate, but none with the Democratic candidate.
Boris Epshteyn's "must run" political commentary	2017	Tri-weekly political commentaries that Sinclair newsrooms across the country are required to weave into their news shows. Previous clips praised President Trumps' trade policies and critiqued Democrats and other news outlets for being favorable to the Trump administration. Epshteyn, the current chief political analyst at Sinclair, is a former Trump campaign spokesperson and member of he White House press office.

Note: Table includes a non-exhaustive list of examples which demonstrate Sinclair's pro-conservative bias. Examples were taken from news articles from Bloomberg News, the Guardian, Salon, the New York Times, and the Baltimore Sun.

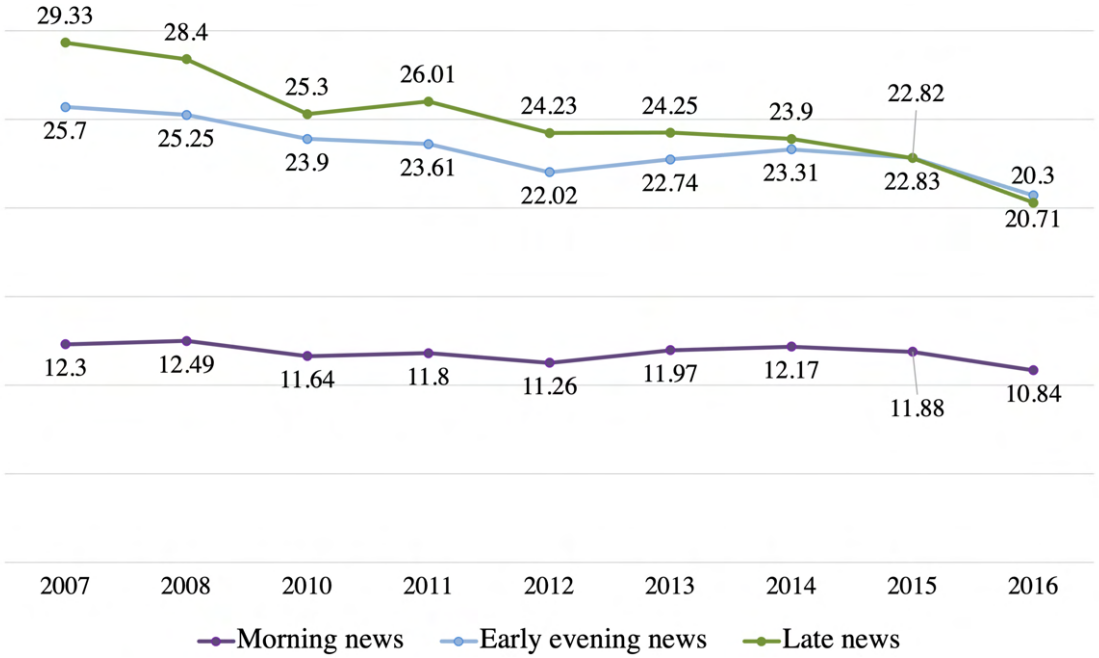
B.2. Background on the local TV news industry

Fig. A4. U.S. local TV stations owned by selected top companies, 2004-2016



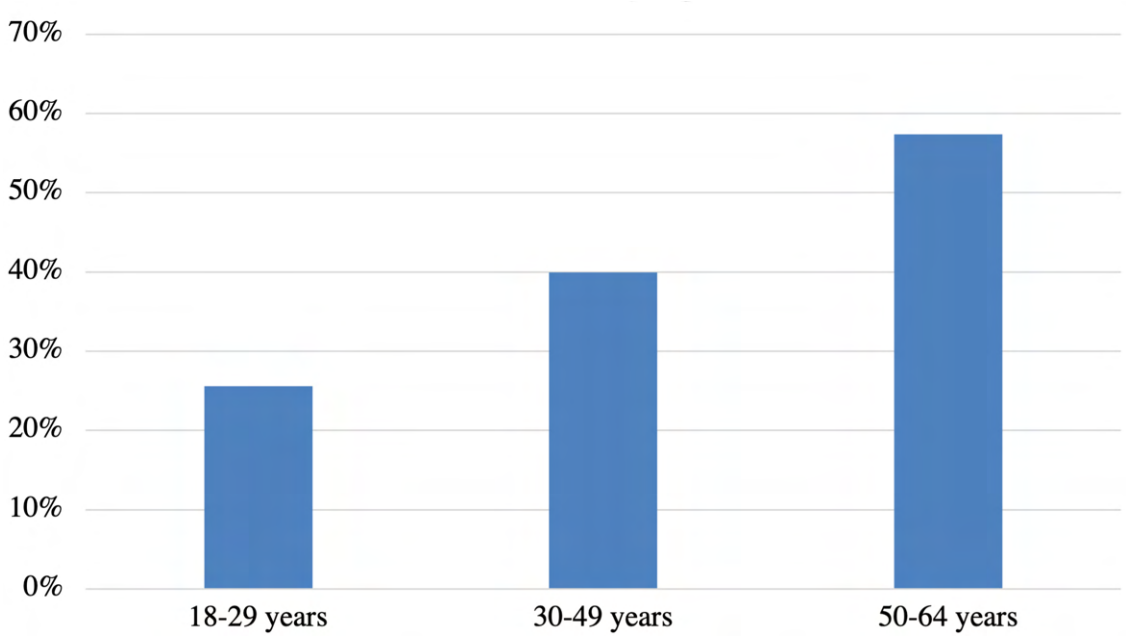
Note: Including stations that are reported in each company's SEC filing as being owned, operated or provided with programming and/or sales and other services. Low-power and satellite stations are excluded. These five companies own 37 % of all full power stations in the U.S. Source: Pew Research Center.

Fig. A5. U.S. local TV: news viewer count 2007-2016, by time slot (in millions)



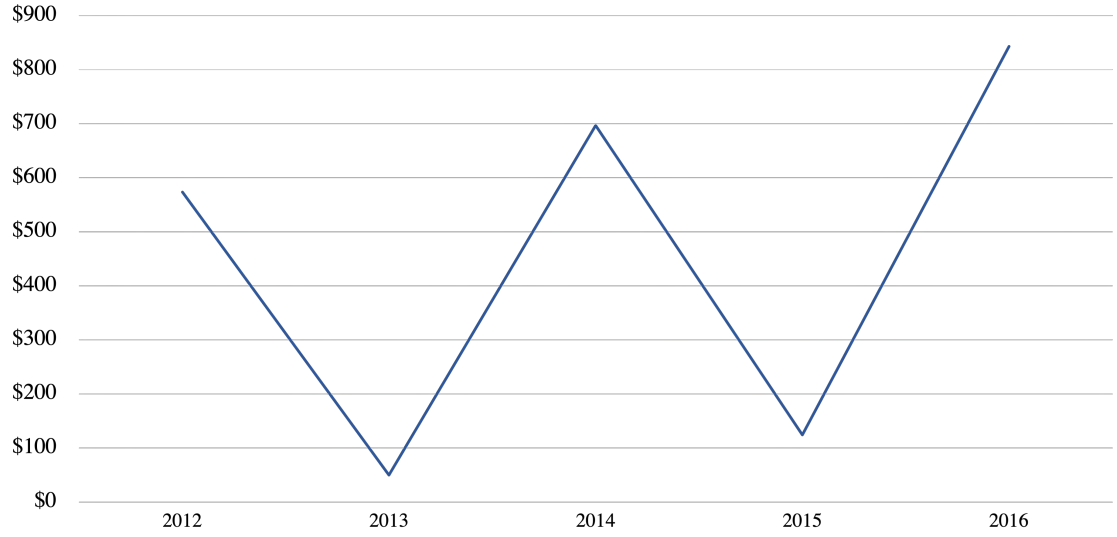
Note: Numbers represent ABC, CBS, Fox, and NBC affiliates. March 2009 rating not comparable to the traditional winter period, February, and so, 2009 figures are not included. Morning News: 5 to 7 a.m. Eastern Time or equivalent. Early Evening News: 5 to 7 p.m. Eastern Time or equivalent. Late Night News: 11 to 11:30 p.m. Eastern Time or equivalent. Figures have been rounded. Source: Pew Research Center.

Fig. A6. Viewers of local evening news shows on TV in the U.S., by age group



Note: Level of frequency with which adults get news from local television in the United States as of May 2018. Source: Gallup News Service.

Fig. A7. Total political advertising revenue for seven publicly held local TV station companies (in U.S. dollars, millions)



Note: Political advertising revenues include both local and national political advertising. Companies included here: Tribune, Nexstar, Sinclair, Tegna, Gray, Media General and Scripps. For 2016, Media General political advertising numbers include all revenue for the nine months ending Sept. 30, 2016, because the company has not released a 10K SEC filing for the full year due to its potential merger with Nexstar. Source: Statista, Individual company SEC filings for the full year ending on Dec. 31.

Appendix C. Extended results on the Sinclair expansion treatment

C.1. Data and methodology

As mentioned in the main text, Sinclair Broadcast Group underwent a rapid expansion and entered 54 more media markets after 2004, i.e. after the change in content to favor the Republican party. The spatial distribution of these counties is presented in Figure A1. As before, there is no obvious spatial pattern except that none of the acquisitions are near major metropolitan areas, with the exception of the cities of Seattle and Portland in the Pacific North West.

Yet, the counties in these DMAs underwent a separate treatment that I treat distinctly in this Appendix. These set of counties underwent both a change in ownership, given that Sinclair now owns the station, and a change in the content of their local news, given the conservative slant to Sinclair news programming. Thus, it is less clean-cut than the first experiment and selection bias in consumption may be an issue, as in cable news. Notably, this could also lead to potential problems of endogeneity arising from Sinclair's acquisition strategy, which was to go into small and medium sized markets (in terms of the number of TV households) and in swing states, where the political media landscape is already saturated around elections. Furthermore, one of the lessons of the main analysis is that persuasion takes time: it took at least four presidential election cycles for the vote share increase to become robust. With the expansion treatment group, I am only able to observe three election cycles at most. Thus, given these differences, one would hypothesize a non-effect of Sinclair bias for these later acquisitions.

Figure A2 presents the mean difference in the Republican vote share between the expansion treatment group and a set of control counties never exposed to Sinclair bias on the left hand side. The left-hand side shows the share of counties treated, as Sinclair added on stations after 2004. By 2020, Sinclair had acquired stations that covered almost 40% of counties in the U.S. since the introduction of biased content. On average, counties in DMAs where Sinclair acquired stations after 2004 had a Republican two party vote share that was between 2.5% and 3.5% points higher than the control group. Importantly, there is a 1$ increase in this vote share in the pre-period, from 1992 to 1996, which calls into question the assumption of parallel trends critical for arguing that the effect I will estimate is well-identified. Other than this increase early on in the pre-period, the trend is relatively flat, and even slightly decreasing.

To investigate these dynamics further, I estimate an event study where the "event" is

now the first presidential election year after Sinclair's acquisition of a station in the market. I estimate an equation of the form, which takes into account the staggered introduction of treatment:

$$RS_{d,t} = \delta_{-3}D^{-3}_{d,t} + \delta_{-2}D^{-2}_{d,t} + \delta_0 D^0_{d,t} + \delta_1 D^1_{d,t} + \delta_2 D^2_{d,t} + \omega P_{d,t} + \sigma^{'}\mathbf{X}_{d,t} + \phi_d + \tau_t + \epsilon_{i,d,t} \quad (1)$$

As before, $Y_{d,t}$ is the outcome of interest (the Republican two-party vote share for president). $D^e_{d,t}$ is the dummy for a Sinclair station in year t, where e denotes the election year. I exclude the year before the acquisition. All estimates are referenced to this base year. Then, I include a series of controls: $P_{d,t}$ is prediction of the differential trend of the outcome in pre-period including county controls; $\mathbf{X}_{d,t}$ is a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians. ϕ_d are county fixed effect and τ_t are year fixed effects. $\epsilon_{d,t}$ is the heteroskedasticity-robust error term clustered at the level of treatment, the DMA. Here, $\delta_{0\ \mathbf{to}\ 2}$ are the coefficients of interest of the average treatment effect of exposure to Sinclair bias given the change in local news content and station ownership within a county in relative years 0 to 2..

C.2. Results and discussion

As before, I consider balance tests that check for within county changes to covariates that are correlated with treatment timing, and thus could potentially confound the estimate. Table A1 presents these results. Reassuringly, the majority of covariates are not significant. Yet, there are two potentially confounding changes in the covariates related with treatment: the share of people that completed high school and the share of Protestants among the religious declined around the same time that these markets were introduced to biased Sinclair content through the acquisition of these stations by Sinclair. It is possible to control for these variables and so,control for the confouding factor. However, given that these two demographic groups are also correlated with a greater probability to watch the local news, there is some worry about associated changes to unobservables that are not possible to control for and that may be endogenous.

Keeping this in mind, I now turn to estimating Equation 1 using the main outcome variable: the Republican two party vote share, and as a quick robustness check, the alternative definition: the Republican vote share among registered voters. Figure A3 plots the coefficients from these estimations, which are also presented in Table A2. For the group of counties exposed to Sinclair bias after 2004, due to Sinclair acquiring a station in the

market, there is no effect of exposure on the Republican presidential two party vote share. The coefficients are insignificant and close to zero. There is a slight downward trend, but it is insignificant and the standard errors are quite large, most likely due to the drop in sample size of the treated group, since this relative year is only estimated for the set of counties where Sinclair acquired a station between 2004 and 2012. Furthermore, when considering the alternative definition of the presidential vote share: the Republican vote share among registered voters, I again find a non-significant effect, but this time there is a slight upward trend, the opposite of the Republican two party vote share, and the standard errors are once again very large.

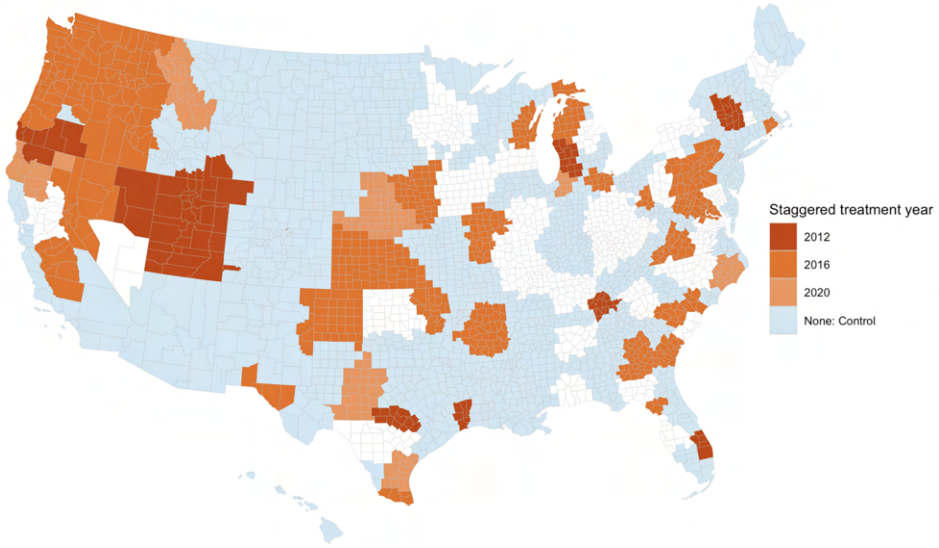
Given that now our study design is the staggered introduction of treatment, there is now variation in treatment timing and so, the traditional two way fixed effect estimator may be biased (de Chaisemartin and D'Haultfoeuille (2020), Goodman-Bacon (2018), Abraham and Sun (2018)). Thus, I check robustness using the estimator presented in de Chaisemartin and D'Haultfoeuille (2020). The coefficients from this estimation are presented in Figure A4, and the results are very similar to the results of the event studyy. Overall, this leads me to conclude that there is no significant relationship of the exposure to Sinclair bias for the expansion treatment group on the presidential vote. The estimates for each relative year are either close to zero or not consistent across definitions of the vote share.

Lastly, in Table A3 present descriptive statistics comparing this group to the main treatment group, which experienced only the change in content to explore possible explanations into the different results I observe between the two groups. I consider a set of market characteristics, such as size and initial viewership. As the anecdotal evidence suggested, after 2004, Sinclair acquired stations in smaller markets, with regard to the potential audience, when compared to markets where they were already present before 2004. Within market, these stations that Sinclair acquired after 2004 have also significantly less viewership within the market: Sinclair stations reached about 54% of households, compared to over 60% for the group where content changed in 2004. Furthermore, it could also be that these markets where Sinclair expanded to after 2004 were saturated with political content: 13% of counties are in swing states, where the news media is known to be especially saturated with political content around elections. Lastly, another plausible explanation is that I am not able to adequately isolate the effect due to a lack of a clean experiment. Given that viewers experienced both a change in content and the change in ownership, this could have contributed to biases such as channel switching. Viewers in these markets where Sinclair acquired stations after 2004 were exposed to a stronger tone and frequency of Sinclair biased rhetoric than those viewers in markets where Sinclair operated stations before 2004 who experienced a much more gradual change, and likely had developed a habit of watching the Sinclair station.

Indeed, Martin and Mcrain (2019) document causal evidence of a drop in viewership for stations after Sinclair acquisition. Thus, I argue that these factors, alone or in combination, contribute to a lack of adequate exposure to Sinclair bias, such that I am not able to isolate any effect.

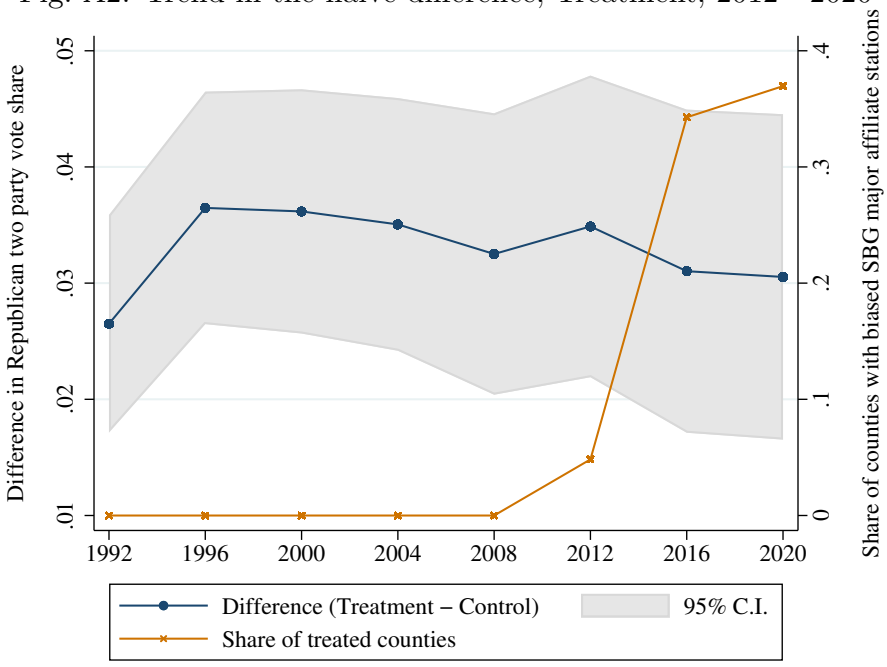
C.3. Tables and Figures

Fig. A1. Sinclair Broadcast Group Expansion, Treatment 2012 - 2020



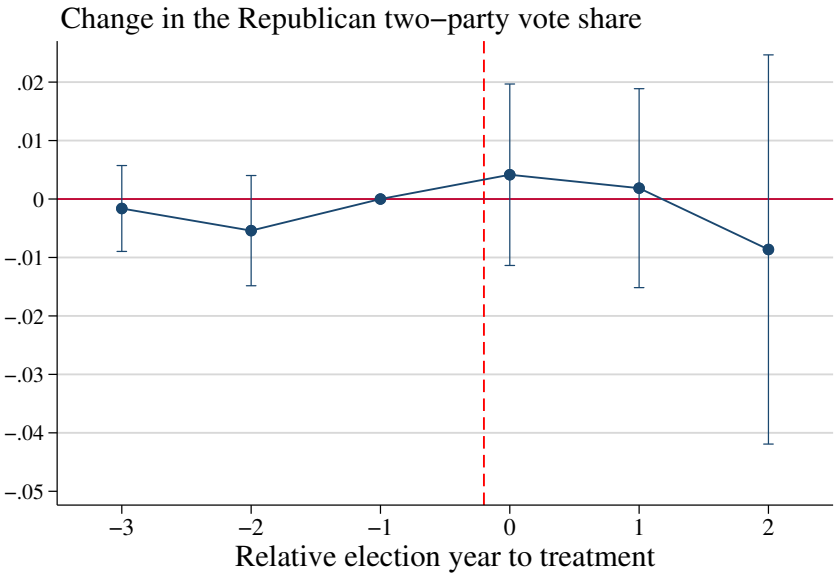
Note: The map shows DMAs of Sinclair acquisitions after they develop a conservative bias in year 2004. The treatment year refers to the first election year after Sinclair acquired a station in the market. For example, 2012 refers to the DMAs where Sinclair entered for the first time prior ot the 2012 election. Grey lines represent county boundaries. Alaska is excluded from the analysis and does not appear on the map.

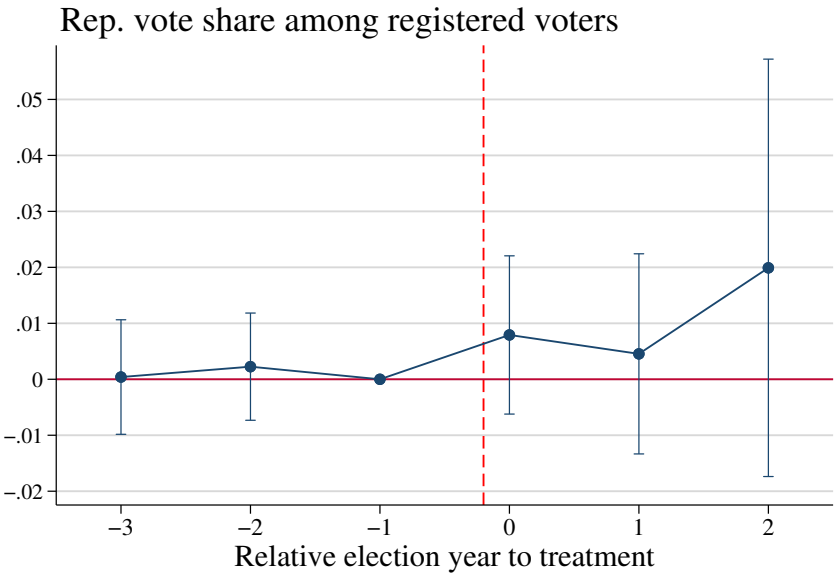
Fig. A2. Trend in the naive difference, Treatment, 2012 - 2020



Note: The treatment group is defined as a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) acquired by Sinclair after 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

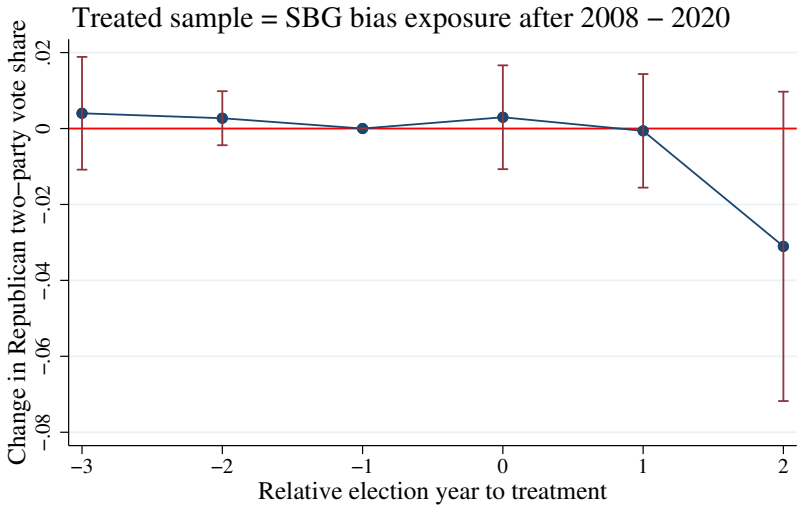
Fig. A3. Within county change in Presidential electoral outcomes for the group of counties acquired by Sinclair post 2004





Note: The figure plots the coefficients and 90% confidence intervals from the estimation of Equation1. Controls include a prediction of the differential trend of vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and county and year fixed effects. Standard errors are clustered at the DMA level. The red dotted line indicates the treatment: the acquisition by Sinclair of a station in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) after the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

Fig. A4. Dynamic effect of the within county change in the Republican two party vote share for the group of counties acquired by Sinclair post 2004



Note: The figure plots the estimated treatment effects and placebos, and their 95% confidence intervals constructed using a normal approximation using the estimator of de Chaisemartin and D'Haultfoeuille (2020). Controls include a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and county and year fixed effects. Standard errors are clustered at the DMA level. The red dotted line indicates the treatment: the post 2004 change in Sinclair content in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) after the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

Table A1: Balance test of Sinclair expansion: within-county demographic changes correlated with the Sinclair acquisition of a station in the market after 2004

Dependent variable:	Dummy for Sinclair bias availability		
	COEF	SE	N
Population vars.:			
Population density (sq km)	-0.001	(0.006)	19,048
Total population (ln)	-0.001	(0.022)	19,048
Population age 65 plus (ln)	-0.005	(0.040)	19,045
Voting age (age 20 plus) population (ln)	0.000	(0.024)	19,045
Total female population (ln)	-0.002	(0.023)	19,048
Total black population (ln)	0.095	(0.092)	18,401
Total white population (ln)	0.007	(0.024)	19,048
Total other population (ln)	-0.035	(0.057)	18,724
Total asian population (ln)	-0.022	(0.036)	18,518
Total hispanic population (ln)	-0.028	(0.056)	18,982
Socio-demographic vars.:			
People that completed high school (%)	-0.009*	(0.005)	19,048
People that completed college (%)	-0.001	(0.003)	19,048
Unemployment rate	-0.001	(0.001)	19,048
Log of household income	-0.005	(0.008)	19,044
Poverty rate	0.001	(0.002)	19,040
Religion vars.:			
Log of total religious adherents	0.010	(0.027)	18,987
Log of adherents of major religions	0.155	(0.160)	18,976
Share of Christians among major religions	-0.047	(0.044)	19,048
Share of Protestants among major religions	-0.014*	(0.007)	19,048
Share of Jewish among major religions	0.001	(0.000)	19,048

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. Standard errors in parentheses. SBG major affiliate (the treatment group) is defined as a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) acquired after the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming. The total number of counties per year is 2,381.

Table A2: Change in the Republican presidential vote share, Sinclair post-bias expansion group

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	Republican two party vote share			Republican registered voters share		
Sinclair bias × RY -3	0.0020	-0.0048	-0.0016	0.0009	0.0009	0.0004
	(0.0046)	(0.0042)	(0.0044)	(0.0060)	(0.0060)	(0.0062)
Sinclair bias × RY -2	0.0001	-0.0115*	-0.0054	0.0031	0.0031	0.0023
	(0.0090)	(0.0059)	(0.0057)	(0.0059)	(0.0059)	(0.0058)
Sinclair bias × RY -1	0	0	0	0	0	0
	-	-	-	-	-	-
Sinclair bias × RY 0	0.0033	0.0020	0.0042	0.0098	0.0098	0.0079
	(0.0110)	(0.0108)	(0.0094)	(0.0096)	(0.0096)	(0.0085)
Sinclair bias × RY 1	-0.0013	-0.0033	0.0019	0.0045	0.0045	0.0045
	(0.0133)	(0.0126)	(0.0103)	(0.0120)	(0.0120)	(0.0108)
Sinclair bias × RY 2	-0.0201	-0.0232	-0.0086	0.0200	0.0200	0.0199
	(0.0236)	(0.0227)	(0.0201)	(0.0252)	(0.0252)	(0.0225)
Observations	19,048	19,048	19,041	17,338	17,338	17,332
R-squared	0.856	0.857	0.880	0.840	0.840	0.855
Clusters by DMA	✓	✓	✓	✓	✓	✓
County and Year Fixed Effects	✓	✓	✓	✓	✓	✓
Pre-treatment outcome trend		✓	✓		✓	✓
Demographic Controls			✓			✓
Mean of dependent var.	0.595	0.595	0.595	0.389	0.389	0.389
SD of dependent var.	0.153	0.153	0.153	0.122	0.122	0.121

Note: *** p < 0.01, ** p < 0.05, * p < 0.10. Controls include a prediction of the differential trend of vote share in pre-period including county controls; a vector of county controls - population density; the log of white, female and voting age (over 20+) population; share of high school and college educated; log of household income; unemployment rate; share of christians, and county and year fixed effects. Standard errors are clustered at the DMA level. The red dotted line indicates the treatment: the acquisition by Sinclair of a station in a county served by DMA with at least one SBG owned or operated station with a major affiliate (ABC, CBS, CW, FOX, NBC, WB) after the year 2004 and through the year 2020. The control group are all counties which are never exposed to Sinclair biased programming.

Table A3: Selected characteristics by SBG treatment group

	Mean		SBG: Diff(Δ Content - Expansion)		
	SBG Δ Content	SBG Expansion	COEF	SE	N
Market characteristics:					
DMA index in 2016	56.667	102.000	-45.333***	3.246	87
Number of TV hhs in 000s in 2016	623.512	383.622	239.889***	27.181	87
Share of station viewership among DMA TV hhs in 2000	.616	.543	.0726***	.0290	158
Share of counties in swing states	0.108	0.131	-0.023***	0.004	1581

Note: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. The table presents the mean and mean differences between the two treatment types: (1) the change in content from 2004 and (2) expansion, which involves the change in content in 2004 and the change in viewership.