SOMETHING BIASED THIS WAY COMES: THE EFFECT OF MEDIA ON HOUSE ELECTIONS IN THE US

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Abstract. Using the staggered expansion of Sinclair Broadcast Group (SBG), a conservative leaning TV station operator, from 2012 to 2017, we study how introducing a biased TV station operator affects electoral outcomes. We use the failed acquisition by SBG of a major station operator to control for the selection effect of market entry. Our findings reveal that SBG acquisition increases the likelihood of a Republican candidate winning House elections, contrasting with a negative impact on Republican performance in presidential elections. Importantly, we document a persistent ideological shift to more conservatism for the winner in House elections, which strengthens over time. When decomposing the ideological effect, we find a shift to relatively more conservatism for *both* Republicans and Democratic candidates in the House elections, even though the pool of Democratic candidates in the primaries becomes more liberal on average. Additionally, we show that Republican candidates receive increased donations in SBG-acquired areas. This study underscores the significance of analyzing electoral settings beyond national elections where not only voters' preferences but also candidates' strategies and ideology are influenced, highlighting the potential impact of biased media on electoral outcomes and the importance of media ownership regulations.

JEL Codes: D72, P16, M38, P12

Keywords: Election, Voting, Ideology, Media

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1. Introduction

In this paper, we study Sinclair Broadcast Group (SBG), the largest television station operator in the US, which has a documented bias of pushing conservative national politics oriented content in the stations it runs (Martin and McCrain, 2019). We use the pan-American distribution of stations Sinclair acquired between 2012 and 2017 in a quasi-experimental investigation to compare electoral outcomes between counties in acquired stations and those without Sinclair's presence with a rich set of controls. We document several interesting facts. First, we find that the effect on electoral outcomes varies depending on the election type. While in presidential elections, SBG entry hurts the probability of victory for the Republican party, this is not the case in local (House of Representatives) elections. In the latter, SBG-acquired stations leads to an increase in the probability of the Republican candidate winning the House election. Second, we document that there is a highly significant ideological shift of winners in the local elections towards being more conservative. This is robust to measuring ideology either by congressional voting (DW Nominate) or the source of campaign financing (Bonica score). Third, we find an increase in general funding for the Republican candidate after Sinclair's entry. Concretely, a Republican candidate sees an increase in total funding by 0.35 standard deviations if their whole district was affected, corresponding to about 2 million constant 2010 dollars. In general, our results show a significant effect of media slant on the candidates' ideological leaning and political funding, apart from an effect on winning probability.

When investigating the underlying mechanism at play, we find evidence that the ideology of candidates who win their primaries shifts to becoming relatively more conservative after Sinclair entry. This result applies to both Republican *and* Democratic candidates, with the effect on Democratic candidates being more long-lived. Therefore, the shift in ideology of winners is driven by a combination of an increased likelihood of Republican party victories *and* a shift in ideology of the two-party nominees contesting the House elections. This is despite a shift to more liberal ideological positioning in the pool of Democratic candidates who contest elections for the primaries through the election cycle, suggesting that the Democratic candidates who win their primaries are more conservative despite a more liberal pool of contenders on average. Evidence also suggests that more liberal candidates in the pool of primary contenders received more donations, suggesting that there was an attempt from the party base to support more liberal election candidates, which did not succeed. Ultimately, we find a reduction in the Democratic vote share in the House elections, suggesting that the election of relatively more conservative candidates from the primaries leads to a drop-off of votes from the broader Democratic base. On the Republican side, we find a smaller reduction in the Republican vote share, arguably driven by a symmetric effect. We find that the Republican pool of primaries contenders becomes more conservative after SBG entry.

However, the Republican candidate who is chosen from the primary is, in the long run, no more conservative than control locations. The reduction in Republican shares could then be driven because of a drop-off of very conservative voters. Ultimately, the reduction in Republican vote shares is less than that of the Democratic vote shares, leading to an increase in probability of Republican candidates winning the House elections.

The primary focus of our investigation is to examine the impact of the entry of a conservative-biased news outlet on the electoral performance of candidates competing in various locations. Our approach involves comparing electoral outcomes before and after the acquisition of a TV station by SBG (the news outlet) with those in areas where SBG did not operate. However, several challenges arise when implementing this strategy. Firstly, imperfect overlap exists between electoral districts (representing electoral outcomes) and counties (the unit where SBG's operation is based), potentially confounding the analysis. Moreover, electoral districts were inconsistent in our sixteen-year period of interest (2004-2020), and their territorial arrangement changed over time. To address this, we adopt a unit of analysis at the intersection of county and congressional district levels and translate this arrangement to the base 2010 electoral district distribution, enabling a comparison of cells where SBG operates entirely with those where it does not. Second, SBG's expansion occurred gradually across different areas, presenting complexities in identifying causal effects in the presence of heterogeneous effects (Abraham and Sun, 2018; Callaway and Sant'Anna, 2021; de Chaisemartin and d'Haultfoeuille, 2021; Roth et al., 2022). To mitigate this, we employ an estimator that captures cohort-specific average treatment effects, correcting for heterogeneity in treatment effects across adoption cohorts. Finally, significant heterogeneity exists in areas where SBG did not operate, potentially affecting comparability. To address this, we restrict our comparison groups to locations where SBG was interested in expanding or would operate in the future, ensuring comparability within each cohort.

There is a rich literature exploring the causes and effects of media slant.[1] One strand proposes a demand side story: consumers demand bias according to their preferences and the market responds.[2] Another strand explores the supply side of the market, through channels such as possible biases on the side of the owners or journalists.[3] Answering whether supply of media slant can change agents' behavior is important for several reasons. Firstly, there is widespread public belief that excessive media power harms the health of a democracy. This

[1]See surveys about the general effects of media (DellaVigna and La Ferrara, 2015), their effects on social capital including political participation (Campante, Durante, and Tesei, 2022), the effects on persuasion including voters and donors (DellaVigna and Gentzkow, 2010), and more recently the political effects of social media and the internet (Zhuravskaya, Petrova, and Enikolopov, 2020).

[2]See Gentzkow and Shapiro (2010) that look at local newspapers catering reader's biased preferences, and Mullainathan and Shleifer (2005) that explore cognitive biases that lead to demand for bias.

[3]For example, a recent paper by Martin and Yurukoglu (2017) constructs a structural model that looks at the effect of Fox News on voting using channel numbers as an instrument.

is based on the media's role as the "Fourth Estate," providing information for citizens to evaluate their governments. Secondly, traditional methods of measuring market power do not consider the effects of media acquisitions or mergers on supply of media slant, because it is still not clear if there are welfare losses for consumers from change in media slant supply.[4] Our paper provides important evidence that media slant can have a significant impact on real-world outcomes, namely election results, not only limited to the votes gathered by one party, but also through the ideology of election winners who compete in areas under the influence of biased sources of information.

These questions are also important from a pure business perspective. A demand-side story of bias has different implications for profit-maximizing owners of media companies than supply-side stories. Anecdotal evidence suggests that some firms are not merely looking to maximize profits and instead want to offer information with a slant. Answering whether and how this slant can be maximized is also an important economic question (assuming either intrinsic value for the owner or simply as the best response to some game). Although we do not identify what the optimal level of slant is, we show that beyond the considerations of changes in the party of the winners, there is also the possibility of a change in the ideology of the winners and, therefore, other dimensions that can influence the owners' decisions.

Our results relate to several papers that analyze the effects of exposure to conservative news sources using causal inference assessing the effect of this slant on voting outcomes. DellaVigna and Kaplan (2007) find that the introduction of Fox News led to more voting for the Republican party as a combination of new voters and previously Democratic party voting population. They also find that the effect is a shift in ideological bent generally rather than a bias towards certain candidates[5]. Martin and Yurukoglu (2017) also investigated the effect of Fox News where the authors use a clever instrument of channel positions providing a plausibly exogenous exposure to Fox News and using that to measure the influence of Fox News over time. We complement this literature by exploring the effects of slant in local TV stations, going beyond cable channels. Our paper explores local TV networks that are also re-transmitted on cable and satellite. Therefore, arguably, we are looking at the impact of exposure across platforms while measuring similar outcomes variables of interest. Our focus on local news is important because local channels are an important source of information in the United States. We show that this has important differences when assessing the effects of TV slant on voting decisions.

With respect to Sinclair Broadcast Group, Miho (2023) studies the effect of Sinclair Broadcast Group on election outcomes in elections in the years 2004 and beyond, arguing that the

[4]Some models try to answer that question. See Besley and Prat (2006) for a simple model arguing for media plurality. See also Prat (2018) for a recent approach to measuring media power

[5]The authors obtain a panel of TV watching audience from Scarborough research and use the staggered introduction of Fox News through cable in over 9,000 towns in 28 states in the US as a natural experiment (specifically a diff-in-diff).

firm chose to change its ideological positioning by the run-up to the 2004 elections, and then comparing the effect of this change in ideological positioning on voting outcomes in counties that were already having Sinclair ownership to those that didn't. As the author points out, this avoids the endogeneity problem of selection of counties where Sinclair chooses to enter. The drawback of this strategy is that the shock is not clean and well measured since the actual content of news shows is not evaluated for its ideological content before and after 2004. We differ in two important respects to this paper. First, our identification strategy studies, for each cohort, stations acquired by Sinclair in the period between 2012 and 2017 with a set of stations that Sinclair will acquire in the future, or wanted to acquire but failed to do so when their Tribune merger failed. Therefore, we mitigate concerns with respect to selection of markets where Sinclair enters, and study the effect of a clean shock to counties that experienced Sinclair entry. Second, our focus is on elections and changes in ideological positioning for winners in the elections post Sinclair entry. We find that Sinclair entry leads to winners of House elections being more conservative in their ideological positioning. We also document changes in election funding of conservative candidates post Sinclair entry. We see our results as complementary to the evidence in Miho (2023).

Importantly, our design differs from the above studies by covering a much larger population, more states, and counties in a panel set-up (multiple counties across time) in a difference in difference type of approach. We include recent advancements in event study designs that improve estimation, taking into account the staggered entry of SBG in multiple periods. In addition, we focus specifically on House elections which are more local elections. We show that the effects vary by the nature of the election; the effect that SBG has on electoral outcomes are different in local elections compared to presidential elections. Ultimately, the differential effect on voting patterns along with our findings on ideological shifts in contesting candidates suggest a story where local news channels affect the preferences of local voters, and these preferences lead to the choice of more conservative candidates in local elections.

Recent literature evaluates the effect of SBG expansion on other outcomes of interest. In particular Martin and McCrain (2019), as mentioned before, find a supply-side slant story. SBG substitutes for national politics instead of local politics (perhaps to achieve economies of scale). The channels made a rightward shift in slant while experiencing a small decrease in viewership[6]. Even more recently, the literature has found a negative effect of these channel acquisitions on the coverage of crime news as well as the response of local police toward crime and the levels of popularity of the Obama administration and Democratic performance in

[6]The authors use SBG acquisition of Bonten Media in September 2017 to look at the change in the content of acquired stations concerning other stations in the same DMA in a diff-in-diff design. They use transcript data from TVE and an LDA code that can measure the differences in slant and coverage between treatment and control.

general elections (Mastrorocco and Ornaghi, 2020; Levendusky, 2022). The main mechanism is this shift in coverage between local and national news. Our paper explores other dimensions in which SBG might impact electoral behavior. We show that SBG expansion had an effect also in local elections and, more importantly, on the demand for conservative politicians that run in these local elections. This change goes in line with the effects that press coverage has on citizen knowledge, politicians' actions, and policy (Snyder and Strömberg, 2010).

Within the literature on media slant, most studies have focused their analysis on voting and elections with national political components, whether in various European countries (Italy (Durante and Knight, 2012; Durante, Pinotti, and Tesei, 2019), Russia (Enikolopov, Petrova, and Zhuravskaya, 2011), Poland (Grosfeld et al., 2023), Germany (Adena et al., 2015)) or in the United States (DellaVigna and Kaplan, 2007; Martin and Yurukoglu, 2017; Schroeder and Stone, 2015). Few studies have analyzed the effect on local races and policies (Ash and Galletta, 2023), where regional characteristics might play a different role in defining the impact of media slant. Our paper highlights how the same shock might have varied effects. On one hand, the introduction of media bias decreased the performance of the Republican Party in the presidential elections. On the other hand, it increased the probability of the party winning the House of Representatives race, mainly due to ideological changes among the nominees of both parties.

Finally, there is a literature that measures slant of news outlets, most prominently Gentzkow and Shapiro (2010)[7]. We do not provide information on the impact of SBG on other kinds of media such as newspapers. Interestingly, our data set involves local broadcast media which possibly competes with local newspapers, plausibly making them substitutes. In this case, both a demand story and a supply story are possible. For example, people's preferences are changed by TV news, yet the change in newspaper consumption only responds to changing demand; alternatively, local newspapers directly respond to changes in the content of broadcast media competitors.

The rest of the paper is organized as follows. Section 2 provides a background of importance of local TV news in the United States, the prevalent market structure, and the rise of Sinclair acquisitions in the period 2012-2018. Section 3 provides an overview of the data we use. Section 4 explains our empirical strategy. Section 5 then provide our first set of results on presidential elections. Section 6 proceeds to our set of results on the house elections. In Section 7, we provide results on the ideological movement of winners, general election nominees, and primary candidates. Section 8 provides insight into the possible mechanism driving our results. Finally, Section 9 concludes.

[7]The authors have a structural model to estimate the bias on the supply side and demand side, after classifying speeches of representative conservative Congressmen (and otherwise), and conclude that a demand-side story where newspapers respond to consumer preferences is more plausible

2. Background

2.1. **American television markets.** According to Pew Research, television is the most popular source for gathering news for Americans. Within this set, local television has a larger audience than either Cable or Network TV[8]. Nielsen's National Television Household Universe Estimates counts 119.6 million television households in the US[9]. The number of persons aged two and older in this set is estimated to be 304.5 million. Therefore, the television industry clearly reaches the vast majority of the citizens of the US and ostensibly has an important role in terms of media exposure.

Federal Communications Commission (FCC) regulates broadcast, cable, and satellite transmissions, and therefore it determines the menu of options that each household has according to their county location. The whole country is divided into 210 Designated Media Areas (DMA) that cover several counties and often cut across state lines[10]. These areas identify the geographic reach of stations and the characteristics of potential viewers in these areas.

American television can be seen through broadcast, cable, satellite, or the internet. However, in terms of content, there is considerable overlap in available content[11]. Broadcast TV is particularly interesting. Television stations are responsible for transmitting content over the air (OTA). These stations require a license from the FCC to be able to broadcast. Traditionally, the FCC has looked at broadcast television as a decentralized market. Therefore federal law prohibits monopolies in local areas[12]. Typically, local content from these TV stations is restricted to local news shows, while most other content comes from network programming. Local broadcast stations air their news shows but buy syndicated content to air for their remaining slots.

Cable news and satellite are also fast-growing sources. However, two points must be noted. One, the network companies over cable produce content bought by local TV stations, and therefore their content is still primarily received over broadcast. Yet, local shows are produced and aired, especially for prime-time news. Second, and more importantly to this work, cable companies routinely buy local news show content from TV stations for the set

[8]It may be noted that the number of Americans consuming TV news is declining, but about 50% of US adults still consume news this way http://www.pewresearch.org/fact-tank/2018/01/05/fewer-americans-rely-on-tv-news-what-type-they-watch-varies-by-who-they-are/

[9]In particular, "Nielsen's national definition of a TV household states that homes must have at least one operable TV-monitor with the ability to deliver video via traditional means of antennae, cable set-top-box or satellite receiver and/or with a broadband connection." http://www.nielsen.com/us/en/insights/news/2017/nielsen-estimates-119-6-million-us-tv-homes-2017-2018-tv-season.print.html

[10]This is a standard accepted by the FCC http://www.broadcastingcable.com/news/washington/fcc-nielsen-dmas-still-best-definition-tv-markets/157246 and created by Nielsen Research. These DMA's.

[11]For instance a cable company like ESPN can broadcast on over-the-air stations

[12]Through shell companies and regional marketing agreements, these rules are violated in spirit.

of channels offered to consumers with cable TV. Therefore, local news shows are typically available to all who have a TV in the area catered by them.

2.2. **Sinclair Broadcast Group (SBG).** SBG is the largest television station operator in the US by number of stations, owning 173 stations countrywide and operating roughly 20 more stations through the use of Local Market Agreements. It has been a publicly-traded firm since 1995, but its majority stake is owned by the family of founder Julian Sinclair Smith. The firm has been noted to offer a conservative slant in its programming[13]. In particular, Sinclair orders its stations to air "must-runs" which are typically conservative takes on conservative issues[14].

SBG has grown on the back of organic expansion as well as multiple acquisitions over the last two decades[15]. In particular, after 2012 the company start a rapid expansion policy enabling them to gain access to new 57 DMAs. Figure 1 shows the expansion of SBG from 2012 to 2018. It shows that after 2012 SBG more than duplicated its presence in the whole country. The number of counties it operates in increased by 126%, from having operations in 726 counties to 1606. The number of potential viewers also increased by 103%, from 53 million to 109 million potential viewers. This, of course, translates to an increase in number of potential local elections in which its conservative slant might have an effect. To be precise, the company increased its presence from 134 electoral districts to 236. We take advantage of the staggered expansion of SBG operations to assess the effects that exposure to its conservative slant had on electoral outcomes.

TABLE 1. Distribution expansion Sinclair Broadcast Group (SBG)

	Control		Cohorts				
	Other	Tribune	2012	2014	2016	2018	Before 2012
Counties	1083	391	187	560	79	84	726
States	43	23	18	30	5	7	26
DMA	96	20	10	35	4	8	33
Districts	199	190	46	112	10	14	134
Population (M)	75.16	95.86	13.24	37.21	2.15	2.94	53.63

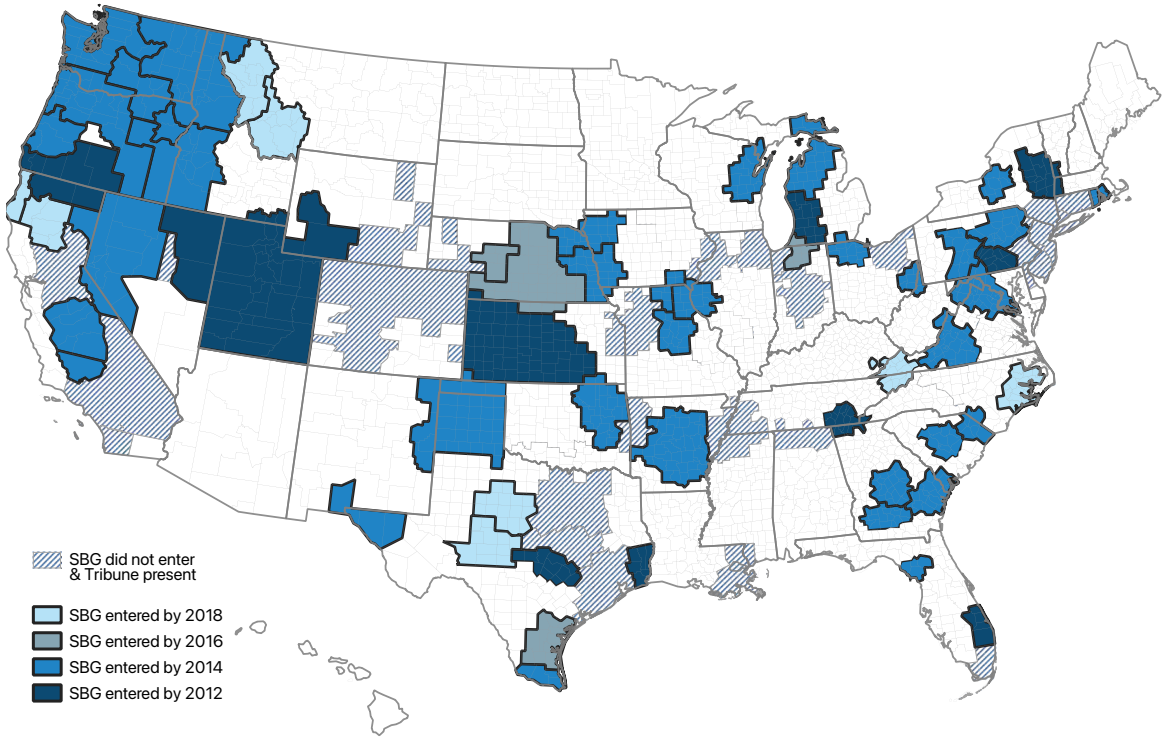
Notes: Own calculations based on SBG records and DMA definitions. Cohorts defined as the first electoral year after the entry of SBG in the DMA.

[13]About conservative bias of the TV stations owned by this group, see: https://www.nytimes.com/2017/08/14/us/politics/how-a-conservative-tv-giant-is-ridding-itself-of-regulation.html

[14]For example, in the run-up to the 2016 Presidential Elections the firm got its stations a segment asking voters to not vote for Democratic Presidential Nominee Hillary Clinton because of the Democratic party's support for slavery in the 19th century.

[15]Apart from direct ownership, SBG is known to be closely associated with other companies such as Cunningham Broadcasting Corporation and Deerfield Broadcasting corporation (among several others) with which it has Local Market Agreements (LMAs). These LMAs allow SBG to bypass FCC's local duopoly rule.

FIGURE 1. Regional distribution SBG operations



Notes: This map presents the spatial distribution of counties where SBG operates and their market entry dates. It also shows counties without SBG operations that have a Tribune presence. White areas represent media markets where SBG operated before 2004 or where it did not.

In the year 2017, SBG announced its intention to acquire Chicago-based Tribune Media Corporation, which owns 43 media stations, for approximately $3.9 billion. However, the acquisition was not finished due to concerns about creating an oligopoly in the television broadcasting market. After more than one year of speculation and growing concerns about the pertinence of the merger by several interests groups, politicians and the FCC, Tribune Media terminated the purchase. This would have represented an increase of more than 95.86 million new potential viewers and an entry into 138 other electoral districts (See table 1). We use this natural experiment to identify areas where the company was interested in expanding and having operations. We argue that the areas covered by Tribune serve as plausibly valid counterfactuals for areas that Sinclair was interested in but was not successful in entering. We use these areas as a control group in our analysis and compare its electoral outcomes with those areas in which SBG started operations. We think that given the company's interest, these markets are similar and therefore comparable with the places in which the acquisition was successful.

We then exploit the geographical variation in the presence of SBG owned channels to evaluate the effects of SBG operations and electoral outcomes. We compare places where

there was no operation to those in which SBG started operation between 2012 and 2018. Figure 1 shows the expansion of SBG across the United States. The company had operations in 5 states (AL, ME, MN, MS, and NH) before 2012 and expanded to have operations in 41 states after 2018 (all continental states except for AZ, CO, CT, DE, LA, ND, and NJ). The company now has operations in most of the big urban centers and across different regions in the country. We explore this variability to estimate the average effects of the entry comparing before and after the company's expansion in each location.

3. Data

3.1. **Electoral data.** We gathered twenty years of electoral data to study the effect of the entry of SBG on the performance of different parties and candidates. We use data primarily from David Leip's Atlas covering ten congressional elections between 2002 to 2020[16]. We are interested in the effect on local elections, so our focus will be centered on elections of the House of Representative[17]. However, we also focus on five presidential elections from 2004 to 2020 to evaluate the effects on the federal elections and assess the difference in the effects between these two types of elections.

This data has some particularities useful for our research when analyzing congressional elections. First, it allows us to identify election-district characteristics – if the election was not contested, the number of candidates and the parties that competed in each year[18]. Second, this data also allows us to measure each candidate's performance, that is, the number of votes and the share from the total votes that each of the candidates obtained. Third, with this data we observe the performance and total number of votes for each candidate at the district, county, and the intersection of these two geographical aggregations. Finally, this data gives us the full name of the running candidate. This will allow us to identify ideological characteristics of the candidate from other sources.

3.2. **Ideology scores.** To measure the ideology of congress members, we utilize the DW nominate score proposed by Poole and Rosenthal (1985) and Poole and Rosenthal (2007). This measure uses the votes in roll calls in Congress to discern politicians' ideal points and ideologies. The score organizes legislator choices into two dimensions, positioning ideologically similar legislators closer to each other and farther from dissimilar legislators. The first component represents the liberal-conservative spectrum on economic matters, while the

[16]See https://uselectionatlas.org for more details of the electoral results available in this platform.
[17]House of Representative elections is difficult to handle because there is no one freely available source that captures the county-level voting within congressional districts. However, for the states where county data is easily available, we compared this data with the Atlas, and we found it matched.
[18]We focus only on regular elections, that is we do not include any special election that took place in the district to replace a congressperson who leaves their seat before completing the regular period; or runoff elections

second dimension captures attitudes on salient issues of the day. This score ranges between -1 and 1, with -1 interpreted as liberal, 1 as conservative, and 0 as moderate.

Although this measure is widely employed in the literature, it has the drawback that it can only be calculated once the politician is elected and their voting behavior is observed. To address this limitation, we also utilize the Bonica ideology scores, which estimate ideology based on the founding donors rather than on choices made post-election. We leverage the Database on Ideology, Money in Politics, and Elections developed by Bonica (2013) and updated by Bonica (2018). This dataset gauges the political ideology of campaign contributors and candidates based on reports of contributions and donations registered at the Federal Electoral Commissions (FEC).

Bonica (2013) employ a spatial model of donors and candidates to estimate ideal points for each actor. The underlying assumption of these models is that contributors select their donations to various candidates based on their ideological proximity to the candidates to maximize their net benefits. The rationale behind these models is that candidates with a similar pool of donors possess closely aligned unidimensional score values. In contrast, candidates with markedly different donor pools have more distant score values. By analyzing candidates' financial data, we can determine the ideology of both winning and losing candidates. We utilize two of Bonica's measures: a time-variant score that employs information from each election to ascertain candidates' ideology and a time-invariant score that uses information from the ideologies of all candidates' donors during all elections. The latter approach can overcome the lack of donation information for some candidates in the early stages of their careers.

3.3. **Other data.** For the broadcast station data, we scraped broadcast station data from the respective websites of SBG and Tribune Media Group. This data gives us the station name, the corresponding channel (if any), channel number, the DMA it is located in, and the date SBG entered each DMA. We matched the DMAs with the respective counties using publicly available data. With all this information, we can identify in which year the entry of SBG started to affect each county.

The building blocks of congressional districts are the census tracts. Several of these fundamental units divides each state on equal population size, and they construct electoral districts with the only requirements of contiguity. We complement this data with a large dataset on demographic characteristics recovered from the 2000 and 2010 census at the census tract level. With this data, we can construct both district and county characteristics such as total population share, the share of female population, the share of the black population, the share of the Hispanic population, the share of the Asian population, the share of American native population, the share of the population between 25 and 34 year old, between 35 and 44 years old, between 45 and 54 years old, between 55 and 64 years old and over, the share

of the rural population, the share of high school graduates, the share of college graduates, the share of labor aged population employed in agriculture and manufacturing, the share of employment, crime rates, the average household income, the share of the population below poverty line, the share of the population on Medicare, the share of the uninsured population, the number of housing units, the share of veterans, the share of the population with social security, infant mortality deaths, and the water use per capita. We use these data to ensure that we control for several observable characteristics and to account for the potential difference between places in which SGB operates and those in which it does not.

4. Empirical strategy

The main idea we want to investigate is the effect of the entry of the conservative-bias news outlet on the electoral performance of the candidates who compete in each place. The general strategy will be to compare the change in the electoral outcome before and after SBG acquired a TV station and compare it with the behavior in those places where SBG did not operate. However, several challenges come when applying this general strategy to our case. First, there is no perfect overlap in the electoral districts and counties. Electoral districts can be confounded with counties where both SBG operates and counties where SBG did not own a TV station. Furthermore, even though theoretically electoral districts only change every ten years (this redistricting being based on the information provided by each census) that is not always true. Due to judicial orders, there are several changes in the district mapping within the ten years between the census in some states. To overcome this challenge, we follow the same strategy that Autor et al. (2020) implemented: making the unit of interest the intersection of county and district what we call the county-by-congressional-district cell. At this level, we can identify the effects of SBG comparing cells where it operates entirely with cells where it does not operate. Importantly, we track changes in district boundaries every year and transform the cells after each district is redrawn to its 2010 district distribution counterpart (112th Congress), weighting the new cell splits according to the 2010 share of the voting-age population in each cell. The relevant population information is aggregated from census block level data from the 2010 Census. Thus, we create a crosswalk for each election that transforms current county-district cells into the cell distribution for the 2010 elections, maintaining consistency and comparability (see appendix section C for more details and examples).

Second, there is a lot of heterogeneity in the places where SBG did not operate, and it might be the case those places are not fully comparable to the areas where there is an SBG's TV station. To rule out the possibility of a non-observable shock affecting those places that could contaminate our results, we limit our comparison. For each cohort, the comparison groups are those places where SBG did not operate but either had the intention to enter

(where there is a Tribune-owned station) or will operate in the future (places that belong to a different cohort until SBG acquired a broadcasting station). This strategy ensures we are comparing to each similar cohort places in which SBG was interested in expanding and therefore had similar characteristics.

Finally, SBG gradually increased its presence in different areas; that is, it was a staggered entry. A recent body of literature has shown that standard methods designed to identify causal effects based on the difference-in-difference model are not well suited in these cases, especially in the presence of heterogenous treatment effects. When analyzing these models, results are uninformative about the presence of pretends or anticipatory behavior, and coefficients would not capture the outcome dynamics produced by the entry of SBG (Abraham and Sun, 2018; Callaway and Sant'Anna, 2021; de Chaisemartin and d'Haultfoeuille, 2021; Roth et al., 2022; Dube et al., 2023; Goodman-Bacon, 2021).[19] To take into account heterogeneity in treatment effects across adoption cohorts, we implement Abraham and Sun (2018) estimator, which captures the cohort-specific average difference in outcomes relative to never being treated and not yet treated that is, the cohort average treatment effects on the treated (CATT).[20]

Formally, we estimate the following equation where subindex t denotes the electoral year, subindex j denotes cell (interaction of district d and county c), that belongs to the DMA m and the state s for each of the four cohorts $g \in (2012, 2014, 2016, 2018)$

$$y_{jt} = \delta_j + \delta_{st} + \sum_g \Bigg(\underbrace{\sum_{l=-4}^{-2} \beta_l^g \times \text{SBG}_j \times \mathbb{1}(t - T_m^* = l)}_{Lags} + \underbrace{\sum_{l=4}^{0} \beta_l^g \times \text{SBG}_j \times \mathbb{1}(t - T_m^* = l)}_{Leads} \Bigg) + \sum_{k \in \mathbf{X_c}} \gamma'(k \times \alpha_t) + \epsilon_{jmdt} \tag{4.1}$$

[19]The problem with a naive two-way fixed effects (TWFE) model arises in the presence of heterogeneous treatment effects over time and across units. In this case, the estimator uses forbidden comparisons (i.e., using early treated units as controls for units treated later). Appendix tables assess the extent of this problem, showing the decomposition proposed by Goodman-Bacon (2021). Although this decomposition is only available without weights and can only be applied at the county unit of analysis, we show in Appendix Table B.3 that using the entire sample, only excluding areas with a long history of SBG operation, the forbidden comparisons affect this estimator by around 5.4%. Furthermore, using only the Tribune sample, the forbidden comparisons would represent around 16.2%. We arrive at similar conclusions when we estimate the share of ATT comparisons that would enter with negative weights for both the county level of analysis and the electoral district, showing that some ATT would enter with negative weights. This implies that using TWFE in our context would most likely lead to biased estimates.

[20]We identify a cohort of affected counties as the counties in which the first election after the entry of SBG occurred in the same year. For instance counties in which SBG entered after the acquisition of Fisher Communications in August 2013 belong to the 2014 cohort as well as counties that experienced the acquisition of Barrington Broadcasting in November 2013.

Where y_{jt} is the electoral outcome in each cell and SBG_j is a dummy indicator if an SBG owned station was broadcasting in the cell between 2002-2020. $\mathbb{1}(t - T_d^* = l)$ is event-year dummies that indicate if the observation is l election after the entry of SBG in the new market. Coefficients β_l^g are the difference in outcome between treated and control groups relative to the difference of the outcome in the omitted base period, the election before the event (lag -1). This captures the dynamics of the outcome in the electoral years following the entry of SBG. We include observations that are more than four elections before the entry in the lead -4. Therefore, this estimated coefficient provided information about the structural or "permanent" differences between places where SBG entered and those where it could not.

We include cell fixed effects δ_j, which control for unobserved unit-specific factors that are constant over time and may influence the outcomes, such as geographical characteristics. We also include state-time (election year) fixed effects δ_{st}, which control for unobserved time-specific forces that may affect the outcomes differently in each state.[21] These indicators account for shocks that impact electoral outcomes in various states, such as the occurrence of a senatorial election or the involvement of a specific candidate in federal or state elections.

Since the cell's futures could vary depending on the cohort, we combine county observable characteristics $\mathbf{X_c}$ measured before 2010 with time-fixed effects, where the subscript c indicates the county. Within these variables, we include information about demographic characteristics from the census collected before 2010, as well as electoral data such as preference for the Democratic party measured by the votes the party received in the 2008 election at the county level, attendance at Tea Party rallies in 2009, contributions to Tea Party PACs in 2009, and 2010 ideology scores in the district, including the two components of the DW score, the time-variant and invariant Bonica scores, and the ideology of the Democratic and Republican candidates. Appendix Table B.2 shows all the characteristics we used and the differences between each treated cohort and our control group. It indicates that there are indeed some differences that we must control for in our estimations. We follow Borusyak, Jaravel, and Spiess (2024) by residualizing the outcomes based on the controls, using only the untreated observations. This strategy allows us to control for differential trends in the cohorts that could contaminate our results. ϵ_{jmdt} represents the error term, which we cluster at the DMA levels. This enables us to control for correlations between different cells within the same DMA (level of treatment assignment). Since we defined the outcomes at the district level, we weight each cell by its share of the total voting-aged district population.

[21]Since our control units are those with Tribune operations, the inclusion of these fixed effects allows for comparisons within the same state between areas with and without SBG operations. However, Tribune did not operate in every state. We modified the state definition to use a comparison group of similar counties in neighboring states. We define these states as the closest ones with Tribune operations. For example, following Figure 1, we used counties in Alabama as the comparison group for treated counties in Georgia. Results are robust to only confining to states with Tribune presence. Appendix table B.1 shows the assignment of states to neighbouring states.

Finally we estimate the main coefficients β_l as aggregations of the

$$\beta_l = \sum_g \omega_g \beta_l^g \tag{4.2}$$

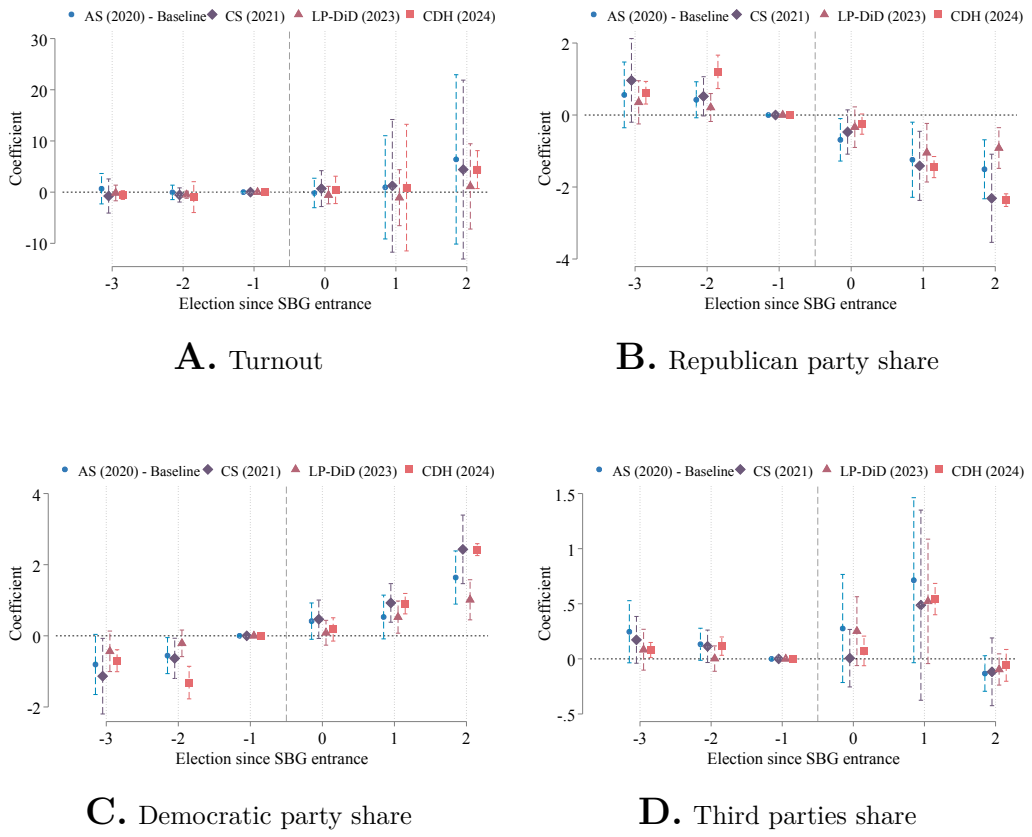
where the weights ω_g are the relative frequency of DMA's in each cohort of the total treated population. This coefficient captures the total change in the outcome between l elections after SBG started operation and one election before compared to those places where SBG did not operate. The identification assumption is that the outcome would have behaved similarly in these two places in the absence of the entry of SBG.

5. Effects on presidential elections

First, we estimate the effect of SBG entry on presidential elections. We follow the specification as described in Section 4 with the change that presidential elections occur every four years, and the outcome's level of analysis is at the county level. Consequently, there will be three cohorts (2012, 2016, and 2020) instead of four, and the number of lags and leads will be two instead of four. Figure 2 presents the results for presidential election outcomes using our baseline specification. Panel A indicates no significant change in electoral turnout for presidential elections at any point after SBG entered the market. In contrast, Panel B documents a negative effect on the performance of the Republican Party. During the first and second elections following SBG's entry, the Republican Party's vote share decreased by approximately 1 and 2 percentage points, respectively. Panels C and D, however, positively affect the performance of the Democratic and third parties. One election after SBG's entry, there was a significant increase in the vote share for third parties, and after two elections, there was an increase in the vote share for the Democratic Party. This positive performance of third parties in the short run and the Democratic Party in the long run appears to induce negative results for the Republican Party.

In addition to our baseline specifications, we employ alternative procedures to estimate causal effects in difference-in-difference settings with staggered adoption. In the same figure, we present three alternative estimators. The first is the Callaway and Sant'Anna (2021) (CS) procedure, which estimates group-time specific ATT, avoiding forbidden comparisons and aggregating them as averages for each period. The second is the Dube et al. (2023) (LP-DiD) local projection model, which uses local projections to estimate the group-time ATT, presenting coefficients in an event study framework using a variance-weighted ATT for each period. Finally, we include the de Chaisemartin and d'Haultfoeuille (2021) (CDH) estimator, where the ATT measures the instantaneous treatment effect of transitioning from being untreated to treated. Overall, the estimates from these alternative methods display similar magnitudes and significance, suggesting that SBG may negatively impact the Republican Party's electoral performance in presidential elections.

FIGURE 2. Effect SBG on presidential elections: shares



A. Turnout

B. Republican party share

C. Democratic party share

D. Third parties share

Notes: This figure presents the dynamic ATT using our baseline estimation equation 4 and three different models for the treatment of the entry of Sinclair. We present the model suggested by Callaway and Sant'Anna (2021) (CS), the local projection model suggested by Dube et al. (2023) (LP-DiD), and the model suggested by de Chaisemartin and d'Haultfoeuille (2021) (CDH). Sample presidential elections between 2004 and 2020. Variables at the county level. 95% confidence intervals using clustered standard errors at Media Market.

A fundamental assumption of our estimation relies on including a set of never-treated counties that could have been treated. To achieve this, we utilize the counties where Tribune operated, as these represent locations where SBG showed intentions to enter. However, these areas might differ from those where SBG entered, particularly since the planned acquisition of Tribune woudl have occurred later, potentially leading to discrepancies in characteristics. To evaluate this possibility, we conducted a test to ensure the overlap in characteristics between the two types of counties. First, we estimated a LASSO model following Belloni, Chernozhukov, and Hansen (2014), where the dependent variable indicates whether the county was affected by SBG's entry. After identifying the variables that best predict treatment, we estimated the propensity score and followed Crump et al. (2009) to truncate the sample, thereby increasing overlap, and subsequently re-estimated our baseline

model on the common support. Figure A.1 displays the results of this procedure. Using this approach, we observe similar patterns in point estimates and significance, further suggesting that SBG's entry adversely affected the Republican Party in presidential elections.

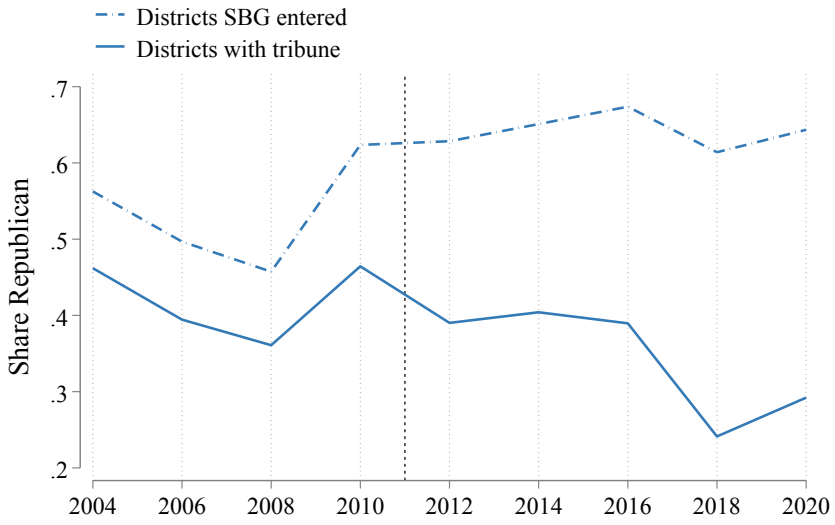
Finally, to assess the validity of our main identifying assumption (that potential outcomes after treatment are the same for treated and never-treated cohorts), we tested the robustness of our findings against moderate linear and non-linear violations of the parallel trends assumption, following Rambachan and Roth (2023). Figure A.2 reports the 90% confidence set for our parameters of interest after allowing for both linear and non-linear deviations from the parallel trends assumption. We estimated this confidence set for the reported coefficient of the year following SBG's entry. In the case of non-linear deviations, we permitted changes in the trend between consecutive periods to be as large as the magnitude of the pre-trend, with an 80% power to detect such changes given the precision of the estimates in the pre-treatment period. We find significant results even after allowing for a linear deviation from the parallel trends assumption ($M = 0$), and even more so when we permit non-linear deviations (i.e., allowing the trend to change in size and direction across consecutive periods ($M > 0$)). These findings reinforce the robustness of the observed decrease in the Republican Party's vote share after the entry of SBG.

6. Effects on house elections

Now that we have estimated a benchmark for the presidential elections, we will follow through on our primary goal of investigating how the entry of SBG affected the House of Representatives elections. As a first approximation, and to motivate what follows, Figure 3 shows the evolution of percentage of congressional seats won by Republicans in places where SBG entered during the period from 2012 to 2018, compared to places where it intended to enter but could not (i.e. congressional districts with the operation of Tribune-owned stations but without SBG operations).

We observe that the preference for Republican candidates remained stable in areas where SBG expanded just after 2012, coinciding with the company's acquisition of several stations nationwide. This trend, however, is notably absent in areas where SBG intended to expand, where the share of seats occupied by Republican Party members decreased after 2012. This finding shows a possible lack of influence of SBG in these areas and is consistent with a shift in voter behavior following exposure to a conservative-biased source of information. Thus, we proceed to evaluate these effects formally estimating Equation 4. In the same figure, we also see that there is a level difference in preference for the Republican party between districts seeing the entry of SBG and those that don't. The level difference is stable before 2012, and in our formal estimation we will control for unit fixed effects and state-time fixed effects.

FIGURE 3. Republican seats share



Notes: This graph the share of Republican representative according the SBG and Tribune operation in their jurisdiction. First series include districts that have a county in their jurisdiction with Tribune operations but no SBG operation. Second series include all districts that have a county in their jurisdiction where SBG entered between 2012 and 2018.

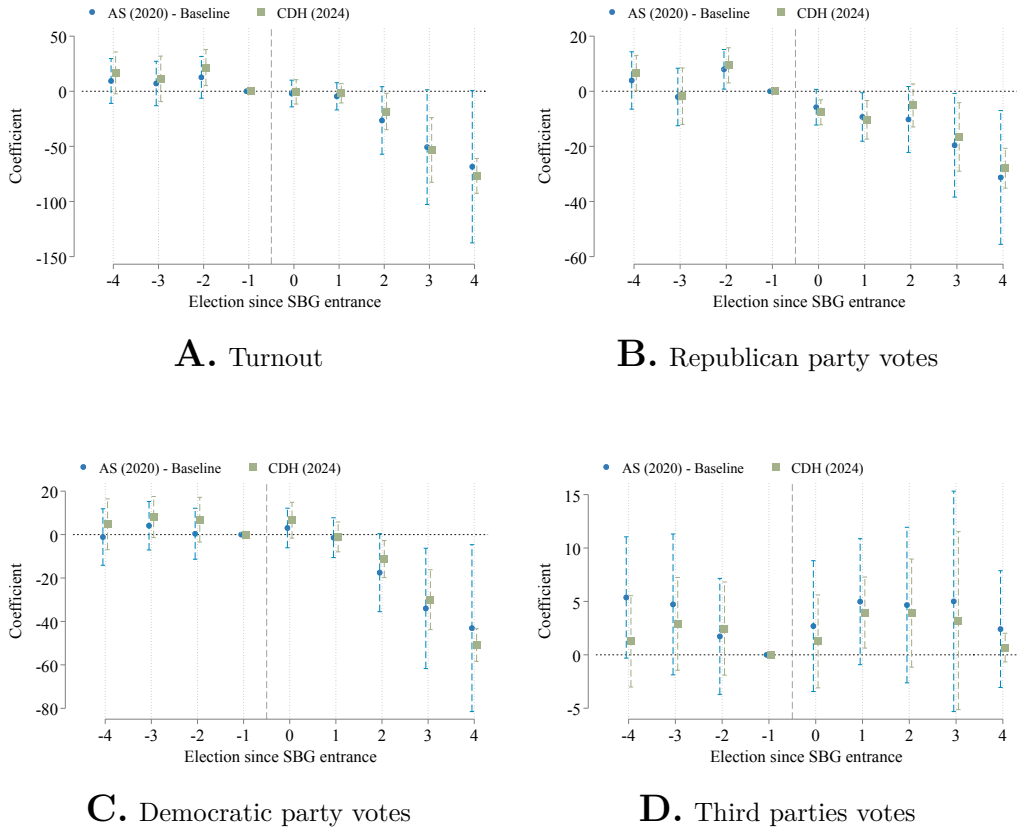
First, we focus on the effect of SBG entry on electoral results, particularly the number of votes. Figure 4 illustrates the impact on turnout and voting shares for Republicans, Democrats, and third-party candidates. Panel A indicates that following the entry of SBG, there is an adverse change in the trend of total votes cast in House elections, which becomes statistically significant at conventional levels after the third election. Panels B and C demonstrate that the progressive reduction in votes for both Republican and Democratic candidates explains this overall reduction in turnout in the electoral district. Additionally, it shows a slight, non-lasting increase in votes for third parties in the first election after SBG entry. This estimation indicates that a whole treated electoral district observed a reduction of around 60,000 votes after the third election. Of these, 40,000 came from a reduction in votes for the Democratic Party, and 20,000 came from a reduction in votes for the Republican Party.[22] This suggests that the SBG entry hurt the performance of both parties, with a more significant impact on the performance of the Democratic Party. Even more, using an alternative method to estimate the treatment effects (de Chaisemartin and d'Haultfoeuille (2021)'s estimator),[23] we find similar results, and our interpretations remain

[22]According to appendix table B.4 since on average in a treated district around 30% is affected that would represent a reduction of 18,000.

[23]Due to the nature of our unit of analysis, specifically the cell intersection of the county and electoral district, and the need to perform weighted estimations, we cannot estimate the same set of alternative estimations as shown for the presidential elections.

unchanged: SBG induced a progressive reduction in electoral participation for both main political parties, but it hurt the Democratic Party more.

FIGURE 4. Effect SBG on House elections: votes

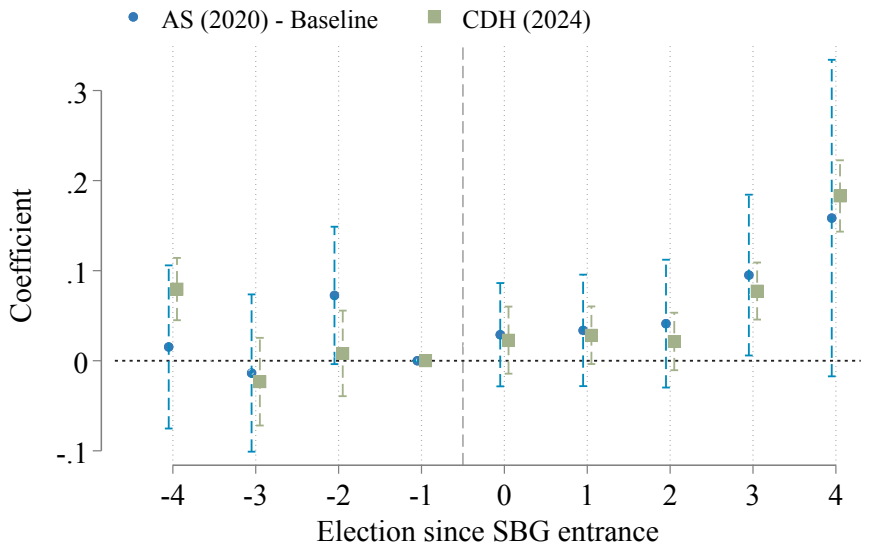


Notes: This figure presents the dynamic ATT using our baseline estimation equation 4 and an alternative model for the treatment of the entry of Sinclair. We present the model suggested by de Chaisemartin and d'Haultfoeuille (2021) (CDH). Sample house elections between 2004 and 2020. Variables at the cell country-electoral district level. 95% confidence intervals using clustered standard errors at Media Market.

Finally, we test the robustness of our results to violations of the parallel trend assumption. Although graphically, there do not appear to be parallel trend violations, since the coefficients for elections before the entry are around zero and not significant, we follow the partial identification method proposed by Rambachan and Roth (2021) and test the robustness of our conclusions to the presence of linear and non-linear deviations from the parallel trend. Figure A.3 shows that the reductions in total votes cast in the elections, as well as the votes cast for the Republican and Democratic parties, are robust to linear deviations in the parallel trend. However, when we allow non-linear deviations, these results are not entirely robust and allow only minimal non-linear deviations. Nonetheless, with these results, we can conclude that SBG had a significant impact on reducing electoral engagement for both

main parties, though the reduction appears to have been more significant among Democratic voters.

FIGURE 5. Effect of SBG on probability Republican party win in the district



Notes: This figure presents the dynamic ATT using our baseline estimation equation 4 and an alternative model for the treatment of the entry of Sinclair. We present the alternative model suggested by de Chaisemartin and d'Haultfoeuille (2021) (CDH). Sample house elections between 2004 and 2020. Variables at the cell country-electoral district level. 95% confidence Intervals using clustered standard errors at Media Market.

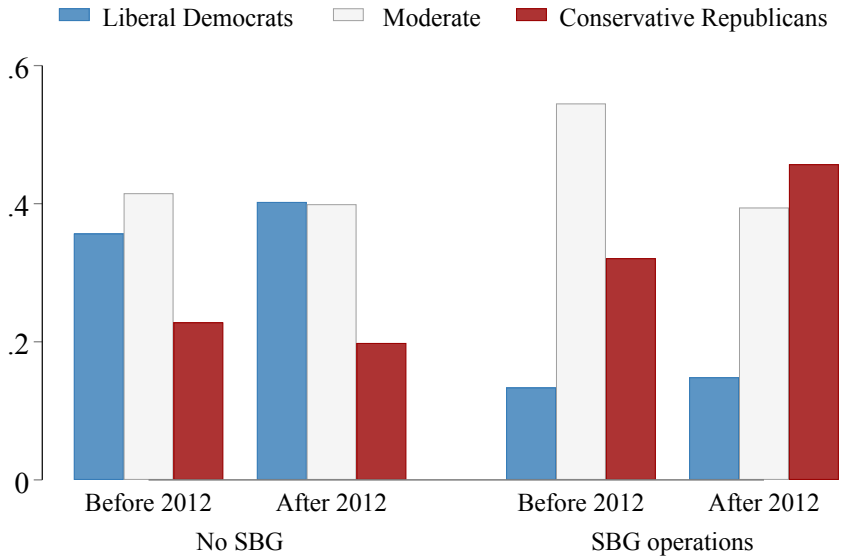
We evaluate how this vote reduction translated into the probability of the Republican Party candidate winning. As expected, since the Republican Party was the least affected, we observe a positive and significant impact after three or more elections following the year of SBG entry (see Figure 5). Specifically, we find a 10 and 15 percentage point increase in the probability of the Republican Party winning the House seat in districts where SBG operates after two and three years from the entry, respectively. These effects are statistically significant at the 95% level and robust to an alternative estimation procedure. Moreover, they are also robust to both linear and nonlinear deviations from the parallel trend assumption (see Figure A.5).

Taken together, this evidence suggests that SBG had a modest effect on electoral outcomes in House elections. We observe a reduction in votes for both parties, with a more pronounced decrease among Democrats, which translated into an increased likelihood of Republican candidates winning the election. This contrasts with our previous results, which show that the entry of SBG hurt the Republican Party's performance in presidential elections. Thus, the same shock had contradictory effects, indicating that introducing a biased conservative

information source did not necessarily benefit the Republican Party across different electoral contexts.[24]

7. Effects on winners ideology

Figure 6. Winners' ideology by SBG operations



Notes: This graph shows the share of ideology categories of seat winners between 2012 and 2020 according SBG operations. Liberal Democrats and Conservative Republicans are defined as politicians whose Nominate scores would respectively put them into the bottom quintile or top quintile of the congress members scores in the 109th (2005-2007) congress. Appendix Table B.4 shows the average DW ideology score for treated and control areas in our sample for each year.

Now, we aim to evaluate the potential impact of SBG operations beyond electoral results, explicitly focusing on changes in the winner's ideology due to the operation of a conservatively biased TV station. As an initial exploration, Figure 6 presents the distribution of seat winners' ideology based on whether SBG operates in the district. We categorized the winners of the election according to the distribution of scores of House of Representatives members between 2005 and 2007 (the 109th Congress), and we measured ideology based on DW scores. The graph illustrates that in districts without the presence of SBG, the ideological composition remained unchanged before and after 2012 (the first election with an expansion of SBG operations). There was a similar representation of liberal Democrats and moderates. Conversely, in districts where SBG entered, there was an increase in Republican

[24]We can also observe this reduction in votes in the appendix figure A.4, which shows the change in votes for the House of Representatives relative to the votes for president. The point estimates indicate a reduction of around 5 percent in the number of votes compared to the presidential votes.

representation, particularly conservative Republicans.[25] This initial evidence suggests that SBG may influence local elections through changes in the ideological composition of congressional winners. Next, we formally test this hypothesis by estimating Equation 4 and using the ideology of the winner as the outcome variable.

Table 2 presents results of estimating the effect of SBG entry on House seat winners' ideology using our baseline specification. In the first column, we observe the effect on DW ideology scores. The SBG entry positively affected the ideology score of the winner from the second election onward, increasing it to approximately 0.04 in the second election after entry, around 0.07 in the third election, and then 0.14 in the fourth election. This effect is significant, considering that before SBG entered these areas, the score stood at 0.17. This suggests that SBG induced a shift to the right (towards a more conservative position) in electoral preferences in these areas, almost doubling the initial levels.

Columns 2 to 4 display the ideological position by evaluating the probability that the election winner belongs to different ideological categories: Democrat liberal, moderate, and Republican conservative. Column 2 indicates a negative effect on the probability that the seat winner is a liberal Democrat. For example, two elections after SBG entry, there was a reduction of 7 percentage points in the likelihood that winners belong to this ideological category. This effect is significant, given that before SBG commenced operations in these areas, the share of ideological winners classified as liberal Democrats was approximately 14%. In contrast, Column 4 demonstrates changes in outcomes at the other end of the ideological spectrum. SBG positively affected the probability that the seat winner is a conservative Republican. For instance, the probability increased by eight percentage points after two elections. Considering that before SBG expansion, this probability was 42%, this effect is more moderate. These results suggest that the increase in conservativeness is due to both a reduction in Democrat liberals and a decrease in moderate elected politicians.[26]

Our result also holds when using only states where both SBG and Tribune operated. In this sample, we can isolate the estimated effects from a particular state shock that might confound our results. Appendix Table B.6 shows the results of this exercise. Although the sample is smaller and our confidence intervals are wider, we found that in two and three elections after the entry of SBG, there was a shift in the seat winner's ideology toward the conservative end of the spectrum of around 0.4 standard deviations.

[25]The same patterns appear using the Bonica scores in the appendix figure A.6

[26]This estimation is also robust to other estimation methods. Appendix table B.5 shows the results using the method proposed by de Chaisemartin and d'Haultfoeuille (2021). Showing no differential change in the point estimates.

TABLE 2. Effect of SBG on ideology: DW-Nominate score of winner House election

		Prob. that winner was		
	Ideology Score	Democrat Liberal	Moderate	Republican Conservative
	(1)	(2)	(3)	(4)
Before treatment	0.17	0.14	0.45	0.42
	(0.42)	(0.34)	(0.50)	(0.49)
Before SBG entrance				
Share SBG X Election before 4 or more	−0.03	−0.09***	0.12**	−0.03
	(0.03)	(0.03)	(0.05)	(0.04)
Share SBG X Election before 3	−0.01	−0.04	0.04	−0.00
	(0.03)	(0.03)	(0.05)	(0.04)
Share SBG X Election before 2	0.05**	−0.04	−0.02	0.06*
	(0.03)	(0.02)	(0.04)	(0.03)
After SBG entrance				
Share SBG X Election 0	0.02	−0.01	−0.04	0.04*
	(0.02)	(0.02)	(0.03)	(0.02)
Share SBG X Election 1	0.03*	−0.02	−0.05	0.08***
	(0.02)	(0.02)	(0.03)	(0.03)
Share SBG X Election 2	0.04	−0.06**	−0.01	0.08**
	(0.02)	(0.03)	(0.04)	(0.03)
Share SBG X Election 3	0.08**	−0.03	−0.08*	0.11***
	(0.03)	(0.04)	(0.05)	(0.04)
Share SBG X Election 4	0.14*	−0.05	−0.12	0.17*
	(0.08)	(0.10)	(0.09)	(0.10)
Observations	14773	14773	14773	14773
DMA	76	76	76	76
Districts	192.43	192.43	192.43	192.43
State-Year FE	✓	✓	✓	✓
Cell Distict County FE	✓	✓	✓	✓
Controls	✓	✓	✓	✓

Notes: Liberal Democrats and Conservative Republicans are defined as politicians whose Nominate scores would respectively put them into the bottom quintile or top quintile of the Candidates of general elections scores in the 109th (2005-2007) congress. This table presents the results from weighted average of the main specification for each cohort. The weight in the aggregation is determined by the size of the unique number of DMA of each cohort. District controls include number of candidates in the election, a dummy of presence of third party candidates, participation of democrat and republican party and ad dummy for new created districts on the year of entrance. Predetermined county controls includes: logarithm of the population, share of female population; share of black, hispanic, asian and american indian population; share of population age 24-34, 35-44, 45-54, 55-64 and over 65 years old; share of rural population; share of population age 25 years or more with high education and with college; share of employment in agriculture, manufacturing, construction and public institutions; share of population of labour force and employment rate; crime rates; average household income; federal expenditures, share of population under medicare, share of uninsured population, poverty rate, housing units per capita, share of veteran population; share of population receiving social assistance; infant mortality rates; water use per capita and preference for democratic party; a dummy of democrat candidate in house district; estimation of tea party rally attendance in 2009 and contributions to tea party PAC in the same year, 2010 ideology scores in the district, including the two components of the DW score, the time-invariant Bonica scores, and index for missing information for the winner, and the ideology of the Democratic and Republican candidates, Observations are weighted by a cell's share of total district population. Standard errors in parentheses are clustered at the Media Market. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

TABLE 3. Effect of SBG on ideology: Different ideology measures

	DW Baseline (1)	DW Second (2)	Bonica Time-invariant (3)	Bonica Time-variant (4)
Before treatment	0.17	0.00	0.46	0.47
	(0.42)	(0.30)	(0.89)	(0.86)
Before SBG entrance				
Share SBG X Election before 4 or more	−0.03	−0.01	−0.12*	−0.11
	(0.03)	(0.03)	(0.07)	(0.07)
Share SBG X Election before 3	−0.01	0.01	0.01	0.03
	(0.03)	(0.02)	(0.08)	(0.08)
Share SBG X Election before 2	0.05**	−0.03	0.12*	0.12*
	(0.03)	(0.02)	(0.06)	(0.07)
After SBG entrance				
Share SBG X Election 0	0.03	−0.01	0.06	0.05
	(0.02)	(0.01)	(0.04)	(0.04)
Share SBG X Election 1	0.03*	−0.01	0.07	0.06
	(0.02)	(0.02)	(0.05)	(0.05)
Share SBG X Election 2	0.04	−0.03	0.09*	0.05
	(0.02)	(0.02)	(0.05)	(0.05)
Share SBG X Election 3	0.08**	−0.04	0.19**	0.18**
	(0.03)	(0.03)	(0.08)	(0.09)
Share SBG X Election 4	0.14*	−0.07	0.33**	0.35*
	(0.08)	(0.05)	(0.16)	(0.18)
Observations	14773	14773	14378	14286
DMA	76	76	76	76
Districts	192.43	192.43	187.43	186.29
State-Year FE	✓	✓	✓	✓
Cell Distict County FE	✓	✓	✓	✓
Controls	✓	✓	✓	✓

Notes: District controls same as table 2. Observations are weighted by a cell's share of total district population. Standard errors in parentheses are clustered at the Media Market. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

Although we don't observe strong evidence of the presence of pretrends, as coefficients before the treatment are mostly small and insignificant, we also show that our results are robust to violations of this assumption. Figure A.7 shows that our conclusions do not change when considering both linear and non-linear violations of the parallel trend assumption. In general, we can conclude that the increase in the likelihood of a conservative Republican winner results from a combined reduction in the probability of a liberal Democrat and a moderate candidate winning. These effects align with this population's exposure to a conservative-biased TV station and suggest a possible change in the electorate's preferences and behavior in these areas.

Finally, we demonstrate that our results are not driven by the particularities of the ideology measure. Our baseline estimation in Table 2 shows the effect using the first component of the DW score, which measures the position on government intervention in the economy, or the "liberal-conservative" scale. In Table 3, we illustrate the effect using other measures for congressional members' ideology. Column 2 displays the impact on ideology using the DW

score's second component, which measures congresspersons' positions on salient issues of the day (such as currency, nativism, civil rights, LGBT+ issues, and lifestyle issues). In these cases, there is no evidence of a change in ideology. The coefficients are negative and not significant, suggesting that views on these issues are not affected by the entry of SBG.

Columns 3 and 4 present the estimates using Bonica scores, which use campaign donations rather than roll call votes to estimate the ideology of politicians. Using both time-invariant and time-variant measures, we obtain results similar to our preferred specification, indicating an increase in the score or, equivalently, a movement towards conservatism among the members of Congress elected after the entry of SBG. This consistency across different measures of ideology reinforces the robustness of our results, suggesting that SBG impacted the electorate towards a more conservative ideology, particularly regarding economic issues.

It is important to note that the point estimates illustrating the change in ideology-related outcomes before the expansion of SBG operations are not statistically significant but exhibit certain trends. However, we found that our results are robust after allowing for deviations from the parallel trends, as in our previous exercises (see appendix figure A.8). This suggests that after SBG's entry, particularly after the second election, there was a distinct shift, resulting in a more pronounced increase in conservativeness in the media markets where SBG entered. In conclusion, we can assert that SBG influenced elections by shifting the winners' ideology towards the conservative end of the spectrum.

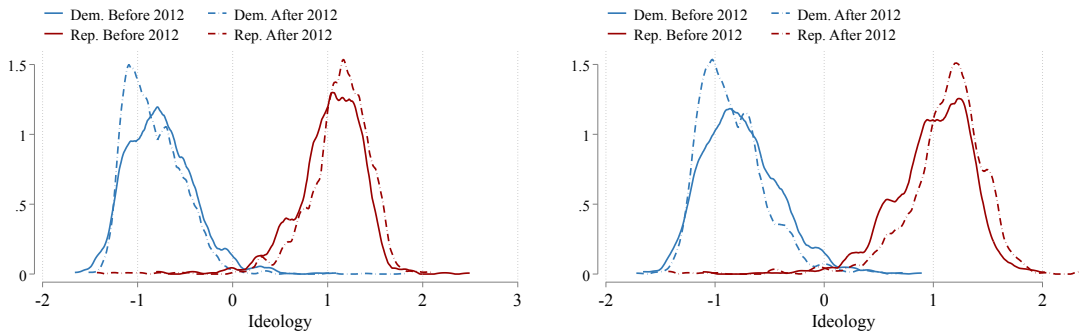
8. Mechanisms

We investigate the mechanism underlying the shift to the right among the winners of the House of Representatives in areas where SBG operates. To do this, we go a step deeper in our analysis of ideology shifts. We want to see if there is a change in ideology of the candidates who contest the House general elections, and if there is a change in ideology of all candidates who contest in the district at any point, including to become party nominees from primaries. The idea is that the shift in ideology could come from a preference for more conservative candidates, but that itself should be driven by the presence of more conservative candidates who get elected out of the primaries to then contest general elections, or in other elections in the district generally.

To explore this hypothesis, we examine the effects on ideology changes among candidates in both the Republican and Democratic parties after SBG operations. This includes candidates in general elections and those competing within the district at any point, including party nominees. We rely on Bonica scores for this part of our analysis since DW scores are only available for winners of congressional elections. Figure 7 illustrates increased polarization among candidates after 2012. The ideology distribution of Republican candidates shifts rightward, while Democratic candidates shift leftward, encompassing both election winners

and those competing within the party. For both types of candidates, there is a noticeable movement towards the extremes of the distribution. The subsequent analysis aims to determine whether this change is attributable to SBG's activity and their conservative bias.

FIGURE 7. Ideology General Elections Candidates



A. General Election **B.** All candidates

Notes: Sample from 2002-2020. This figure shows the distribution of the ideology scores for candidates in general elections according to the party they belong to and the period. Dashed lines show the distribution between the 2012 and 2018 elections, while solid lines show the distribution between 2002 and 2010. Panel A illustrates the ideology distribution of candidates participating in the general elections in November, while Panel B displays the ideology distribution of all candidates, including those participating in the primaries.

Table 4 examines the effects of SBG on candidates' ideology based on their party affiliation. We assess the impact on candidates' ideology scores using both time-variant and invariant Bonica scores. The analysis includes candidates competing in the general election in November and the average ideology of those in the race for the party nomination in each district during primary elections.

First, we observe minimal effects on the ideology of Democratic party candidates (columns 3 and 4). There is a slightly negative effect on the ideology score (moving to the liberal side), limited to three elections after SBG entry, on the average score of candidates running for the party nomination. This suggests that the average candidate from the Democratic party contesting elections eventually becomes weakly more liberal. However, the candidate who gets elected to contest the general elections in November does not drive this movement. In fact, we observe an ideological shift in the Democratic general election nominee towards the conservative side. This movement is robust to violations in the parallel trend assumption (see appendix figure A.9). For instance, our estimate suggests that in the second election after the entry of SBG, the Democrat candidate's score moved 0.09 points, one-third of the standard deviation before 2012. This suggests that voting in primaries select more conservative Democratic candidates.

On the Republican side, we observe a positive robust shift towards conservatism among November candidates in the short term (see appendix figure A.9). One and two elections after SBG's entry, there is a movement of around one-quarter of a standard deviation towards conservatism compared to the period before 2012. We find a long-term effect on the pool of candidates (columns 7 and 8). Three and four elections after SBG's entry, there is an increase of around one-third and one-half of a standard deviation compared to the period before 2012.

TABLE 4. Effect of SBG on ideology: Score of House candidates

	Democrats				Republicans			
	November election		All candidates		November election		All candidates	
	Invariant	Variant	Invariant	Variant	Invariant	Variant	Invariant	Variant
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Before treatment	-0.84	-0.83	-0.79	-0.79	1.14	1.14	1.15	1.15
	(0.31)	(0.33)	(0.39)	(0.42)	(0.24)	(0.25)	(0.22)	(0.24)
Before SBG entrance								
Share SBG X Election before 4 or more	0.08**	0.09**	0.01	0.05	−0.07*	−0.04	−0.06	−0.03
	(0.03)	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)	(0.04)
Share SBG X Election before 3	0.09***	0.09***	0.03	0.05	0.06	0.04	0.01	0.03
	(0.03)	(0.03)	(0.04)	(0.04)	(0.05)	(0.04)	(0.06)	(0.06)
Share SBG X Election before 2	0.01	−0.02	−0.03	−0.04	0.03	0.06**	−0.02	0.01
	(0.03)	(0.03)	(0.04)	(0.04)	(0.03)	(0.03)	(0.03)	(0.03)
After SBG entrance								
Share SBG X Election 0	0.01	0.02	0.04	0.07	0.04	0.04	0.03	0.04
	(0.02)	(0.02)	(0.03)	(0.05)	(0.03)	(0.03)	(0.03)	(0.03)
Share SBG X Election 1	0.07**	0.08**	0.03	0.05	0.06**	0.05*	0.00	−0.02
	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)	(0.04)	(0.04)
Share SBG X Election 2	0.09***	0.08**	−0.04	−0.03	0.08**	0.06	0.09**	0.05
	(0.03)	(0.03)	(0.04)	(0.04)	(0.03)	(0.04)	(0.05)	(0.05)
Share SBG X Election 3	0.06*	0.03	−0.10**	−0.08*	0.04	0.05	0.07*	0.09**
	(0.03)	(0.02)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)
Share SBG X Election 4	0.15***	0.11**	0.00	0.11**	0.01	0.03	0.13***	0.13**
	(0.05)	(0.04)	(0.05)	(0.05)	(0.07)	(0.06)	(0.05)	(0.05)
Observations	13182	13057	13833	13775	13118	12937	13800	13703
DMA	76	76	76	76	76	76	76	76
Districts	178.81	177.38	186.06	185.29	162.62	159.56	173.51	172.05
Stete Year FE	✓	✓	✓	✓	✓	✓	✓	✓
Cell Distict County FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓

Notes: District controls same as table 2. In the odd columns, we measured the outcome using the time-invariant ideology score, while in the even columns, we measured the outcome using the time-variant score. Columns 1, 2, 5, and 6 present the outcomes as the score for the General election candidate in November running for the House of Representatives. Columns 3, 4, 7, and 8 present the outcomes as the average score among all candidates running in each party during the electoral year for the House of Representatives. Observations are weighted by a cell's share of total district population. Standard errors in parentheses are clustered at the Media Market. . * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

These results suggest that the introduction of a conservative-biased network led to an increased election of conservative candidates within the Republican Party. In the long run,

it also increased the conservativeness of the entire pool of Republican candidates. For the Democratic Party, the effect was a permanent increase in the conservativeness of Democratic nominees for the November elections. These findings indicate that the shift towards conservativeness in the elected House of Representatives is not merely a mechanical effect of electing more Republican candidates. Instead, it reflects a broader ideological shift within both parties' nominees. Moreover, this helps explain the gradual reduction in votes for the Democratic nominee, as voters might be responding to the rightward shift of the candidate.

TABLE 5. Effect of SBG on candidates' contributions

	Democrats				Republicans			
	November election		All candidates		November election		All candidates	
	All	Individual	All	Individual	All	Individual	All	Individual
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Before treatment	-0.00	-0.13	-0.09	-0.17	0.39	0.32	0.36	0.25
	(1.12)	(0.91)	(0.95)	(0.76)	(1.07)	(1.03)	(1.14)	(1.04)
Before SBG entrance								
Share SBG X Election before 4 or more	0.11	0.10	0.30**	0.25*	0.05	−0.02	−0.07	−0.12
	(0.11)	(0.11)	(0.14)	(0.13)	(0.13)	(0.10)	(0.12)	(0.10)
Share SBG X Election before 3	−0.00	0.10	0.07	0.03	0.23	0.21**	0.03	0.02
	(0.12)	(0.12)	(0.12)	(0.11)	(0.16)	(0.09)	(0.15)	(0.12)
Share SBG X Election before 2	0.05	0.06	0.07	0.05	0.24	0.30***	0.13	0.12
	(0.10)	(0.09)	(0.10)	(0.09)	(0.14)	(0.10)	(0.13)	(0.11)
After SBG entrance								
Share SBG X Election 0	−0.06	0.00	0.09	0.12	0.13	0.24*	−0.09	−0.09
	(0.11)	(0.11)	(0.14)	(0.13)	(0.15)	(0.14)	(0.12)	(0.11)
Share SBG X Election 1	0.16	0.16	0.28**	0.28**	0.35**	0.34**	0.02	−0.02
	(0.12)	(0.11)	(0.14)	(0.14)	(0.13)	(0.14)	(0.15)	(0.12)
Share SBG X Election 2	0.29	0.31	0.59***	0.51***	0.84***	0.79***	0.43*	0.25
	(0.21)	(0.23)	(0.20)	(0.17)	(0.18)	(0.16)	(0.23)	(0.17)
Share SBG X Election 3	0.05	0.37	0.43*	0.43*	0.65**	0.76***	0.79	0.75*
	(0.27)	(0.30)	(0.24)	(0.23)	(0.30)	(0.23)	(0.53)	(0.44)
Share SBG X Election 4	0.89*	0.91*	0.48	0.51	1.50**	1.36**	0.23	0.23
	(0.47)	(0.46)	(0.43)	(0.38)	(0.59)	(0.52)	(0.82)	(0.54)
Observations	14773	14773	14773	14773	14773	14773	14773	14773
DMA	76	76	76	76	76	76	76	76
Districts	192.43	192.43	192.43	192.43	192.43	192.43	192.43	192.43
Stete Year FE	✓	✓	✓	✓	✓	✓	✓	✓
Cell Distict County FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓

Notes: District controls same as table 2. In the odd columns, the outcome is the standardized value of the total number of contributions, while in the even columns, we show the standardized value of individual contributions. Columns 1, 2, 5, and 6 present the outcomes as the score for the General election candidate in November running for the House of Representatives. Columns 3, 4, 7, and 8 present the outcomes as the average score among all candidates running in each party during the electoral year for the House of Representatives.

Finally, we examine the effect of contributions each candidate receives from various donors. One possible explanation for the impact of SBG activity may be the impact on the candidates' ability to secure donations from different organizations in their constituencies. Table 5

presents the results of the effects on the standarized natural logarithm of total donations from all groups and individual contributions according to the candidate's political party.

Columns 1 and 2 indicate that there have been no significant changes in the sources of financing for Democratic candidates for the November election since SBG entered the market. In contrast, the entry of SBG impacted the resources of Republican candidates. Columns 5 and 6 demonstrate a persistent increase in funding from all sources and individual sources. For instance, after two elections, there was a rise of 0.84 standard deviations in all sources of funds for Republican candidates' campaigns and a 0.78 standard deviation increase in funds from individual donations. This shows a substantial increase in the total funds raised by Republican candidates, indicating that SBG altered the total amount of money entering the campaign. These results are robust to deviations in the parallel trend assumption (see appendix figure A.10). Furthermore, Appendix Table B.7 illustrates a similar pattern for the average funds raised from PACs, rather than party donations. This suggests that the increased ability of the Republican nominee to attract donors partially explains their increased probability of winning the election.

In the case of donations to all candidates running in elections from both parties, we observe a very different pattern. Columns 7 and 8 show no significant change in the total money raised by Republican candidates. In contrast, there was a substantial increase in the amount raised by Democratic candidates throughout the entire electoral cycle (columns 3 and 4). For instance, our results suggest an increase of around 0.59 standard deviations in the total contributions for Democratic candidates after two elections from the entry of SBG. Appendix Table B.8 also shows that this increase is not due to PAC donations, contrary to the previous results. Moreover, there is a slight short-term decrease in donations coming from the party, suggesting compensatory behavior by the party. This implies that SBG entry helped to mobilize the Democratic base in support of candidates with more contributions. However, this increase in donations was largely absent for the November general elections.

The increase in candidates' ability to raise funds, as found in our previous exercises, comes from places with increased polarization. The appendix table B.9 shows our results when we interact the standardized measure of the donation value with the absolute value of the candidate's ideology score. It shows an increase in individual contributions for the average Democratic candidate and the November Republican candidate.

Altogether, this evidence shows that changes in the behavior and strategies of voters and candidates drive the electoral effects of SBG entry. Rather than simply increasing the preference for conservative candidates in the market, we observe that Democratic candidates and Democrat bases also reacted. The results indicate that the Democratic base responded by increasing donations to all primaries' candidates. However, this increase did not translate into changes in the results of primary elections. Instead, the introduction of SBG shifted

voter preferences towards more conservative candidates within the Democratic Party, leading to the nomination of more conservative candidates for the November elections.

We can use a similar argument for the Republican candidates. Despite the increase in the conservativeness of the districts, particularly in the late stages, the Republican nominee did not become more conservative than those in the nonaffected areas. This translated into reduced support for the candidate and, therefore, lower votes in treated areas, although to a lesser magnitude than in the Democratic Party. This ideological shift helps explain the decrease in votes for both Democratic and Republican candidates and, consequently, the increased chances of a Republican win.

9. Conclusions

This paper utilizes the staggered expansion of a television operator with a conservative bias, Sinclair Broadcast Group (SBG), to investigate its impact on the electoral process. Given shifts in voter ideology towards conservatism and a growing preference for more conservative politicians, exposure to this biased media has significant implications for electoral dynamics in areas where the company expanded its operations after 2012. Following the introduction of the conservative slant, these areas were more inclined to witness conservative candidates, consequently increasing the likelihood of this ideology being represented in Congress. However, the shift towards the right on the ideological spectrum among Democratic candidates is the main mechanism that explains this effect.

This study represents an attempt to explore the influence of a conservative news source on various outcomes in the elections process, such as voting, vote shares, ideologies, and donations to candidates, considering that this influence may vary depending on the nature of the elections and that subnational elections can be affected differently than presidential elections. Furthermore, the paper highlights that this influence can manifest in both electoral results and the characteristics of candidates who choose to participate in the electoral race. This suggests that research examining the effects of media on political life must consider multiple dimensions.

Moreover, it suggests that media owners with political interests may weigh various outcomes differently according to their specific goals. While our findings primarily pertain to the nuances of the American political system, they offer valuable insights into the effects of media bias on the functioning of democracy. This underscores the disruptive impact of media on American politics and emphasizes the importance of understanding the characteristics of the political system that drive this effect. Given the unique features of this system, further analysis should investigate whether changes in candidates' ideological movements result from the primaries process and the mechanisms for selecting candidates within parties. A deeper understanding of the factors driving these changes is crucial for policy-debates on this issue.

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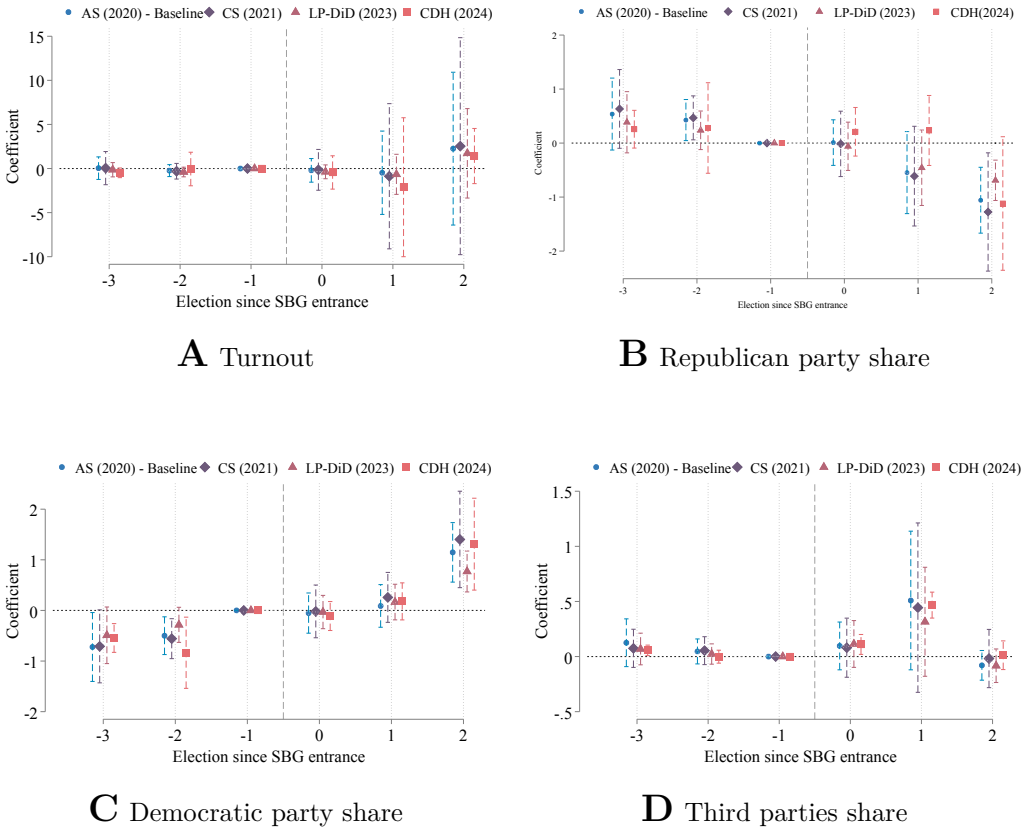
ONLINE APPENDIX

Appendix A. Figures

Figure A.1. Effect of SBG on presidential elections - Sample with greater overlap



A Turnout

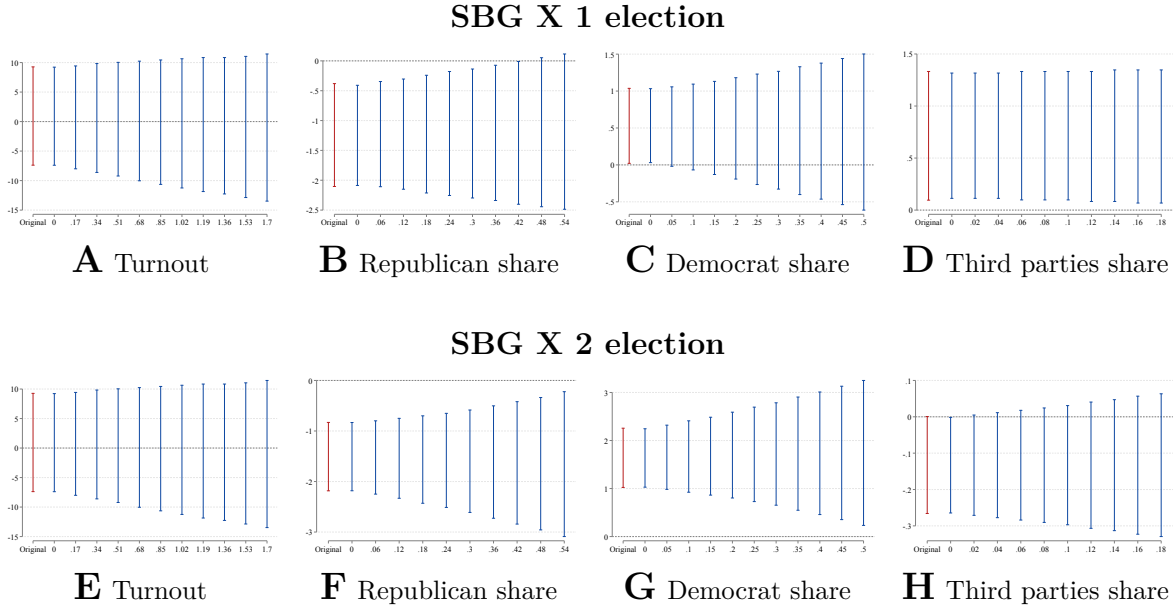
B Republican party share

C Democratic party share

D Third parties share

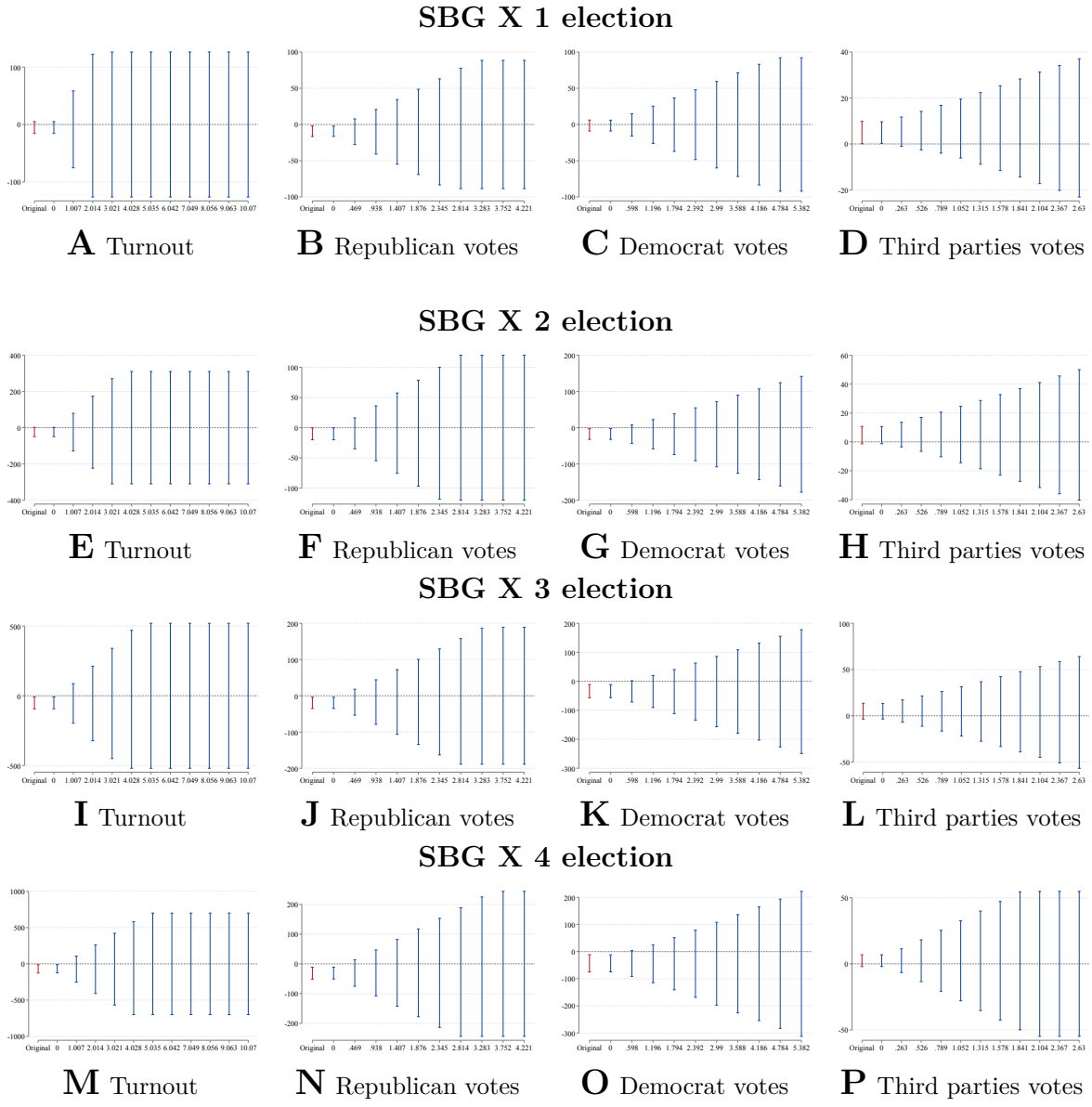
Notes: This figure presents the dynamic ATT using our baseline estimation equation 4 and three different models for the treatment of the entry of Sinclair. We present the model suggested by Callaway and Sant'Anna (2021) (CS), the local projection model suggested by Dube et al. (2023) (LP-DiD), and the model suggested by de Chaisemartin and d'Haultfoeuille (2021) (CDH). The sample is restricted to the optimal selection rule from Crump et al. (2009) over the propensity score, probability of observing the entry of SBG. The covariates used to predict the probability were selected following Belloni, Chernozhukov, and Hansen (2014) machine learning algorithm, which selects the best covariates predicting the entry of SBG and each one of the outcomes. Sample presidential elections between 2004 and 2020. Variables at the county level. 95% confidence Intervals using clustered standard errors at Media Market.

FIGURE A.2. Effect of SBG on presidential elections - Violations of the parallel trends assumption



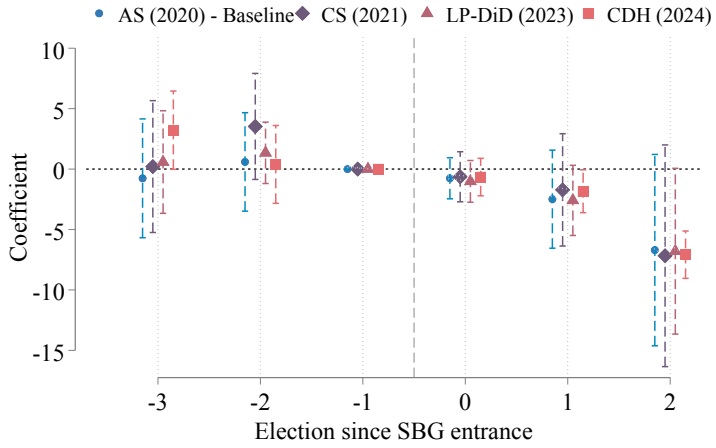
Notes: This figure presents the 90% confidence interval for both linear and non-linear violations of the parallel trends assumption, following Rambachan and Roth (2023) for estimations in figure 2. The figure displays the coefficient for elections following the Sinclair entry, with the first row representing the first election and the second row representing the second election. The parameter M measures the magnitude of the change in trend between consecutive periods. M=0 indicates a linear violation of the assumption of parallel trends. The maximum value of M corresponds to the trend that has an 80% probability of being detected, given the precision of the pre-period estimates (Roth, 2022).

FIGURE A.3. Effect of SBG on congressional elections total votes - Violations of the parallel trends assumption

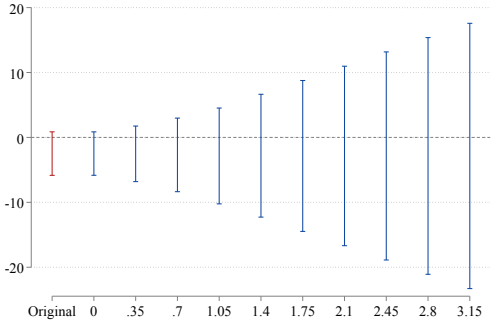


Notes: This figure presents the 90% confidence interval for both linear and non-linear violations of the parallel trends assumption, following Rambachan and Roth (2023) for estimations in figure 4. The figure displays the coefficient for elections following the Sinclair entry, with the first row representing the first election, the second row representing the second election, the third row representing the third election and the the forth row representing the forth election. The parameter M measures the magnitude of the change in trend between consecutive periods. M=0 indicates a linear violation of the assumption of parallel trends. The maximum value of M corresponds to the trend that has an 80% probability of being detected, given the precision of the pre-period estimates (Roth, 2022).

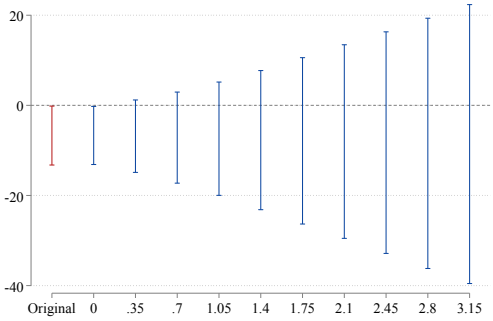
FIGURE A.4. Effect SBG on difference votes congress house elections vs presidential elections



A % House vs President



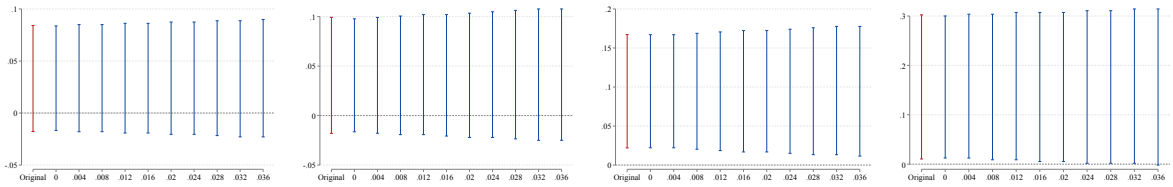
B SBG X 1 elections



C SBG X 2 elections

Notes: This figure presents the dynamic ATT using our baseline estimation equation 4 at the county level, with the outcome being the percentage difference between the total number of votes cast in presidential elections and the total number of votes cast in House of Representatives elections. Panel B and C show the 90% confidence interval for both linear and non-linear violations of the parallel trends assumption, following Rambachan and Roth (2023) for estimations in figure in panel A. The figure displays the coefficient for elections following the Sinclair entry. The parameter M measures the magnitude of the change in trend between consecutive periods. M=0 indicates a linear violation of the assumption of parallel trends. The maximum value of M corresponds to the trend that has an 80% probability of being detected, given the precision of the pre-period estimates (Roth, 2022)

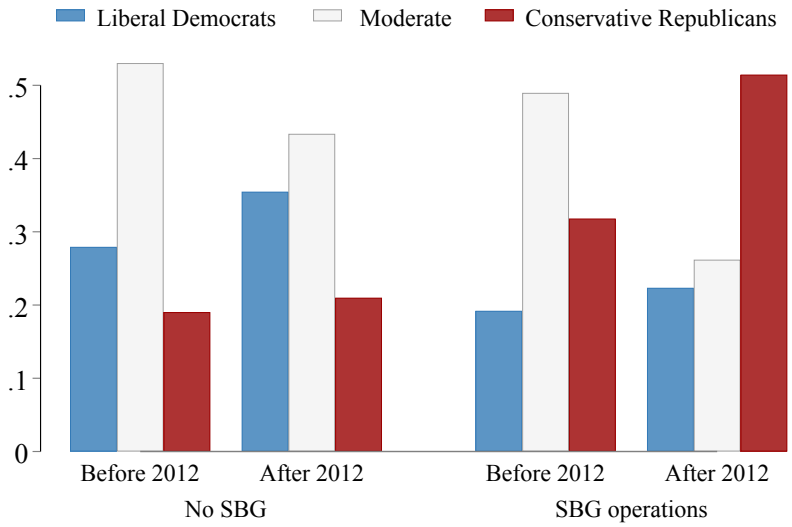
FIGURE A.5. Effect of SBG on probability Republican win in the district - Violations of the parallel trends assumption



A SBG X 1 election **B** SBG X 2 election **C** SBG X 3 election **D** SBG X 4 election

Notes: This figure presents the 90% confidence interval for both linear and non-linear violations of the parallel trends assumption, following Rambachan and Roth (2023) for estimations in figure 5. The figure displays the coefficient for elections following the Sinclair entry. The parameter M measures the magnitude of the change in trend between consecutive periods. M=0 indicates a linear violation of the assumption of parallel trends. The maximum value of M corresponds to the trend that has an 80% probability of being detected, given the precision of the pre-period estimates (Roth, 2022).

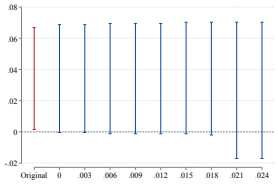
FIGURE A.6. Winners' ideology by SBG operations: Bonica score



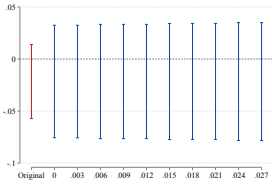
Notes: This graph shows the share of ideology categories of seat winners between 2012 and 2020 according SBG operations. Liberal Democrats and Conservative Republicans are defined as politicians whose scores would respectively put them into the bottom quintile or top quintile of the congress members scores in the 109th (2005-2007) congress as in figure 6 but using Bonica scores.

FIGURE A.7. Effect SBG on ideology - DW-Nominate score of winner house election - Violations of the parallel trends assumption

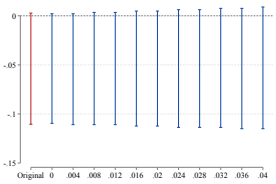
SBG X 1 election



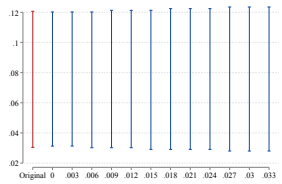
A Ideology score



B Democrat liberal

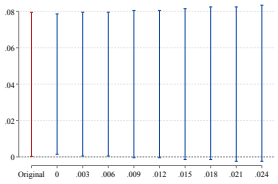


C Moderate

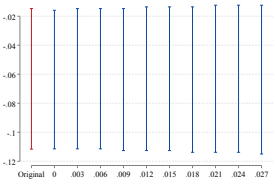


D Republican conservative

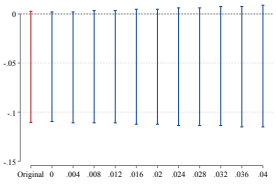
SBG X 2 election



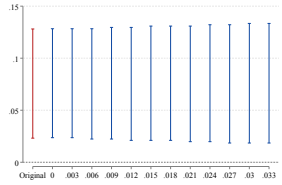
E Ideology score



F Democrat liberal

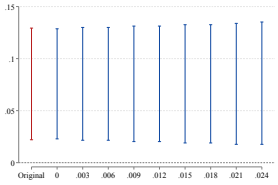


G Moderate

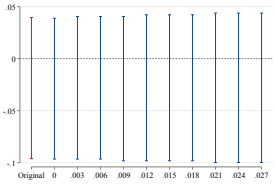


H Republican conservative

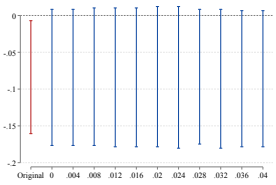
SBG X 3 election



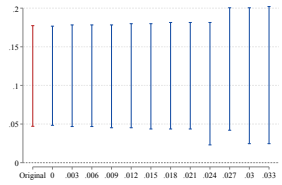
I Ideology score



J Democrat liberal

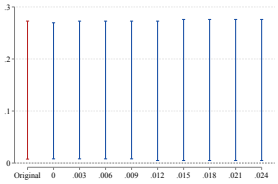


K Moderate

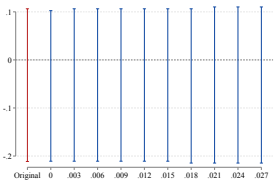


L Republican conservative

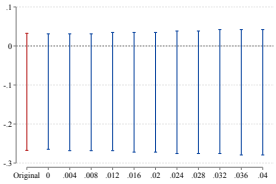
SBG X 4 election



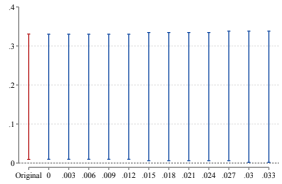
M Ideology score



N Democrat liberal



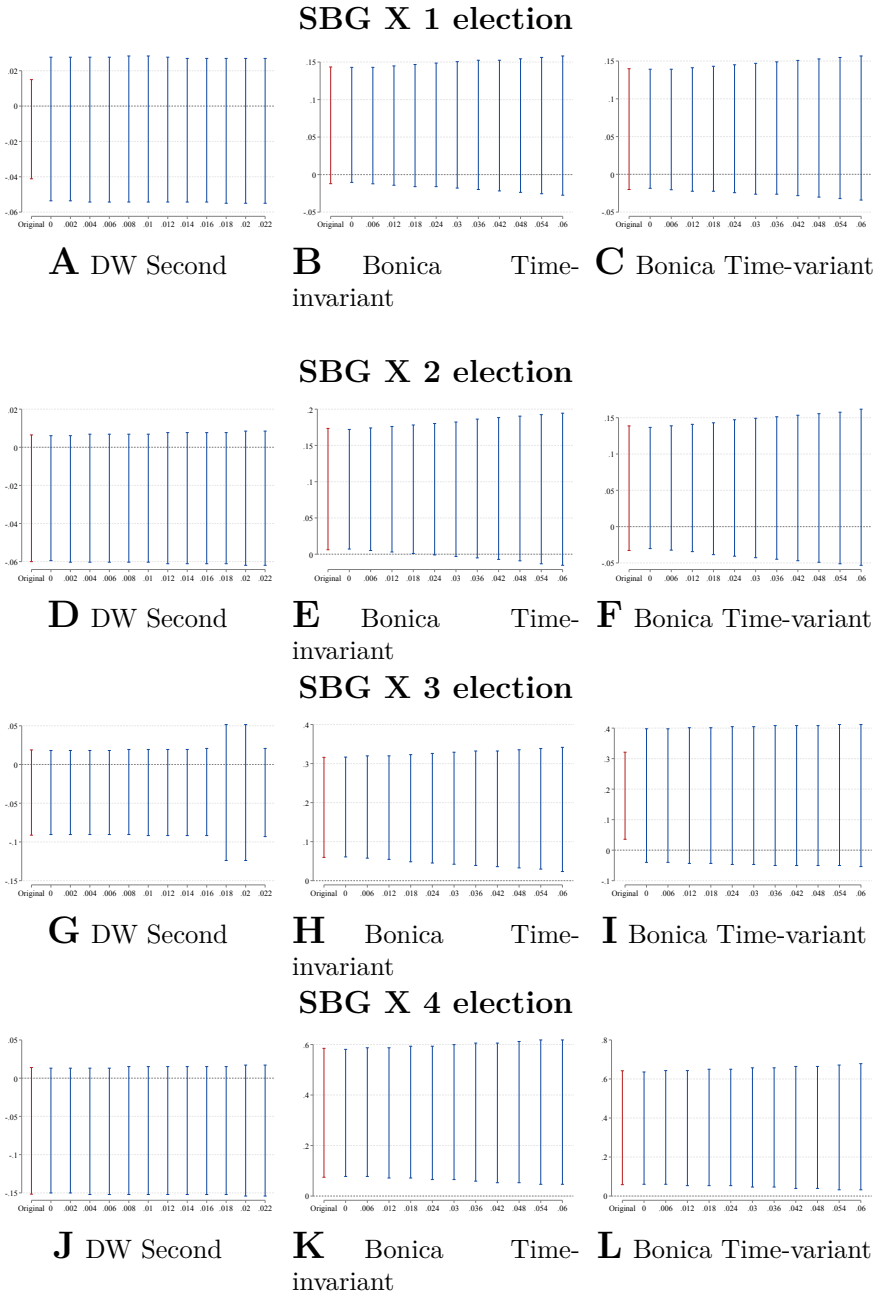
O Moderate



P Republican conservative

Notes: This figure presents the 90% confidence interval for both linear and non-linear violations of the parallel trends assumption, following Rambachan and Roth (2023) for estimations in table 2. The figure displays the coefficient for elections following the Sinclair entry, with the first row representing the first election, the second row representing the second election, the third row representing the third election and the the forth row representing the forth election. The parameter M measures the magnitude of the change in trend between consecutive periods. M=0 indicates a linear violation of the assumption of parallel trends. The maximum value of M corresponds to the trend that has an 80% probability of being detected, given the precision of the pre-period estimates (Roth, 2022).

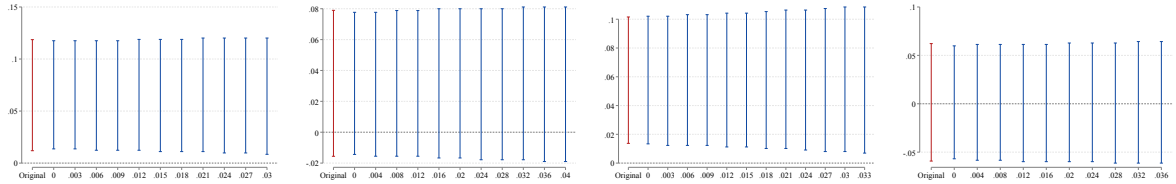
FIGURE A.8. Effect of SBG on ideology - Different ideologies measures - Violations of the parallel trends assumption



Notes: This figure presents the 90% confidence interval for both linear and non-linear violations of the parallel trends assumption, following Rambachan and Roth (2023) for estimations in table 3. TThe figure displays the coefficient for elections following the Sinclair entry, with the first row representing the first election, the second row representing the second election, the third row representing the third election and the the forth row representing the forth election. The parameter M measures the magnitude of the change in trend between consecutive periods. M=0 indicates a linear violation of the assumption of parallel trends. The maximum value of M corresponds to the trend that has an 80% probability of being detected, given the precision of the pre-period estimates (Roth, 2022).

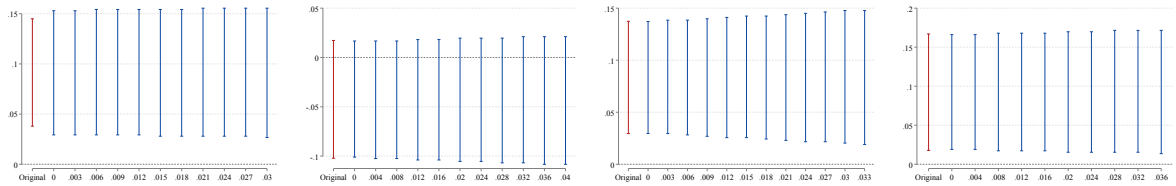
FIGURE A.9. Effect of SBG on ideology - Bonica score invariant score - Violations of the parallel trends assumption

SBG X 1 election



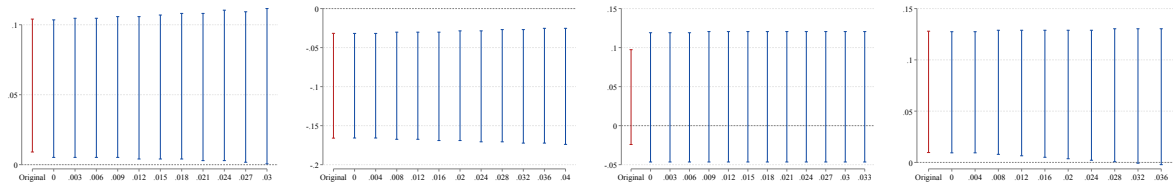
A Democrat general elec. **B** Democrat all candidates **C** Republican general elec. **D** Republican all candidates

SBG X 2 election



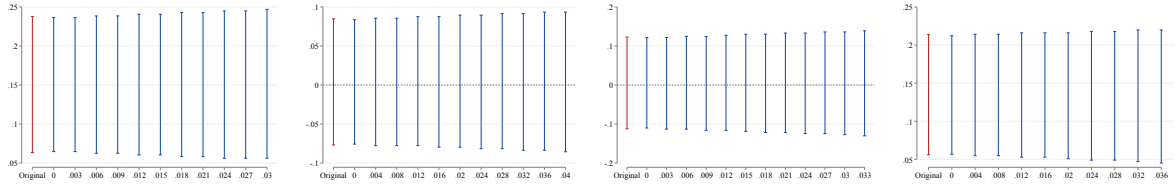
E Democrat general elec. **F** Democrat all candidates **G** Republican general elec. **H** Republican all candidates

SBG X 3 election



I Democrat general elec. **J** Democrat all candidates **K** Republican general elec. **L** Republican all candidates

SBG X 4 election

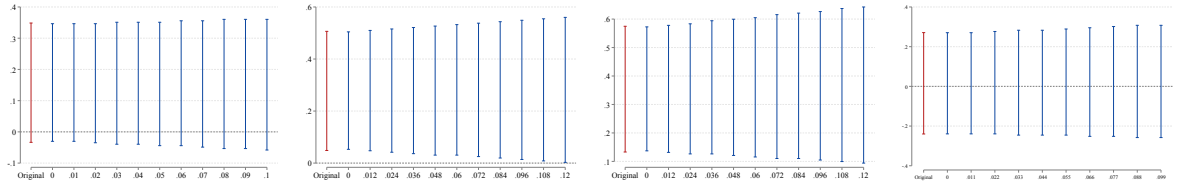


M Democrat general elec. **N** Democrat all candidates **O** Republican general elec. **P** Republican all candidates

Notes: This figure presents the 90% confidence interval for both linear and non-linear violations of the parallel trends assumption, following Rambachan and Roth (2023) for estimations in table 4. The figure displays the coefficient for elections following the Sinclair entry, with the first row representing the first election, the second row representing the second election, the third row representing the third election and the the forth row representing the forth election. The parameter M measures the magnitude of the change in trend between consecutive periods. M=0 indicates a linear violation of the assumption of parallel trends. The maximum value of M corresponds to the trend that has an 80% probability of being detected, given the precision of the pre-period estimates (Roth, 2022).

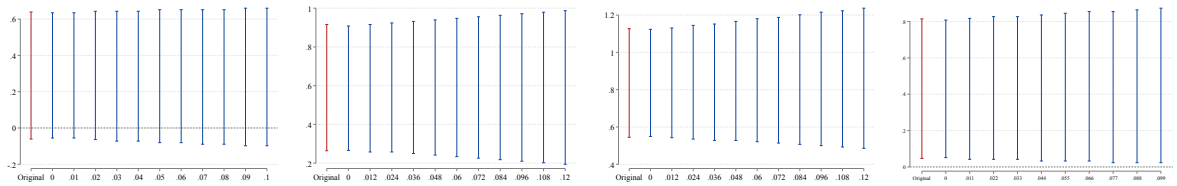
FIGURE A.10. Effect of SBG on candidates' contributions - Total contributions - Violations of the parallel trends assumption

SBG X 1 election



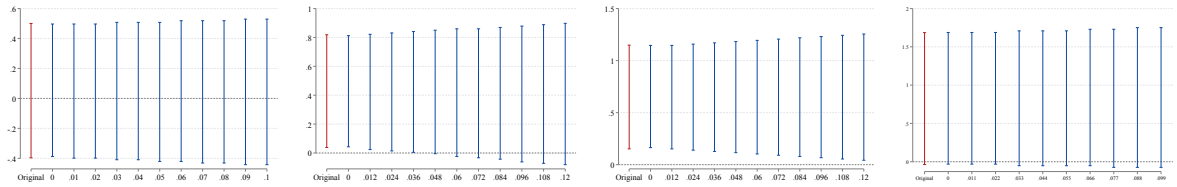
A Democrat general elec. **B** Democrat all candidates **C** Republican general elec. **D** Republican all candidates

SBG X 2 election



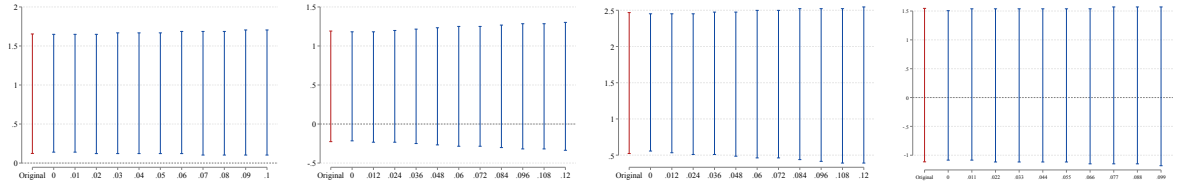
E Democrat general elec. **F** Democrat all candidates **G** Republican general elec. **H** Republican all candidates

SBG X 3 election



I Democrat general elec. **J** Democrat all candidates **K** Republican general elec. **L** Republican all candidates

SBG X 4 election



M Democrat general elec. **N** Democrat all candidates **O** Republican general elec. **P** Republican all candidates

Notes: This figure presents the 90% confidence interval for both linear and non-linear violations of the parallel trends assumption, following Rambachan and Roth (2023) for estimations in table 5. The figure displays the coefficient for elections following the Sinclair entry, with the first row representing the first election, the second row representing the second election, the third row representing the third election and the the forth row representing the forth election. The parameter M measures the magnitude of the change in trend between consecutive periods. M=0 indicates a linear violation of the assumption of parallel trends. The maximum value of M corresponds to the trend that has an 80% probability of being detected, given the precision of the pre-period estimates (Roth, 2022).

Appendix B. Tables

Table B.1. State assignment comparison states without tribune

Original State (1)	Assigned (2)
MD	PA
GA	AL
KY	TN
WI	IL
ID	WY
MT	WY
MI	IN
NC	TN
SC	TN
VA	TN
WV	TN
NM	CO
UT	CO
OR	CA
WA	CA
RI	CT
SD	NE
VT	NY
MA	NY
DC	PA

Notes: This table shows the assignment of states without Tribune operations to neighboring states with operations. Column 1 lists the original states, and column 2 shows their assignment.

TABLE B.2. Descriptive statistics by cohort SBG entry

Variable	Control	Cohort 2012		Cohort 2014		Cohort 2016		Cohort 2018	
	Stat	Stat	Diff	Stat	Diff	Stat	Diff	Stat	Diff
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Panel A: Socio economic and geographical characteristics									
Log (Population)	2.463	2.315	−0.075**	2.337	−0.120***	2.189	−0.054	2.281	−0.188***
	(0.182)	(0.171)		(0.138)		(0.173)		(0.136)	
Share female population	0.505	0.499	−0.002*	0.501	−0.006***	0.500	−0.003	0.495	−0.008***
	(0.016)	(0.015)		(0.021)		(0.014)		(0.033)	
Share black population	0.760	0.892	0.098***	0.811	0.077***	0.935	0.051*	0.826	0.120***
	(0.169)	(0.082)		(0.166)		(0.063)		(0.145)	
Share hispanic population	0.157	0.099	−0.065**	0.096	−0.030	0.138	0.144	0.134	0.001
	(0.141)	(0.101)		(0.152)		(0.241)		(0.150)	
Share american indian population	0.007	0.010	0.004	0.019	0.008**	0.004	−0.007	0.012	0.007*
	(0.013)	(0.035)		(0.058)		(0.002)		(0.025)	
Share asian population	0.038	0.010	−0.019***	0.015	−0.022***	0.005	−0.009*	0.007	−0.027***
	(0.048)	(0.011)		(0.026)		(0.006)		(0.008)	
Share population age 25-34 yo	0.125	0.116	−0.008*	0.116	−0.009***	0.102	−0.008**	0.115	−0.014***
	(0.023)	(0.022)		(0.022)		(0.018)		(0.022)	
Share population age 35-44 yo	0.131	0.118	−0.010***	0.122	−0.008***	0.109	−0.008*	0.119	−0.013***
	(0.015)	(0.016)		(0.016)		(0.013)		(0.016)	
Share population age 45-54 yo	0.150	0.145	−0.007	0.148	−0.001	0.151	−0.002	0.149	0.002
	(0.015)	(0.017)		(0.015)		(0.014)		(0.014)	
Share population age 55-64 yo	0.123	0.128	0.003	0.132	0.008**	0.137	0.004	0.141	0.017***
	(0.020)	(0.023)		(0.023)		(0.018)		(0.022)	
Share population age over 65 yo	0.138	0.162	0.019**	0.156	0.018***	0.189	0.015	0.170	0.040***
	(0.035)	(0.050)		(0.040)		(0.045)		(0.036)	
Share rural population	0.319	0.557	0.155***	0.534	0.183***	0.705	0.081*	0.621	0.203***
	(0.325)	(0.337)		(0.318)		(0.327)		(0.318)	
Share population above 25 year with some college	0.156	0.129	−0.032***	0.120	−0.027***	0.117	−0.029***	0.112	−0.020***
	(0.061)	(0.043)		(0.050)		(0.035)		(0.041)	
Share of agriculture employment	0.032	0.075	0.016*	0.052	0.019**	0.139	0.010	0.090	0.061***
	(0.053)	(0.074)		(0.050)		(0.109)		(0.074)	
Share of manufacturing employment	0.111	0.104	0.009	0.120	−0.007	0.107	0.016	0.085	−0.037***
	(0.063)	(0.074)		(0.065)		(0.099)		(0.058)	
Share of labor force	0.501	0.511	−0.014	0.486	−0.002	0.533	0.015	0.470	0.005
	(0.057)	(0.061)		(0.062)		(0.051)		(0.075)	
Share of employment	0.905	0.919	0.000	0.903	−0.000	0.942	0.001	0.908	0.006
	(0.024)	(0.031)		(0.033)		(0.031)		(0.029)	
Crimes per 10000 inhabitants	34.111	24.624	−10.397***	26.838	−10.474***	13.974	−1.513	30.404	−13.713*
	(31.365)	(17.320)		(24.393)		(18.132)		(20.927)	
Log(Average household income)	10.841	10.719	−0.089**	10.661	−0.132***	10.598	−0.114	10.527	−0.199***
	(0.276)	(0.183)		(0.260)		(0.171)		(0.163)	
Log(Federal expenditure +1)	13.616	12.391	−0.391	12.645	−1.094***	11.249	−0.497	12.138	−1.931***
	(3.026)	(1.706)		(1.525)		(1.472)		(1.340)	
Share of population with medicare	0.124	0.148	0.016**	0.142	0.017***	0.179	0.013	0.153	0.038***
	(0.036)	(0.049)		(0.041)		(0.047)		(0.033)	
Share of population with no health insurance	0.125	0.116	−0.011*	0.117	−0.002	0.112	0.001	0.135	−0.000
	(0.040)	(0.029)		(0.037)		(0.034)		(0.040)	
Housing unites per 1000 inhabitants	443.737	482.556	16.261	476.732	44.229**	504.760	14.841	506.337	78.350***
	(117.575)	(139.479)		(120.573)		(84.108)		(99.579)	
Share of population receiving social security benefits	0.179	0.206	0.027**	0.211	0.027***	0.224	0.009	0.235	0.053***
	(0.049)	(0.055)		(0.057)		(0.049)		(0.050)	
Share of veteran population	0.073	0.083	0.010	0.090	0.015***	0.087	−0.000	0.091	0.014***
	(0.023)	(0.021)		(0.024)		(0.020)		(0.024)	
Infant under 1 year mortality rate	6.427	7.124	−0.210	7.159	0.154	13.622	8.261**	8.639	1.322
	(4.904)	(9.866)		(6.762)		(44.690)		(11.876)	
Water use per capita	4.012	6.843	0.357	4.559	1.496	16.464	3.065	5.884	2.263
	(15.155)	(12.664)		(13.108)		(23.967)		(17.912)	

Continue... .

Panel B: Political characteristics

Preference Democrats	0.492	0.336	−0.111***	0.438	−0.041*	0.334	0.047	0.362	−0.069**
	(0.158)	(0.136)		(0.135)		(0.138)		(0.128)	
Preference Democrats in House 2000	0.422	0.282	−0.097***	0.368	−0.066**	0.253	0.091	0.297	−0.053**
	(0.180)	(0.152)		(0.189)		(0.162)		(0.164)	
No Democrat candidate 2000	0.018	0.033	0.025	0.091	0.106*	0.000	−0.029	0.054	0.041
	(0.133)	(0.180)		(0.289)		(0.000)		(0.227)	
Tea party portestors per million	1.245	3.149	0.419	1.706	0.161	0.467	−0.813	1.363	−0.648
	(4.900)	(31.026)		(20.092)		(1.718)		(3.759)	
Tea party contributions per 1000	3.959	4.174	−0.053	3.609	0.442	11.175	12.919	8.431	4.075
	(11.467)	(15.701)		(15.736)		(82.250)		(30.198)	
Longitude pop weighted centroid	-91.735	-95.792	−1.896**	-93.607	−0.954	-96.981	0.344	-95.437	−1.163
	(13.586)	(13.155)		(15.498)		(4.482)		(15.440)	
Latitude pop weighted centroid	37.549	38.105	0.819	39.256	2.379***	38.934	−1.008	36.717	1.636*
	(4.238)	(4.310)		(4.865)		(4.958)		(4.929)	
DW Idiology score 2010	-0.005	0.024	0.022	0.010	0.010	0.013	−0.017	0.016	−0.014
	(0.159)	(0.053)		(0.057)		(0.029)		(0.022)	
DW Idiology score: Second 2010	0.017	-0.097	0.008	0.126	0.060	0.127	−0.037	0.088	0.119
	(0.285)	(0.356)		(0.342)		(0.218)		(0.306)	
Bonica Idiology score: time invariant 2010	0.543	0.834	−0.017	0.706	0.116	0.945	−0.347*	0.911	0.046
	(0.842)	(0.766)		(0.722)		(0.635)		(0.650)	
Bonica Idiology score: no missing 2010	1.000	1.000	0.000	0.995	−0.010	1.000	0.000	0.957	−0.045
	(0.000)	(0.000)		(0.069)		(0.000)		(0.204)	
Democrat candidate ideology score 2010	-0.189	-0.078	0.078**	-0.071	0.127***	-0.025	0.063	-0.042	0.151**
	(0.216)	(0.081)		(0.094)		(0.035)		(0.032)	
Republican candidate ideology score 2010	0.229	0.098	−0.105***	0.099	−0.141***	0.056	−0.038	0.055	−0.213***
	(0.281)	(0.096)		(0.109)		(0.060)		(0.036)	
House republican winner 2010	0.110	0.064	−0.032	0.052	−0.062***	0.029	−0.038	0.038	−0.093***
	(0.157)	(0.079)		(0.063)		(0.044)		(0.029)	

Notes: This table presents county characteristics according to SBG operation in the county. Columns 1, 2, 4, 6 and 8 show the mean and standard deviation (in parentheses). Columns 3, 5, 7 and 9 present the difference in comparison with the control groups where there is no SBG operation once controlling for state fixed effects. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

TABLE B.3. Two-way fixed effects decomposition and weights

	All Sample (1)	Tribune (2)
Panel A: Bacon Decomposition		
Treated (T) vs Never Treated (C)	0.908	0.725
Early Treated (T) vs Late Treated (C)	0.038	0.113
Late Treated (T) vs Early Treated (C)	0.054	0.162
Panel B: Negative Weights		
Share of Negative Weights (County)	0.000	0.097
Share of Negative Weights (Elec. Districts)	0.000	0.000

Notes: This table presents the decomposition of a naive two-way fixed effects model. Column 1 shows the results using the complete sample of the entire United States (Without areas where SBG operated before 2004). Column 2 shows the results using only the sample of Tribune operating areas and the areas with SBG expansion after 2012. In Panel A, we present the Goodman-Bacon (2021) decomposition, where T represents treated units and C represents the comparison groups. In Panel B, we present the share of negative weights following de Chaisemartin and d'Haultfoeuille (2021) for the estimation, using either counties or the weighted cells that sum electoral districts as the unit of analysis.

TABLE B.4. Ideology in district by year

	Share Treated	Ideology	
		Control	Treated
	(1)	(2)	(3)
2004	0.000	-0.033	0.086
2006	0.000	-0.070	0.053
2008	0.000	-0.078	0.033
2010	0.000	-0.018	0.165
2012	0.085	-0.069	0.177
2014	0.332	-0.065	0.190
2016	0.346	-0.075	0.201
2018	0.365	-0.183	0.168
2020	0.365	-0.154	0.191
Before 2012	0.000	-0.050	0.084
After 2012	0.299	-0.109	0.186

Notes: Column one shows the share of treated districts each year. Columns 2 and 3 show the average DW ideology score in treated and control districts.

TABLE B.5. Effect of SBG on ideology: DW-Nominate score of winner house election using model suggested by de Chaisemartin and d'Haultfoeuille (2021)

		Prob. that winner was		
	Ideology Score	Democrat Liberal	Moderate	Republican Conservative
	(1)	(2)	(3)	(4)
Before treatment	0.17	0.14	0.45	0.42
	(0.42)	(0.34)	(0.50)	(0.49)
Before SBG entrance				
Share SBG X Election before 4 or more	−0.01	−0.05***	0.05*	−0.00
	(0.02)	(0.01)	(0.03)	(0.03)
Share SBG X Election before 3	−0.02	−0.01	0.00	0.01
	(0.02)	(0.02)	(0.04)	(0.03)
Share SBG X Election before 2	0.05***	−0.02	−0.05**	0.07***
	(0.01)	(0.01)	(0.02)	(0.02)
After SBG entrance				
Share SBG X Election 0				
Share SBG X Election 1	0.04***	−0.02	−0.06***	0.07***
	(0.01)	(0.01)	(0.02)	(0.01)
Share SBG X Election 2	0.02**	−0.04**	−0.03	0.07***
	(0.01)	(0.02)	(0.03)	(0.01)
Share SBG X Election 3	0.07***	−0.01	−0.10**	0.11***
	(0.01)	(0.03)	(0.04)	(0.02)
Share SBG X Election 4	0.15***	−0.05	−0.12***	0.17***
	(0.02)	(0.04)	(0.04)	(0.02)
State-Year FE	✓	✓	✓	✓
Cell Distict County FE	✓	✓	✓	✓
Controls	✓	✓	✓	✓

Notes: District controls same as table 2. Observations are weighted by a cell's share of total district population. Standard errors in parentheses are clustered at the Media Market. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

TABLE B.6. Effect of SBG on ideology: DW-Nominate score of winner house election sample states with both tribune and SBG operations

		Prob. that winner was		
	Ideology Score	Democrat Liberal	Moderate	Republican Conservative
	(1)	(2)	(3)	(4)
Before treatment	0.26	0.09	0.40	0.52
	(0.37)	(0.28)	(0.49)	(0.50)
Before SBG entrance				
Share SBG X Election before 4 or more	−0.04	−0.08**	0.17***	−0.08*
	(0.05)	(0.03)	(0.06)	(0.05)
Share SBG X Election before 3	−0.00	−0.03	0.03	0.00
	(0.05)	(0.03)	(0.05)	(0.05)
Share SBG X Election before 2	0.05	0.01	−0.07	0.07
	(0.04)	(0.03)	(0.05)	(0.05)
After SBG entrance				
Share SBG X Election 0	0.02	0.00	−0.04	0.04
	(0.04)	(0.03)	(0.03)	(0.04)
Share SBG X Election 1	0.03	−0.02	−0.03	0.05
	(0.04)	(0.03)	(0.04)	(0.04)
Share SBG X Election 2	0.09**	−0.07*	0.00	0.07
	(0.03)	(0.04)	(0.05)	(0.05)
Share SBG X Election 3	0.14**	−0.04	−0.10	0.14*
	(0.06)	(0.06)	(0.07)	(0.08)
Share SBG X Election 4	0.16	−0.02	−0.19**	0.21*
	(0.12)	(0.12)	(0.09)	(0.12)
Observations	10380	10380	10380	10380
DMA	53	53	53	53
Districts	145.74	145.74	145.74	145.74
State-Year FE	✓	✓	✓	✓
Cell Distict County FE	✓	✓	✓	✓
Controls	✓	✓	✓	✓

Notes: District controls same as table 2. Observations are weighted by a cell's share of total district population. Standard errors in parentheses are clustered at the Media Market. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

TABLE B.7. Effect of SBG on candidates' contributions: November elections

	Democrats				Republicans			
	Total	Individual	PAC	Party	Total	Individual	PAC	Party
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Before treatment	-0.00	-0.13	0.02	0.68	0.39	0.32	0.56	0.22
	(1.12)	(0.91)	(1.42)	(1.65)	(1.07)	(1.03)	(1.48)	(1.33)
Before SBG entrance								
Share SBG X Election before 4 or more	0.11	0.10	0.20*	−0.11	0.05	−0.02	0.02	0.36
	(0.12)	(0.12)	(0.10)	(0.18)	(0.13)	(0.10)	(0.14)	(0.22)
Share SBG X Election before 3	−0.00	0.10	0.23*	0.04	0.23	0.21**	0.19	0.52**
	(0.12)	(0.12)	(0.13)	(0.19)	(0.16)	(0.09)	(0.12)	(0.23)
Share SBG X Election before 2	0.05	0.06	0.19	0.10	0.24	0.30***	0.24**	0.56***
	(0.10)	(0.09)	(0.12)	(0.19)	(0.14)	(0.10)	(0.10)	(0.16)
After SBG entrance								
Share SBG X Election 0	−0.06	0.00	0.15	−0.22	0.13	0.24*	0.16	0.12
	(0.11)	(0.11)	(0.09)	(0.14)	(0.15)	(0.14)	(0.11)	(0.20)
Share SBG X Election 1	0.16	0.16	0.13	−0.22	0.35**	0.34**	0.37***	0.26
	(0.12)	(0.11)	(0.09)	(0.18)	(0.13)	(0.14)	(0.13)	(0.27)
Share SBG X Election 2	0.29	0.31	0.18	−0.21	0.84***	0.79***	0.69***	0.58
	(0.22)	(0.24)	(0.13)	(0.18)	(0.18)	(0.16)	(0.22)	(0.89)
Share SBG X Election 3	0.05	0.37	0.28	−0.08	0.65**	0.76***	0.67***	0.35
	(0.28)	(0.31)	(0.21)	(0.24)	(0.31)	(0.24)	(0.16)	(0.37)
Share SBG X Election 4	0.89*	0.91*	0.64**	0.11	1.50**	1.36***	0.77***	−0.03
	(0.46)	(0.46)	(0.26)	(0.33)	(0.58)	(0.51)	(0.22)	(0.28)
Observations	14773	14773	14773	14773	14773	14773	14773	14773
DMA	76	76	76	76	76	76	76	76
Districts	1731.91	1731.91	1731.91	1731.91	1731.91	1731.91	1731.91	1731.91
Stete Year FE	✓	✓	✓	✓	✓	✓	✓	✓
Cell Distict County FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓

Notes: District controls same as table 2. In columns 1 and 5, the outcome is the standardized value of the total contributions. In columns 2 and 6, the outcome is the standardized value of individual contributions. In columns 3 and 7, the outcome is the standardized value of contributions from PACs. In columns 4 and 8, the outcome is the standardized value of party contributions. All results are for the General election candidates in November running for the House of Representatives. Standard errors in parentheses are clustered at the Media Market. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

TABLE B.8. Effect of SBG on candidates' contributions: All candidates

	Democrats				Republicans			
	Total	Individual	PAC	Party	Total	Individual	PAC	Party
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Before treatment	-0.09	-0.17	-0.04	0.68	0.36	0.25	0.37	0.17
	(0.95)	(0.76)	(1.32)	(1.65)	(1.14)	(1.04)	(1.24)	(1.35)
Before SBG entrance								
Share SBG X Election before 4 or more	0.30**	0.25*	0.35**	−0.34*	−0.07	−0.12	0.04	0.35
	(0.14)	(0.13)	(0.14)	(0.20)	(0.13)	(0.11)	(0.14)	(0.25)
Share SBG X Election before 3	0.07	0.03	0.29**	−0.16	0.03	0.02	0.10	0.56*
	(0.12)	(0.11)	(0.13)	(0.17)	(0.15)	(0.12)	(0.13)	(0.30)
Share SBG X Election before 2	0.07	0.05	0.13	0.03	0.13	0.12	0.25**	0.61**
	(0.10)	(0.09)	(0.11)	(0.21)	(0.13)	(0.11)	(0.11)	(0.24)
After SBG entrance								
Share SBG X Election 0	0.09	0.12	0.17	−0.29*	−0.09	−0.09	0.05	0.03
	(0.14)	(0.13)	(0.14)	(0.17)	(0.12)	(0.11)	(0.12)	(0.18)
Share SBG X Election 1	0.28**	0.28**	0.18	−0.38**	0.02	−0.02	0.17	0.23
	(0.14)	(0.14)	(0.17)	(0.16)	(0.16)	(0.12)	(0.18)	(0.22)
Share SBG X Election 2	0.59***	0.51***	0.49**	−0.39*	0.43*	0.25	0.51**	0.61**
	(0.20)	(0.17)	(0.20)	(0.21)	(0.24)	(0.18)	(0.24)	(0.28)
Share SBG X Election 3	0.43*	0.43*	0.28	−0.13	0.79	0.75*	0.65***	0.72***
	(0.24)	(0.23)	(0.19)	(0.25)	(0.54)	(0.45)	(0.20)	(0.25)
Share SBG X Election 4	0.48	0.51	0.58**	−0.25	0.23	0.23	0.26	−0.03
	(0.43)	(0.37)	(0.28)	(0.31)	(0.81)	(0.52)	(0.27)	(0.21)
Observations	14773	14773	14773	14773	14773	14773	14773	14773
DMA	76	76	76	76	76	76	76	76
Districts	192.43	192.43	192.43	192.43	192.43	192.43	192.43	192.43
Stete Year FE	✓	✓	✓	✓	✓	✓	✓	✓
Cell Distict County FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓

Notes: District controls same as table 2. In columns 1 and 5, the outcome is the standardized value of the total contributions. In columns 2 and 6, the outcome is the standardized value of individual contributions. In columns 3 and 7, the outcome is the standardized value of contributions from PACs. In columns 4 and 8, the outcome is the standardized value of party contributions. All results are for the average score among all candidates running in each party during the electoral year for the House of Representatives. Standard errors in parentheses are clustered at the Media Market. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

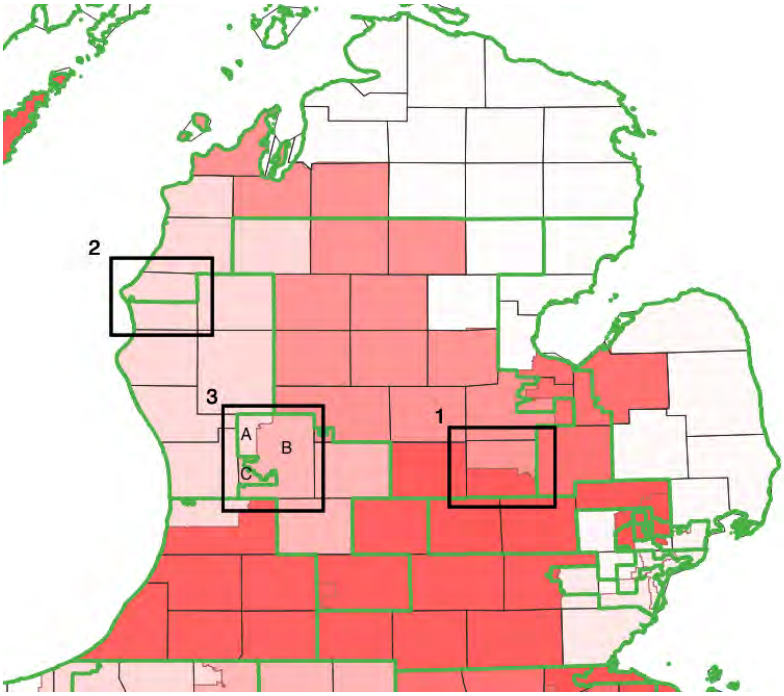
TABLE B.9. Effect of SBG on candidates' contributions x absolute value ideology

	Democrats				Republicans			
	November election		All candidates		November election		All candidates	
	All	Individual	All	Individual	All	Individual	All	Individual
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Before treatment	-0.01	-0.10	-0.06	-0.11	0.49	0.43	0.45	0.33
	(0.98)	(0.82)	(0.83)	(0.71)	(1.29)	(1.29)	(1.43)	(1.35)
Before SBG entrance								
Share SBG X Election before 4 or more	0.18	0.15	0.28**	0.24*	0.03	−0.14	−0.14	−0.23**
	(0.13)	(0.13)	(0.13)	(0.13)	(0.16)	(0.12)	(0.13)	(0.09)
Share SBG X Election before 3	−0.01	0.07	0.00	−0.01	0.11	0.08	−0.08	−0.12
	(0.12)	(0.13)	(0.11)	(0.11)	(0.18)	(0.11)	(0.17)	(0.13)
Share SBG X Election before 2	−0.02	0.01	0.03	0.02	0.18	0.24*	0.06	0.07
	(0.09)	(0.09)	(0.09)	(0.09)	(0.16)	(0.12)	(0.13)	(0.12)
After SBG entrance								
Share SBG X Election 0	−0.23*	−0.15	0.04	0.08	0.27	0.31*	−0.18	−0.19
	(0.13)	(0.11)	(0.13)	(0.12)	(0.19)	(0.18)	(0.12)	(0.12)
Share SBG X Election 1	0.01	0.07	0.23*	0.22*	0.30*	0.32*	−0.08	−0.10
	(0.12)	(0.10)	(0.13)	(0.12)	(0.17)	(0.18)	(0.17)	(0.13)
Share SBG X Election 2	0.14	0.31	0.44**	0.38**	0.97***	0.94***	0.46*	0.23
	(0.24)	(0.25)	(0.17)	(0.15)	(0.19)	(0.20)	(0.26)	(0.21)
Share SBG X Election 3	0.02	0.37	0.43*	0.43*	0.62	0.75**	0.97	0.89
	(0.32)	(0.35)	(0.23)	(0.23)	(0.51)	(0.37)	(0.74)	(0.59)
Share SBG X Election 4	0.58	0.64	0.53*	0.52*	1.88*	1.62**	0.51	0.38
	(0.49)	(0.47)	(0.31)	(0.29)	(0.96)	(0.80)	(1.09)	(0.74)
Observations	13182	13182	13833	13833	13118	13118	13800	13800
DMA	76	76	76	76	76	76	76	76
Districts	178.81	178.81	186.06	186.06	162.62	162.62	173.51	173.51
Stete Year FE	✓	✓	✓	✓	✓	✓	✓	✓
Cell Distict County FE	✓	✓	✓	✓	✓	✓	✓	✓
Controls	✓	✓	✓	✓	✓	✓	✓	✓

Notes: District controls same as table 2. In the odd columns, we measured the outcome using the time-invariant ideology score, while we measured the outcome using the time-variant score. Observations are weighted by a cell's share of total district population. Standard errors in parentheses are clustered at the Media Market. * is significant at the 10% level, ** is significant at the 5% level, *** is significant at the 1% level.

Appendix C. Adjusting for Redistricting

Figure C.11. House electoral districts Michigan before 2012 and after 2012



Notes: This figure shows the distribution of House electoral districts in Michigan. Black contours represent county boundaries. The red color scale indicates the House electoral districts before the 2012 election, and the green contours represent the House electoral districts after the 2012 election.

Regarding the redrawing of electoral districts to ensure compatibility, we follow Autor et al. (2020) and translate new districts into previous draws using the distribution of the voting-age population in 2010 (before SBG expansion). We explain the logic in detail using the following example from the case of Michigan in figure C.11.

In square number one, there is the case of a county split into two different electoral districts before 2012 (112th Congress and before) and united into a single district after 2012 (113th Congress and after). In this case, the data will include two observations for all the years in our sample. The weight of each observation will be equivalent to the share of the voting population in each portion of the corresponding electoral district before 2012. For outcomes before 2012, we assigned each observation the outcomes of their respective districts. After 2012, the result will be the same for both observations, reflecting the outcome of the electoral district they belong to.

In square number two, there is the case of a county united in a single district before 2012 and split into two districts after 2012. In this case, the data will include one observation

before 2012 and two after 2012. The weight of each observation after 2012 will be equal to the same weight as the single unit before 2012. It will represent the distribution of the voting-age population 2012 between these two divisions. We assigned each of these units the respective outcome in their electoral district.

In square number three, there is the case of a county split into two districts before 2012 and again into two different districts after the redrawing. In this case, our data will contain two observations with the same county information from before 2012 and three observations after. Since the first part (A) didn't get split (i.e., all the parts belong to the same district), the weight will be the same in both periods. Conversely, in the second part, which authorities divided into two different districts (areas B and C), their weights after 2012 will sum to the same weight as the unit's weight before the redraw, according to the distribution of the voting-age population between these two areas. The outcome in part A will be the same as in part B after 2012, while the outcome in part C will be different, corresponding to the outcome in each of their districts.