Edited Democracy?

Evidence of Media Slant in the Coverage of Presidential Debates

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Abstract

This paper investigates if slanted news coverage can affect electoral outcomes by analyzing the case of a presidential debate news coverage. The media helps voters familiarize with candidates by covering campaign events, exposing political platforms and broadcasting debates. However, media organizations are not necessarily neutral messengers. Measuring the impact of the edited coverage on electoral outcomes net of the direct effect of the debate is particularly hard as they tend to be almost simultaneously broadcast by different media outlets with varying reach across regions. We take advantage of a unique natural experiment regarding the geographical distribution of broadcaster-specific TV signal in order to disentangle the coverage effect from the debate itself. Specifically, we focus on the impact of Globo’s debate coverage of the 1989 Presidential election debate. Our baseline estimates using actual electoral data and survey data show that Lula lost around 1.8 percentage points in vote share due to Globo’s unfavorable coverage. Our contributions to the literature is twofold. First, we precisely identify the effect of one episode in which a media filter played a significant role in the outcome of a national election. Second, the case of the 1989 Presidential election is of particular interest as an environment of a non-consolidated democracy with voters that have limited electoral experience and face uncertainty regarding candidates.

PRELIMINARY DRAFT

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1 Introduction

Voters need information during elections to choose the candidates that more accurately represent their interests [23]. The media helps voters familiarize with candidates by covering campaign events, exposing political platforms and broadcasting political debates. That said, media organizations are not necessarily neutral messengers and their private interests may make them distort the news in order to influence voters. When a medium is the sole or one of the few sources of information for voters, can one slanted news coverage change the outcome of a major election?

This paper investigates the particular case of a presidential debate TV report to answer the question of whether slanted news coverage can change electoral results. After 25 years of indirect appointments, in 1989 Brazilians were again voting for their presidents, a choice that ultimately consisted between the leftist Luiz Inácio Lula da Silva or right-winger Fernando Collor. Lula arrived in the second round in second place, but his mobilization ability known since his leadership in labor strikes during the preceding authoritarian regime, and his organized labor–based party support had began to turn the tide in his favor. Collor, whose outsider allure was starting to wear thin according to opinion polls, had no grassroots mobilization and few resources to counteract. Unbeknownst to many, Collor had allies in the media. Three days before the election, the two candidates agreed to participate in a nationally–televised debate, whose neutrality was assured by having the rules extensively discussed between the two candidates, and by the fact that four different TV stations prepared and broadcast the debate. The dispute was widely watched, but in addition to the debate millions of voters also tuned in to watch the newscast from the country’s dominant TV channel, Globo’s Jornal Nacional. However, Globo, by its own later admission, favored the right-wing candidate when condensing the debate for its viewers. Eventually, Collor won the elections, Lula had to wait another twelve years to be president, and the Globo’s coverage of the debate became an unsettled topic in Brazilian politics [5].

In this paper we assess the causal impact of Globo’s debate coverage on the outcome of the 1989 presidential elections. Measuring the impact of the edited coverage net of the direct effect of the debate is particularly hard as they tend to be almost simultaneously broadcast by different media outlets with varying reach across regions. Although the debate was aired by all major TV channels in the country, only voters in municipalities with access to Globo’s signal were able to watch the new coverage of the debate on the following day. Hence, we take advantage of this

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1 A decade after the debate, Globo issued a mea culpa claiming that it was a mistake to treat the debate’s coverage as a soccer match highlight segment: http://memoriaglobo.globo.com/erros/debate-collor-x-lula.htm
unique natural experiment by applying a differences-in-differences approach in order to disentangle the coverage effect from the debate itself. We explore precise municipality-level broadcaster-specific coverage data by comparing the difference between Lula’s vote share in the first and second rounds in municipalities with access to Globo relative to areas that had access to other networks and thus were only able to watch the debate.

Our estimates show that Lula was significantly harmed by the Globo’s unfavorable coverage. Where Globo’s signal was present, Lula lost around 1.8 percentage points in vote share in our baseline specification. Of these, one percentage point went to Collor and the rest resulted in blank or invalid ballots. Since the final tally of the election was 53% versus 47%, Collor would still have won by a small margin had Globo presented a neutral report of the debate. We complement the analysis by applying a similar strategy using survey data measuring changes in v about the candidates three days before and the day after the debate coverage. The exercise finds that preferences swing substantially where the slanted segment was shown in comparison to places where Globo was not present, but where the debate was still broadcast.

Our analysis contributes to the study of media and politics by analyzing a specific event of slanted coverage. The extensive literature in media bias shows that media outlets shape partisanship [1, 7, 8, 9, 11, 12, 22], but this reshaping can only occur through the type of information that the media provides to its audience. Specifically in the case of TV broadcasters, the effect of media content manifests through how TV segments change political dispositions. Our main contribution to the literature is twofold. First, we precisely identify the effect of one episode in which a media filter played a significant role in the outcome of a national election. Ladd and Lenz [17] show that media endorsement can persuade voters to vote for a particular party, and Fridkin, Kenney, Gershon, Shafer, and Woodall [10] demonstrate that voters’ responses to electoral debates and the subsequent media coverage differ, but to the best of our knowledge our approach is the first to demonstrate the effects of the media editing using a natural experiment of national proportions, within a media bias context.

Second, the case of the 1989 Presidential election is of particular interest. In an environment of a non-consolidated democracy with voters that have limited electoral experience and face uncertainty regarding candidates, mass media becomes the primary source of political information as candidates and their parties have not endured enough public scrutiny which would allow voters to draw conclusions about the quality and intentions of prospective representatives. The crucial role of television in presidential campaigns in these regimes is notorious [18, 19], including in the case
of Collor’s election [2]. We advance the understanding of mainstream media in the election of outsiders, who may continue to win elections everywhere, but are especially threatening where alternative sources of political information are lacking. These are the cases in which media bias can bring decisive harm to democratic representation and change the direction of elections.

The remaining of the paper is organized as follows. Section 2 gives background information on the Presidential debate and Brazilian politics in 1989 as well as the importance of Globo as the main information source. Sections 3 describes the data. Section 4 presents the empirical strategy. Section 5 presents our baseline results using survey and actual electoral data as well as a placebo and heterogeneity analysis. Section 6 concludes.

2 Information and the 1989 Presidential Election in Brazil

Emerging democracies are especially vulnerable to media bias [19, 2]. The provision of information to voters is crucial to democracy and when the actors involved in elections are not able to directly give voters sufficient input regarding ability and intentions, the importance of mass media as a fundamental piece in democratic representation becomes greater. An impartial, independent and combative media plays an important role “leveling the playing field” and making politicians accountable for their actions [20], but the media may also give partial accounts of the facts in order to persuade voters towards the candidate whose agenda can better foster its own interests [3]. In addition to weak party labels, makeshift party organizations and the absence of past history of incumbents, partisanship is often unstable in new democracies [13]. In this context, a motivated media outlet may have real consequences in the electoral process as it will be the main source of political information to an electorate that in large part is composed of swing voters.

Brazil in 1989 certainly fits the picture of weak parties, limited partisanship, and powerful media. The Brazilian party system was fragmented [21], attested by the 22 candidates in the ballot, many of whom were previously unknown to the national electorate. Moreover, four candidates received more than 10% of the votes in the first round. With one exception, all parties had less than ten years of age. In a days before the election almost half of respondents declared having no particular affection to any party.² At the time, the main media organization was Globo, who flourished during the military dictatorship and whose hegemonic power is second only to Televisa in Mexico [14, 13-14]. The election was definitely consequential for the country’s dominant media organization, since

²IBOPE National Vote XIII Survey, October 1989. Available at [https://www.cesop.unicamp.br](https://www.cesop.unicamp.br)
the two strongest left-wing candidates, Leonel Brizola and Lula, confessed repeatedly during the campaign about their intentions to control and regulate the media, often making direct attacks to Globo.³

2.1 Media Power in Uncertain Times: The Case of Globo

At the wake of the new democratic period in Brazil, television dominated the media market by a wide margin. Around 72 percent of Brazilian households had television sets, and an estimated 94 percent of the population watched television regularly. TV was not only the main commercial media in Brazil but also the main source of political information in the country.⁴ In contrast, newspapers were a much less relevant source of political information.⁵ Globo was the dominant television network. In 1989, 92% of all Brazilian municipalities received Globo’s signal, and the network was the unique broadcaster in nearly one-forth of the country. Its national audience was consistently above 59 percent during the 1989 campaign and could reach up to 84 percent during prime time [6]. *Jornal Nacional* - Globo’s prime time newscast - was the newscast with the highest audience in the country. The network was also famous for its *telenovelas* [16].

Globo’s market power puts the network in a position to influence its audience. The ability to influence audience in politics is what Prat [25] refers to as *media power* of a news organization, or the “ability to induce voters to make electoral decisions they would not make if reporting were unbiased”. Under the assumption that all voters are naive and cannot identify news manipulation, the author derives an index that measures the upper bound for the media power of a news organization. In this index, Globo’s *maximal media power* is increasing in the time voters spend consuming Globo’s news coverage, and decreasing in the time voters who consume Globo’s news coverage spend consuming news coverage from competing news organizations in other platforms.

TV Globo had considerable media power during the 1989 election. First, Globo’s newscasts were the most watched in the country. Second, given the very low consumption of newspaper in Brazil and Globo’s focus on the less educated audience, most Globo’s viewers consumed news only

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³In its 1989 campaign manifesto, the PT declared that new telecommunications regulations were “urgent” and that “with political will, mobilization and civil society organization it is possible to request the repeal of [broadcasting] concessions of those that insist to violate the fundamental democratic principle: the right of the public to be informed in the most objective manner and without distortions.” This jab is directly aimed at Globo, whose coverage of the democratization process years before was deemed “fraudulent” in the same party document (available at http://csbh.fpabramo.org.br/uploads/democracia.pdf, accessed in 2-28-2018.)

⁴86 to 89 percent of the population considered television their most important source of political information [6, 24]

⁵Brazil has one of the lowest rates of newspaper penetration in the planet: 42 newspaper copies per 1000 inhabitants [24]
from its newscasts. Third, since TV was the main source of political information in the country and enjoyed high credibility among viewers, voters were plausibly not discounting Globo’s bias in the campaign coverage. Thus, in this case the assumption of naive voters receives traction and, consequently, the *maximal media power* is a valid proxy for the *real media power*. In 2015, Globo’s dominance in the media market was still high according to Kennedy and Prat [15], who ranked Globo News - the news arm of Globo corporation - as one of the three most powerful private media organizations in the world. Yet, it is likely that at the time of the 1989 elections the *maximal media power* of Globo was even higher than in 2015, because in between these years the country experienced a significant increase in literacy, witnessed the introduction of cable television and the spread of internet news sources, and today social media is widespread.\textsuperscript{6}

At the time of the first democratic elections in almost three decades, Globo’s media power was set to interact mostly with voters who had never chosen a president. Choosing a president was a new experience for the majority of the Brazilian population in 1989: all individuals who turned 18 after 1960, as well as twenty million illiterate citizens enfranchised by the 1988 Constitution, voted for president for the first time. A large number of new voters and candidates running for recently created parties generated large uncertainty on voters’ beliefs about candidates’ abilities and preferences, creating a context in which media persuasion is likely magnified.\textsuperscript{7}

### 2.2 The Electoral Arena and the last 1989 Presidential Debate

Despite the high number of candidates, the elections presented a clear left–right cleavage. Voters in the center-right chose Collor, running under the banner of the recently–created National Reconstruction Party (PRN), and whose campaign confronted the incumbent’s inability to rein in inflation and overall public mismanagement. The left divided between Lula and Leonel Brizola. During the campaign, debates were often held to present candidates to voters. Six debates inviting all the candidates were held during the first-round campaign. Curiously none was organized by Globo, and Collor did not participate in any at that stage of the race. All major TV networks broadcasted live the debates during the second-round campaign: the first on December 3\textsuperscript{rd} and the second on December 14\textsuperscript{th}. Figure 1 reports the timeline of the election and second-round debates. 

Aggregate poll data indicates that after the debate the proclivity towards candidates changed.

\textsuperscript{6}Kennedy and Prat [15] uses a sample that is representative of the population of internet users at national level in 2015. This population is composed of more educated individuals who plausibly watch less news coverage of Globo and read more newspaper together with TV newscasts. In this case, the *maximal media power* of Globo would be smaller than the *maximal media power* for the whole population.

\textsuperscript{7}Evidence from similar a context in post-communist Russia include Enikolopov et al. [9] and García-Arenas [11].
The final debate of December 14th had an audience rating of 66 points, which is equivalent to 32 million viewers from all TV stations. Figure 2 shows trends in voting from opinion polls about Lula and Collor across the second round. Lula reduced the difference with Collor by 8 percentage points between November 22nd and December 13th. Lula and Collor reached a technical tie on December 13th, one day before the final debate. This reversal of trends suggests that the final debate on December 14th and its media coverage on December 15th and 16th changed the trajectory of voters’ preferences. On December 15th, Globo aired in its prime time newscast - the Jornal Nacional - a version of the final debate’s highlights that favored Collor and harmed Lula. The newscast was viewed by an audience almost as big as the debate itself, receiving a 61 point rating, equivalent to 29 million viewers. Globo publicly acknowledged that the broadcast favored Collor, and justify its decisions in a series of interviews. The consensus of political experts is that Collor performed better at the debate but the edited highlights created the perception of an overperformance of Collor and an underperformance of Lula [5].

The partial account of the debate is clear from the segment footage. The edited highlights shows Collor for 72 seconds longer: 3 minutes and 34 seconds versus 2 minutes and 22 seconds [5, 24]. The content of the coverage is also considerably detrimental to Lula, accentuating candidates gaffes and insinuating that the candidate stated that Northeastern Brazilians were a sub-race. The coverage also showed the candidate stammering and confused. For most part, Collor appeared to be in the offensive and Lula in defensive, such as when Collor accused Lula of being tolerant with Brizola’s

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8 The editor for the newscast at the time, Octavio Tostes accuses a higher-ranking editor, Ronald Carvalho, of ordering to change the balanced edition of the debate’s highlights aired in the afternoon’s newscast and to produce an edition with “the best of Collor and the worse of Lula”. See http://memoriaglobo.globo.com/erros/debate-collor-x-lula.htm.

9 Ricardo Kotscho - Lula’s press officer during the 1989 election - argued that “everyone left the debate with that feeling [of Collor winning the debate], but Globo’s edition changed the result of the match. It turned the victory into a massacre. See Folha de São Paulo, 12-11-1999.
accusations that the vice-president in Lula’s ticket was corrupt.

There are three main arguments that support the view that Globo’s coverage of the final debate was relatively more biased in favor of Collor than that of SBT and Bandeirantes. First, in contrast with the fact that there has been enormous academic and non-academic attention about how Globo’s covered the last debate, we are not aware of any work discussing the relevance of the two other networks, SBT’s and Bandeirantes’. Second, Collor was a political competitor of the owners of SBT and Bandeirantes, if anything.10 In contrast, Globo’s owner publicly endorsed the candidacy of Collor, and Globo’s coverage was favorable to Collor during the first round of the election.11

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10Silvio Santos - the owner of SBT - tried to run for the 1989 election, but the Electoral Authority did not confirmed his name on the ballot. Collor saw Santos as a threat, as Marcos Antônio Coimbra - one of Collor’s main political advisers - reveals: “You are practically in the second-round, Fernando, and will only loses if Silvio Santos competes” [5]. Collor told personally to Silvio Santos before the election that he would not run if Silvio Santos decided to be a candidate: “Silvio, I want to know if you’re a candidate or not. Because if you are, I’m not. I’m not going to miss two years as governor for nothing” [5].

11In July of 1989, Roberto Marinho - Globo’s owner - publicly endorsed the candidacy of Collor: “I’m going to influence in his favor as much as I can. I will try to be an advisor, to build a better Brazil” (Folha de Sao Paulo, 07-27-1989). In August, Marinho was heard asking Collor which Globo stations were not supporting his candidacy [6]. Later on, in 1992, Marinho acknowledged that Globo worked in favor of Collor’s election: “Yes, we promoted the election of Collor and I had the best reasons for great enthusiasm and a great hope that he would make an extraordinary government.” (Folha de Sao Paulo, April 1992). Despite Marinho’s endorsement, we are not aware of a publicly endorsement from Globo’s organizations in favor of Collor. Many journalists supported Lula or Brizola, and telenovela actors protested their employer’s coverage of the debate [5]. The proportion of news time dedicated to each candidate in the first round was the following: in July, Collor, 63 percent; Brizola, 6 percent; Lula, 31 percent, and, in September-October, Collor, 49 percent; Brizola, 31 percent; Lula, 20 percent [6, 26]. Several academics and
Finally, Collor's family had commercial ties with Rede Globo and, thus, was a potential competitor of SBT and Bandeirantes. Finally, Collor's family had commercial ties with Rede Globo and, thus, was a potential competitor of SBT and Bandeirantes.12

3 Data and Summary Statistics

The Brazilian electoral authority, the Tribunal Superior Eleitoral (TSE) provides data at the municipality level for the 1st and 2nd rounds of the 1989 presidential elections were obtained from the electoral authority at the Ipeadata website.13 The TSE is an independent branch of the federal judiciary. Established by the 1988 Constitution, it regulates electoral procedures, including most administrative, planning and monitoring procedures of the elections. Municipal demographics and characteristics comes from the 1991 Brazilian Population Census of the Brazilian Statistical Bureau (IBGE) and Electoral Survey data were obtained at the Center for Studies on Public Opinion (CESOP/UNICAMP).

We have information regarding the starting date and location of the main TV broadcasters in Brazil at that time - namely Globo, Bandeirantes and SBT - including retransmitting antennas as well as their radial signal reach.14 By georeferencing the location of each antenna, we are able to determine which municipalities received signal from a particular broadcaster during the 1989 election.15

Table 1 illustrates the richness of the experiment. By labelling municipalities according to treatment status, row 1 shows that 1,105 out of 4,297 (25%) received TV signal exclusively from Globo during the 1989 election (Treatment 1) while 3,054 municipalities received signal from Globo as well as at least one other major TV broadcaster (Treatment 2). Our control group is defined as the 138 municipalities that received signal only from Bandeirantes or SBT. Figure 3 shows the 1989 geographical distribution of TV signal per broadcaster. Areas in red correspond to municipalities in Treatment 1 with Globo signal only whereas areas in orange correspond to Treatment 2 with signal from other broadcaster as well. Areas in yellow represent our control group and areas in

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12Collor's family controlled TV Gazeta, an affiliate of Rede Globo, in the candidate's home state of Alagoas.
14The major broadcasters are responsible for above 90% of all TV audience in Brazil at that time.
15We are indebted to Alberto Chong and Eliana La Ferrara for kindly providing us with the TV signal data. Since the geographic borders of municipalities have changed over time, we use Minimal Comparable Areas (AMCs) as our spatial unit of analysis as in Chong and Ferrara [4]. This is the smallest defined geographic area provided by the IBGE that can be compared over time. Throughout the text we use the terms municipalities as a synonym to AMCs.
white receive no signal and are excluded from our sample. It is important to point out that treated units exist in all states in the country and control units spread across 17 out of 27 states, which comprise approximately 85% of the overall population.

Table 2 reports summary statistics for municipal characteristics according to the 1991 Brazilian Census, Broadcaster TV signal and electoral outcomes across treatment status. Municipalities in the treatment group are larger and more urban. Its inhabitants are more educated and have higher income, as reflected by a higher tv and radio ownership. On the other hand, Lula’s and Collor’s average vote share are similar across groups. Figure 2 shows the distribution of votes by candidate and round. At a first glance two patterns stand out. First, Lula received a higher share of votes in larger cities and more populated areas along the coast in the Northeast and Southeast regions. Second, neither Lula nor Collor receive a relatively high share of votes in the populous states of Rio Grande do Sul, Rio de Janeiro and São Paulo. This is because a former governor of both of the first two states, Leonel Brizola, was also a 1989 presidential candidate and ranked top in both states in the 1st round. A similar situation took place in São Paulo with a former governor, Paulo Maluf, and senator, Mario Covas. Interestingly, in Rio Grande do Sul and Rio de Janeiro most of the votes of Leonel Brizola were transferred to Lula in the 2nd round whereas in São Paulo Collor
Figure 4: Geographical Distribution of 2nd round vote share

(a) Collor

(b) Lula

(c) Collor

(d) Lula
increased by a larger margin.\footnote{This heterogeneity according to political preferences per candidate and how votes move from one candidate to another across rounds stressed the importance to account for the vote share of the remaining candidates in our analysis. See next section for a more formal argument.}

4 Empirical Strategy

In this section we describe our differences-in-differences strategy that allows us to isolate the effect of Globo’s edited coverage of the 1989 presidential debate on the election outcome. By exploring detailed municipality-level broadcaster-specific coverage data, we are able to disentangle the effect of the edited coverage on voting behavior from the debate itself.

Our empirical strategy tests if the coverage of the debate by Globo was relatively more biased against Lula than the coverage of other broadcasters. We investigate if Lula’s vote share in municipalities exposed to the debate and to Globo’s coverage increased less than in municipalities exposed to the debate and to the coverage of the broadcasters. In this sense, it is a relative estimate of the potential bias of Globo net of the effect of other major TV channels. As previously discussed, qualitative evidence shows that Globo’s coverage was relatively more biased in favor of Collor than other networks.

We propose to identify the causal effect of the edited coverage of the debate on the election by comparing changes in the vote share of the two main candidates from the 1\textsuperscript{st} to the 2\textsuperscript{nd} round to the timing of the debate and the broadcaster-specific geographical distribution of TV signal availability across municipalities. Let us first consider whether the 1\textsuperscript{st} and 2\textsuperscript{nd} rounds are comparable so as to convince ourselves that they can be used in a before-after type of comparison. There were 22 candidates in the 1\textsuperscript{st} round of the election with 5 candidates receiving above 9\% of valid votes.\footnote{They were Collor, Lula, Brizola, Mário Covas (PSDB), and Paulo Maluf (PDS)} On the other hand, only the top two candidates, Lula and Collor, participated in the 2\textsuperscript{nd} round. As the distribution of votes across candidates varies considerably across regions, it is likely that the vote share of other candidates in the 1\textsuperscript{st} round are transferred to Lula and Collor in the 2\textsuperscript{nd} round in such a way that correlates with determinants of TV signal availability.\footnote{The geographical allocation of TV antennas followed commercial and possibly political criteria ([4]).} Such pattern would violate the standard parallel trend assumption of our strategy. In order to account for that, we condition our analysis on the 1\textsuperscript{st} round vote share of all 20 remaining candidates. Second, it is crucial to our analysis that the presidential debate was aired by Globo as well as by the other two major national TV channels at the time, Bandeirantes and SBT. Hence we can compare before and
after vote shares in municipalities with exposure to the debate exclusively to municipalities with access to broadcast of the debate as well as Globo’s edited coverage in the following day. Thus, such difference-in-difference analysis captures the relative change in vote shares due to debate coverage net of the direct effect of the debate itself.

More formally, our basic empirical strategy consists in estimating the following equation:

\[
y_{jt} = \beta \text{cov} g_{jt} + \delta_j + \delta_t + (\gamma \text{sh}_{j,t=1} + \rho X_j) t + \epsilon_{jt}
\]

where \( y_{jt} \) is Lula’s vote share in municipality \( j \) and round \( t = 1, 2 \). \( \delta_j \) are municipality fixed effects that capture all time-invariant municipal factors that may affect the dependent variable, \( \delta_t \) is a time dummy that equals 1 if \( t = 2 \) and \( g_{jt} \) indicates whether municipality \( j \) received Globo’s signal at \( t = 2 \) and 0 otherwise. Hence the coefficient of interest \( \beta \text{cov} \) captures the change in vote share in municipalities with access to the debate and Globo’s coverage with respect to those with only access to the debate. Additionally, we include \( \text{sh}_{j,t=1} \) that controls vote share of all 21 remaining candidates to allow for differential trends for municipalities with different preferences across candidates in the 1\textsuperscript{st} round. \( X_j \) represent municipal socioeconomic characteristics such as population size, average levels of schooling and income, access to water and electricity and tv ownership in order to account for municipality-specific trends across cities with different pre-existing levels of development. This is particularly important as these factors are likely to play a significant role in determining the effect of the debate and debate media coverage.\(^{19}\)

Another potential concern with our identification strategy is that the 1\textsuperscript{st} and 2\textsuperscript{nd} rounds of the 1989 presidential election took place 32 days apart. More specifically, our baseline estimates using real election data capture the effect of all content broadcast by Globo in this period relative to the other networks and not only the effect of the edited debate coverage. Hence it is possible that our approach captures the effect of other developments that took place in between rounds and were relatively more emphasized by Globo. In order to circumvent this, we complement our analysis by employing a similar empirical strategy to election survey data that were collected daily between 3 days before and 1 day after the debate coverage, thus considerably closing the gap between before and after treatment dates. Moreover, instead of comparing vote share in the 1\textsuperscript{st} and 2\textsuperscript{nd} rounds we use data from a survey question regarding intent to vote in the 2\textsuperscript{nd} round that is identical and hence fully comparable across all four polling days. Our survey data contain observations from all

\(^{19}\) Table 2 shows how different treatment and control units are across these dimensions.
27 state-capital metropolitan areas. In 1989 the city of São Luís was the only state capital city without Globo’s signal. As it received signal from other broadcasters, its inhabitants were still able to watch the debate but not Globo’s coverage of the debate. Hence we use it as control for all other capital cities.\textsuperscript{20}

Given the features of the survey data described above, we specify the following regression model for the impact of coverage on vote intention

\[ \nu_{ijt} = \beta^{poll} \text{globo}_{jt} + \mu_j + \mu_t + \omega W_{ijt} + \xi_{ijt} \]  \hspace{1cm} (2)

where \( \nu_{ijt} \) equals one if individual \( i \) reports intention to vote for Lula in the 2\textsuperscript{nd} round at time \( t = 1, 2 \), \( \mu_j \) and \( \mu_t \) are set of capital city and time effects. \( W_{ijt} \) controls for individual characteristics such as gender, education and age and \( \beta^{poll} \) captures the change in vote share in other municipalities relative to São Luís. We report heteroskedasticity-robust standard errors clustered at the municipality level in order to account for residual auto-correlation.

5 Results

5.1 Evidence from Electoral Data

This section presents baseline estimates on the effect of Globo’s edited coverage of the last presidential debate on electoral outcomes in the 1989 Brazilian presidential election. We begin by reporting estimates of the average effect on Lula’s and Collor’s second-round vote share in Table 3. Columns (1)-(3) report the results for Lula’s vote share. The estimate associated with Globo’s coverage in column (1) is positive and insignificant and becomes negative and significant once we control for the first-round vote shares of the other candidates. We interpret this as direct evidence that conditioning on the distribution of votes is key to ensure that first and second-round vote shares are comparable. By not conditioning our analysis, it is likely that the vote share of other candidates in the first round are transferred to Lula and Collor in the second round in such a way that correlates with determinants of TV signal availability.\textsuperscript{21} In column (3) we include as additional controls municipal socioeconomic characteristics interacted with time in order to account for municipality-specific trends across cities with different pre-existing levels of development. Our

\textsuperscript{20}See Pischke (2007) for a similar identification strategy with one control and many treated units applied to a different setting.

\textsuperscript{21}See section 2 for a more detailed description of the distribution of vote shares across regions and election rounds.
estimates reported in column (3) show that Globo’s coverage is associated with a decrease of 1.9 p.p in Lula’s vote-share. Column (4) allows treatment status to vary according to coverage of other TV broadcasters. The first treatment group is comprised by municipalities that receive signal by Globo but not SBT/Bandeirantes while the second consists of municipalities covered by both. We argue that voters in the first group are more likely to have watched Globo’s coverage in the day following the debate as it was the only TV broadcaster available and hence more likely to be affected by it. Our estimates indicate that the effect of Globo’s coverage is stronger for the first group (2.3 p.p) relative to the second (1.7 p.p.).

Columns (5) reports the results of our benchmark specification for Collor’s vote share. Our estimates indicate that Globo’s edited coverage had a positive and significant effect (1.09 p.p.) albeit in smaller magnitude relative to Lula’s. Similarly to the pattern found in column (4), the estimates in column (6) show that the effect is stronger in municipalities covered only by Globo.

Table 4 reports regression estimates of Globo’s biased coverage on non-valid votes and on turnout. Columns (1) and (2) report estimates of the treatment effect on the share of blank votes using our benchmark specification. Even though the point estimate is positive, it is not significant at any usual level of statistical confidence. Splitting the treatment group according to other TV broadcaster coverage we find that the effect for municipalities covered only by Globo is slightly higher and significant at 90% confidence level as reported in column (2). In columns (3) and (4) the effects are stronger and more precisely estimated than those in columns (1) and (2). It is worth emphasizing that the sum of the estimated effect on the share of blank and null votes is 0.78, precisely the difference between the effect on Lula’s and Collor’s vote share. Finally the effect on voter turnout reported in columns (5) and (6) is insignificant. This is consistent with the claim that a share of Lula’s voters affected by the debate coverage changed their votes to Collor in the second round, while others invalidated their votes.

5.1.1 Placebo Analysis

In order to test the validity of our results we conduct a placebo analysis. Since the variation from our identification comes the geographic distribution of TV broadcast across municipalities we conduct an analysis randomly assigning treatment status to the municipalities. Considering there is a large variation in the treatment assignment across regions, we randomize the treatment within each region, keeping the number of treated and control municipalities fixed in each region. We then reestimate our benchmark model using the false treatment variable, and store the estimates.
We repeat the exercise 1,000 times. The empirical cumulative distribution function and density of the estimated coefficients on Globo’s coverage are shown in Figure 5. The distribution of the estimated coefficients on the placebo treatment variable is centered around zero, as expected, and our benchmark estimate from column (4) of Table 3, indicated by a vertical line clearly lies outside the range of coefficients estimated in our simulation exercise.

5.1.2 Heterogeneous Effects

We now proceed to analyze the heterogeneity of the estimated effects. In all results that follow, unless explicitly mentioned, we will use our benchmark specification, including municipality and time fixed effects, first-round vote shares and municipal socioeconomic characteristics interacted with time. Table 5 presents the result splitting the treatment effect into two different groups, above and below the median according to TV and Radio ownership. Columns (1) and (4) report the estimates for TV. The effect both on Lula’s and on Collor’s vote share are stronger in municipalities above the median, a suggestive evidence that our results are indeed related to Globo’s coverage of the debate.

In column (2) and (5) we report the estimates for radio ownership. Similarly to what happens with TVs, the estimates reported in columns (2) and (5) suggest that the effect is stronger according to radio ownership. It is likely, however, that the share of households with radio and TVs is highly correlated. In order to try to disentangle these effects we split municipalities into four groups. We first split municipalities above/bellow the median of TV ownership. Then within these groups we further split observations according to radio ownership above/bellow the median. The estimates
reported in columns (3) and (6) indicate that the effect of the biased debate coverage is stronger in municipalities with higher share of households with TVs regardless if the share of households with radios is above/bellow the median.

Table 6 reports regression estimates of the effect of the edited coverage on Lula’s second-round vote share according to observations above and bellow sample median income per capta, education level, population size and rural population. Column (1) and (2) shows that the effect is significantly higher in municipalities with higher income per capita and higher levels of education. Columns (3) and (4) present the results by population size and by rural population. For those variables the difference between groups above/bellow the median is less stark. It is worth emphasizing that the pattern observed in the heterogeneity of the estimated effects broadly follows Lula’s electoral results as he received significantly more votes in wealthier, more educatated and more urban state capitals.

5.2 Evidence from Survey Data

We complement our analysis by employing a similar empirical strategy to election survey data. This analysis is important for two reasons. First, the survey data discloses voter preferences daily between 3 days before and 1 day after the debate coverage, providing a close window between before and after treatment dates. Second, instead of comparing vote share in the 1st and 2nd rounds we use data from a survey question regarding cote intetions in the 2nd round, thus fully comparable across all four polling days. Our survey data contain observations from all 27 state-capital metropolitan areas. In 1989 the city of São Luís was the only state capital city without Globo’s signal. As it received signal from other broadcasters, its inhabitants were still able to watch the debate but not Globo’s coverage of the debate. We use São Luís as control for all other capital cities. In order to make our survey data estimates comparable to our baseline estimates, we replicate our baseline estimate restricting the sample to municipalities located in metropolitan areas, and redefining as treated municipalities all municipalities located in metropolitan areas except to those located near São Luís. Table 7 describes both survey data and the restricted sample electoral/census data. In both datasets Lula’s vote share is considerably higher. This is expected as he received significantly more votes state capitals.

Our estimates are reported in Table 8. Columns (1) and (2) report the estimates of the effect of Globo’s coverage using survey data. Our estimates point to a large and highly significant effect of Globo’s coverage in both Lula’s and Collor’s vote share. Column (3) and (4) report the estimates

\footnote{The 1st and 2nd rounds of the 1989 presidential election took place 32 days apart.}
of our electoral data baseline specification when we restrict the sample to metropolitan areas and the control group to São Luís. Consistent with the survey results, using our benchmark specification we find larger effects associated with Globo’s when we restrict our analysis to this subset of municipalities.

6 Conclusion

Voters need information to make choose their representatives. The media can assume an important role guaranteeing proper democratic accountability, as it can rapidly relay information to voters regarding prospective political representatives. One service the media can supply is to broadcast political debates between candidates, giving voters an opportunity to see candidates discussing policy intentions. The media may also later provide an edited assessment of debates, condensing hours of discussion in few minutes of information.

However, the media may use its privileged position to influence voters towards choosing the candidate that best serve its interests. In this paper we test how the TV coverage of presidential debates can affect elections using the most notorious case of slanted reporting to date: Globo’s coverage of the last debate between Brazilian presidential candidates in 1989. Empirically measuring the effect of such cases is difficult, but our research design gives an unique opportunity to identify the effect of one news segment over electoral results.

The results expose the influence the media can have on electoral outcomes. In a polarized election between left and right, Globo’s favoring the right-wing outsider cost around 1.3 million votes to the candidate on the left (or 1.8 percentage points). These findings attest that one single news segment can have a substantial effect on voters. The Brazilian case is important because it presents a non-consolidated democracy whose voters have limited access to information. These are cases where media can have a determinant influence in the course of elections.
References


