

The Value of Opposition Media: Evidence from Chavez's Venezuela^{*}

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Abstract

This paper investigates the role of opposition media in government accountability using evidence from the expiration of the broadcast license of RCTV, the most popular opposition television channel in Venezuela at that time. The government did not renew the license, and the channel was replaced overnight, during May 2007, by a pro-government channel. Based upon this change in the ideological content of television programming, we have three key findings. First, using Nielsen ratings data, we show that, following the closing of RCTV, viewership fell on the pro-government replacement, but rose on Globovision, the primary remaining television channel for opposition viewers. This finding is consistent with a model in which viewers have a preference for like-minded content and substitute accordingly. Second, exploiting the geographic location of the Globovision broadcast towers, Chavez approval ratings fell following the closing of RCTV in places with access to the Globovision signal, relative to places without. Third, in places with access to the Globovision signal, relative to places without, support for Chavez in electoral data also fell following the closing of RCTV. Taken together, these findings suggest that opposition media can help to hold governments and incumbent politicians accountable.

^{*}The opinions and statements are the sole responsibility of the authors and do not necessarily represent neither those of the Banco de la República nor of its Board of Directors.

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1 Introduction

Opposition media has the potential to help voters hold incumbent politicians and parties accountable. Yet incumbent governments face obvious incentives to limit press scrutiny of their office and to censor content based on the political ideology of the outlet. When the government censors opposition media, what are the effects on support for incumbent politicians? And how does it depend upon how voters respond to such propaganda? Possible responses by voters include discounting, by which rational voters may simply account for censorship when processing content, understanding that censorship implies a loss of access to information that might reflect negatively on the government. This type of discounting should reduce the impact of censorship (Chiang and Knight (2011)). Even in the absence of discounting, however, opposition voters may respond to censorship and the associated change in ideological content by switching away from censored outlets and towards outlets with like-minded content (Durante and Knight (2012)). Moreover, if like-minded outlets are not available, viewers can respond to censorship and the associated change in ideological content by simply tuning out, reducing their overall media consumption (Knight and Tribin (2019)). By reducing reliance on pro-government content, these behavioral responses can limit the effects of government censorship of opposition-aligned media outlets.

To investigate these issues, we examine the effects of the Chavez government replacing a popular opposition private television channel, RCTV, with a pro-government public channel, TVES. The change occurred overnight, on May 27, 2017, following the expiration of RCTV's license and the government's decision to not renew the license. This new channel, TVES, inherited both the channel number and the broadcast infrastructure of RCTV.

Based upon an analysis of this intervention, we have three key findings. First, using Nielsen ratings data, we find that viewers responded strongly, in terms of adjusting their media consumption patterns, to the change in ideological content. In particular, we find a sharp reduction in viewership of TVES, relative to RCTV, and a corresponding increase in viewership of Globovision, the remaining source of opposition news available via broadcast signal in Venezuela following the closing of RCTV. Taken together, these two findings suggest that voters may change their media consumption patterns by switching to like-minded outlets following changes in ideological content.

Second, exploiting information on the geographic location of Globovision towers, we predict the

strength of the Globovision broadcast signal using the irregular terrain model. In particular, viewers in two metro areas, Caracas and Valencia, had access to Globovision via broadcast signal, and the remainder of Venezuela had no access to opposition news via broadcast television following the closing of RCTV. Using this geographic variation across cities, we examine annual survey data (Latin Barometer) and document a reduction in approval ratings for Chavez in cities with access to the Globovision signal, relative to cities without such access, following the closing of RCTV. These effects do tend to fade over time, as access to the Globovision signal matters less towards the end of our sample period.

Third, we document similar patterns in electoral returns data, with a reduction in the Chavez vote share in cities with access to the Globovision signal, relative to cities without the signal, following the closing of RCTV. Similarly to the results for approval ratings, these effects do tend to fade over time, as access to the Globovision signal matters less towards the end of our sample period.

Taken together, these three findings suggest that viewers with access to the broadcast signal increased their viewership of Globovision, leading to a reduction in support for Chavez, relative to viewers in areas that no longer had access to opposition television via broadcast signal, following the closing of RCTV. Thus, media pluralism promotes accountability for incumbents, while a homogenization of ideology in support of the government reduces accountability. These results suggest that discounting of content by rational viewers is not sufficient for overcoming censorship. On the other hand, the effects do tend to fade, suggesting that viewers may learn about the ideology of the media over time and discount accordingly in the long run.

This paper contributes to two literatures on the political economy of the media, one involving the role of behavioral responses in media consumption patterns to changes in ideological content and a second involving the electoral effects of biased media outlets. Studies on changes in media consumption patterns include Durante and Knight (2012), who show that right-leaning viewers were more likely to watch public television during periods in which it was controlled by Silvio Berlusconi, the leader of the center-right coalition in Italy during the 1990s and early 2000s. Likewise, Knight and Tribin (2019), also using data from Venezuela, examine high frequency changes in ratings for news programs that are interrupted by cadenas, government propaganda that is not announced in advance to stations and viewers. The key finding is that the drop-off in ratings is particularly pronounced on opposition-aligned channels when they are airing news programming, consistent with a preference for like-minded information (Gentzkow and

Shapiro (2010)).

Recent studies documenting that media bias may influence voting outcomes include DellaVigna and Kaplan (2007), Enikolopov, Petrova and Zhuravskaya (2011), George and Waldfogel (2003), Gentzkow, Shapiro and Sinkinson (2011), Gerber, Karlan and Bergan (2009), Martin and Yurukoglu (2015), Prat (2014), and Snyder and Stromberg (2010). Chiang and Knight (2011), however, using data on voter responses to newspaper endorsements in U.S. Presidential elections, find that voters discount biased information. In particular, cross-over endorsements, those for Republican candidates from left-leaning papers and for Democratic candidates from right-leaning papers, are more influential than less surprising endorsements, those for Republican candidates from right-leaning papers and for Democratic candidates from left-leaning papers. This limits the influence of media bias in the sense that shifting a newspaper's ideology towards the right reduces the electoral impact of an endorsement of a Republican candidate by that newspaper.

In a related study, Martin and Yurukoglu (2015), examine cable news programming in the United States. Like us, they consider media bias in a framework that simultaneously considers consumer preferences for like-minded information and persuasion by biased media outlets. One key finding is that the media may lead to increased polarization via a feedback loop, with Fox News, for example, shifting viewer ideology towards the right, further increasing their preference for right-leaning content. Our results, by contrast, document that the electoral effects of biased media, if anything seem to fade over time. We argue that this is consistent with a model in which viewers learn about both government performance and the ideology of the media from news reports. While media outlets may be influential in the short run, viewers learn the bias of outlets over time for news content and discount accordingly. Due to this learning and discounting, the effects of media bias may tend to fade over time.

Our study is also closely related to independent work by Kronick and Marshall (2018), who also study the electoral effects of the closing of RCTV in Venezuela. Their comparison is between areas with significant cable penetration (RCTV re-emerged on cable later in 2007) and areas without significant cable penetration, the idea being that areas with access to cable are less influenced by the closing of RCTV, when compared to areas with less access to cable. Relative to our study, their geographic variation is more fine-grained. In particular, while our analysis uses municipalities as the unit of observation, they use polling stations as the unit of observation and exploit variation across these smaller geographic units and within

parishes (geographic units that are larger than polling stations and smaller than municipalities). They study electoral returns and find that retaining access to RCTV via cable access led to a relative increase in support for Chavez. They argue that this finding is consistent with viewers who lost access to RCTV punishing Chavez for closing RCTV at the ballot box. Our study, by contrast, does not use variation in cable penetration but instead exploits geographic variation in access to the Globovision signal. We argue that our finding, losing access to opposition TV leading to an increase in support for Chavez, can be explained by a different mechanism, switching to another opposition channel, Globovision. Given these two different mechanisms and the different sources of geographic variation, the two sets of findings are not inconsistent with one another, and we thus view the two studies as complementary in nature.

2 Institutional Context

This section provides background on the political situation in Venezuela, with a focus on the role of television in politics. We begin by describing Chavez's rise to power and the key elections during our sample period, followed by a discussion of the key television channels, including Globovision, and the events surrounding the closing of RCTV in 2007.

2.1 Political situation

President Hugo Chavez was in office from 1999 until his death in 2013. In 1998, the leftist candidate won the presidential election, with 56 percent of the vote. Chavez promised a "Bolivarian revolution", designed to eliminate exclusion, poverty and government corruption. Since the beginning of Chavez's term, the right-wing opposition was committed to removing him from office.¹ In April 2002 the opposition led a coup, which failed after some initial successes. Later that year, in December 2002, the opposition organized a strike in the oil industry, aimed at toppling Chavez, but, despite lasting three months, this too was ultimately unsuccessful. Two years later, in 2004, the opposition organized a recall referendum against Chavez.

During our sample period, there were a number of elections, and our empirical analysis of electoral returns focuses on five key elections during Chavez's term. In 2004, the right-wing coalition tried to remove Chavez from power via a presidential recall referendum, as mentioned above, but Chavez won with

¹The description of the series of attempts to revoke President Chavez's mandate are extensively documented in books as Wilpert (2007), Corrales and Penfold (2011), Nelson (2009), among others

59 percent voting against the recall.² Two years later, in the 2006 presidential election, Chavez was re-elected to a second term, with 63 percent of the vote, against the right wing candidate Manuel Rosales. The following year, in December 2007, Chavez proposed to amend 69 articles of the Constitution via a referendum. These amendments included empowering the president to declare states of emergency for unlimited periods, extending Presidential terms from six years to to seven years, and, perhaps most importantly, removing Presidential term limits, which restrict Presidents to just two terms in office.³ Chavez lost this referendum, with only 49 percent of voters supporting these amendments designed to increase the powers of Chavez. Another Constitutional referendum was held less than two years later, in February 2009, and Venezuelans voted this time, with 54 percent supporting, to remove terms limits for the President and other key offices. This opened the door for Chavez to seek re-election for a third term in October 2012, and he won, with 54 percent of votes, against the right-leaning candidate Henrique Capriles. This election occurred during Chavez's illness, and he died just a few months later, in March 2013. He was replaced on an interim basis by his Vice President, Nicolas Maduro, who then won a disputed election in April 2013 and has served as President since then.

2.2 Television in Venezuela

While the key public channel (VTV) tends to align itself with Chavez, the private television channels have tended to align their ideology with the opposition, especially at the start of Chavez's term, supporting the coup in 2002 and providing extensive coverage of anti-government protests during the oil strike later that year.⁴ After these events, the tension between the private media and government was at its peak, and Chavez's stance became very aggressive, referring to the major private television channels (Venevision, RCTV, Globovision and Televen) as the "four Horsemen of the apocalypse".⁵ In 2004, before the recall referendum, Chavez met with the owner of the Venevision channel and thereafter Venevision ceased to participate in the confrontation with President Chavez.⁶ Then, Televen followed the initiative to moderate

²Chang-Tai et al. (2011) analyze the labor market implications of publicly supporting the recall campaign.

³See. https://elpais.com/internacional/2007/12/03/actualidad/1196636401_850215.html

⁴See Nelson (2009) and Dinneen (2012)

⁵Reporters Without Borders (2003) shows that Chavez accused the private channels publicly of : "inciting rebellion and disrespect for legitimate institutions and authorities", "broadcasting false, misleading or biased news reports", "harming the reputation and good name of persons or institutions" and promoting "subversion of public and social order."

⁶http://www.nytimes.com/2007/07/05/world/americas/05venez.html?_r=1&

the anti-Chavez speech around the same period.⁷

Following this, only two opposition channels remained. RCTV (Radio Caracas Television) is the oldest station, had the highest ratings, and had national broadcast coverage. In addition to its well-known anti-government tone, RCTV was a major producer of entertainment programming, including soap operas and talk shows. Globovision is a 24-hour news channel but its broadcast signal was available in only two large metro areas, Caracas and Valencia. While Globovision content is available nationally via cable, penetration is relatively low during our sample period, and RCTV was the only opposition channel available via broadcast signal in the remainder of the country, outside of these two metro areas.

To summarize, there was a clear partitioning of television channels into opposition (RCTV and Globovision), moderate (Televen and Venevision), and pro-government (VTV), and this is consistent with media monitoring during the 2006 Presidential elections. In particular, EU-EOM (2006) documents that RCTV and Globovision devoted a majority of their coverage to the opposition party and that this coverage was positive in nature. Conversely, coverage of Chavez by these two channels was both limited in time and was disproportionately negative in tone. Televen and Venevision devoted a majority of their coverage to Chavez's party but with a largely positive tone both for the opposition and for Chavez. Finally, VTV, the main public channel, transmitted disproportionate coverage of Chavez, with a largely positive tone for Chavez and a unquestionably negative tone when covering the opposition.

2.3 The closing of RCTV

In May 2007, the government announced that it would not renew the broadcasting license of RCTV, and, on May 27, it was replaced overnight by TVES, a public channel. TVES inherited both the channel number of RCTV and its broadcast infrastructure. RCTV did re-emerge on cable later that summer, under the name RCTV international.⁸ The government's rationale for closing RCTV had two key components: the alleged violations of broadcast laws and the participation in the coup and strike in the oil sector.⁹ The decision to take RCTV off the air was marked by significant public protests, and 70 percent of Venezuelans disapproved of the decision to not renew the license.¹⁰ As discussed above, Globovision was the only

⁷Wilpert (2007)

⁸Wilpert (2007). RCTV International was shut down again, from cable, in 2010.

⁹Dinneen (2012)

¹⁰Wilpert (2007)

remaining broadcast channel aligned with the opposition but, unlike RCTV, which had a national broadcast infrastructure, the broadcast coverage of Globovision was limited to two metro areas. While Globovision was available nationwide via cable subscription, cable penetration was relatively low in Venezuela during our sample period, ranging from 17 percent in 2004, the start of our analysis, to 47 percent of households by 2012, the end of our analysis (Table 1). Similarly, Weisbrot and Ruttenberg (2010) show that the audience share for cable is small, relative to broadcast TV, increasing from roughly 10 percent in 2004 to around one-third in 2010. Thus, broadcast was a more important delivery means than cable, although the gap between the two narrows towards the end of our sample period.

Table 1: Cable Subscription Rates by Year for Venezuela

Year	Subscribers	Households	Penetration rate
2000	778,904	4,685,917	16.62%
2001	977,375	4,998,022	19.56%
2002	943,327	5,185,460	18.19%
2003	882,322	5,533,395	15.95%
2004	981,368	5,754,516	17.05%
2005	1,117,553	6,215,837	17.98%
2006	1,336,309	6,364,119	21.00%
2007	1,608,279	6,476,233	24.83%
2008	1,929,262	6,658,321	28.98%
2009	2,192,519	6,803,942	32.22%
2010	2,550,830	6,969,151	36.60%
2011	2,798,577	7,079,559	39.53%
2012	3,404,298	7,185,754	47.38%

Source: Observatorio Estadístico. Conatel.

To summarize, Venezuela has been characterized by a tense conflict between the government and the opposition, and this divide was also reflected in the media, with public channels aligned with the government and two key private channels, RCTV and Globovision, aligned with the opposition. Following the closing of RCTV and the opening of TVES, Globovisión became the only source of opposition television, and this was available via broadcast signal in only two metro areas. This left the majority of the territory without any opposition television and with only moderate and pro-government channels. We next examine the implications of this closing of RCTV for media consumption patterns, Chavez approval ratings, and voting returns.

3 Changes in Viewership

Using ratings data, we next examine viewership of news programming in Venezuela during the time period before and after the closing of RCTV. Our data are provided by Nielsen and measure ratings show-by-show and day-by-day, covering the years 2006 and 2007. Ratings are also provided separately for four large cities (Caracas, Valencia, Barquisimeto and Maracaibo) in Venezuela, and we compare two cities (Caracas and Valencia) with access to the Globovision broadcast signal to two cities without access to the signal (Barquisimeto and Maracaibo). In these data, shows are categorized according to their content, and, in some of our analyses, we compare ratings of news programming to ratings of non-news programming. Changes in the ratings of non-news programming, following the closing of RCTV, should be less affected by access to Globovision, which, as noted above, only provides news content. We also exploit the fact that ratings are provided separately for households with and without cable subscriptions. In particular, since Globovision is available via cable on a national basis, access to the Globovision broadcast signal should not matter in terms of viewership patterns for those households with cable subscriptions.

3.1 Results

We begin by examining how viewership of news programming on RCTV and then the replacement, TVES, evolves on a week-by-week basis during the period 2006-2007 and for households without cable subscriptions. Importantly, TVES took over the RCTV broadcast infrastructure, used the same channel number, and began broadcasting almost immediately following the closing of RCTV. Thus, to the extent that viewers are passive and do not respond to changes in ideological content, then there might be no change in viewership patterns following the closing of RCTV.

As shown in Figure 1, by contrast, we find an immediate drop-off in viewership of news programming on TVES, relative to viewership of news programming on RCTV, following the closing of RCTV on May 27, 2007 and for households without cable subscriptions. In particular, viewership falls from roughly 5 to 10 percent prior to the closing of RCTV (i.e. to the left of the dashed line) to very low levels, well less than 5 percent, following the closing of RCTV (i.e. to the right of the dashed line) for these households without cable subscriptions. While viewership of RCTV news tended to be higher in the cities with access to the Globovision signal, the low ratings for TVES news is apparent in both types of cities following the closing of RCTV. This result is consistent with a preference for like-minded news content.

Given this finding of very low ratings for TVES, relative to RCTV, we next examine whether these viewers switched from RCTV/TVES to other channels aligned with the opposition. For households without cable, this involved Globovision and, as noted above, this type of switching was only available in cities with access to the Globovision signal. As shown in Figure 2, there was indeed a sharp increase in viewership of Globovision following the closing of RCTV for these households without cable subscriptions and with access to the Globovision signal. Some of this increase is temporary, with a large increase in viewership during the weeks immediately following the closing of RCTV. Note that this temporary increase may reflect viewer interest in coverage of protests associated with the closing of RCTV. Even following the protests, in the later weeks of 2007, however, there is a noticeable increase in viewership of Globovision, relative to the period prior to the closing of RCTV.

We next examine whether this switching to Globovision in cities with access to the broadcast signal translates into higher viewership of news programming in general, aggregated across all channels. As shown in Figure 3, viewership of news programming tends to be higher in cities with the Globovision signal even before the closing of RCTV, relative to cities without the Globovision signal, for these households without cable subscriptions. Even so, there does appear to be a widening of the gap following the closing of RCTV, reflecting the switching by these households in cities with access to the Globovision signal from RCTV to Globovision. While some of this is temporary and the series is noisy in general, there does appear to be a larger gap in general after the closing of RCTV, when compared to the time period prior to the closing of RCTV. This result is again consistent with a preference for like-minded news content.

While this relative decrease in consumption of news in cities without access to the Globovision signal may reflect other changes within these cities that might affect television viewership, we show in Figure 4 that there was a sharp reduction in viewership of non-news programming following the closing of RCTV for both cities with and without access to the Globovision signal. This sharp reduction in viewership of non-news is likely driven by the loss of popular entertainment programming on RCTV and the associated lack of interest in the entertainment programming offered by TVES. Thus, the relative decrease in consumption of news in cities without access to the Globovision signal cannot be solely explained by general trends in television viewership across both news and non-news programming in these cities.

For comparison purposes, we next examine these trends in viewership for households with cable subscriptions. Since Globovision is available in all cities via cable subscriptions, we should expect a similar

pattern of switching regardless of whether or not the city has access to the Globovision broadcast signal. As shown in Figure 5, there is again an immediate drop-off in viewership on RCTV/TVES following the closing of RCTV and the opening of TVES on May 27 and the pattern is quite similar to that for households without cable (Figure 1). We next analyze viewership of Globovision programming for these households with cable, comparing cities with and without access to the Globovision signal. As shown in Figure 6, there is again a sharp increase in viewership of Globovision following the closing of RCTV, and these patterns are present in both cities with and without access to the Globovision signal. In terms of overall news viewership for these households with cable subscriptions, there do not appear to be systematic differences between cities with and without access to the Globovision signal (Figure 7). This is in contrast to the widening gap between cities with and without access to the Globovision signal for households without cable (Figure 2). Finally, for comparison with Figure 4, we examine trends in viewership of non-news programming for households with cable. As shown in Figure 8, we again find a reduction of viewership of non-news for households with cable following the closing of RCTV, a trend that is apparent for both cities with and without access to the Globovision signal.

Taken together, the fact that viewership trends for these households with cable access is similar across cities with and without access to the Globovision signal suggests that our baseline results are not driven by other factors that may have changed in these cities. Instead, it is consistent with our interpretation that access to the Globovision signal led to changes in viewership patterns for households without cable following the closing of RCTV.

3.2 Summary

We find sharp changes in viewership patterns following the government takeover of RCTV and the corresponding change in station ideology. In particular, viewers quickly moved away from TVES. We also document a corresponding increase in viewership of Globovision for households either with access to the station via broadcast signal or via a cable subscription. This leads to differences in both the ideological bundle consumed by viewers and in exposure to news overall. In the remainder of the paper, we examine whether these changes in news consumption patterns affect approval ratings for Chavez in survey data and,

ultimately, his electoral performance at the ballot box.

4 Chavez Approval Ratings

Using survey data, we next examine trends in evaluations of Chavez, before and after the closing of RCTV in May 2007 and accounting for the Globovision broadcast signal. To do so, we examine annual survey data 2005-2011 from Latin Barometer. These surveys occur towards the end of the calendar year and we thus have two years (2005 and 2006) of surveys prior to the closing of RCTV in May 2007 and five years of surveys after the closing of RCTV (2007-2011). In these data, respondents evaluate Chavez on a 1 to 10 scale (with 1 representing very bad and 10 representing very good).

We also use these survey data to examine other outcomes that might be affected by access to the Globovision signal. These survey questions include queries regarding general ideology (measured on a 0 to 10 scale, with increases associated with movements towards the right) and overall support for the Venezuelan government. In addition, given that foreign relations were a key component of government propaganda, we examine whether access to opposition television via the Globovision signal change support for foreign leaders. In particular, we examine whether access to Globovision increases support for key allies of Chavez, such as Fidel Castro of Cuba, and reduces support for his foreign enemies, such as the right-leaning Presidents of Colombia (Alvaro Uribe until 2010 and then Juan Manuel Santos) and the Presidents of the USA during the sample period (George W. Bush until 2008 and then Barack Obama).

To measure access to the Globovision signal, we use both information on the municipality of residence for each respondent in the Latin Barometer and information on the broadcast towers for Globovision. Regarding the latter, we requested and received information from Globovision on the location (latitude and longitude) of their four towers, three of which are located in the Caracas area and one of which is located in Valencia. In addition, we received information on the power and height of each tower. To measure access to the Globovision signal, we use the Irregular Terrain Model, which uses information on the source of the signal and the terrain to predict the strength of the signal at destination locations.¹¹ Using information on these four towers, we measure the signal (categorized as no signal, a weak signal, or a strong signal) for geographic grid cells. These measures are then aggregated from grid cells to the municipality level, and we use two such aggregates. First, we develop an dummy variable, which we refer

¹¹In particular, we use the radio coverage tool on the website <http://www.nautel.com/>.

to as Globovision city, indicating whether or not a majority of the grid cells in the municipality receives the signal. Second, we use a continuous measure based upon the fraction of grid cells in the municipality that receive the signal. Figure 10, which focuses on the heavily populated northern part of the country, depicts both the weak signal (in yellow) and the strong signal (in green). As shown, the signals are indeed concentrated in the Valencia and Caracas metro areas and their reach depends upon the terrain, with the signal traveling long distances over, for example, the water but much shorter distances over the hilly terrain in this part of Venezuela.

4.1 Results

We begin with a presentation of general trends in Chavez approval over time. As shown in Figure 9, there was a reduction in support for Chavez in general over the sample period. For example, in 2005 and 2006, over 40 percent of respondents gave Chavez the highest possible approval score (10 on the 1 to 10 scale), whereas during the period 2007 to 2011, the proportion giving Chavez the highest score never exceeded 30 percent. There is some evidence of a corresponding increase in the lowest possible approval score (1 on the 1 to 10 scale), exceeding 25 percent in 2008, but these proportions are noisy and return to baseline levels by the end of the sample period.

Building upon these general results, we next examine trends according to access to the Globovision signal. In particular, based upon the research design described above, Figure 11 provides information on the distribution of Chavez approval ratings, separately for cities with and without access to the Globovision signal and then also separately before and after the closing of RCTV. As shown, respondents in both types of cities expressed considerable support for Chavez in 2005 and 2006, with over 40 percent giving Chavez the highest possible score of 10 in cities without the Globovision signal and a higher proportion, over 50 percent, in the corresponding set of cities with access to the signal. These both drop considerably, to just over 20 percent in the period after the closing of RCTV in 2007. Thus, the decline was sharper in areas with access to the Globovision broadcast signal. There does not appear to be a corresponding increase in the lowest possible score (very bad) and thus the reduction in top scores is offset by increases throughout the distribution of approval ratings. To summarize, we find that the drop in support for Chavez during the sample period was strongest in the areas with access to opposition television via the Globovision signal.

To investigate these patterns more rigorously, we next estimate an ordered logit model, which accounts

for the ordinal nature of approval ratings. In particular, using the information on approval ratings and the strength of the Globovision signal, we specify the following index of support for Chavez:

$$support = \beta_1 After_t + \beta_2 Signal_m \times After_t + \alpha_m$$

In this equation, the municipality fixed effects (α_m) capture time-invariant differences between places with and without access to the Globovision signal, and the parameter β_1 captures changes in approval for Chavez following the closing of RCTV in May 2007. After accounting for these time-invariant differences across cities and any changes in nationwide support for Chavez following the closing of RCTV, the key parameter of interest, β_2 , captures trends in the cities that receive the Globovision signal, relative to trends in those cities that do not receive the Globovision signal. To account for the panel structure of these data, standard errors are clustered at the municipality level.

Results from this regression are reported in column 1 of Table 2. As shown, we do find a drop in support for Chavez in both types of cities following the closing of RCTV, as reflected by the negative coefficient in the first row. But the decline is sharper in those cities that retained access to opposition television via the Globovision signal, as reflected in the negative coefficient on the interaction in the second row. Both of these results are statistically significant at conventional levels. Thus, we find that, in cities with access to the Globovision signal, the switching from RCTV to Globovision, as documented above, appears to be associated with a reduction in support for Chavez following the closing of RCTV in May 2007.

The remaining columns of Table 2 provide a series of robustness checks on these baseline results. As shown in column 2, the differential decline in approval of Chavez in cities with access to the Globovision signal is robust to demographic controls (gender, age, and socioeconomic status). In column 3, we use a continuous measure of signal intensity (the fraction of the municipality receiving the signal) rather than our baseline discrete measure (whether or not a majority of the municipality receives the signal). As shown, our results are robust to this alternative measure. Along these lines, we present results in column 4 in which we use an indicator for whether or not a majority of the municipality receives a strong signal (our baseline measure uses a weaker signal measure). As shown, our results are again very similar to the baseline. Taken together, our baseline results are robust to demographic controls and alternative measures of the strength of the Globovision signal.

To investigate the timing of these results, we next estimate event study ordered logit model specifications, in which we allow the difference between signal and no-signal cities to vary over time in a flexible way:

$$index = \beta_t Signal_m + \alpha_m + \mu_t$$

where μ_t is now a series of year fixed effects and β_{2006} is normalized to zero. As shown in Figure 12, there are not significant differences in support for Chavez between cities with and without access to the Globovision signal in 2005, relative to 2006. Following the closing of RCTV, by contrast, access to the Globovision signal is associated with a drop in support for Chavez in 2007, relative to 2006, and this drop becomes even sharper in 2008. Following this, there is a slow rebound starting in 2009 and continuing until the end of the sample period. All of these five post-RCTV coefficients on access to the Globovision signal are negative, and four out of five, all except the final year 2011, are statistically different from zero at conventional levels.

To provide readers with a sense of the broader impact, above and beyond support for Chavez, of access to opposition television, we next examine responses to other questions related to Venezuelan politics in these Latinbarometer survey data. In particular, we examine whether access to opposition television via the Globovision signal following the closing of RCTV shifts ideology to the right, reduces approval of the Venezuelan government, increases support for allies of Chavez, and reduces support for his enemies. As shown in Table 3, we do find general support for these hypotheses, although three out of the five results are not statistically significant at conventional levels. In particular, access to the Globovision signal is associated with a movement to the right in the ideological spectrum (column 1) following the closing of RCTV (although this result is not statistically significant). Likewise, there appears to be reduction in support for the government (column 2) in cities with access to the Globovision signal and following the closing of RCTV (although this result is also not statistically significant). Turning to other leaders, we document a statistically significant reduction in support for Fidel Castro, a key foreign ally of Chavez, following the closing of RCTV in cities with access to Globovision signal. Likewise, we find a corresponding increase in support for key enemies, including Uribe and Santos, Presidents of Colombia (column 4), and Bush and Obama, Presidents of the USA (column 5), in cities with access to the Globovision signal following the

closing of RCTV.

4.2 Summary

We find that access to the Globovision signal is associated with a reduction in support for Chavez following the closing of RCTV. This effect intensifies over time before rebounding back to levels close to baseline support by the end of the sample period. We also find evidence that access to the Globovision signal is associated with a reduction in support for foreign allies and an increase in support for foreign enemies.

5 Electoral Results

To examine whether these changes in survey-based approval ratings translate into changes in support for Chavez at the ballot box, we next use data on electoral returns from municipalities for key elections in Venezuela during the period before and after the closing of RCTV in May 2007. In particular, we examine the following five key elections, which were discussed in more detail in Section 2:

1. 2004 Presidential Recall Referendum (before RCTV closing)
2. 2006 Presidential Election (before RCTV closing)
3. 2007 Constitutional Referendum (after RCTV closing)
4. 2009 Constitutional Referendum (after RCTV closing)
5. 2012 Presidential Election (after RCTV closing)

For each election, we translate voting returns into a measure of the fraction of the electorate expressing support for Chavez, relative to the opposition. For the 2006 and 2012 Presidential elections, we do so in the natural way, by measuring the vote share for Chavez relative to the opposition candidate (Manuel Rosales in 2006 and Henrique Capriles in 2012). For the 2004 recall referendum, we measure support for Chavez as the fraction of the electorate voting against the effort to recall Chavez. For the two constitutional referenda, we measure support for Chavez based upon the fraction of the electorate in each municipality that supported the referendum. This measure is natural given that both referenda were proposed by Chavez and were broadly interpreted as an attempt to consolidate political power in the office of the Presidency.

5.1 Results

Figure 13 plots the vote share for Chavez in log odds form (i.e., the natural log of the ratio of vote share for Chavez to the vote share against Chavez). In municipalities without access to the Globovision signal, voters were 66 percent more likely to support Chavez, relative to the opposition, before the closing of RCTV, and 44 percent more likely to do so after the closing of RCTV. Likewise, in cities receiving the Globovision signal, voters were 30 percent more likely to vote for Chavez, relative to the opposition, before the closing of RCTV, but slightly less likely (negative log odds) after the closing of RCTV. Comparing the two declines, there is a 23 percentage point reduction in the areas without the Globovision signal but a larger reduction, 33 percentage points, in the areas with the Globovision signal. Thus, consistent with the results using survey-based approval ratings, we find a disproportionate decline in electoral support for Chavez in areas with access to opposition television via the Globovision signal after the closing of RCTV in 2007.

To test for the statistical significance of these changes, we next report results from the following regression:

$$\ln(\text{share}_{mt}^{\text{chavez}} / 1 - \text{share}_{mt}^{\text{chavez}}) = \beta_1 \text{After}_t + \beta_2 \text{Signal}_m \times \text{After}_t + \alpha_m$$

where, as before, the municipality fixed effects (α_m) capture time-invariant differences between cities with and without access to the Globovision signal, and the parameter β_1 captures nationwide changes in electoral support for Chavez at the polling booths following the closing of RCTV in 2007. After accounting for these time-invariant differences across cities and national trends in support for Chavez, the key parameter of interest, β_2 , captures changes in voting cities that receive the Globovision signal, relative to cities that do not receive the Globovision signal, following the closing of RCTV in 2007. To account for the panel nature of the analysis, standard errors are again clustered at the municipality level.

As shown in Table 4, we again find a general decline in support for Chavez following the closing of RCTV in 2007. But, more importantly, this effect is particularly pronounced in cities that retained access to opposition television via the Globovision signal. Both of these differences are again statistically significant at conventional levels. To measure the magnitude of this effect, and to show that it does not depend upon the log-odds formulation, we next consider a similar specification but with the Chavez vote share, rather

than the log odds formulation, as the dependent variable. As shown in column 2, there is a roughly 5 percentage point decline in the vote share for Chavez in cities without access to the Globovision signal following the closing of RCTV but a 7 percentage point decline in the Chavez vote share in cities with access to the Globovision signal. Thus, the differential decline equals 2 percentage points, and this decline is statistically significant at conventional levels. To examine the robustness of these results to alternative signal measures, we next return to our baseline measure of log odds but now consider a continuous measure of the signal, the fraction of the grid cells in the municipality with access to the Globovision signal. As shown in column 3, we again find a strong reduction in electoral support for Chavez in cities with access to opposition television following the closing of RCTV. Finally, in column 4, we document that our results are robust to using a measure of the signal based upon the more stringent measure of signal strength. To summarize, our results using electoral returns data are robust to alternative measures of support for Chavez and alternative measures of the strength of the Globovision signal.

In an event study, we next examine the timing of these results by allowing the key coefficient on access to the Globovision signal to vary over time in the following regression:

$$\ln(\text{share}_{mt}^{\text{chavez}} / 1 - \text{share}_{mt}^{\text{chavez}}) = \beta_t \text{Signal}_m + \alpha_m + \mu_t$$

where β_{2006} is again normalized to zero and α_m and μ_t capture, respectively, municipality and time fixed effects. As shown in Figure 14, we find that the effect of having access to the Globovision signal first appears in 2007 (held December 2, roughly five months following the closing of RCTV), and the effect becomes stronger in 2009, followed by a rebound back to 2007 levels during the 2012 elections. This pattern of effects is similar to that in Figure 12, which documented that the effect on approval for Chavez associated with access to the Globovision signal was strongest during the survey interviews held in 2008 and 2009 before rebounding back to lower levels towards the end of the sample period.

In addition to analyzing vote shares, we also study participation in elections (i.e., turnout). Given that we do not have annual data on the number of eligible voters, we simply measure turnout via the log of the number of votes cast. Thus, our key coefficient on the interaction between the post-RCTV indicator and an indicator for access to the Globovision signal can be interpreted as the percent change in turnout following the closing of RCTV in cities with access to the Globovision signal, relative to the change in

turnout in cities without access to the Globovision signal.¹² As shown in Figure 15, there is a roughly 4 percent increase in turnout in cities without access to the Globovision signal but a 8 percent increase in turnout in those cities that retain access to opposition television via the Globovision signal, a differential increase in turnout of 4 percentage points. As shown in the regression version of this analysis (Table 5), we again find that turnout rose roughly 4 percent following the closing of RCTV in cities without access to the Globovision signal but 8 percent in cities with access to the Globovision signal, a statistically significant differential increase in turnout of 4 percentage points. This result is robust to using a continuous measure of signal intensity (column 2) and also to the more stringent measure from using the high signal strength threshold (column 3). Finally, we consider the timing of these effects with respect to turnout in Figure 16. Here the pattern is a bit different, relative to the pattern in the previous event studies, with an immediate and large increase (15 percent) in turnout during 2007 in cities with access to Globovision, relative to cities without Globovision. We again find that the effects diminish over time, and there are no essentially no differences in turnout between cities with and without access to the Globovision signal by 2012, the end of the sample period.

5.2 Summary

We find that access to opposition television via the Globovision signal is associated with a significant reduction in support for Chavez at the polling booth following the closing of RCTV in May 2007. This effect intensifies in the years following the closing of RCTV before rebounding back. We also find evidence that access to opposition television via the Globovision signal increased voter turnout following the closing of RCTV. Taken together, these patterns are consistent with the results in the prior sections, which documented that viewership of Globovision increased following the closing of RCTV and that approval ratings in survey data fell accordingly.

6 Conclusion

This paper investigates the role of opposition television in the accountability of governments and incumbent politicians. We focus on the expiration of the television license of RCTV, a key opposition channel

¹²In particular, note that the log turnout rate can be written as $\ln(\text{votes}/\text{eligible}) = \ln(\text{votes}) - \ln(\text{eligible})$. Since we do not have information on the number of eligible voters on a year-by-year basis, we instead incorporate $\ln(\text{eligible})$ into the municipality fixed effects.

in Venezuela, and the subsequent opening of TVES, a public channel. The closure of RCTV allow us to have a natural experiment where some cities overnight become deprived from pluralism media, while other cities keep their access to news from all ideologies. Using ratings data, we first find that viewers switched from TVES, the public pro-government channel, to Globovision, the only other opposition channel, in areas with access to the broadcast signal following the closing of RCTV. Building upon this result, we find that Chavez approval ratings fell in these areas that retained access to opposition television via the Globovision broadcast signal, relative to areas without access to the signal, following the closing of RCTV. We also find evidence that access to the Globovision signal is associated with a reduction in support for foreign allies and an increase in support for foreign enemies. We find similar patterns in electoral data, with support for Chavez falling in these areas that retained access to opposition television via the Globovision broadcast signal, relative to areas without access to the signal, following the closing of RCTV. Taken together, these results suggest that viewers are sufficiently sophisticated to adjust their viewing patterns in response to the government taking over an opposition channel, and these behavioral responses contribute towards a reduction in support for government. Thus, opposition media can play a key role in helping voters to hold governments and incumbent politicians accountable.

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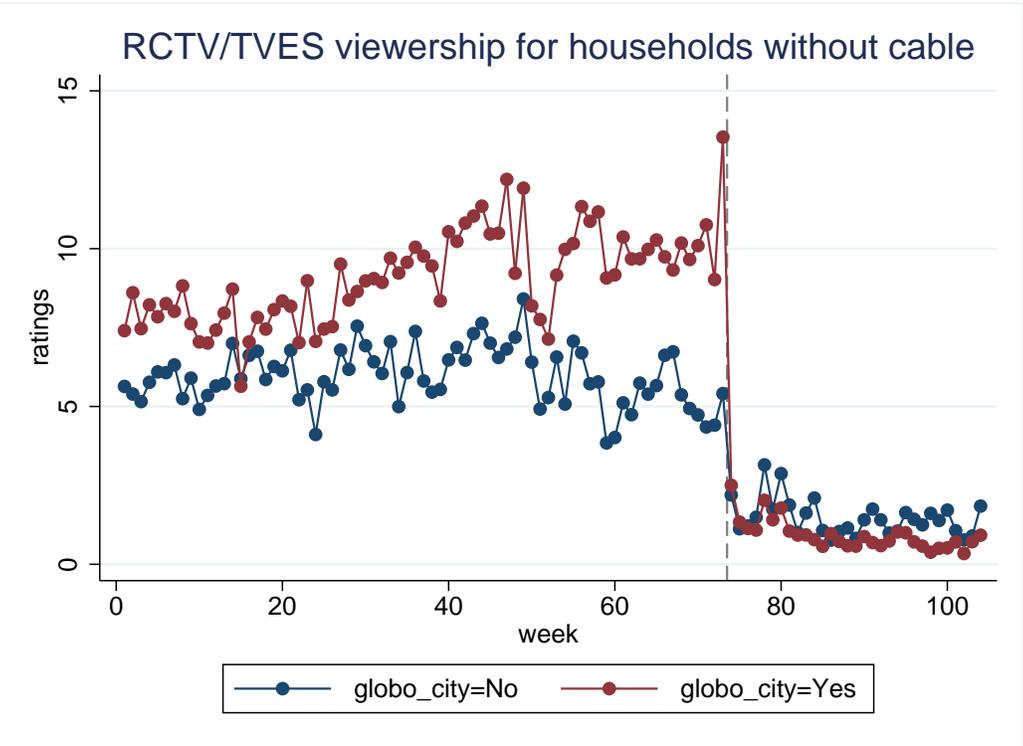


Figure 1

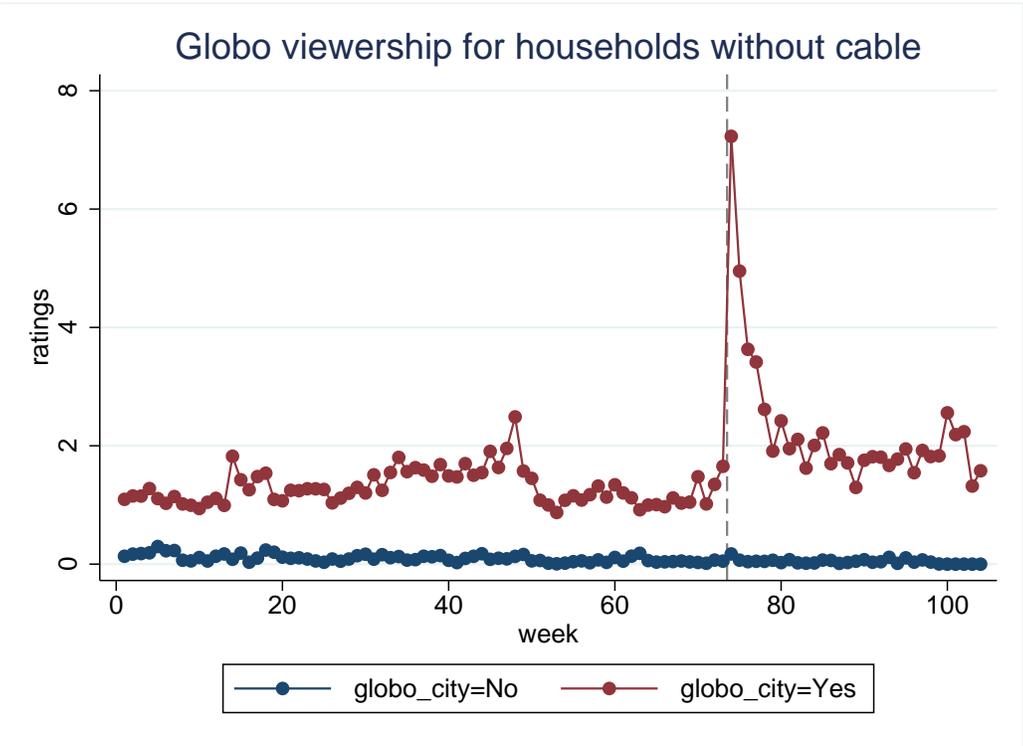


Figure 2

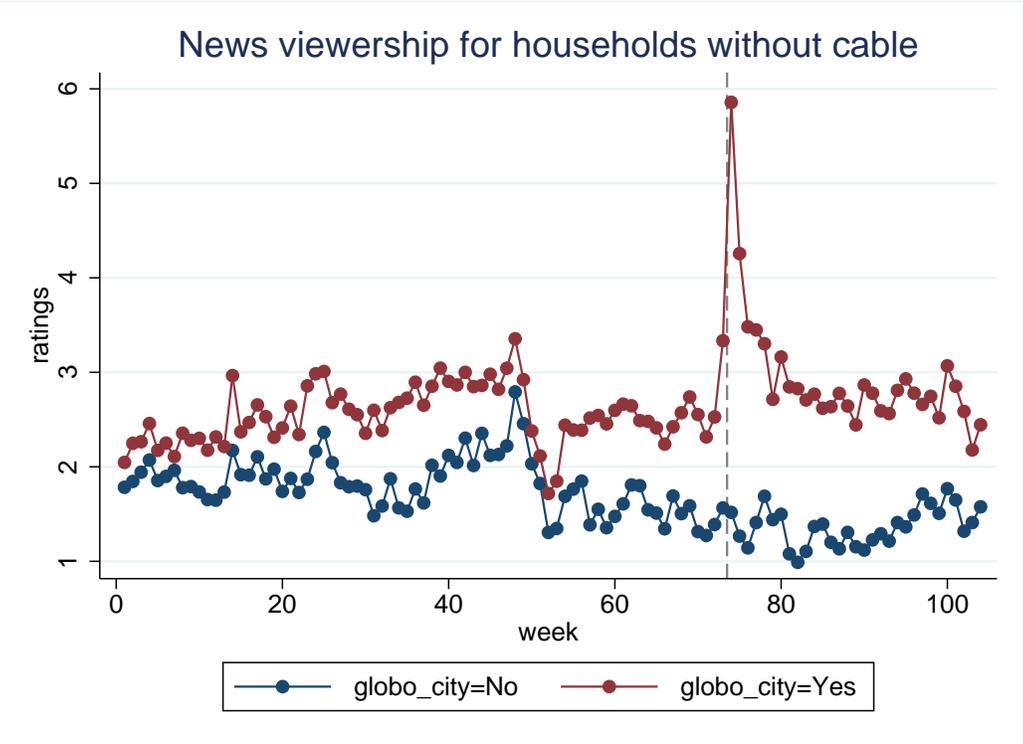


Figure 3

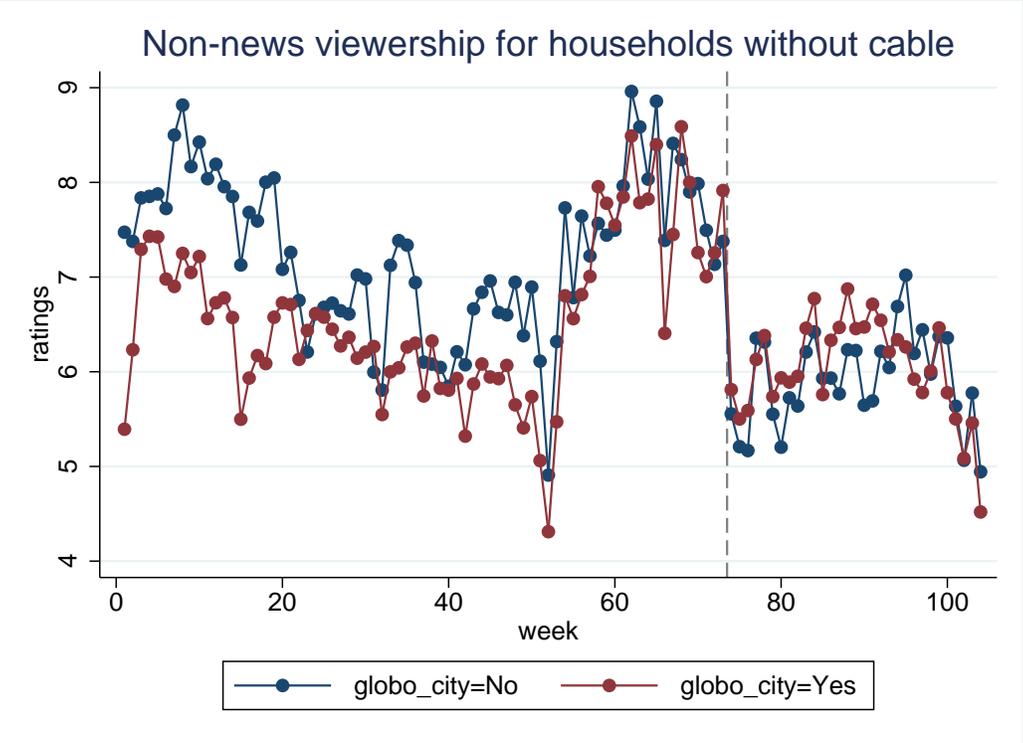


Figure 4

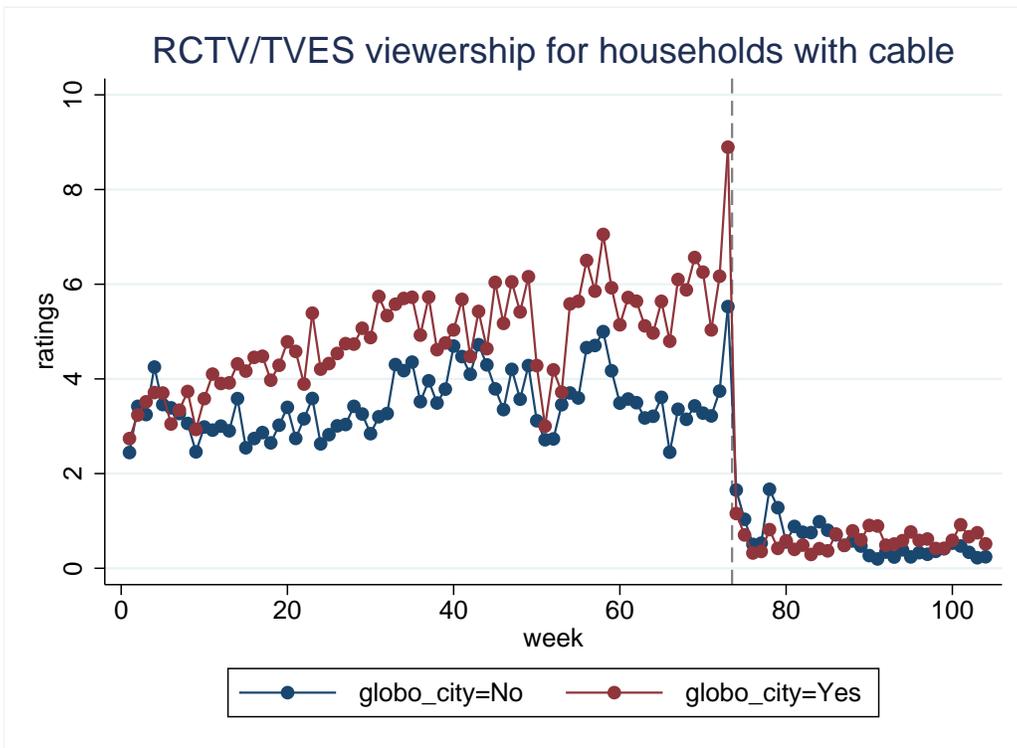


Figure 5

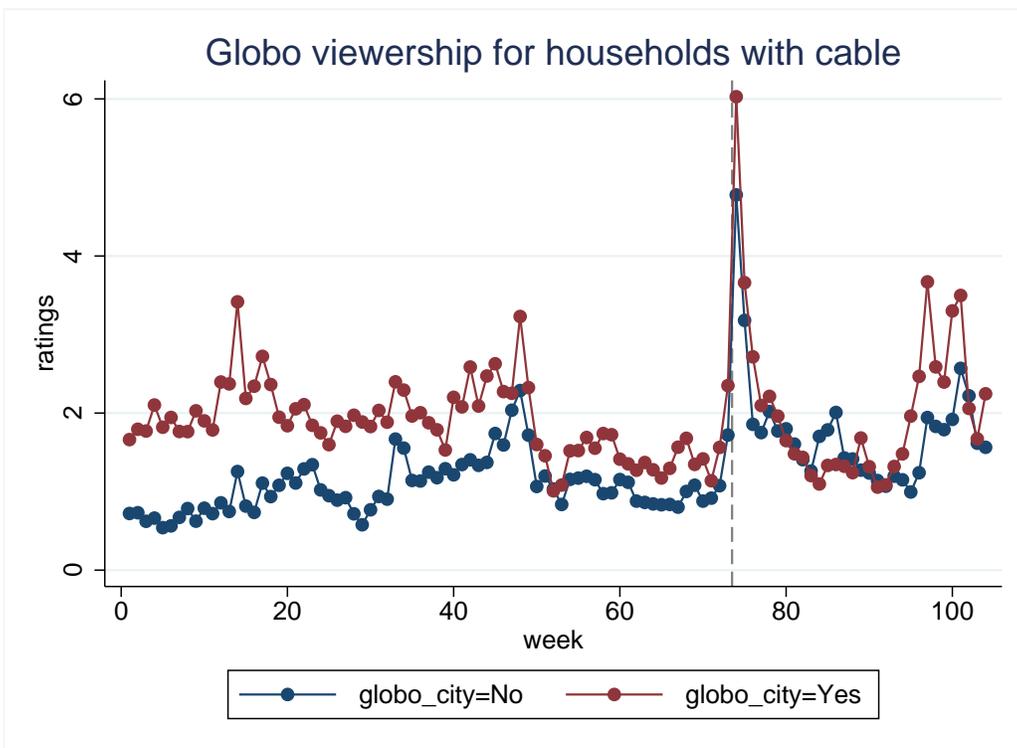


Figure 6

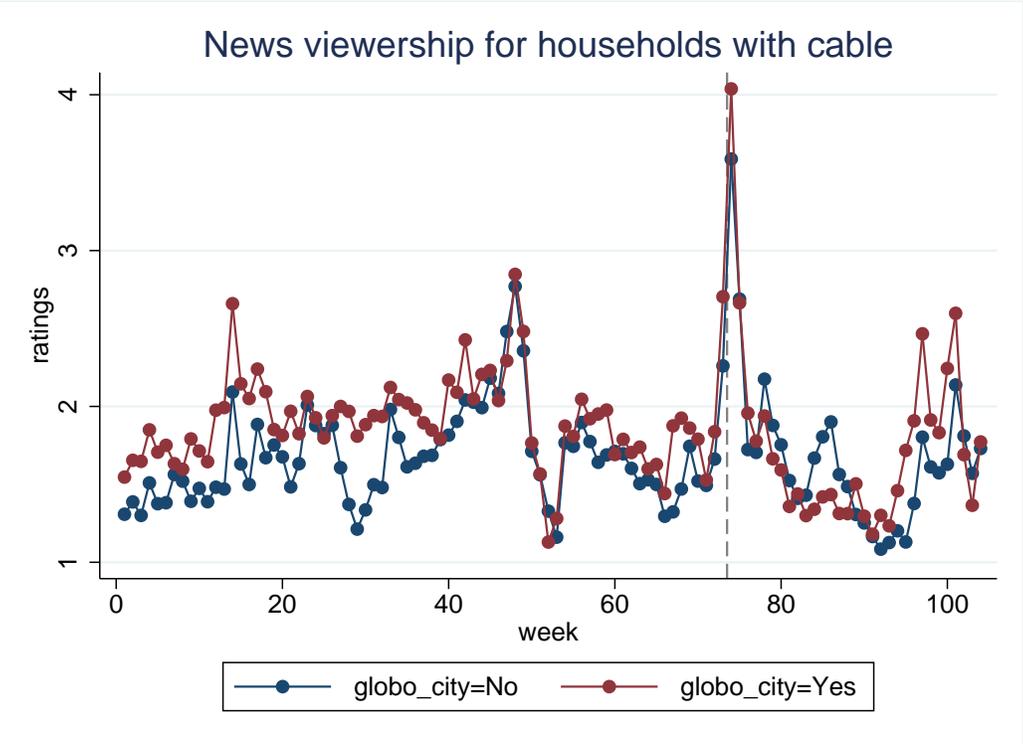


Figure 7

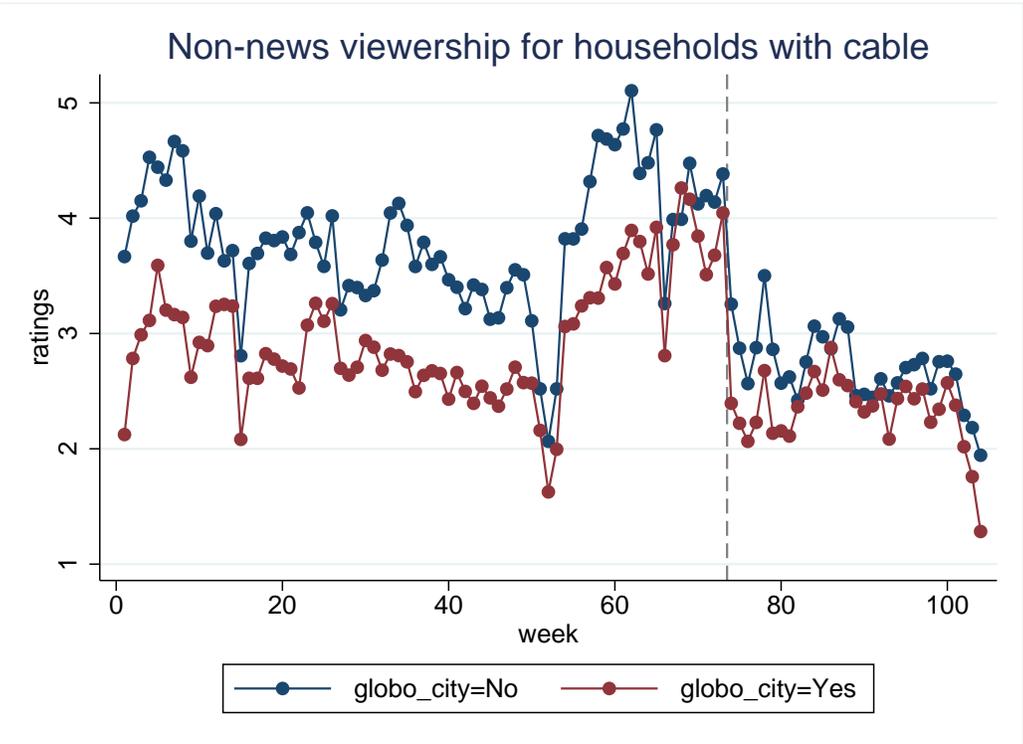


Figure 8

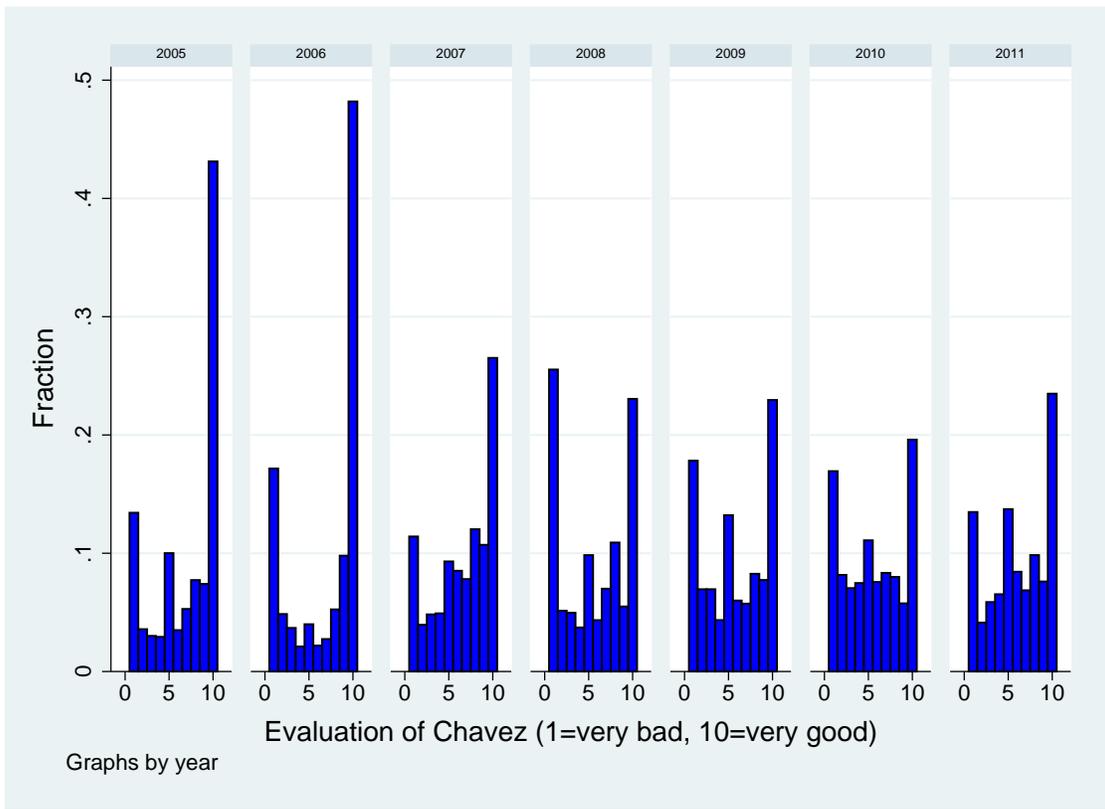


Figure 9

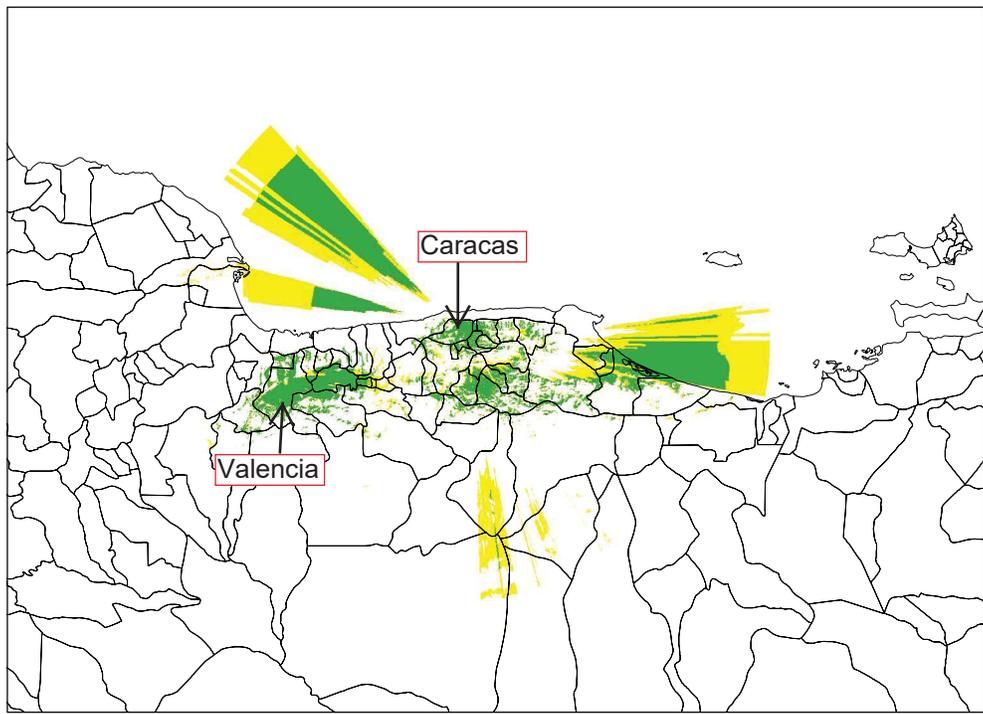


Figure 10: Globovision coverage map

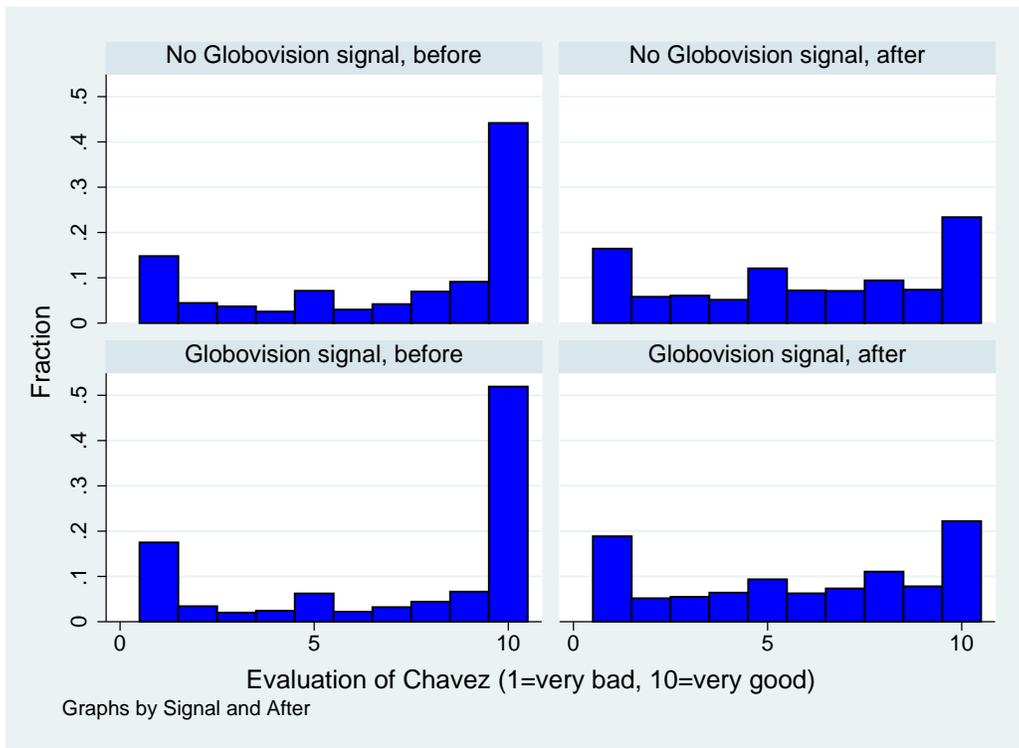


Figure 11

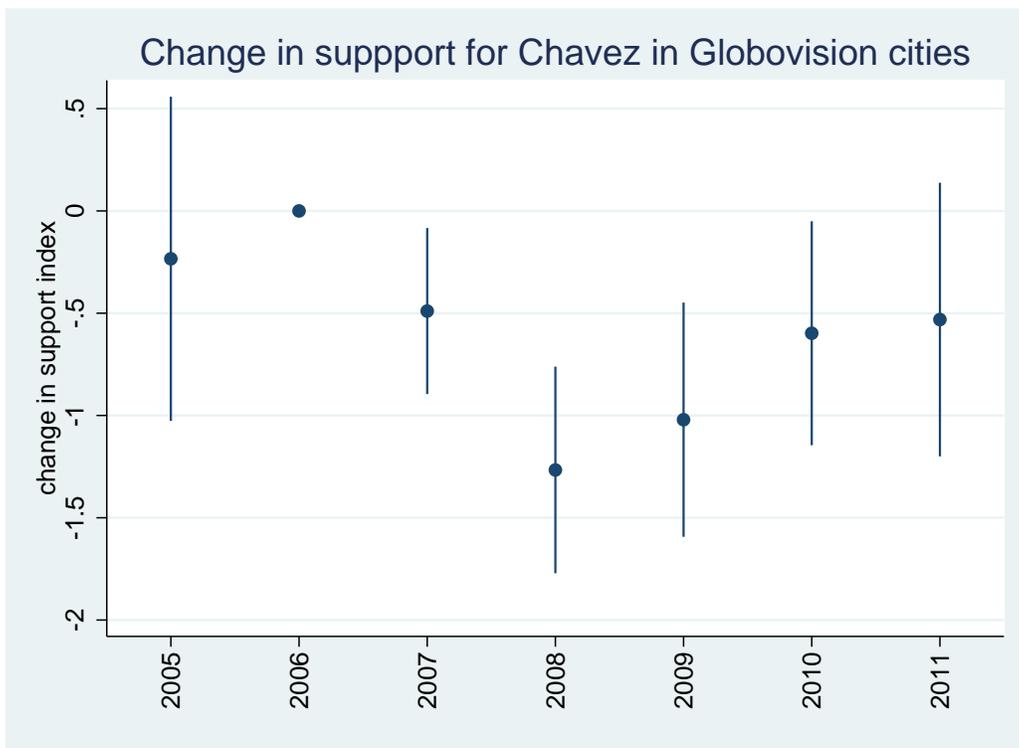


Figure 12

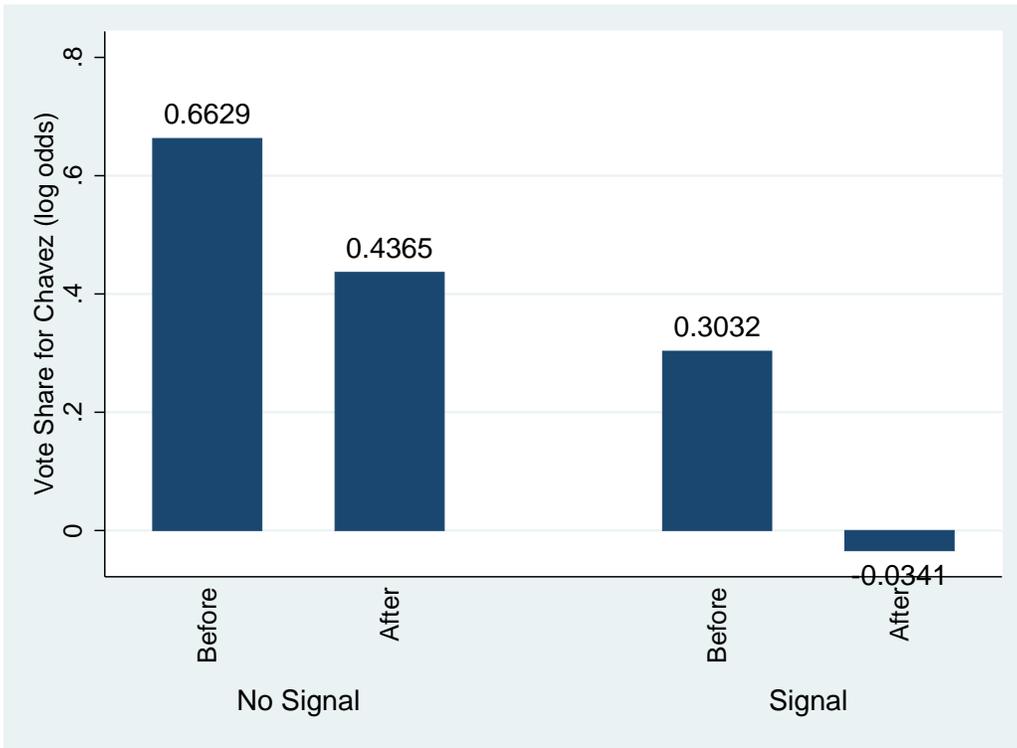


Figure 13

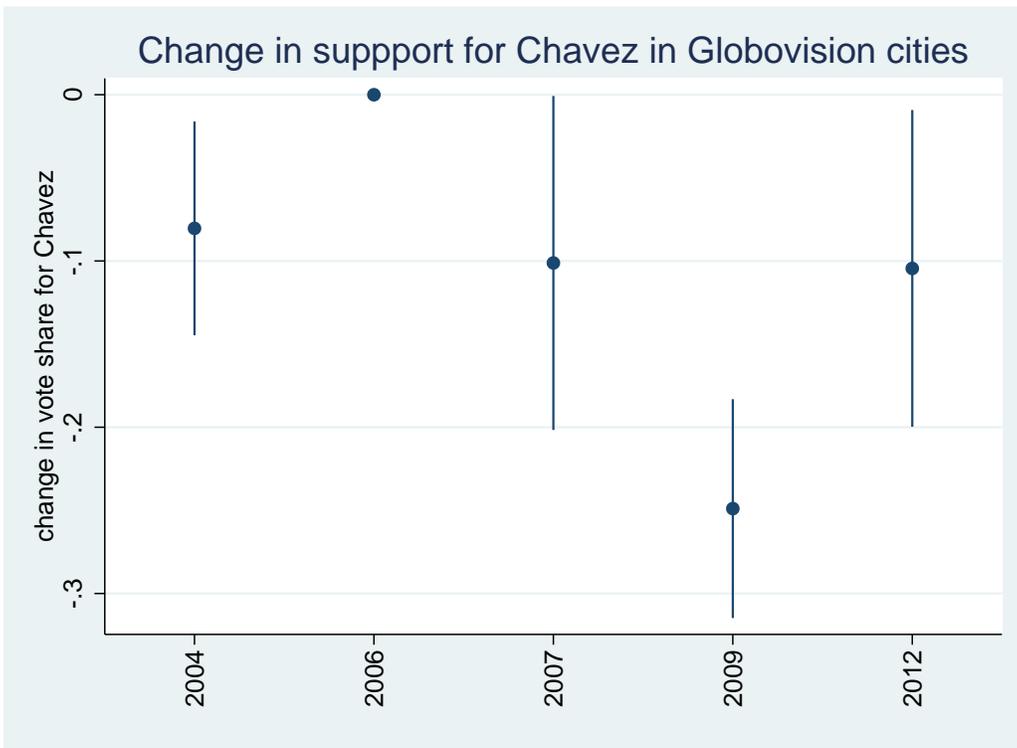


Figure 14

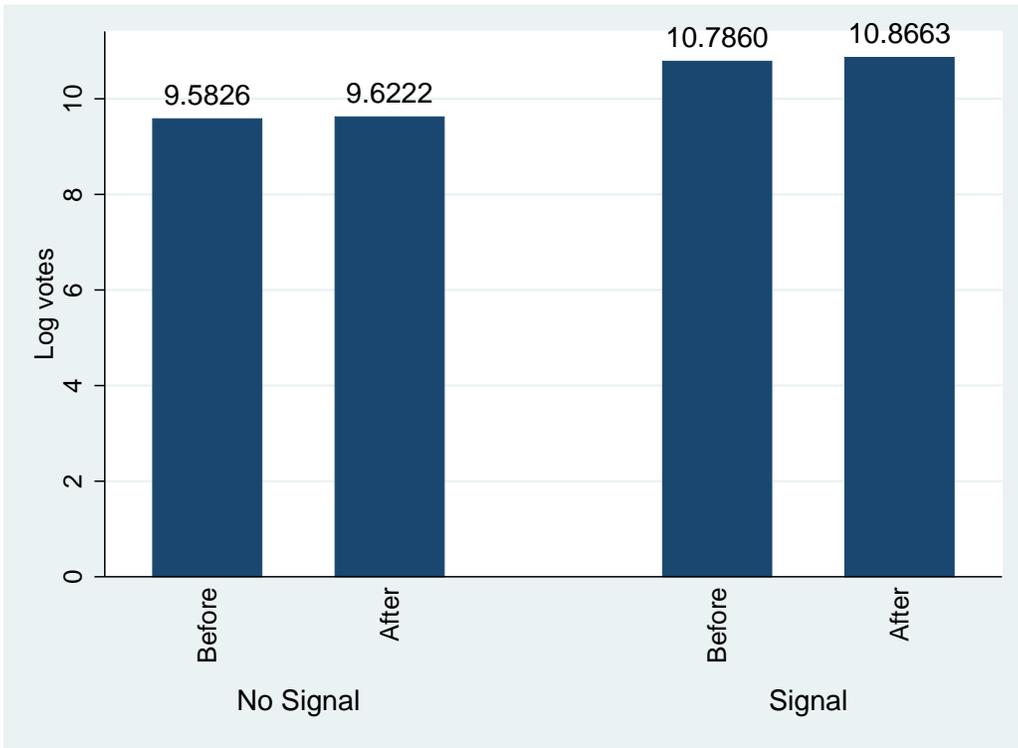


Figure 15

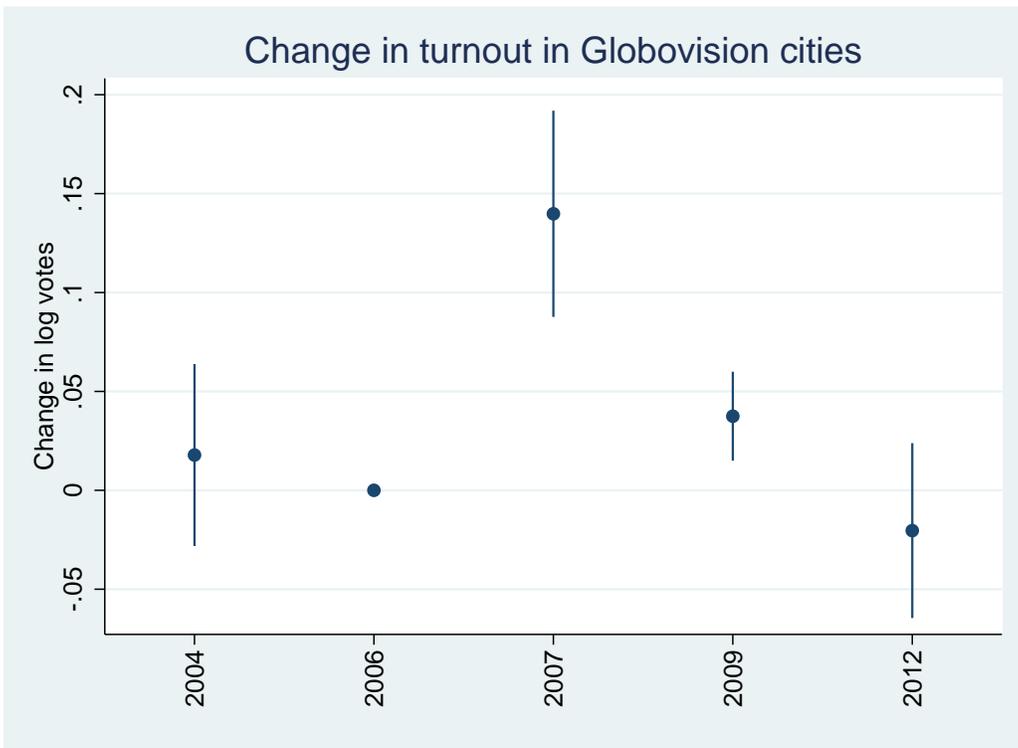


Figure 16

Globovision signal and support for Chavez

VARIABLES	(1) approval	(2) demographic controls	(3) continuous signal	(4) high signal
After	-0.4865*** (0.1291)	-0.4781*** (0.1293)	-0.4663*** (0.1324)	-0.4973*** (0.1268)
Globo City X After	-0.6796*** (0.1975)	-0.6457*** (0.2073)		
Signal X After			-1.0109*** (0.2757)	
Globo City (high) X After				-0.6880*** (0.1974)
Observations	7,976	7,976	7,976	7,976

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

standard errors clustered at the city level

Table 2

Table 2: Globovision signal and other outcomes

VARIABLES	(1) ideology L to R	(2) approve government	(3) approve castro	(4) approve uribe/santos	(5) approve us president
After	-0.2209 (0.2909)	-0.4860*** (0.1522)	-0.6042*** (0.1735)	-0.6661*** (0.2231)	0.9184*** (0.2063)
Globo City X After	0.1754 (0.3014)	-0.2247 (0.1691)	-0.6057* (0.3661)	0.4528* (0.2431)	0.2681 (0.2368)
Observations	6,890	7,666	7,727	4,582	6,934

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

standard errors clustered at the city level

Table 3

Globovision signal and electoral support for Chavez

VARIABLES	(1) log odds	(2) Chavez vote share	(3) log odds	(4) log odds
after	-0.2256*** (0.0168)	-0.0503*** (0.0036)	-0.2188*** (0.0173)	-0.2279*** (0.0166)
Globo City X After	-0.1117*** (0.0391)	-0.0183** (0.0091)		
Signal X After			-0.2218*** (0.0599)	
Globo City (high) X After				-0.0926** (0.0468)
Observations	1,668	1,668	1,668	1,668
R-squared	0.8370	0.8474	0.8376	0.8368

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

standard errors clustered at the city level

Table 4

Globovision signal and turnout

VARIABLES	(1) log turnout	(2) log turnout	(3) log turnout
after	0.0377*** (0.0082)	0.0356*** (0.0085)	0.0383*** (0.0081)
Globo City X After	0.0426*** (0.0147)		
Signal X After		0.0763*** (0.0255)	
Globo City (high) X After			0.0448** (0.0191)
Observations	1,668	1,668	1,668
R-squared	0.9558	0.9558	0.9558

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

standard errors clustered at the city level

Table 5