

The Virus of Fear: The Political Impact of Ebola in the U.S.*

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Abstract

We study how negative emotions can affect the behavior of voters and politicians by looking at the Ebola scare that hit the U.S. right before the 2014 midterm elections. Exploiting the timing and location of the four cases diagnosed in the U.S., we show that heightened concern about Ebola led to a lower vote share for the Democrats, as well as lower turnout, despite no evidence of a general anti-incumbent effect (including for President Obama). We then show that Republican politicians exploited the Ebola scare strategically by mentioning the disease in connection with immigration, terrorism, and President Obama. Voters responded with increased concern with Ebola, and increasingly conservative attitudes on immigration but not on other ideologically-charged issues. Our findings indicate that emotional reactions can have a strong electoral impact, that politicians perceive and respond strategically, and that this is mediated by issues that can be plausibly associated with the specific triggering factor.

Keywords: Fear, Disgust, Emotions, Elections, Immigration, Ebola.

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*“Ladies and gentlemen, we’ve got an Ebola outbreak,
we have bad actors that can come across the border.
We need to seal the border and secure it.”*

Thom Tillis, Republican Senate candidate¹
in North Carolina, during the 2014 campaign

1 Introduction

Emotions are widely recognized, both by practitioners and scholars, as a powerful force conditioning voter behavior.² The idea that one can mobilize voters around negative emotional reactions such as fear, anxiety or disgust, in response to perceived threats – from crime, conflict, terrorism, diseases, and often from people (e.g. immigrants or ethnic minorities) seen as associated with those threats – is a staple of political campaigns and discourse in many different contexts. At the same time, it is often difficult to isolate the impact of the emotional response itself from policy judgments. Are voters indeed changing their behavior as a result of, say, fear or disgust, or are these simply correlated with policy or ideological views that ultimately guide behavior?³ And if emotional reactions are indeed driving voter behavior, are politicians able to effectively exploit them for strategic purposes, or are they simply responding to them as well?

To help answer these questions, we exploit a natural experiment that affected perceptions of threat, while arguably having a negligible impact on the actual risk environment: the Ebola scare episode, as experienced in the US, in the fall of 2014. While the 2014 Ebola outbreak in West Africa was then the largest and most complex since the virus was first discovered in 1976 (WHO, 2017), it was well-understood by public health experts at the time that the likelihood of an outbreak of the disease in the U.S. was very low. Still, the episode triggered substantial fear and anxiety in the country, given the gruesome nature of the disease, its associated fatality risk, and the absence of effective prevention or treatment at the time.⁴

¹The quote is an extract from a televised debate held on October 7, 2014. The video of the debate is available at <https://www.c-span.org/video/?c4510790/user-clip-tillis-ebola&start=1567>.

²See for instance Brader and Marcus (2013), and references therein.

³Research in political psychology has documented that threat is associated with political conservatism (e.g. Jost et al. (2003), Thórisdóttir and Jost (2011)), but this has typically been done in a lab via experimental manipulation, leaving open the question of to what extent this translates into practice in the context of an actual campaign with real stakes.

⁴Relatedly, the Ebola shock may arguably have also triggered other emotional reactions, such as disgust. While some of our analysis will allow us to focus specifically on fear, and we will often refer to “fear” as shorthand, our results can be interpreted as pertaining to the broader mix of negative emotions.

The Ebola scare is particularly interesting because it took place during campaign season, on the weeks before the 2014 midterm elections, in which all U.S. House seats, as well as a number of U.S. Senate seats, and state- and local-level positions, were being chosen. Ebola was a prominent topic of media coverage at the time, and the idea that the episode was strategically used and had a political impact in favor of Republicans in those elections has often been mentioned in media reports (e.g. Gertz and Savillo (2014); Yglesias (2018)).⁵ In addition, the episode was sufficiently close to the election date that any repercussion on candidate selection can be ruled out.

We show causal evidence that Ebola concerns indeed had a significant effect in worsening the electoral performance of Democrats in the 2014 midterm elections. Moreover, we show that this did not happen because of a general anti-incumbent impact, whereby the perceived crisis may have, for instance, affected the perception of effectiveness of President Obama, either rationally or through misattribution. Instead, the effect seems associated with the strategic use of the crisis by Republicans, who mentioned Ebola in connection with topics typically perceived to be favorable to them. We find that this was successful in generating increased concern with the disease by the public. However, in terms of reported attitudes, the only response from voters we detect is on anti-immigrant sentiment, suggesting that not all of the attempted associations actually stuck with voters.

Our research design exploits the timing and geographical variation in the salience of the Ebola threat perception. Specifically, between September and October 2014, there were precisely four diagnosed cases of Ebola on U.S. soil. First, a Liberian national visiting the U.S. was diagnosed in Dallas, TX (September 30); then it was two nurses who had treated that patient, one of whom had then traveled to Akron, OH (October 14); and finally, an American doctor returning from Guinea was diagnosed in New York, NY (October 23). We show that distance to these places strongly predicts Ebola concerns, as captured by web searches and social media (Twitter) activity, with the timing consistent with the emergence of the cases, while not systematically associated with previous electoral patterns. This allows us to instrument Ebola concerns with the distance to the closest Ebola location, controlling for those previous patterns

⁵In fact, studies have shown correlational evidence that voter intentions moved towards Republicans in places with more intense concerns about the disease (Beall et al., 2016) and that Republican candidates were more likely to raise the Ebola issue during the campaign (Cormack, 2014), as well as experimental evidence that partisan mentions of the topic were associated with more negative attitudes towards immigrants (Adida et al., 2018).

as well as a number of demographic characteristics.

We find that a one-standard-deviation increase in Ebola concerns, as expressed in tweets or searches, induced a lower Democratic vote share, by just over four percentage points in the House, and three and four percentage points in Senate and gubernatorial elections, respectively. This corresponds to just over 1/7 of the average margin of victory in House elections. Alternatively, 40 House races would have been swung by such a change – fifteen of which won by Republicans. Flipping those seats would have erased Republican majority gains between 2012 and 2014. Ebola concerns also depressed turnout, with a one-standard-deviation increase in Ebola searches associated with a drop of about 1.6 percentage points. Interestingly, the 2014 midterm elections registered the lowest turnout (36.7%) since 1942, and the effect corresponds to about one third of the drop relative to the preceding midterms in 2010 (40.8%) (McDonald, 2010). That said, under reasonable assumptions the drop in turnout is unlikely to explain the full magnitude of the decrease in Democratic vote share, while survey data suggests that concerns with Ebola were associated with an increased likelihood of cross-party vote by registered Democrats.⁶

In contrast, we find a precisely estimated zero response of presidential approval ratings, as measured by daily Gallup polls, to the timing of and distance to Ebola-related events, as well as no evidence of Republican incumbents being punished. This suggests that the electoral impact did not come from changes in the perception of incumbents and their performance in dealing with the threat of the disease.

We then look at the strategic response by politicians, using data on newsletters sent by members of Congress to their constituents (Cormack, 2017), and on tweets and TV campaign advertisement by candidates. We find that Republican members are more likely to mention Ebola and to appeal to fear-based content after the emergence of the U.S. cases. They do so in conjunction with mentions to Obama, and with traditionally Republican issues, such as immigration and terrorism, that can be associated with the Ebola threat. Interestingly, Democrats did not respond by trying to tie Ebola to topics of their own: if anything, Republicans were also more likely to mention it in conjunction with healthcare, in an election where the latter was one of the key issues. By the same token, we find no evidence that Republicans tried to link

⁶The drop in turnout is unlikely to be associated with individual concerns with an increased risk of infection from turning out to vote: we show that, in survey data, at the time it was Republican voters who were significantly more worried about contracting the virus.

Ebola to other ideologically charged issues, such as guns, that can hardly be associated with the disease. We also show that the candidates that respond more strongly are those who are involved in races classified as competitive (as of before the Ebola episode), further establishing the strategic motives behind the increased mentions.

We show that the strategic behavior of Republican politicians also affected the public. While we cannot show a direct impact on electoral results, in the absence of a separate source of exogenous variation in the behavior of politicians, we can use the daily variation in tweets to establish that Ebola tweets by Republican politicians on a given date predict more Ebola tweets and searches by the public on the following day. In contrast, this is not true for Democratic politicians, nor is it the case that tweets from the public predict politician tweets, thus suggesting that there is indeed an impact from the strategic behavior. This impact is stronger for locations closer to Ebola cases, indicating a mutually reinforcing impact of the Ebola shock and the behavior of politicians in amplifying Ebola concerns.

Finally, we look directly at the attitudes reported by voters, using data from the Cooperative Congressional Election Study (CCES). We find that, compared to respondents interviewed in 2013, individuals more exposed to Ebola in 2014 (again, instrumenting exposure with geographical proximity) tend to display more negative attitudes towards immigrants.⁷ We do not find, however, any evidence of an impact of Ebola concerns on other attitudes typically associated with conservatives in the context of the US, such as pro-gun rights or opposed to same-sex marriage, nor on self-reported conservatism. This suggests that the political response triggered by negative emotions need not be favorable to conservative politicians, but is instead issue-dependent.

In sum, we show evidence of negative emotions being strategically exploited and having a meaningful impact on an actual election. The effect is mediated by issues that can be plausibly associated with the specific triggering factor, at least in the mind of the public, as opposed to a general move towards more conservative attitudes, or to the threat being blamed on an incumbent. This finding could certainly depend on the characteristics of the specific threat in question – for instance, the Covid-19 pandemic constituted a huge shock to the public health risk environment around the globe, and, as such, might have had a different impact in terms of how voters evaluate the performance of incumbents. Yet, our findings suggest that the strategic possibilities available to politicians are constrained by the associations that can be plausibly

⁷This is consistent with the experimental findings in Adida et al. (2018).

drawn by voters: they must be able to establish a connection between the threat and a topic that favors them in the minds of voters.^{8,9}

Our paper relates to several strands of literature. A number of papers have studied the political impact of perceived threats such as terrorism or immigration in actual elections (Montalvo, 2011; Getmansky and Zeitzoff, 2014; Hangartner et al., 2019). Our context exploits a perceived threat that is not political in nature, and as such it relates to a separate strand looking at the impact on incumbents of shocks unrelated to their actual performance, such as lottery winnings (Bagues and Esteve-Volart, 2016) or the death of a spouse (Liberini et al., 2017), and going back to the debate on the political implications of “shark attacks” (Achen and Bartels, 2004, 2017).¹⁰ Our results differ from this latter body of work, as we find no evidence of the evaluation of incumbents being affected, or of incumbents being generally punished. Most importantly, we extend the broad literature by zooming into the behavior of politicians in response to the perceived threat: we show that they exploit it strategically, but face limitations in their ability to influence voters.

Others have looked experimentally at the impact of emotions on political behavior (Jost et al., 2003; Brader, 2005; Thórisdóttir and Jost, 2011) or at correlations between emotions such as fear and disgust and conservative ideological views and voting behavior (Inbar et al., 2008, 2012b,a; Shook et al., 2017). We show the causal impact of these emotional reactions in an actual election, and that this impact is not necessarily associated with more conservative attitudes in general.¹¹

Last but not least, we relate to the contributions that have studied the social, economic, and political effects of the Ebola crisis of 2014 (Beall et al., 2016; Adida et al., 2018; Maffioli, 2018; Kostova et al., 2019; Gonzalez-Torres and Esposito, 2017; Flückiger et al., 2019; Bandiera et al., 2019).¹² To the best of our knowledge, our paper is the first to study the causal electoral impact of that crisis in a country largely unaffected by that outbreak, from an epidemiological

⁸Note also that our empirical setting does not allow us to distinguish between the effect of the initial fear-triggering shock – in this case, the Ebola infection cases – and that of its strategic exploitation by politicians. One should interpret our results as identifying the causal impact of a shock that is in fact exploited by politicians.

⁹This is consistent with President Donald Trump’s habit of referring to the coronavirus associated with Covid-19 as the “China virus,” or variants of that term, during the 2020 campaign.

¹⁰For a survey of this literature, see Healy and Malhotra (2013), as well as the discussions in Fowler and Hall (2018) and Achen and Bartels (2018).

¹¹Bisbee and Honig (2021) show that localities with more early cases of Covid-19 tended to vote more conservative in the Democratic primary in 2020 (for Joe Biden over Bernie Sanders), consistent with a “flight to safety” but not necessarily associated with more conservative ideology.

¹²On the long-run political impact of epidemics, see for instance ?, on the effect on trust in institutions.

perspective.

The remainder of the paper is organized as follows: Section 2 outlines the context and background of the Ebola crisis and the 2014 midterm elections, and Sections 3 and 4 present the data and empirical strategy, respectively. Section 5 discusses the results on voting and presidential approval ratings, and Section 6 examines the politicians' strategic response. Section 7 considers the impact on reported attitudes. Section 8 concludes.

2 Background

2.1 Ebola outbreak

The 2014-15 Ebola outbreak, the largest ever recorded for this virus, can be traced back to December 2013 when in a village in rural Guinea a 18-month boy suffered a bat-related infection. Following several additional cases, and after the disease reached the capital city Conakry, on March 13, 2014 the Guinea's Ministry of Health issued an official alert about an unidentified pathogen which would later be confirmed to be Ebola. Over the following months, the epidemic grew exponentially expanding to the rest of Guinea, Liberia and Sierra Leone. On August 8, the World Health Organization (WHO) declared the outbreak an international public health emergency (WHO, 2014). The vast majority of the Ebola-related deaths recorded worldwide were in Guinea (2,543), Liberia (4,809), and Sierra Leone (3,956 deaths). Yet, over the following months the virus spread to various other countries - including Italy, Mali, Nigeria, Senegal, Spain, and the UK - where, however, the death toll was much lower (i.e., between 3 and 20) (CDCP, 2019).

The first case of Ebola in the U.S. was confirmed on September 30, 2014 when the Centers for Disease Control and Prevention (CDC) announced that Thomas Eric Duncan, a Liberian national visiting the United States from Liberia, had been diagnosed in Dallas, Texas. Following an initial misdiagnosis, Duncan's conditions quickly deteriorated until he died on October 8. Two nurses that had assisted Duncan were later diagnosed with Ebola: Nina Pham, confirmed on October 11, and Amber Joy Vinson, confirmed on October 14. Vinson's case was particularly alarming since days before being diagnosed she had flown from Dallas to Cleveland, Ohio and visited her family in Akron, Ohio. Both nurses were declared Ebola free after a few days. The fourth case was diagnosed in New York city on October 23 and concerned Dr. Craig Spencer

a physician who had just returned to the U.S. from working with Doctors Without Borders in Guinea. Dr. Spencer was declared Ebola free and released on November 11 (Bell et al., 2016).¹³

Despite the limited number of cases, the presence of Ebola in the U.S. caused a major public reaction. The issue rapidly attracted massive news coverage. In the five weeks following the first case, over 3,000 news segments mentioning Ebola were aired on the top five cable TV networks alone.¹⁴ Indeed, according to a report by the Pew Research Center,¹⁵ the Ebola outbreak generated more news interest than any previous public health crisis (including SARS, swine flu, and anthrax), and was comparable to some of the most important stories featured on U.S. media since 2010, such as the killing of Osama Bin Laden and Hurricane Sandy (Motel, 2014). Media coverage of the Ebola outbreak was criticized by many as excessively alarmist and even hysterical (Ihekweazu, 2017; Kelly et al., 2015).

Popular concern about the possible spread of the virus also raised rapidly. Polls conducted in late October indicated that 36% of Americans were worried or very worried that they or their family members might be exposed to the virus (SteelFisher et al., 2015), and that a staggering 16% perceived the probability of contracting the virus within six months to be above 10% (Carman et al., 2015). Furthermore, when asked to identify the most urgent health problem affecting the nation, respondents would rank Ebola above other diseases such as obesity, cancer, and diabetes, which are three of the main causes of death in the U.S. (SteelFisher et al., 2015). Fear of contagion was fueled by widespread misinformation about the way the disease spreads. Indeed, according to another poll, 85% of Americans believed that Ebola could be transmitted through sneezing or coughing and 48% that asymptomatic carriers could be contagious (SteelFisher et al., 2015), both claims with no scientific base.

2.2 The 2014 U.S. midterm elections

The 2014 elections were held on Tuesday November 4, 2014, halfway through Barack Obama's second presidential term. American voters were called to elect 435 House representatives, 36 senators in 36 states (including three special elections), and the governors of 36 states and three

¹³Seven additional people, mostly medical workers, became ill while in West Africa but were transported and cared for in the US. Six of them made full recovery, one passed away.

¹⁴According to data from the Internet TV News Archive (<https://archive.org/details/tv>), precisely 3,148 distinct news segments containing the word Ebola were aired between October 1, 2014 and November 4, 2014 on ABC, CBS, CNN, Fox News, and NBC.

¹⁵Link: <http://pewrsr.ch/1t4aEFI>

territories. According to data from the United States Elections Projects, nationwide turnout – computed as the ratio of total ballots cast to eligible voters – was 36.7%. This was about five percentage points lower than the previous midterm elections held in 2010, and arguably the lowest since 1942.¹⁶ The 2014 election resulted in a large victory for the Republican party. In the House elections, Republicans won 247 seats (a net gain of 13 seats) against 188 for the Democrats, winning the popular vote by almost 6 percentage points and obtaining the largest House majority since 1928. Republicans also regained control of the Senate winning 24 of the 36 available seats, a net gain of 9 seats and the largest Senate gain in a midterm election since 1958. Similarly, in the gubernatorial elections, Republicans won 24 of the 36 state governorships, for a net gain of two seats, and two out of three in the territories.

The Ebola outbreak, and the way federal authorities responded to it, also generated a heated political debate, just a few weeks before the 2014 midterm elections. Republicans harshly criticized the Obama administration for not preventing the virus to enter the country, and demanded the President to ban all flights from affected West African countries, a measure that the administration opposed and that public health experts deemed as ineffective and even potentially harmful (Ferrel and Agarwal, 2018). Anecdotally, there has been a widespread perception that Ebola was an important campaign theme in the weeks leading up to the 2014 election (e.g. Gertz and Savillo (2014); Yglesias (2018)), backed up by correlational evidence that Republican candidates were more likely to raise the Ebola issue during the campaign (Cormack, 2014).

3 Data

3.1 Ebola concerns

We use two measures of popular concern about Ebola based on users’ online activity. The first one is the volume of Google searches for the search topic “Ebola,” available from the Google Trends website. We collect data by media Designated Market Area (DMA) and by week for the 5-week period between the first Ebola case and the elections, as well as for the month of August 2014 - i.e., when the World Health Organization declared Ebola as an International health crisis but prior to the first case in the U.S. - which we use for a placebo exercise.

¹⁶Data are from the United States Elections Project available at: <http://www.electproject.org/2014g>.

For each DMA, Google provides a measure of the search volume defined between 0 and 100 relative to the highest point in the time series. To study the evolution of Ebola concerns over time across DMAs, we also construct a longitudinal dataset of Ebola-related Google searches by DMA/day.¹⁷ The second measure is the weekly number of messages containing the word “Ebola” or the hashtag “#Ebola” published on the Twitter platform over the five weeks before the elections and over the months between March and August 2014, which we use for a placebo exercise. Data were collected via the Twitter API. We focus on tweets that are geo-located, which we can attribute to a specific DMA, and divide their number by the DMA population.

Figure 1 shows the evolution of the volume of Google searches about Ebola between January to December 2014, and of the aggregate number of Ebola-related tweets from September to December 2014. The three vertical lines represent respectively: i) the day when the WHO declared Ebola an international public health emergency (August 8), (ii) the day when CDC announced the first Ebola case in the U.S. (September 30), and (iii) the day of the 2014 midterm elections (November 4). It is evident how both searches and tweets are extremely responsive to Ebola-related events, with a local peak after the WHO’s declaration and global peak right after the first case. Furthermore, Ebola-related online activity remained relatively high in the weeks before the elections, losing intensity immediately afterwards.

3.2 Electoral results and presidential disapproval

For the analysis of the impact of Ebola concerns on voting, we use county-level data on turnout and candidates’ vote share for all elections held on November 4th 2014 – i.e., House, Senate, and Governors – available from the Dave Leip’s Electoral Atlas. To control for pre-trends in political preferences, we also use similar data for previous elections, i.e., 2012, 2010, 2008, 2006, and 2002 for the House, 2012, 2008, 2006, and 2002 for the Senate elections, and 2010, 2006 and 2002 for governors - available from the same source.

To explore the hypothesis that concerns for Ebola may have influenced voters’ opinions about the incumbent president, we use daily data on president Obama’s (dis)approval ratings, available from the Gallup daily tracking. Specifically, we construct a dummy variable equal

¹⁷To create such panel we use the following procedure. First, we download daily data on the volume of Ebola-related searches for each DMA over the period September, 1 2014 - November, 30 2014. Second, for the same period we download the cross-section of Ebola-related searches for all DMAs which we use to construct a relative measure of the intensity of interest in Ebola in each DMA. Finally, to obtain a time-variant comparable measure at the DMA level, we multiply the DMA-specific daily measure by this weighting factor.

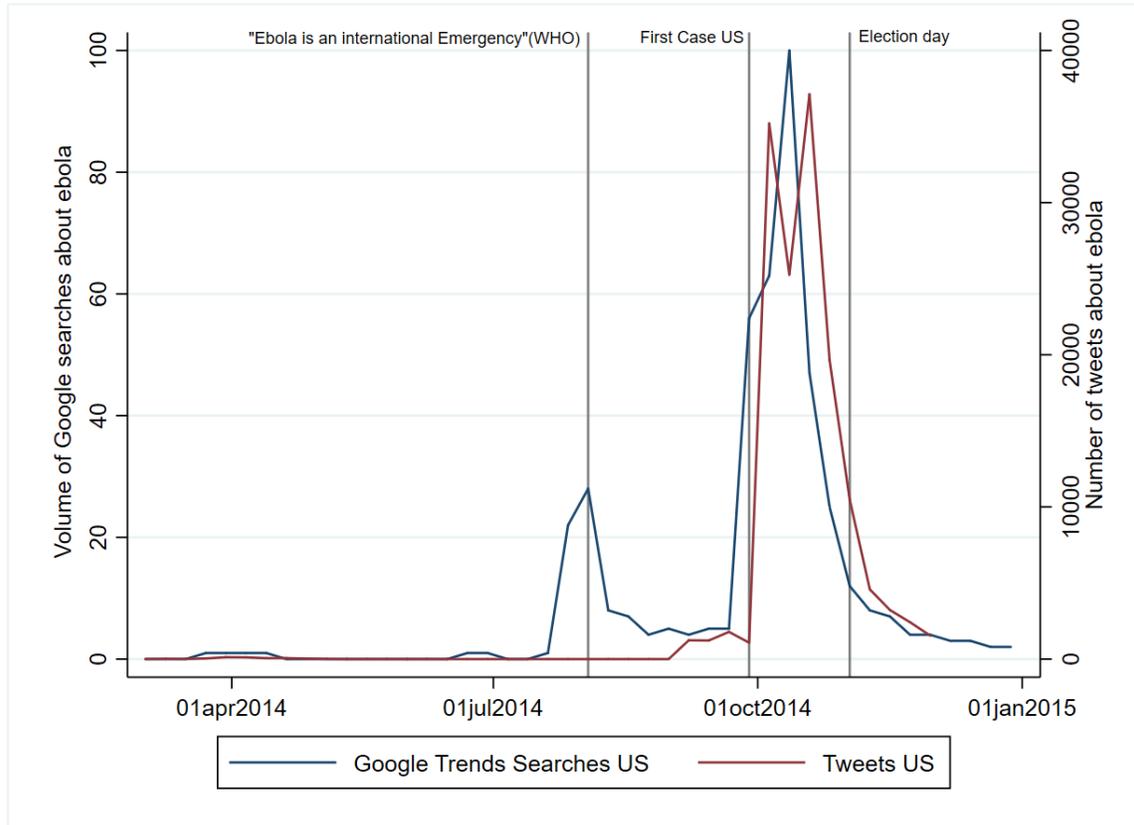


Figure 1: Google Searches and Ebola-Related Tweets

to 1 for all respondents that reported disapproving of the way Obama was handling his job as president at the time of the interview. Exploiting the daily nature of these data, we look at the evolution of Obama’s disapproval in the 15 days before and after the occurrence of the three Ebola cases. We also perform our analysis for the entire period between September 1 and the day of the elections.

3.3 Politicians’ newsletters, tweets, and campaign ads

To investigate whether and how candidates reacted strategically to Ebola, we analyze three components of their communication strategy via both online and traditional media: electronic newsletters, tweets, and campaign TV ads.

Comprehensive data on all e-newsletters sent by members of Congress are available from the DCinbox dataset, assembled by (Cormack, 2017). The data include every official e-newsletter sent by every sitting representative and senator to her/his constituents. For each newsletter, the data report: the name of the politician, the state of origin, the party affiliation, the congressional

district, and the subject and the full text of the newsletter. We use data on all e-newsletters sent between August and December 2014, for a total of over 2,300 newsletters. We identify as Ebola-related all newsletters that contain the term “Ebola” either in the subject or in the body of the newsletter, which represent about 10% of the total. Based on this information we construct both an indicator variable for whether a given politician on a given week sent at least one Ebola-related newsletter and a variable for the number of such newsletters. Using keyword searches, we also code whether newsletters mention other topics, with different degrees of proximity to their mentions of Ebola.¹⁸

We also use data on all message published by candidates on the Twitter social media platform during the 2014 campaign. We start from a dataset collected by Evans et al. (2017) and kindly shared with us by the authors. The data include information on all tweets published by any active Twitter accounts associated with candidates for House and Senate elections between September 5, 2014 and November 4, 2014.¹⁹ We extend the dataset to include all the tweets published between August 1, 2014 and September 4, 2014 (before the first Ebola case) and between November 5, 2014 and December 31, 2014 (i.e., after the election), which we collected through the Twitter API. We identify all the tweets containing the word “ebola”, and those associated with immigration and terrorism, following the same keyword-based procedure used for newsletters. Based on this information we then construct a county-level (or DMA-level) measure of the number of Ebola-related tweets published by candidates of either party running in the electoral district corresponding to the county (or the DMA) over the entire period or on a given day.²⁰

Finally, we collect comprehensive data on the campaign ads aired on broadcast TV across 210 media markets by all the candidates running in the 2014 elections. These data are available from Kantar Media through the Wesleyan Media Project (WMP, Fowler et al. (2017)). The data cover over 5,550 ads accounting for over 2.6 million airings. For each airing the data reports the following information: date, time, media market, channel, length, sponsor (i.e., candidates, parties, or interest groups) and the estimated cost. The data also include several qualitative

¹⁸The topics we consider are: president Obama (if they contain “Obama”), immigration (“immigrant”, “immigration”, “alien”, “border”, or “ICE”), terrorism (“terrorism”, “terrorist”, “ISIS”, “Islamic State”, or “Daesh”), guns (“gun”, “weapon”, “firearm”, or “2nd amendment”), and health care (“ACA”, “Affordable Care Act”, “health care”, “medicare”, or “obamacare”).

¹⁹These include candidates’ official accounts, campaign accounts, and personal accounts.

²⁰For multi-district counties, we consider all tweets published by the candidates running in all the electoral districts in the county (DMA).

variables – coded by the WMP staff through a semi-automated procedure – regarding the content of each ad, such as the issue(s) mentioned in the ad, and the tone used in it. References to Ebola were coded as such, but only starting on October 14, when it had become clear that it was a topic of interest. Additional variables, however, indicate whether an ad – through its script, images, and/or music – appeals to specific sentiments such as fear, a measure which we employ in our analysis.

3.4 Survey data

To further test the relationship between Ebola concerns and voters’ attitudes, we use survey data from the Cooperative Congressional Election Study, (CCES) a large scale electoral survey conducted on a yearly basis by a consortium of universities led by Harvard and administered by YouGov. The CCES surveys include a battery of questions about respondents’ political views, party identification, and attitudes on a wide range of issues. First, to study the link between proximity to Ebola cases, voters attitudes, and support for the president we use data from the 2014 wave of the CCES conducted in October and November 2014 and involving a sample of 56,200 respondents (Schaffner and Ansolabehere, 2015b). To examine how voters attitudes evolved between the pre-Ebola and the post-Ebola period depending on the distance to Ebola cases we combine this information with data from the 2013 CCES wave, conducted in November 2013 and involving 16,400 respondents (Ansolabehere and Schaffner, 2019). Finally, we also use data from the third wave of a panel study conducted by the CCES between 2010, 2012, and 2014 and involving 9,500 respondents (Schaffner and Ansolabehere, 2015a). Although the sample is much smaller than the cross-section for 2014, this survey has the advantage to include some explicit questions regarding concerns about Ebola and support for different policies aimed at limiting the spread of the virus (i.e., banning flights from Africa, quarantine for people coming from Africa, increase funding for Ebola-related research).

3.5 Other variables

To examine whether candidates competing in closes races are more likely to use the issue of Ebola in their campaign, we use information on the competitiveness of elections available from the Cook Political Report (CPR). In particular, for each congressional or senatorial race, the Cook Partisan Voting Index (PVI) indicates whether the election is likely to be close (i.e, “Toss

Up”, “Lean Republican” or ”Lean Democrat”) or not (i.e., “Likely Republican” or “Likely Democrat”). To make sure the measure of competitiveness is not itself affected by the Ebola episode, we use data from September 19, 2014, i.e., before the first case.

We also use data for a wide range of variables, both at the county and at the DMA level, which we use as controls in our regressions. County-level controls includes: population density, median age, the share of white population, the share of population with a college degree, income per capita, and unemployment rates all available from the U.S. Census Bureau. DMA-level controls include instead: the level of cable penetration in 2010 (Sood, 2016), and the volume of Google searches for the terms “virus” and “anxiety,” which is meant to capture the general attitudes of the local population on issues related to infectious diseases. Finally, for our empirical analysis we compute the shortest-path distance of each county or DMA from the three locations of Ebola cases (i.e., Dallas, Cleveland/Akron, and New York City) as well as the distance to the nearest one of the three.

4 Empirical Strategy

In order to unpack the political impact of the Ebola crisis, we start by asking how it affected voting behavior. For that, we first implement the following basic specification:

$$Vote_{c,d}^{2014} = \alpha + \beta Ebola_d + \gamma Vote_{c,d}^{2010-06} + \lambda' X_c + \theta' D_d + \Lambda_r + \epsilon_{d,c}, \quad (1)$$

where $Vote_{c,d}^{2014}$ is the Democratic vote share in county c , located in DMA d . $Ebola_d$ is the proxy for Ebola concerns (Google searches or tweets per capita) in DMA d , during the five weeks immediately before the 2014 election – that is, starting from the report of the first case diagnosed in the US. The vector $Vote_{c,d}^{2010-06}$ includes the Democratic vote share in 2010 house (midterm) election and its change between 2010 and 2006 elections. The vectors X_c and D_d include county- and DMA-level control variables, as described in the data section, and Λ_r stands for Census region dummies. Finally, $\epsilon_{d,c}$ is a heteroskedasticity-robust error term, clustered at the DMA level.

We are interested in the coefficient β , describing the impact of Ebola concerns on the Democratic vote share. Simply estimating (1) via OLS is not enough, however, as the coefficient of interest may still be biased for multiple reasons, even after conditioning on our control

variables. First, Ebola concerns are not randomly assigned: searching information about Ebola on the Internet, or tweeting about it, are evidently endogenous decisions that may be affected by things such as access to information, susceptibility to biased news, or beliefs that may also shape voting preferences. This is not to mention the potential (arguably classical) measurement error in the main independent variable, which could introduce attenuation bias in the estimated effect of Ebola concerns on electoral results. To address these issues, we turn to the geographically uneven spread of Ebola cases, as a source of variation in the perception of potential exposure to the threat of the disease.

4.1 Proximity to Ebola Cases as a Source of Variation

We identify the three key locations within the US, as described in Section 2: (1) Dallas, TX, (2) the Cleveland-Akron area, in Ohio, and (3) New York City, NY. These were the only areas where the CDC and state public health officials implemented contact-tracing procedures to surveil 458 individuals who potentially had close personal contact with Ebola patients diagnosed in the U.S. (CDC 2014).

It seems natural that people living closer to those key locations would display a heightened concern with the potential threat. Figure 2, depicting the geographic variation in Ebola searches and the location of the three critical locations (in red dots), suggests that this was indeed the case. It is easy to see from inspection that Ebola concerns are associated with proximity to Dallas, Cleveland, and New York. Similarly, the CCES survey from October/November 2014, which included specific questions on Ebola concerns, shows that distances to those locations are significantly negative predictors of whether respondents were worried about the virus and whether they supported banning flights and quarantining people coming from Ebola-affected countries (Table A.1).

The point is underscored by Figure 3, showing the evolution of Ebola-related Google searches and Twitter activity over time, for the three locations. The timing of the reactions to each case being public should mitigate concerns that the association suggested in Figure 2 was due to mere chance, or to other confounding factors unrelated to the perceived threat due to proximity.

We can show this pattern more systematically, for our entire sample, by estimating the

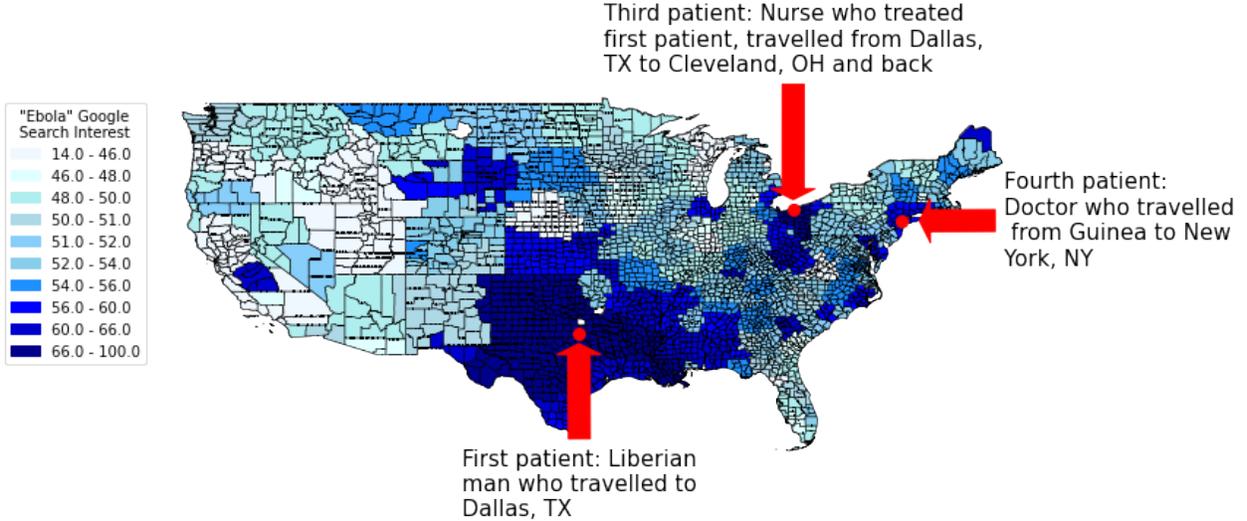


Figure 2: Geographic Distribution of Google Searches

following equation, exploiting the daily variation in our measures of Ebola-related concern:

$$Ebola_{d,t(c)} = \gamma Post - Onset_{t(c)} \times \ln(Dist.Ebola_c)_d + \lambda_d + \theta_t + \Gamma_t \times \lambda_d + \epsilon_{d,t}, \quad (2)$$

where $Ebola_{d,t(c)}$ are Ebola-related tweets (per 1,000 inhabitants) or Google searches sent from DMA d , on date t . $Post - Onset_{t(c)}$ is an indicator taking the value of 1 after the diagnosis of Ebola case $c \in TX, OH, NY$. The variable $\ln(Dist.Ebola_c)_d$ is the (log) distance (in miles) of DMA d from the location of Ebola case c . (λ_d and θ_t are DMA and day fixed effects, respectively, and Γ_t is a linear trend.) We will cluster the standard errors at the DMA-level.

Table 1 presents the main results, for tweets (Panel A) and searches (Panel B). In columns 1 to 3, we first focus on the period surrounding each case, by looking separately at 15 days before and after the diagnosis of each case (i.e., Dallas, Cleveland, and NYC, following their chronological order). In each case, the coefficient for γ closely mirrors the usual interpretation in a standard multiple-period differences-in-differences (DD) specification with a continuous treatment. In all cases, the volume of Ebola-related tweets increases with the proximity to the case, upon its detection, with a similar pattern for searches (though slightly weaker for the second case). Column 4 then displays a staggered DD model, estimating the three coefficients together without restricting the sample to the eve of each case. Results suggest that the occurrence of and proximity to the cases strongly predicts increased Ebola concerns, especially in the first two cases.

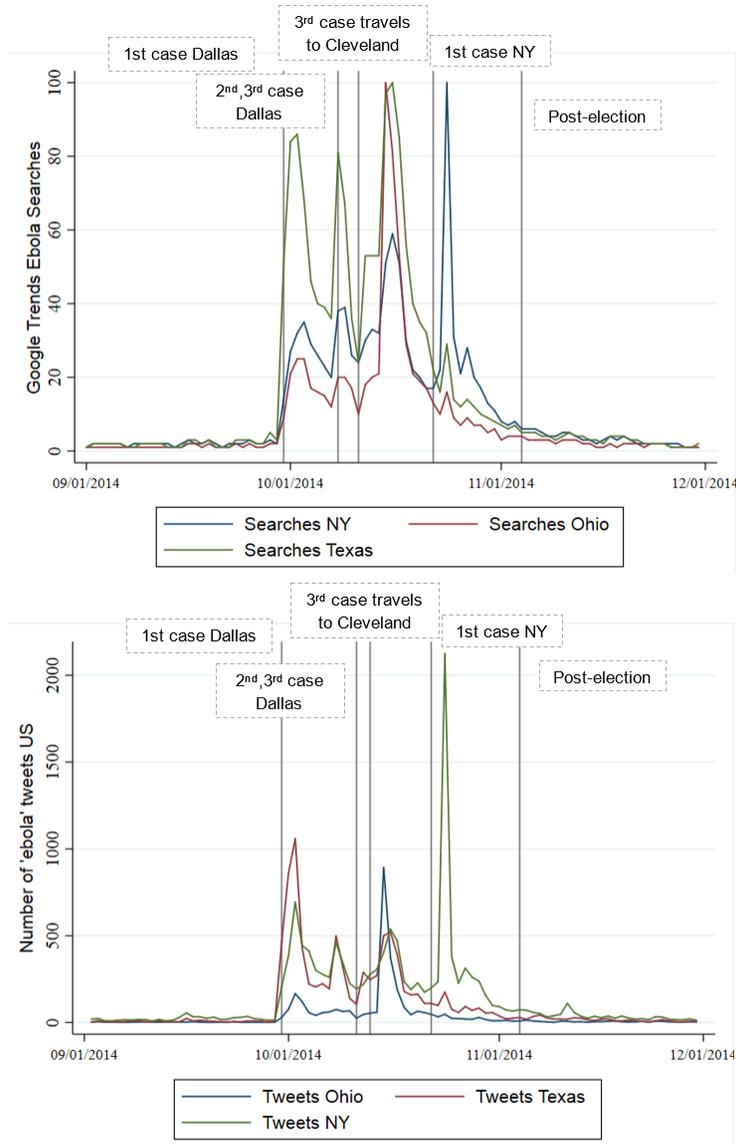


Figure 3: Timing of Ebola-Related Google Searches and Tweets

To summarize the association between geographical proximity and Ebola concerns, we compute the distances (in miles) between the centroid of each DMA to each of the three locations, and then take the minimum value to compute a variable we refer to as *Distance to Nearest Case*. Column 5 shows that an interaction of this variable with the timing of the first Ebola case reflects the general pattern that emerges for the separate cases.

We will use *Distance to Nearest Case* as an instrumental variable in our main regressions with election results, in which the timing of different cases cannot be exploited. As with any valid instrument, our variable must be correlated with Ebola concerns but, conditional on our full set of controls, uncorrelated with any unobserved characteristic of a locality that may affect

Table 1: Internet Activity and Distance to Reported Ebola Cases

	Panel A: Ebola Tweets				
	(1)	(2)	(3)	(4)	(5)
Post-Onset Ebola Case in Dallas * Distance (in logs) to Dallas	-0.105*** (0.026)			-0.065*** (0.022)	
Post-Onset Ebola Case in Cleveland * Distance (in logs) to Cleveland		-0.032*** (0.011)		-0.041*** (0.008)	
Post-Onset Ebola Case in NYC * Distance (in logs) to NYC			-0.023** (0.011)	0.016** (0.007)	
Post-Onset First-Case*Distance (in logs) to Nearest Case					-0.067*** (0.013)
Mean Tweets per 10,000 inhab.	0.085	0.125	0.088	0.05	0.05
Adjusted- R^2	0.63	0.52	0.51	0.57	0.58
Observations	5974	5974	5974	18746	18746
Number of Clusters (DMA)	206	206	206	206	206
	Panel B: Ebola Searches				
	(1)	(2)	(3)	(4)	(5)
Post-Onset Ebola Case in Dallas * Distance (in logs) to Dallas	-7.385*** (1.181)			-7.033*** (1.248)	
Post-Onset Ebola Case in Cleveland * Distance (in logs) to Cleveland		-0.545 (0.614)		-1.382*** (0.407)	
Post-Onset Ebola Case in NYC * Distance (in logs) to NYC			-2.859*** (0.692)	-1.148** (0.553)	
Post-Onset First-Case*Distance (in logs) to Nearest Case					-2.528* (1.289)
Mean Google Searches	13.86	20.63	15.43	8.42	8.42
Adjusted- R^2	0.72	0.58	0.67	0.70	0.70
Observations	5945	5945	5945	18655	18655
Number of Clusters (DMA)	205	205	205	205	205
Day FE	Yes	Yes	Yes	Yes	Yes
DMA FE	Yes	Yes	Yes	Yes	Yes
DMA-specific Linear Trends	Yes	Yes	Yes	Yes	Yes

Notes: The table reports estimated coefficients for the interaction between the distance (in logs) to an Ebola Case and a dummy indicating the post-onset of that case. The unit observation is a DMA-day. Samples in columns 1 to 3 include daily data by DMA 15 days before and 15 days after the ebola diagnosis of the case. Samples in columns 4 and 5 include all daily data from September 1st to November 30th. All regressions include DMA fixed effect, day fixed effect, and DMA-specific linear trends. The dependent variable in Panel A is the number of ebola related tweets per 10,000 inhabitants in DMA (using 2010 census population). The dependent variable in Panel B accounts for the daily google search volume of the term 'ebola' in DMA. Each DMA google searches time series is scaled by a DMA-specific weight based on the relative geographic distribution of ebola searches between September 1st and November 30th. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses.

voting behavior in a systematic way.²¹ We can examine the strength of the relationship between our instrument and the measures of Ebola concerns, by estimating the first-stage regression:

$$Ebola_{c,d} = \pi_0 + \pi_1 \ln(DistanceNearestCase)_d + \pi_2 Vote_{c,d}^{2010-06} + \pi_3' X_c + \pi_4' D_d + \Lambda_r + \epsilon_{d,c}. \quad (3)$$

Table 2 presents different specifications estimating equation (3) and shows that, indeed, proximity to the nearest reported Ebola case is a strong predictor of Ebola concerns. Column 1 establishes the basic result using the search measure. Adding the full set of DMA controls (column 2), pre-trends in voting (column 3), or regional dummies (column 4) does not substantially change the point estimate for the instrument. The first stage results suggest that our setting is not subject to a weak instrument problem: the implied robust weak instrument

²¹Conditioning is, of course, important: for instance, our instrument quite obviously varies systematically with region, as can be readily seen from Figure A.1, showing the spatial distribution of the variable.

F-Statistics (i.e., Olea and Pflueger (2013)'s effective F-Statistics) are above 30.²² Further, removing population weights in column 5 does not alter our results. Columns 6 and 7 of Table 2 then confirm the results using the Twitter measure.²³

Table 2: Ebola Concerns and Distance to Nearest Case (First-Stage)

	Ebola Searches					Ebola Tweets	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Distance (in logs) to Nearest Case	-5.475** (2.438)	-8.434*** (1.821)	-7.974*** (1.288)	-7.866*** (1.261)	-7.309*** (1.292)	-1.766*** (0.311)	-1.609*** (0.347)
Mean Value Dep. Var.	54.9	54.9	54.9	54.9	54.1	5.6	4.2
County-Level Controls	No	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	No	Yes	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	No	No	Yes	Yes	Yes	Yes	Yes
Previous Election Controls	No	No	No	Yes	Yes	Yes	Yes
Population Weights	Yes	Yes	Yes	Yes	No	Yes	No
Adjusted- R^2	0.38	0.62	0.66	0.68	0.49	0.80	0.64
Observations	3068	3067	3062	3062	3062	3064	3064
Number of Clusters (DMA)	203	203	202	202	202	203	203

Notes: The variable Ebola Searches accounts for the google search volume of the term 'ebola' during the 5 weeks before the 2014 election. The variable Ebola Tweets accounts for the number of tweets about 'ebola' per 10,000 inhabitants in DMA during the same period. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches/Tweets before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013. Previous election controls include the Democratic vote share for House in the midterm election of 2010 and its change with respect to the 2006 midterm election.

We also want to ensure that we are picking up something specific to the location of Ebola cases – and not, say, about proximity to large urban centers. On that, it is reassuring that the distance to the nearest Ebola case is largely uncorrelated with observable variables, as can be seen in Table A.9 in the Appendix. To further assuage concerns, we also conduct a placebo exercise: we randomly select three out of the top 100 cities in the US by population (excluding the three with Ebola cases), and compute for all counties and DMAs the minimum distance among the randomly selected cities. We then run a regression of Ebola concerns on this distance, with and without controlling for distance to the nearest Ebola case. Figure 4 plots the kernel estimation of the probability density function for the coefficients obtained from 1000 random draws. It is apparent that our coefficient of interest is an extreme outlier in the distribution of randomly generated coefficients. In addition, the distribution of the coefficient

²²As shown below, for all our instrumental variable results we report the effective F-Statistic (Olea and Pflueger, 2013) as well as the Anderson-Rubin 95% confidence sets which are robust to weak identification and are efficient in the just-identified case (Andrews et al., 2019) -see e.g., Table 5

²³Table B.1 shows that the first-stage results are robust to allowing for spatial autocorrelation in the computation of the standard errors using several cutoff-distances from 100km to 1,000km.

on distance to nearest Ebola case that comes from the “horse race” regressions is far to the left of the distribution of the random distance coefficients, which is roughly centered near zero. By the same token, Tables B.2 and B.3 shows first-stage regressions controlling for the distance to the nearest (non-Ebola) large city, for several definitions of what constitutes a “large city.” The coefficient on distance to the nearest case is barely affected when we include that alternative distance, and is substantially larger in magnitude than coefficient on the latter.

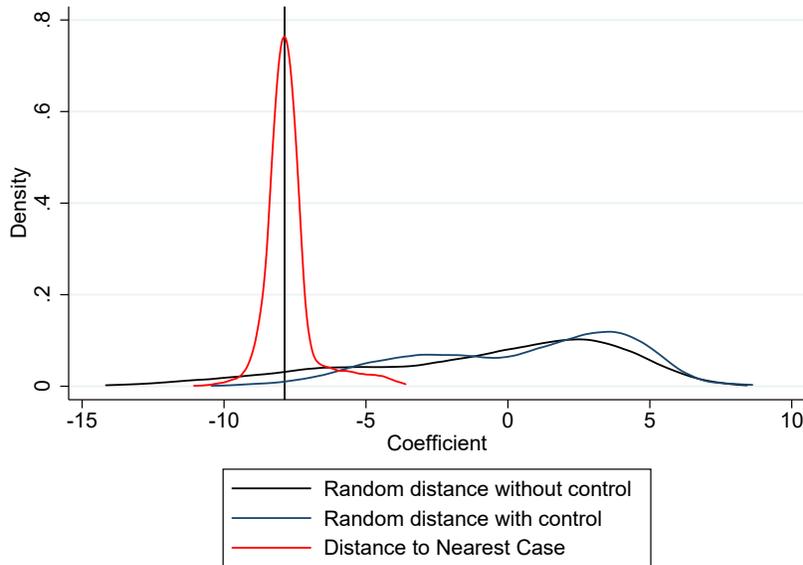


Figure 4: Placebo First-Stage

Note: The figure shows kernel density estimations for three pdf of: (1) coefficient of minimum distance to 3 randomly drawn cities out of the largest 100 cities (excluding Ebola locations) obtained from regressing Ebola Concerns on random distance and full set of controls described in equation (1) (1000 random draws) -pdf labelled as random distance without control-, (2) coefficient of random minimum distance as before but controlling for the minimum distance to nearest Ebola case -pdf labelled as random distance with control-, and (3) coefficient of distance to nearest Ebola case in each horse race with random distance. Black vertical line denotes point estimate in our baseline specification (column 4 in Table 2)

As for the exclusion restriction, Table 3 presents a few checks. We can see that distance to the nearest Ebola case does not predict Ebola-related searches before the first diagnosed case in the U.S. (column 1), and its correlation with Ebola tweets before the first case is a precisely estimated zero (column 2). Nor does it strongly predict Google searches during the swine flu pandemic of 2009 – note in particular that the estimated coefficient is of a very small magnitude relative to the mean value of the dependent variable. In short, our instrument does not seem to be picking up some general interest in Ebola unrelated to the perception of threat, or geographical variation in some persistent characteristic related to reactions to infection-related

risky situations in general.²⁴ Similarly, and importantly, it does not predict political outcomes prior to 2014: it is uncorrelated with the vote share of Democratic candidates for the preceding House, Senate, or gubernatorial elections (columns 4-7).

Table 3: Distance to Ebola Cases and Selected Outcomes

	Pre-treatment		Swine flu	Previous Elections: Democratic Vote Share			
	Ebola Searches	Ebola Tweets	Searches	House 2010	House 2012	Senate 2012	Gubern. 2010
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Distance (in logs) to Nearest Case	1.132 (1.984)	-0.002** (0.001)	-0.476* (0.278)	0.560 (0.444)	0.512 (0.530)	-0.084 (0.728)	-0.307 (0.478)
Mean Value Dep. Var	57.7	0.021	34.7	38.5	39.7	47.5	40.9
Effect of Std Dev Δ in Distancee	1.52	-0.00	-0.64	0.75	0.69	-0.13	-0.42
County-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Previous Election Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.43	0.44	0.44	0.76	0.70	0.77	0.70
Observations	3062	3064	3062	3060	3019	1865	2136

Notes: All specifications are weighted by DMA population. The variable Ebola Searches accounts for the google search volume of the term 'ebola' during the 5 weeks before the 2014 election. The variable Ebola Tweets accounts for the number of tweets about 'ebola' per 10,000 inhabitants in DMA during the same period. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches/Tweets before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013. Previous election controls vary depending on the corresponding election for each outcome variable: For House 2010, it includes the Democratic vote share for the 2006 midterm House election and its change with respect to the 2002 midterm election. For House 2012, it includes the Democratic vote share for the previous House election (i.e., 2010) and its change with respect to the previous house election (i.e., 2008). For Senate 2012, it includes the Democratic vote share for the previous senatorial election (i.e., 2006) and its change with respect to the previous senatorial election (i.e., 2000). For 2010 gubernatorial election, it includes the Democratic vote share for the 2006 gubernatorial election and its changes from the 2002 election.

5 The Political Impact of Ebola

5.1 Ebola and Voting: Baseline OLS Results

We first look at the basic correlation patterns, by estimating (1) via OLS. Table 4 presents the results for U.S. House election outcomes, in order to maximize coverage and sample size, since not all states had Senate or gubernatorial elections that year. (We will discuss those elections

²⁴This is an important check since there is evidence that psychological mechanisms that have evolved to promote disease-avoidance may encourage the endorsement of socially conservative beliefs (Terrizzi et al., 2013).

later.)²⁵ We weigh regressions by DMA population, which does not qualitatively affect the results, as we will show, but generally improves the precision of our estimates.

We start by showing, in Column 1, that Ebola searches before the first case in the U.S. do not predict the Democratic vote share in the 2014 midterm election. In contrast, column 2 shows a strong unconditional correlation between Ebola concerns after the first case and the vote share for Democratic candidates. This remains true even after controlling for possible confounding factors, captured by regional dummies and by our county- and DMA-level variables (columns 3 and 4), which include demographic characteristics, as well as media access (cable TV) and intensity of Google searches for “anxiety” and “virus” (as of 2013), all of which might correlate with Ebola concerns and information, as well as political views. The point estimate suggests that Democratic vote share is significantly negatively associated with Ebola concerns: a one-standard-deviation increase in Ebola searches is associated with a decrease in vote share of one fifth of a standard deviation (about four percentage points).

Table 4: Ebola Concerns and Democratic Vote Share (OLS)

	Democratic Vote Share in 2014 House Reps. Election						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Ebola Searches before First Case US	-0.007 (0.182)						
Ebola Searches		-0.352** (0.169)	-0.361*** (0.101)	-0.301*** (0.089)	-0.170*** (0.058)		
Ebola Tweets						-1.297*** (0.365)	-0.937*** (0.177)
Std Dev Vote Share	20.61	20.61	20.61	20.61	20.61	20.61	20.61
Std Dev Ebola (Searches or Tweets)	14.14	11.86	11.86	11.86	11.86	2.75	2.75
Effect of Std Dev Δ in Searches/Tweets	-0.10	-4.17	-4.28	-3.57	-2.01	-3.56	-2.57
County-Level Controls	No	No	Yes	Yes	Yes	Yes	Yes
Region FE	No	No	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	No	No	No	Yes	Yes	Yes	Yes
Previous Elections Controls	No	No	No	No	Yes	No	Yes
Adjusted- R^2	-0.00	0.04	0.50	0.56	0.74	0.55	0.74
Observations	3062	3062	3061	3056	3056	3058	3058
Number of Clusters (DMA)	203	203	203	202	202	203	203

Notes: All specifications are weighted by DMA population. The variable Ebola Searches accounts for the google search volume of the term 'ebola' during the 5 weeks before the 2014 election. The variable Ebola Tweets accounts for the number of tweets about 'ebola' per 10,000 inhabitants in DMA during the same period. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches/Tweets before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013.

Democrats thus did poorly in areas that display greater Ebola concerns. This, however, could be partly explained by selection: it could be that areas where Democrats had been doing

²⁵All analyses are based on continental United States (i.e., we exclude Alaska and Hawaii).

poorly would also be disproportionately concerned about Ebola. Column 5 suggests that this is indeed the case: the coefficient of interest drops substantially once we control for the Democratic vote share in 2010 (the previous midterm election), as well as the change between 2006 and 2010.²⁶ A similar pattern is present, if somewhat less starkly, when it comes to Ebola concerns as measured by tweets (columns 6-7).

In sum, the basic OLS results show a correlation between Ebola concerns and the electoral performance of Democrats, but also that selection on pre-existing political patterns is an important issue. In order to establish a causal effect, we need a source of variation in Ebola concerns that does not suffer from such selection. Table 3 has shown that the geographical patterns of Ebola cases provide us with such a source.

5.2 Ebola and Voting: Instrumental Variable Results

The nature of the variation behind our IV strategy can be seen Figure 5, which plots the residuals of the Democratic share of the House vote in 2014 (regressed on our full set of control variables described in equation (1)) on a map of U.S. counties marked with our three key Ebola locations. It is apparent that Democrats seem to have performed relatively poorly in the areas around the latter, especially for the Texas and Ohio cases.

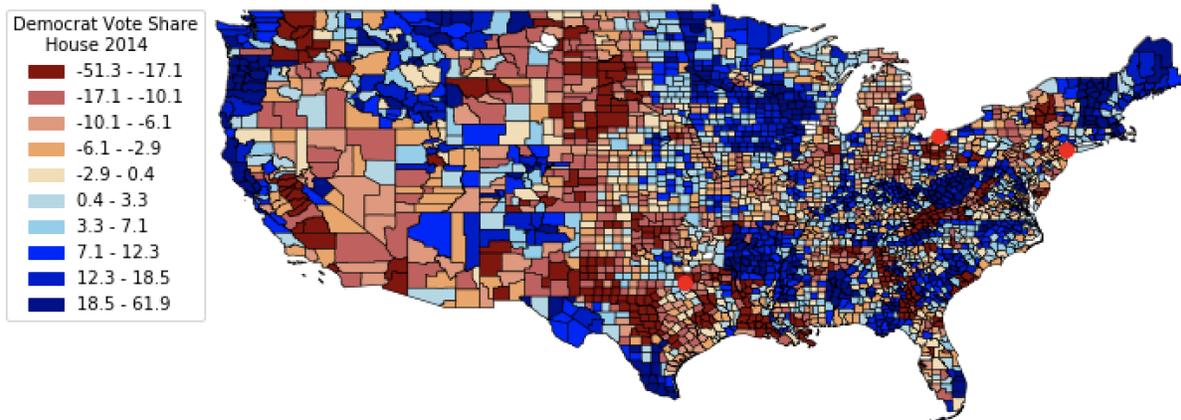


Figure 5: Democratic Vote Shares in House Elections

Note: The figure shows the geographical distribution of the residuals obtained from a regression of Democratic vote share in 2014 House election on the full set of controls described in equation (1). Red dots denote the location of Dallas, Cleveland, and New York.

²⁶Results are remarkably similar if we look at presidential election years as well, namely controlling for 2012 vote share and the change between 2010 and 2012. We will elaborate on that later, when discussing our main results.

This basic intuition is confirmed by Table 5, which presents the main IV results for U.S. House elections.²⁷ Columns 1-2 show the reduced-form results, with distance to the nearest Ebola case strongly predicting Democratic electoral performance. Columns 3-6 then show the population-weighted and unweighted IV estimates, implying a negative and highly significant effect of Ebola concerns on the Democratic vote share, whether they are measured by Google searches or tweets. Reassuring, all the identification-robust Anderson-Rubin confidence intervals reported in Table 5 safely exclude zero.

Table 5: Ebola Concerns and Democratic Vote Share (IV)

	Democratic Vote Share in 2014 House Reps. Election					
	(1)	(2)	(3)	(4)	(5)	(6)
Distance (in logs) to Nearest Case	2.918*** (0.455)	2.492*** (0.641)				
Ebola Searches			-0.373*** (0.097)	-0.342*** (0.094)		
Ebola Tweets					-1.644*** (0.479)	-1.485*** (0.436)
Std Dev Vote Share	20.61	18.69	20.61	18.69	20.61	18.69
Std Dev Ebola (Searches or Tweets)	1.34	0.82	11.86	10.45	2.75	2.11
Effect of Std Dev Δ in Searches/Tweets	3.90	2.04	-4.42	-3.58	-4.52	-3.13
Anderson-Rubin CI			[-0.63, -0.22]	[-0.57, -0.17]	[-2.99, -0.94]	[-2.64, -0.74]
County-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Previous Election Controls	Yes	Yes	Yes	Yes	Yes	Yes
Population Weight	Yes	No	Yes	No	Yes	No
Effective F Statistic	-	-	38.57	32.537	31.433	21.57
Adjusted- R^2	0.75	0.63	0.73	0.61	0.73	0.62
Observations	3056	3056	3056	3056	3058	3058
Number of Clusters (DMA)	202	202	202	202	203	203

Notes: The variable Ebola Searches accounts for the google search volume of the term 'ebola' during the 5 weeks before the 2014 election. The variable Ebola Tweets accounts for the number of tweets about 'ebola' per 10,000 inhabitants in DMA during the same period. All regressions but those on columns (4) and (6) are weighted by DMA population. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. Anderson-Rubin CI reports the 95% confidence set which is robust to weak identification and efficient in the just-identified case (Andrews et al., 2019). Effective F Statistic reports Olea and Pflueger (2013) robust weak instrument F-Statistics. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches/Tweets before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013. Previous election controls include the Democratic vote share for House in the midterm election of 2010 and its change with respect to the 2006 midterm election.

We check the robustness of our results along several dimensions. First, we experiment with different combinations and permutations of our control variables, for county- and DMA-level characteristics, as well as results from previous elections. The results are robust – as can be seen in Figures A.4 and A.3 in the Appendix, for the reduced form and the IV coefficients

²⁷Table A.5 in the Appendix shows results for senatorial and gubernatorial races, confirming that Democrats were also negatively affected by Ebola concerns in those elections.

respectively – underscoring that the finding is a robust pattern in the data, and not the result of mere happenstance or a “false positive.” They also hold when we include as previous elections controls the Democratic vote share in all of the House elections between 2006 and 2012 – that is to say, including both midterm and presidential years – as well as in the 2008 and 2012 presidential elections. These results can be seen in Table B.5.

In addition, results do not change when controlling for the distance to the nearest (non-Ebola) large city, for several definitions of what constitutes a “large city”, as can be seen in Table B.4. The coefficient on distance to the nearest case is barely affected when we include that alternative distance, and is substantially larger in magnitude than the coefficient on the latter. For further reassurance, we can use the previously described placebo approach of randomly drawing a group of three cities out of the largest 100 cities (excluding Ebola locations), repeating the procedure 1000 times, and comparing the distribution of reduced-form coefficients obtained for the minimum distance to the randomly drawn cities and for the distance to the nearest Ebola case. As we can see in Figure 6, the latter is far to the right of the former. Quite interestingly, this pattern is not present for the 2010 election (Figure A.2 in the Appendix), which provides further reassurance that our instrumental variable is not picking up something unrelated to the unfolding of the Ebola episode.

Last but not least, we also check robustness with respect to the spatial nature of our variation. The results still hold when we account for spatial autocorrelation in the error term in the computation of the standard errors (Table B.6), following Conley (1999). They also remain in place if we exclude the Dallas, Cleveland, and NYC’s DMAs or even the whole states of Texas, Ohio, and New York (Tables B.7 and B.8), showing that they are not driven by unrelated factors in these regions. As a final check, we consider a linear instrument for distance to nearest case, instead of its logarithm transformation, to make the variation in the narrow proximity of the cases less disproportionately salient, and the results still hold (Table B.9).

Broadly speaking, we estimate a quantitatively large impact of Ebola concerns on Democratic vote shares: from column 3, a one-standard-deviation increase in Ebola concerns leads to a decrease in vote share of about 4.5 percentage points (just over one fifth of a standard deviation). This is indeed a meaningful effect: 40 House of Representatives races were defined by a margin of nine percentage points or less, which would have been flipped by that change. Fifteen of those were won by the Republican candidate, and flipping those seats to the Democratic column would have completely wiped out the Republican majority’s increase relative to

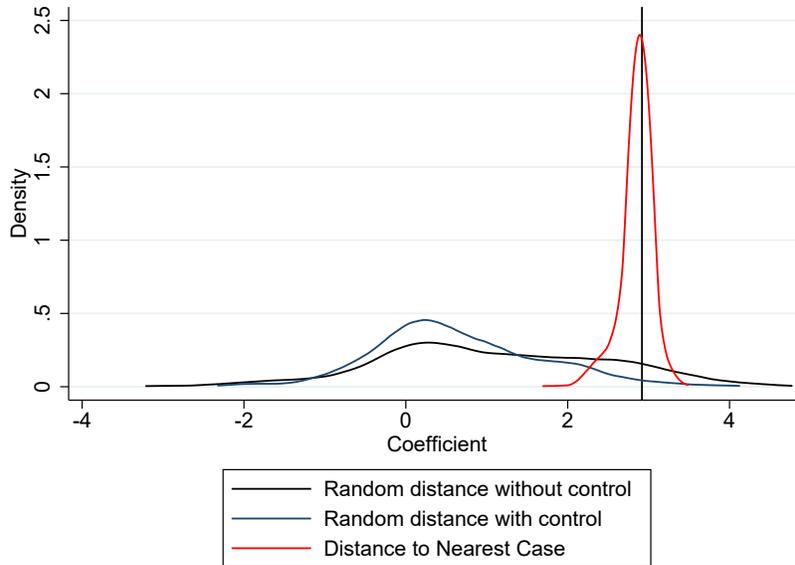


Figure 6: Placebo Reduced-Form 2014 Vote Share and Distance

Note: The figure shows kernel density estimations for three pdf of: (1) coefficient of minimum distance to 3 randomly drawn cities out of the largest 100 cities (excluding Ebola locations) obtained from regressing Democratic vote share in 2014 House election on random distance and full set of controls described in equation (1) (1000 random draws) -pdf labelled as random distance without control-, (2) coefficient of random minimum distance as before but controlling for minimum distance to nearest ebola case -pdf labelled as random distance with control-, and (3) coefficient of distance to nearest ebola case in each horse race with the random distance. Black vertical line denotes point estimate in our baseline specification (column 1 in Table 5)

2012 (from 234-201 to 247-188).²⁸

The IV coefficient is larger than the comparable OLS coefficient (see column 5 in Table 4). This could be due to a combination of measurement error in the variables capturing Ebola concerns and omitted variable bias in OLS – for instance, if Ebola concerns are stronger in areas with many swing voters, which presumably correlates with Democratic vote losses. The difference could also be related to the nature of the local average treatment effect, and for this it is instructive to look at the individual CCES survey data on Ebola concerns. It is noticeable (Table A.3) that Ebola concerns are much more sensitive to distance for registered Democrats than for registered Republicans. To the extent that this suggests that the typical “complier” in the natural experiment induced by the geographical location of Ebola cases is a relatively

²⁸The magnitude of the standardized effects is also quite substantial for Senate and gubernatorial elections, as per Table A.5 in the Appendix: a one-standard-deviation increase in Ebola concerns reduces the Democratic vote share by just about one fifth of a standard deviation. Specifically, those increases in Ebola concerns translate into a 2.9 percentage-point (4.3 p.p.) decrease in vote share for the Senate (gubernatorial) election. Extrapolating the results for the gubernatorial election can convey this magnitude quite starkly: this hypothetical loss in vote share would have been decisive in eight gubernatorial elections in which Republican candidates won by less than six percentage points.

Democratic area, it may be the case that the IV estimates are larger partly because the impact of Ebola concerns is stronger for Democratic voters.

To shed additional light on the nature of the electoral impact of Ebola, we look at voter turnout. Table 6 shows a substantial negative impact of Ebola concerns on total voter turnout (columns 1 and 2). In fact, the magnitude is such that a one-standard-deviation increase in Ebola searches would have led to a drop of about 1.6 percentage points. Interestingly, the 2014 midterm elections registered the lowest turnout (36.7%) since 1942, and the 1.6 percentage points corresponds to about 40% of the drop relative to the preceding midterms in 2010 (40.8%) (McDonald 2010). This suggests that the decline in the Democratic vote share may have been to an important extent due to potential supporters being induced to abstain from voting.²⁹

Still, the negative impact on the Democratic vote share is unlikely to be entirely explained by lower turnout. Consider that, as per columns 3 and 4, we also detect a strongly negative impact of Ebola concerns when using as dependent variable the share of Democratic votes relative to the total number of eligible voters – a number that is very much stable between elections. The magnitude of this decline is such that a one-standard-deviation increase in Ebola searches would have led to a drop of about 2.6 percentage points in that share. A simple back-of-the-envelope calculation, considering turnout of about 40%, evenly split between Democrats and Republicans, shows that this drop would by itself lead to about a 3.5 percentage-point decline in the Democratic share of the vote – compared to the 4.5 percentage-point magnitude we find in our comparable weighted regressions in Table 5. More direct, if correlational, evidence of switching votes across parties can be seen from the CCES survey responses: Table A.3 shows that registered Democrats who report individual concern with Ebola are more than twice as likely to report an intention to vote for a Republican candidate.

In any case, the pattern is clear: the Ebola threat had a substantial negative causal impact on the electoral fortunes of Democrats in the 2014 midterms.

²⁹Could this be partly explained by Democratic voters being more likely to be concerned with the possibility of contracting the virus by turning out to vote, as may be suggested by the widely reported differences in partisan attitudes towards Covid-19 risk in 2020? It is a possibility, but in fact the Ebola context was rather different: in the CCES data, it was Republican voters who reported significantly higher levels of personal concern with Ebola, as shown in Table A.2 in the Appendix, suggesting that lower turnout due to fear of contagion would have pushed in the opposite direction of our findings.

Table 6: Ebola Concerns and Turnouts

	Turnout 2014		Democratic House Votes as Share of Eligible Voters	
	(1)	(2)	(3)	(4)
Ebola Searches	-0.133*** (0.048)		-0.224*** (0.077)	
Ebola Tweets		-0.617*** (0.199)		-0.993*** (0.370)
Std Dev Vote Share	10.50	10.50	7.89	7.89
Std Dev Ebola (Searches or Tweets)	11.99	2.76	11.86	2.75
Effect of Std Dev Δ in Searches/Tweets	-1.59	-1.70	-2.65	-2.73
Anderson-Rubin CI	[-0.24, -0.05]	[-1.1, -0.26]	[-0.43, -0.11]	[-2.06, -0.45]
County-Level Controls	Yes	Yes	Yes	Yes
DMA-Level Controls	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes
Previous Election Controls	Yes	Yes	Yes	Yes
Effective F Statistic	42.46	30.71	38.37	31.43
Adjusted- R^2	0.74	0.75	0.56	0.60
Observations	3093	3095	3056	3058
Number of Clusters (DMA)	202	203	202	203

Notes: All regressions are weighted by DMA population. The dependent variable in columns 3 and 4 is the democratic vote share in 2014 house election computed as total votes normalized by county's eligible voting population. The variable Ebola Searches accounts for the google search volume of the term 'ebola' during the 5 weeks before the 2014 election. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. Anderson-Rubin CI reports the 95% confidence set which is robust to weak identification and efficient in the just-identified case (Andrews et al., 2019). Effective F Statistic reports Olea and Pflueger (2013) robust weak instrument F-Statistics. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013.

5.3 Were Voters Blaming Incumbents?

One possible mechanism underlying our results could be an anti-incumbent effect, whereby the perceived crisis may have affected the perception of effectiveness of incumbent officials, both at the national and local level, either rationally or through misattribution. After all, it is possible that voters could be making inferences about incumbent performance based on their perception of the government's response to the Ebola crisis, not to mention that there is substantial evidence that voters may punish or reward incumbents for outcomes over which they have little influence.

We first consider the possibility of a general anti-incumbent channel, looking at voting

results by incumbency status. Table 7 shows that, for all types of election, we do not find that incumbents faced a reduction in vote shares due to Ebola concerns (columns 1, 3, 5). It was only Democratic incumbents who experienced a substantial a reduction in their vote share as a result of those concerns (columns 2, 4, 6). Similarly, if we only consider races in which the incumbent was not a Democrat (columns 7-9), we still detect a negative impact on the vote share of the Democratic challengers.

Table 7: Ebola Searches and Incumbent Vote Share (IV)

	Incumbent Vote Share in 2014 Election						Democratic Vote Share House		
	House		Senatorial		Gubernatorial		House	Senatorial	Gubernatorial
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ebola Searches	0.216*	-0.960***	0.017	-0.649***	0.351***	-0.655**	-0.279***	-0.113	-0.230***
	(0.120)	(0.322)	(0.182)	(0.233)	(0.097)	(0.316)	(0.055)	(0.074)	(0.081)
Incumbents	All	Democrat	All	Democrat	All	Democrat	Exclude Democrat Incumbents		
Std Dev Vote Share	16.64	15.93	18.18	13.49	16.53	14.97	14.73	15.52	13.77
Std Dev Ebola Searches	12.16	7.50	13.49	8.44	13.09	7.88	13.11	16.14	14.83
Effect of Std Dev Δ in Searches	-2.62	-7.20	0.23	-5.48	4.60	-5.16	-3.66	-1.82	-3.41
Anderson-Rubin CI	[-0.08, 0.42]	[-1.81, -0.44]	[-0.45, 0.31]	[-1.25, -0.18]	[0.16, 0.54]	[-1.62, -0.17]	[-0.40, -0.18]	[-0.25, 0.03]	[-0.41, -0.09]
County-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Previous Election Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Effective F Statistic	39.01	25.26	36.49	13.46	91.53	17.80	80.39	539.50	224.57
Adjusted- R^2	0.33	0.28	0.20	0.63	0.24	0.66	0.51	0.72	0.77
Observations	2916	663	2274	1093	2136	548	2348	1181	1588
Number of Clusters (DMA)	202	143	153	94	172	66	192	85	131

Notes: All regressions are weighted by DMA population. The variable Ebola Searches accounts for the google search volume of the term 'ebola' during the 5 weeks before the 2014 election. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. Anderson-Rubin CI reports the 95% confidence set which is robust to weak identification and efficient in the just-identified case (Andrews et al., 2019). Effective F Statistic reports Olea and Pflueger (2013) robust weak instrument F-Statistics. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013.

While this pattern rules out a general anti-incumbent effect, it is still consistent with the possibility of voters punishing Democrats, at all levels, due to an attribution of responsibility to President Obama. If that were the case, we would expect to see Obama's approval ratings negatively affected by the timing of and distance to Ebola-related events. We explore that possibility by exploiting individual-level (daily) Gallup data on presidential approval ratings to estimate the following model:

$$Disapprove_{i,d,t(c)} = \gamma Post - Case_{t(c)} \times \ln(Dist.Ebola_c)_d + \delta' X_i + \lambda_d + \theta_t + \epsilon_{d,t}, \quad (4)$$

where $Disapprove_{i,d,t(c)}$ is an indicator taking value 1 if individual i living in DMA d disapproves of Obama's job as president, and 0 otherwise. $PostCase_{t(c)}$ is an indicator taking value 1 after the diagnosis of Ebola case c . The variable $\ln(Dist.Ebola_c)_d$ is the distance (in logs) of DMA d from Ebola case c . The vector X_i includes individual level controls (e.g., age, gender, race, etc), λ_d is a collection of DMA fixed effects, and θ_t is a collection of day fixed effects.

The results are in Table 8. In columns 1-3, we focus on a window of 15 days before and after the diagnosis of the first Ebola case in the three different locations (Texas, Ohio, and New York). Results suggest that the timing of the events and proximity to the cases do not affect Obama’s disapproval rates – in fact, we find a very precisely estimated zero effect.. We then exploit, in column 4, all the daily data from September 1st to November 30th 2014, and estimate the three interaction terms. Again, we find no evidence of an association. In column 5 we test whether the proximity to any of the three locations predicted Obama’s disapproval after the first case in the US, and find no evidence of that either. Finally, the result is not an artifact of the Gallup data: column 6 shows no impact on Obama’s disapproval as measured by the CCES survey.

Table 8: Disapprove Barack Obama’s job as president

	Disapproves Barack Obama’s job as president					
	(1)	(2)	(3)	(4)	(5)	(6)
Post-Onset Dallas x Distance (in logs) to Dallas	-0.002 (0.018)			0.006 (0.011)		
Post-Onset Cleveland x Distance (in logs) to Cleveland		0.006 (0.012)		-0.002 (0.008)		
Post-Onset NYC x Distance (in logs) to NYC			-0.003 (0.010)	0.001 (0.007)		
Post-Onset First-Case x Distance (in logs) to Nearest Case					-0.003 (0.007)	0.005 (0.004)
Mean Value Dep. Var. Survey	0.57 Gallup	0.59 Gallup	0.59 Gallup	0.58 Gallup	0.58 Gallup	0.53 CCES
Day FE	Yes	Yes	Yes	Yes	Yes	Yes
DMA FE	Yes	Yes	Yes	Yes	Yes	No
County FE	No	No	No	No	No	Yes
Individual-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.14	0.14	0.14	0.14	0.14	0.17
Observations	8037	7984	7591	24168	24168	71931
Number of Clusters	183	184	183	184	184	2370

Notes: Samples in Columns 1 to 3 include Gallup’ daily individual data 15 days before and 15 days after the ebola diagnosis of each case. Samples in columns 4 and 5 include all daily data between September 1st, 2014 and the midterm election. Sample in column includes CCES’s daily data between November 2013 and the midterm election. The dependent variable takes value of 1 if the individual disapproves Barack Obama’s job as president, 0 otherwise. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses (county-level in columns 6); *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. For specifications in columns 1 to 5, Individual-level controls are age and indicators for gender, employed, married, black, and hispanic. In column 6 Individual-level controls are age and a set of indicators variables for male, white, hispanic, college or higher education, married, and annual income above US median (i.e., usd 59,000)

In sum, we find no evidence of a general anti-incumbent effect of the Ebola crisis, nor of an impact on President Obama’s approval ratings. This suggests that the political impact of Ebola was not about voters being disappointed with a policy response, or irrationally misattributing responsibility, and punishing politicians as a result.

6 Unpacking the Response to Ebola

In order to shed additional light on the nature and mechanisms behind the political impact we have established, we now turn to the question of how politicians responded to the Ebola shock, and how that in turn may have affected the general public.

6.1 Strategic Response by Politicians

We start by asking whether the widely perceived role of Ebola as an important campaign theme, in the weeks leading up to the 2014 election, is borne out more systematically in the data. In particular, we are interested in whether it responded to strategic considerations, and in understanding systematic differences across parties and over time, in response to Ebola-related events.

We use data on three dimensions of politician behavior. First, there is the textual analysis of the content of the weekly e-newsletters sent by members of Congress to their constituents, from which we obtain information on mentions to the term “Ebola,” as well as other terms of interest. Second, we look at Twitter activity by all Republican and Democratic candidates for House, and Senate races, aggregating weekly mentions to “Ebola” and “#Ebola.” Last but not least, we have weekly variation in the number and content of ads that candidates in House, Senate, and gubernatorial races placed on TV. We can also look directly at whether fear was an important component of politicians’ strategy, as the dataset codes whether ads feature an appeal to fear, based on the use of ominous music or on the text of the ad, as explained in Section 3.³⁰

We implement the following general specification:

$$Strategy_{p,c,t} = \gamma PostOnset_t \times Politician_p + \pi' X_{p,t} + \lambda_t + \theta_p + \Gamma_t \times \lambda_c + \epsilon_{c,t}, \quad (5)$$

where $Strategy_{p,c,t}$ is one of the several measures of communication strategies (i.e., newsletters, tweets, or campaign ads) by a politician p , as of week t . In particular, we look at an indicator of

³⁰When it comes to the content, one limitation is that we only have information on whether ads mentioned Ebola for the sub-period between October 14 and November 4, since that was when the term was tracked by the Wesleyan Media Project. Interestingly, for that sub-period, 95% of the ads mentioning “Ebola” were aired by Republicans and 100% of those ads were coded as appealing to fear and 47% also mentioned immigration, underscoring the connection. None of the (few) Ebola-related ads by Democrats appealed to fear or were connected to immigration. See Table A.10 in the appendix.

whether at least one newsletter was sent, the weekly total number of tweets, and the weekly total number of campaign ads. Our main coefficient of interest captures the effect of the interaction between $PostOnset_t$ (an indicator taking value 1 in the period after the onset Ebola cases) and C_p , which is a cross-sectional characteristic of the politician p or her electoral district, capturing the differential change in behavior, upon the onset of Ebola cases, by politicians with that characteristic. The vector $X_{p,t}$ accounts for the length of the newsletters/tweets/ads in terms of number of words (aired time for ads), λ_t is a collection of week fixed effects, and θ_p is a collection of politician fixed effects. Finally, $\Gamma_t \times \lambda_c$ accounts for linear trends specific to a race (or constituency, in the case of newsletters). We cluster the standard errors at the level of race (or constituency, for newsletters).

Figure 7 displays the evolution of newsletters (Panel A) and tweets (Panel B) by Republicans and Democrats. It is immediately apparent that mentions to Ebola in newsletters and tweets increased dramatically upon the occurrence of the first U.S. case. There is also a clear difference across parties: Republicans respond much more strongly. Moreover, the share of newsletters and tweets discussing Ebola in conjunction with immigration is substantially larger among Republicans. Note that, by the very constrained nature of Twitter content, it is quite apparent that joint mentions of Ebola with another topic are likely to be purposeful attempts at connecting them. A similar message emerges when we analyze the proximity between mentions to Ebola and immigration in newsletters, as we can see in Figure A.5 in the Appendix.³¹

The evolution of campaign ads appealing to fear (Panel C) in turn suggests two patterns. First, Republicans and Democrats seem to appeal to fear at similar rates throughout the period, which may be surprising in light of the literature that shows that priming fear in an experimental environment leads to more conservative political views (e.g. Jost et al. (2003), Thórisdóttir and Jost (2011)). However, ads appealing to fear while mentioning immigration are substantially more prevalent in Republican ads, and that combination increases substantially after the occurrence of the first Ebola case in the US.

We confirm these results more systematically, starting in Table 9. Republicans were more likely to send Ebola-related content in their newsletters, tweet about Ebola, and air fear-appealing campaign ads, upon the emergence of cases in the US (columns 1-3). The magnitudes are quite important: the relative increase in newsletters and tweets mentioning Ebola by

³¹In 50% of the newsletters in which ebola and immigration were mentioned by Republicans the two terms were either in the same or in the adjacent sentence.

Figure 7: Communication Strategies Used by Politicians

FIGURE A: EVOLUTION OF NEWSLETTERS BY PARTY

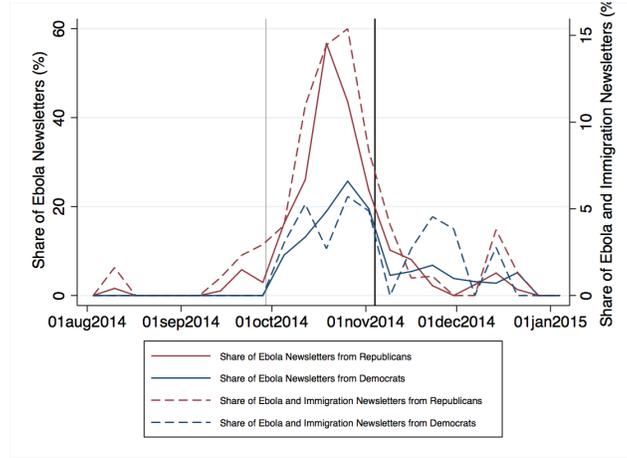


FIGURE B: EVOLUTION OF CANDIDATES' TWEETS BY PARTY

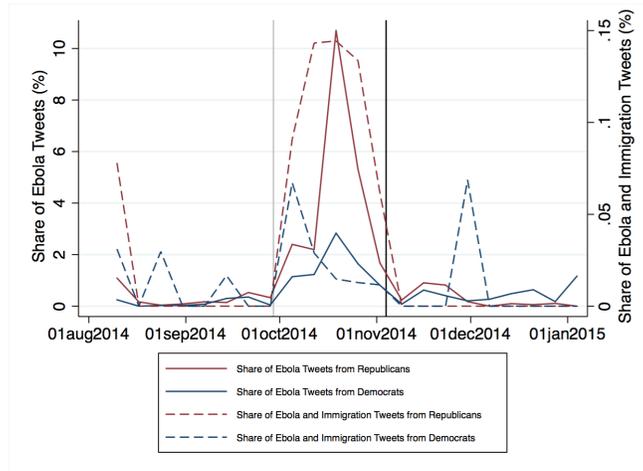
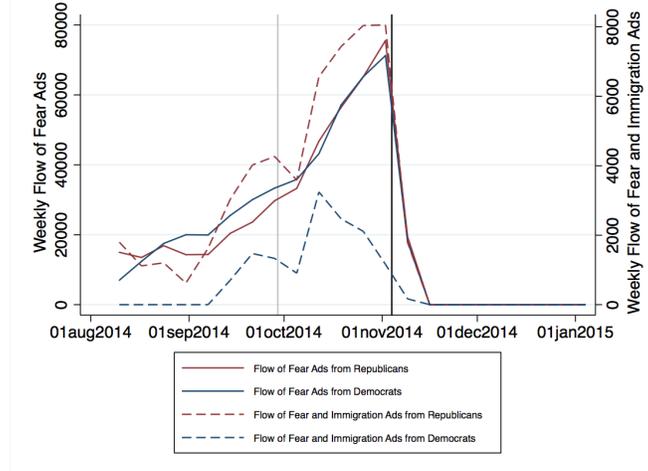


FIGURE C: EVOLUTION OF FEAR APPEALING CAMPAIGN ADS BY PARTY



Note: The three figures plot the evolution of Newsletters (Fig. A), Tweets (Fig. B), and Campaign Ads (Fig. C) by party from early August to December 2014. Red lines denote Republicans whereas Blue lines denote Democrats. Solid lines denote ebola (fear for Ads)-related newsletters, tweets, and ads while dashed lines denote newsletters, tweets, and ads in which ebola (fear for Ads) is mentioned in conjunction with immigration. Vertical grey and black lines denote timing of first ebola case and midterm elections, respectively. Fig. A is based on 367 member of the congress who sent at least one official e-newsletters between August 2014 and the midterm elections. Fig. B focuses on 796 candidates for congress with twitter activity between August and November of 2014. Fig. C focuses on 575 candidates for congress and state governor who aired at least one campaign ad between August 2014 and the midterm elections.

Republicans, after the first case, is roughly twice as large as the average likelihood of newsletter mentions and the average number of Ebola tweets in a given week during the sample period of August-November 2014. The estimated relative increase in fear-based ads is smaller in magnitude, but still substantial at about 20% of its mean value.

Table 9: The Strategic Response to Ebola

	Ebola related		Fear	Ebola related		Fear	Ebola related		Fear
	Newsletter	Tweets	Ads	Newsletter	Tweets	Ads	Newsletter	Tweets	Ads
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Post-Onset First-Case x Republican	0.058*** (0.016)	0.414*** (0.077)	23.178* (12.139)	0.054*** (0.017)	0.428*** (0.086)	-5.107 (9.874)	0.060*** (0.016)	0.419*** (0.077)	21.571* (11.633)
Post-Onset First-Case x Republican x Competitive Race				0.223*** (0.063)	-0.103 (0.135)	60.433** (24.855)			
Post-Onset First-Case x Competitive Race				-0.015 (0.013)	-0.150** (0.069)	-7.553 (24.581)			
Post-Onset First-Case x Republican x Distance to Nearest Case							-0.048** (0.022)	-0.123** (0.057)	32.793** (13.172)
Post-Onset First-Case x Distance to Nearest Case							0.004 (0.009)	-0.005 (0.026)	-4.017 (8.260)
Mean Dep.Var.	0.03	0.19	108.30	0.03	0.19	108.30	0.03	0.19	108.30
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race/Constituency-Specific Linear Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Newsletter/Tweet/Ad-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.23	0.27	0.68	0.23	0.27	0.77	0.23	0.27	0.77
Observations	5505	11144	8316	5505	11144	8316	5505	11144	8316
Number of Clusters (Race/Constituency)	285	460	227	285	460	227	285	460	227

Notes: The unit of observation is a politician - week. Newsletter sample focuses on 367 member of the congress (i.e., senators and house representatives) who sent at least one official e-newsletters between August 2014 and the midterm election. Twitter sample focuses on 796 democratic and republican candidates for congress with twitter activity between August and November of 2014. Campaign ads sample focuses on 575 democratic and republican candidates for congress (house or senate) and state governor who aired at least one campaign ad between August 2014 and the midterm election. The dependent variables are (1) an indicator variable if a member of Congress sent at least one official e-newsletter containing the term 'ebola' that week (Ebola Newsletter), (2) the weekly number of ebola-related tweets posted by each candidate (Ebola Tweets), and (3) the weekly number of TV campaign ads appealing to fear aired by candidates (Fear Ads). The coding of a fear-appealing ad is based on coding by Political Advertising in 2014 (Wesleyan Media Project) in two dimensions: 1) whether any ominous/tense music is played during the ad, or 2) there is direct appeal to fear in ads regardless of the music. Newsletter and Tweet-level controls are the weekly and accumulated wordcounts. Ad-level controls are the weekly and accumulated airing time length and number of ads. To ease the interpretation of the uninteracted coefficients, distance variables in the interaction terms were demeaned. Heteroskedasticity robust standard errors estimates clustered at the race (constituency for newsletters)-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

This pattern begs the question of whether the response by Republican politicians was in fact strategic. After all, it could be the case that they were simply more likely to care about the Ebola threat themselves, or to represent voters who cared disproportionately. One piece of relevant evidence is already apparent in Figure 7, which shows a precipitous drop in Ebola mentions in newsletters and tweets immediately after the election, consistent with strategic considerations.³²

Still, columns 4-6 of Table 9 address the issue more directly, by considering whether there was a differential response in races rated as competitive prior to the Ebola episode.³³ We can see that it was Republicans in competitive races who responded more strongly, and by a large

³²This is confirmed in Table A.11. In the online appendix, we also exploit the timing of different cases. Tables B.10 and B.11 shows that the second case, associated with Ohio, caused an especially larger reaction from Republican members. The pattern for fear-based ads, in Table B.12 is similar but imprecisely estimated, perhaps because our variable is a noisier proxy for an Ebola strategy, or because producing and airing a TV ad is costlier than a newsletter or tweet.

³³By September 19, 2014, 36 (resp. 12) House (resp. Senate) races are classified as competitive by the Cook Political Report.

margin: for instance, the relative increase in likelihood of mentioning Ebola in a newsletter was more than four times larger for a Republican involved in such a race, compared to those holding safe seats.³⁴

Finally, columns 7-9 in Table 9 show that Republicans running for office in constituencies closer to the Ebola cases also responded more sharply, at least when it comes to the cheaper actions of newsletters and tweets, indicating that the strategic response was in line with the salience of the Ebola threat as perceived by voters.^{35,36} However, Democrats did not respond to that distance, indicating that the pattern is not simply driven by voter concerns.

Table 10 then turns to the issues exploited by politicians in conjunction with Ebola. We see quite clearly that Republican candidates were disproportionately inclined to mention Ebola (or appeal to fear) in newsletters, tweets, and ads that also mentioned themes like immigration, terrorism, and President Obama. For a sense of the magnitudes, after the first case Republicans were respectively 2.3 and 2.9 percentage points more likely to mention immigration (column 5) and Obama (column 6) in the same newsletters in which they mentioned Ebola. This represents an increase of about one-third over the average probability of receiving a newsletter mentioning immigration and President Obama during the sample period August-November 2014.³⁷

It is worth noting that, across all three measures, the response is quantitatively stronger when it comes to mentions of Ebola in conjunction with President Obama. In other words, Republican politicians seem to have tried especially hard to associate the Ebola threat with the president, which is interesting in light of the fact that his approval ratings were unaffected. This is also underscored by the sheer number of mentions to "Obama" and "Ebola" in a single tweet or in close proximity in a newsletter, as we can see in Figure A.5 in the Appendix.³⁸

³⁴While the point estimate for tweets is small and insignificant, and negative, this can be attributed to a small set of nine Republican candidates in non-competitive races who sent out an extremely large number of Ebola tweets (22 times more than average during the period of analysis). As shown in Table B.13, if we exclude this small set of candidates, the point estimate of interest reverses its sign. We find similar results if we exclusively focus on twitter activity by candidates for the US senate race. Further, we find a stronger positive effect when focused on the extensive margin (i.e. the likelihood of sending at least one Ebola tweet).

³⁵Tables B.14 to B.16 present a detailed documentation of the role of distance to and the timing of each case.

³⁶Table B.16 suggests that the positive sign for the interaction term Post-Onset x Republican x Distance to Nearest Ebola Case for Fear-ads in Table 9 is driven by Republican ads aired after the occurrence of the case associated to NYC in places that were distant to that city.

³⁷In Tables B.17 to B.25 we again exploit the timing of each case when looking to the conjunction of ebola (or fear) with other issues discussed above. Again, the second case, associated with Ohio, appeared to cause an especially larger reaction from Republican members. Further, Tables B.26 to B.34 documents the role of the distance to each case.

³⁸In 50 (out of 82) newsletters in which republicans mentioned "Obama" and "Ebola", the two terms appeared in the same sentence.

Table 10: Ebola, Fear and Other Issues

	Ebola-Related Newsletter			Ebola-Related Tweets			Fear Appealing Ads		
	Terrorism (1)	Immigration (2)	Obama (3)	Terrorism (4)	Immigration (5)	Obama (6)	Terrorism (7)	Immigration (8)	Obama (9)
Post-Onset First-Case x Republican	0.011 (0.007)	0.023** (0.009)	0.029*** (0.011)	0.012*** (0.004)	0.016*** (0.005)	0.061*** (0.011)	7.803*** (2.613)	9.266* (4.920)	56.050*** (11.648)
Mean Dep.Var.	0.01	0.01	0.02	0.01	0.00	0.01	2.43	8.02	24.36
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race/Constituency-Specific Linear Trends	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Newsletter/Tweet/Ad-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.10	0.11	0.16	0.02	0.04	0.09	0.16	0.34	0.46
Observations	5505	5505	5505	11144	11144	11144	8316	8316	8316
Number of Clusters (Race/Constituency)	285	285	285	460	460	460	227	227	227

Notes: The unit of observation is a politician - week. Newsletter sample focuses on 367 member of the congress (i.e., senators and house representatives) who sent at least one official e-newsletters between August 2014 and the midterm election. Twitter sample focuses on 796 democratic and republican candidates for congress with twitter activity between August and November of 2014. Campaign ads sample focuses on 575 democratic and republican candidates for congress (house or senate) and state governor who aired at least one campaign ad between August 2014 and the midterm election. The dependent variables are (1) an indicator variable if a member of Congress sent that week at least one official e-newsletter containing the term 'ebola' in conjunction with the issue listed in column (Ebola-Related Newsletter), (2) the weekly number of ebola-related tweets in conjunction with the issue listed in column posted by each candidate (Ebola-Related Tweets), and (3) the weekly number of TV campaign ads appealing to fear in conjunction with the issue listed in column aired by candidates (Fear Ads). The coding of a fear-appealing ad is based on coding by Political Advertising in 2014 (Wesleyan Media Project) in two dimensions: 1) whether any ominous/tense music is played during the ad, or 2) there is direct appeal to fear in ads regardless of the music. Newsletter and Tweet-level controls are the weekly and accumulated wordcounts. Ad-level controls are the weekly and accumulated airing time length and number of ads. To ease the interpretation of the uninteracted coefficients, distance variables in the interaction terms were demeaned. Heteroskedasticity robust standard errors estimates clustered at the race (constituency for newsletters)-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Interestingly, we find no evidence of an Ebola-related response by Republicans related to other Republican-friendly topics less plausibly related to the crisis. In particular, as shown in Table A.12 and Figure A.5 in the Appendix, there is no evidence of an increase in joint mentions of "Ebola" and terms related to guns. This underscores that the responses we detect are indeed driven by strategic considerations.

Last but not least, these results also beg the question of whether Democrats may have responded strategically, perhaps by trying to associate Ebola with other themes more favorable to their message. This does not seem to have been the case, at least taking the example of healthcare – which seems a natural example of such a theme, as related to a public health threat. As we can see, again in Table A.12 and Figure A.5, if anything it was Republican candidates who were more likely to mention healthcare-related words in proximity with Ebola.³⁹

6.2 Did Voters Respond to Politicians?

We have shown that the Ebola-related episodes in the U.S. triggered a strategic response by Republican politicians, and that they benefited the latter in the ballot box. This begs the question of whether the behavior of politicians affected that of voters, or whether the two were simply jointly affected by the Ebola shock.

As a first pass on the question, we look at the correlation between politician behavior and electoral results. As we show in Table A.6, counties where Republican candidates tweeted

³⁹Healthcare was one of the major issues in the 2014 elections, coming on the heels of the initial implementation of the Affordable Care Act (aka, "Obamacare").

more about Ebola experienced a larger drop in Democratic vote shares, even after controlling for DMA fixed effects.⁴⁰ In the absence of a separate source of exogenous variation for the behavior of politicians, however, we cannot establish whether the electoral effect was caused by that behavior.⁴¹

That said, we can exploit the high-frequency variation in the behavior of politicians to get at the question of whether their strategic response to Ebola had an impact on the public at large. Specifically, we look at whether Ebola tweets by politicians can predict Ebola concerns by the public, and whether that depends on the distance to Ebola cases. The results are in Table 11. We see a clear pattern where Ebola tweets by Republican politicians on date t predict more tweets by the public on date $t+1$, and only after the onset of the first case (column 1). No similar pattern is present for Democratic candidates (column 2). Interestingly, the triple interaction indicates that the impact gets weaker with distance, suggesting that the strategic behavior and higher exposure to the Ebola shock complement one another in amplifying concern. It is also instructive that there is no evidence whatsoever of the reverse pattern: Ebola tweets by the public do not predict subsequent tweets by Republican politicians (column 3). This reinforces the conclusion that the behavior of politicians is indeed feeding into concerns by the public, rather than the correlation being driven by unobserved factors or autocorrelation patterns.

One might raise the concern that behavior on Twitter is simply amplifying the behavior of politicians for partisan reasons – say, with Republican voters re-tweeting messages from Republican politicians to broadcast their message. Yet column 4 shows that Ebola tweets by Republican politicians also predict Google searches on Ebola by the public, which is a fully private behavior. This indicates that the strategic behavior by Republican politicians is indeed translating into increased Ebola concerns by the public. Once again, the same pattern with distance, as well as the absence of a pattern with Democratic politicians (column 5) and from the public to politicians (column 6), apply to searches as they did to tweets.

In sum, while we cannot establish a direct link from the strategic behavior of politicians

⁴⁰Specifically, we estimate a version of equation (1) that replaces our indicator of Ebola concerns with the (log of the) number of Ebola-related tweets by Republican candidates in a given county, and exploits within-DMA variation in our treatment for the House election.

⁴¹As suggestive evidence, in the same Table A.6 we also present 2SLS estimates using the overall number of tweets by Republican candidates in a county, prior to the first Ebola case in the US, as a source of variation for Ebola-related tweets by the same candidates. We find a strongly negative and statistically significant association with the Democratic vote share, even after accounting for DMA fixed effects, but since pre-Ebola Twitter proclivities might be correlated with other unobserved factors within a DMA, we cannot be confident of a causal interpretation.

Table 11: Republican-Driven Concerns?

	Ebola Tweets		Ebola Tweet by Politi- cians	Ebola Searches		Ebola Tweet by Politi- cians
	(1)	(2)	(3)	(4)	(5)	(6)
Ebola Tweet by Politicians in t-1	-0.006*	-0.005		-0.992**	0.362	
	(0.002)	(0.003)		(0.306)	(0.511)	
Ebola Internet Activity by People in t-1			0.155			0.000
			(0.116)			(0.001)
Post-Onset * Ebola Tweet by Politicians in t-1	0.264***	0.066		13.86**	3.52	
	(0.056)	(0.050)		(4.20)	(4.39)	
Post-Onset * Internet Activity by People in t-1			-0.027			0.004
			(0.186)			(0.003)
Post-Onset * Distance (in logs) to Nearest Case	-0.055***	-0.066***	-0.104***	-2.15	-2.68	-0.094***
	(0.0132)	(0.0163)	(0.017)	(1.278)	(1.436)	(0.020)
Triple Interaction	-0.042***	-0.008	0.010	-1.98**	-0.42	-0.000
	(0.009)	(0.008)	(0.028)	(0.69)	(0.73)	(0.000)
Politicians	Rep.	Dem.	Rep.	Rep.	Dem.	Rep.
Internet Activity	Ebola Tweets per Capita			Ebola Google Searches		
Day FE	Yes	Yes	Yes	Yes	Yes	Yes
DMA FE	Yes	Yes	Yes	Yes	Yes	Yes
DMA-Specific Linear Trends	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.59	0.58	0.35	0.69	0.69	0.35
Observations	12978	12978	12978	12915	12915	12915
Number of Clusters (DMA)	206	206	206	205	205	205

Notes: The dependent variables are the number of ebola related tweets per 10,000 inhabitants in DMA (using 2010 census population) in columns 1 and 2, Google Searches for Ebola in columns 4 and 5, and an indicator of whether at least one ebola related tweet was mentioned by a Republican candidate in DMA, 0 otherwise in columns 3 and 6. Post-Onset is a dummy indicating the Post-Onset of the first ebola case. The unit observation is a DMA-day. The sample includes daily data by DMA from September 1st to the election day. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses.

to the election results, there is substantial suggestive evidence that such behavior did leave an imprint on the general public, interacting with the Ebola shock and amplifying concerns.

6.3 Did Ebola Make Voters More Conservative?

We can also look at whether voters changed their views in response to the Ebola threat. This is particularly important as it allows us to ascertain the extent to which the electoral impact was related to a broad threat-induced conservative shift in attitudes, as opposed to something more specific.

For that we turn again to the CCES data, with which we replicate the exact same approach as in (5.3). As dependent variables of interest, we look at five attitudinal measures of surveyed individuals, which we can tie to conservative views: anti-immigration, pro-gun, reli-

gious, opposition to same sex marriage, and self-reported conservatism. Table 12 presents the main results. Point estimates suggest that the proximity to an Ebola case after the first Ebola does not explain disagreement with gun control measures, beliefs regarding the importance of religion, opposition towards gay marriage, or self-reported conservatism.

There is one dimension that does seem to be impacted by Ebola: attitudes towards immigration. Specifically, individuals leaving closer to an Ebola case tend to have stronger anti-immigration attitudes, after the occurrence of the first case.⁴²

These findings have two important implications. First, the impact of the concerns regarding Ebola was not necessarily associated with more conservative attitudes in general, which was a possibility suggested by the previous experimental literature. Second, the results suggest that not all associations drawn by politicians were able to change voters' minds: as already documented in Section 5, our treatment does not explain disapproval rates of Obama, even though Republicans tried to push this connection, as established in Section 6. Instead, the strategic exploitation of the Ebola threat by politicians seems to have been constrained by those associations that can be more readily drawn by voters in regard to that threat.

Table 12: Proximity to Ebola Cases and Attitudes in CCES

	Anti-Immigration	Pro-Gun	Religious	Anti-gay Marriage	Conservative
	(1)	(2)	(3)	(4)	(5)
Post-Onset First-Case x Distance (in logs) to Nearest Case	-0.034** (0.014)	0.003 (0.014)	-0.005 (0.014)	-0.000 (0.005)	-0.002 (0.004)
Day FE	Yes	Yes	Yes	Yes	Yes
County FE	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes
Sample Weights	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.17	0.15	0.14	0.14	0.12
Observations	71931	71931	71931	71931	71866
Number of Clusters	2370	2370	2370	2370	2369

Notes: Sample includes all CCES's respondents for years 2013 and 2014. The variable Anti-Immigration (pro-gun)[religious] corresponds to the first principal component of responses to 5 (5)[3] questions regarding immigration (disagreement with gun-control measures)[importance of religion]. The variable Anti-gay Marriage takes value of 1 if respondent is against gay marriage. The variable conservative takes value of 1 if respondent is conservative or very conservative, 0 otherwise. The variable disapprove Obama takes value 1 if the respondent strongly disapproves or disapproves Obama, 0 otherwise. (all related questions are described in the appendix) The main independent variable accounts for the interaction between the distance (in logs) to the nearest Ebola Case and a dummy indicating the onset of that case. Individual-levels control are age and a set of indicators variables for male, white, hispanic, college or higher education, married, and annual income above US median (i.e., usd 59,000). Heteroskedasticity robust standard error estimates clustered at the county-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

⁴²Reassuringly, we find the same patterns when we estimate the three distances interaction after each case in Table B.35.

7 Concluding Remarks

Our investigation of the political consequences of the 2014 Ebola episode in the U.S. has uncovered a number of important effects. First, Ebola concerns caused a decrease in the Democratic vote share in that year’s midterm elections, which was not related to a general or Obama-specific anti-incumbent reaction. Second, Republican candidates exploited the episode in their campaign strategy, by emphasizing the topic in conjunction with themes such as immigration, terrorism, and anti-Obama rhetoric. Finally, the salience of the Ebola threat also affected views on a subset of those themes, particularly related to increased anti-immigration sentiment.

Generally speaking, our results establish that fear of threats can indeed be a potent electoral force, in a high-stakes context in which we can isolate an exogenous shock to that fear that is relatively disconnected from the extent of the actual threat. They also suggest, however, that this force cannot be freely molded by politicians. Instead, the impact of the threat in changing voters’ minds seems predicated on there being easily drawn connections between the threat and specific issues. In the case of Ebola, a gruesome disease originating abroad, the association with immigration seems to have stuck with voters.

The extent to which the lessons from Ebola apply to other salient threats is an open question, but we can nevertheless identify some dimensions that are worth considering. For instance, shocks that actually affect the risk environment – such as Ebola itself in the context of West Africa, or the recent coronavirus (COVID-19) pandemic – could well lead to a stronger updating of views on incumbent performance. As another example, we must consider which kinds of issues can be plausibly associated with the threat – shark attacks, to use a well-known example, are unlikely to lead to changed views on immigration. Finally, the timing could well matter: the Ebola crisis happened to reach the U.S. just a few weeks before an election, and had more time elapsed it could well be that effects would be more muted.

Last but not least, it would also be interesting to assess the role that the media may play in amplifying the impact of a perceived threat. We have seen evidence that the media gave extensive coverage to the handful of Ebola cases in the US, and that coverage dropped precipitously after the midterm elections. The extent to which this mattered for the effects we find remains a question for future research.

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Appendix

Figure A.1: Distance to Nearest Case

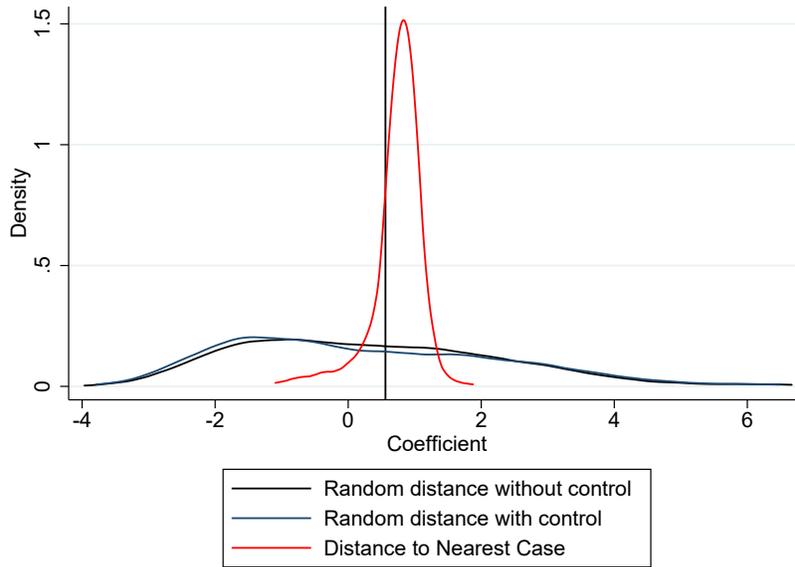
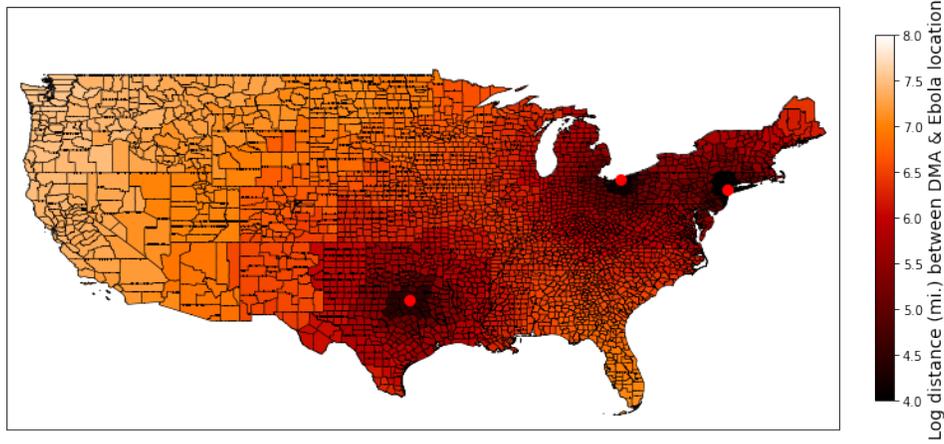
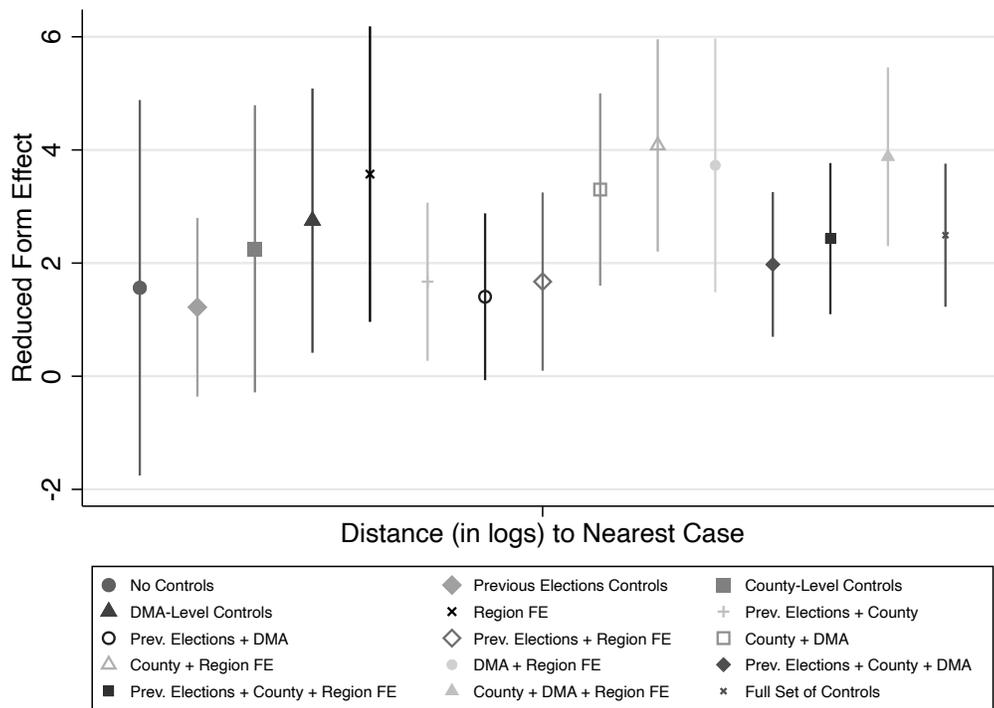


Figure A.2: Placebo Reduced-Form 2010 Vote Share and Distance

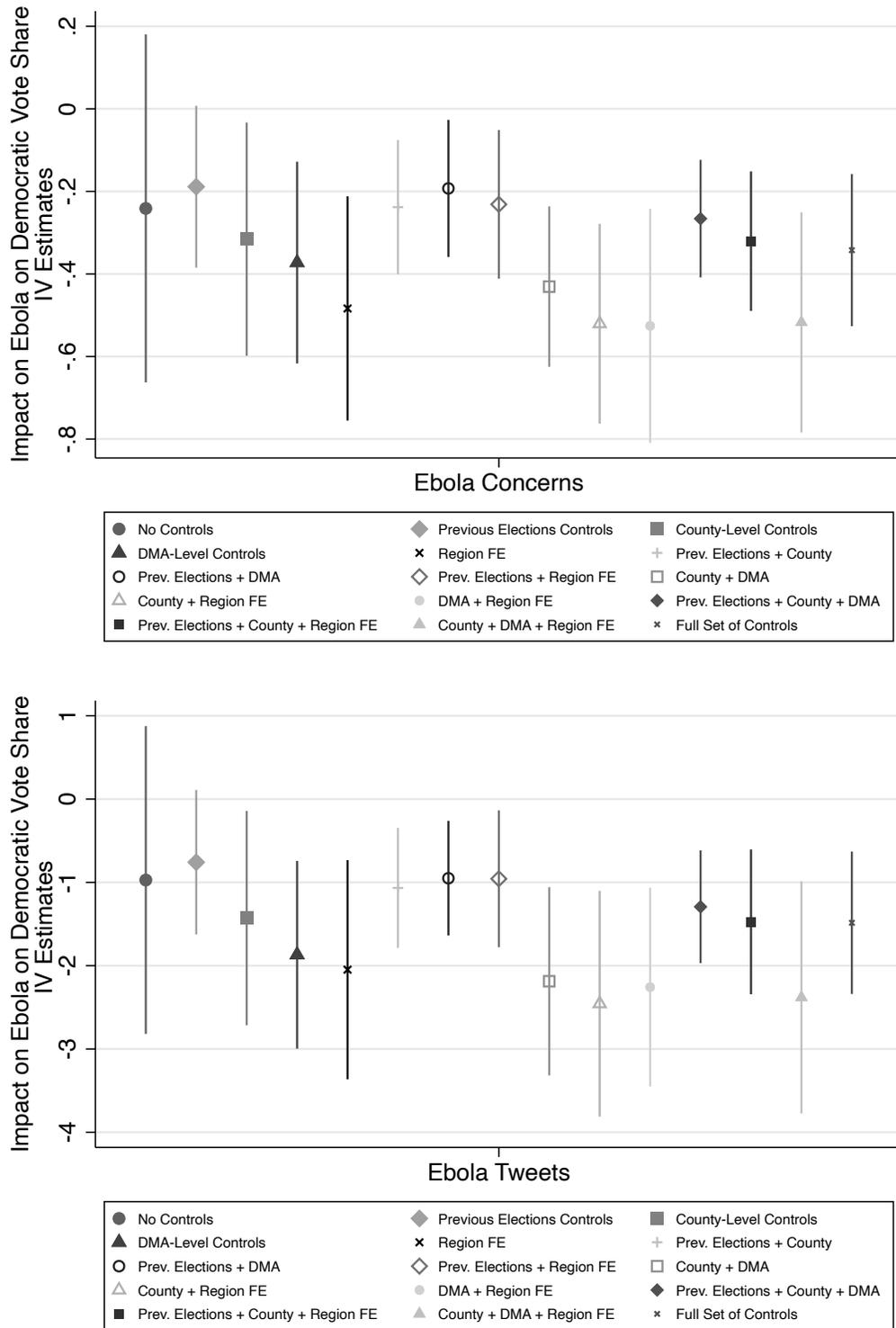
Note: The figure shows kernel density estimations for three pdf of: (1) coefficient of minimum distance to 3 randomly drawn cities out of the largest 100 cities (excluding Ebola locations) obtained from regressing Democratic vote share in 2010 House election on random distance and full set of controls described in equation (1) (1000 random draws) -pdf labelled as random distance without control-, (2) coefficient of random minimum distance as before but controlling for the minimum distance to nearest ebola case -pdf labelled as random distance with control-, and (3) coefficient of distance to nearest ebola case in each horse race with the random distance. Black vertical line denotes point estimate in our baseline specification (column 4 in Table 3)

Figure A.3: Permutation of Controls - Reduced Form



Note: This figure plots the reduced-form coefficients and the 95% confidence intervals for Distance (in logs) to Nearest Case for all the different combinations of the set of controls listed in equation 1. Confidence intervals are based on heteroskedasticity-robust standard errors clustered by DMA.

Figure A.4: Permutation of Controls - Ebola and Democratic Vote Share (IV)



Note: These figures plot the IV coefficients and the 95% confidence intervals for Ebola Searches (Tweets) for all the different combinations of the set of controls listed in equation 1. Confidence intervals are based on heteroskedasticity-robust standard errors clustered by DMA.

Figure A.5: Communication Strategies Used by Politicians: Newsletters

FIGURE A: IMMIGRATION, TERRORISM, AND GUNS

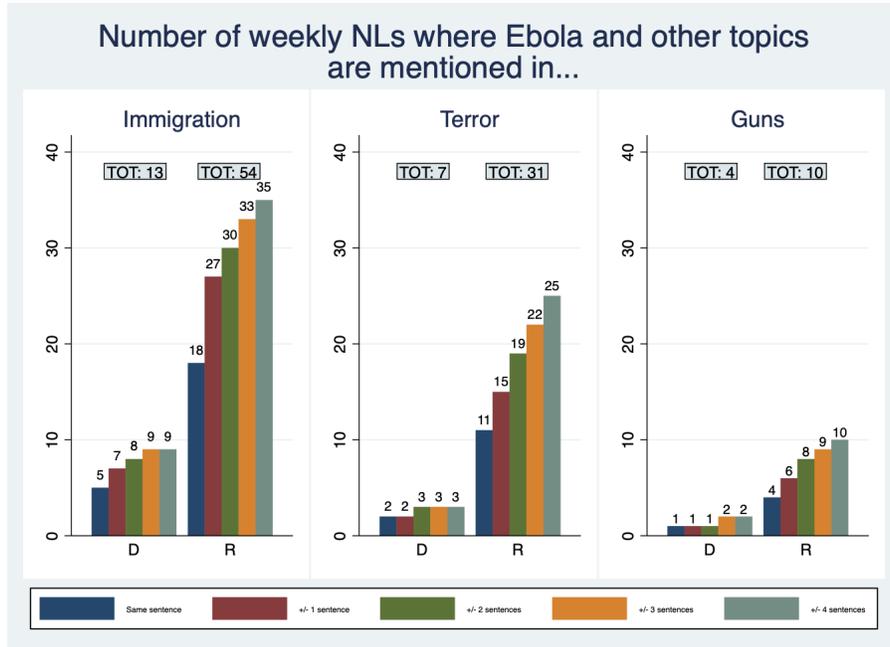


FIGURE B: HEALTH CARE AND OBAMA

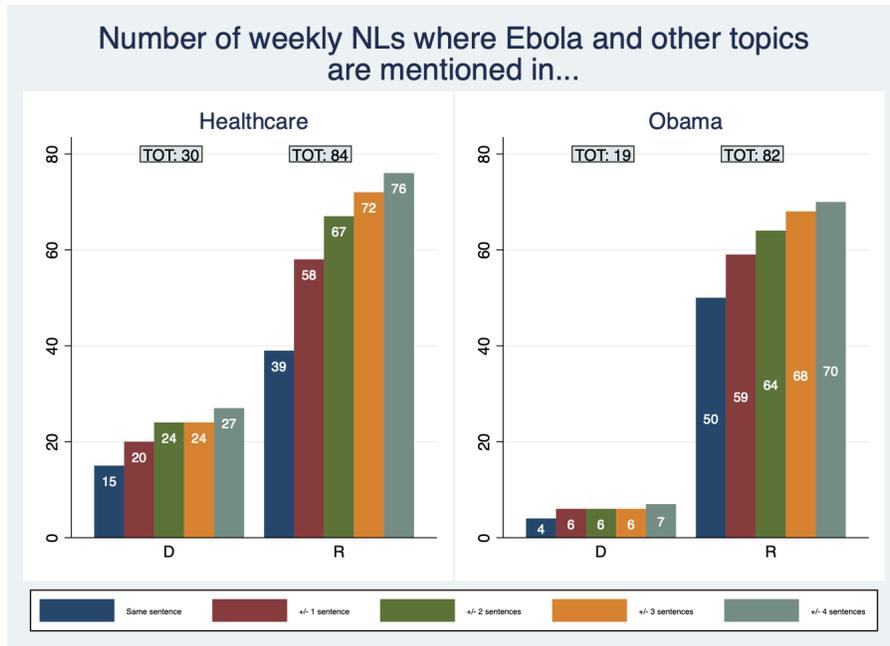


Table A.1: Characterization People Concerned about Ebola - Demographics

	Worried about Ebola				Agreed on Ebola Measures		
	Mean	Coeff.	Std. Err.	N	Coeff.	Std. Err.	N
Age (in log)	4.068	0.053	0.024	9462	0.103	0.022	9462
Female	0.445	0.066	0.01	9462	0.035	0.01	9462
Not white	0.156	0.063	0.014	9462	0.022	0.013	9462
Child aged 18 or less	0.141	0.035	0.015	9442	0.038	0.013	9442
Married	0.685	0.026	0.011	9462	0.055	0.01	9462
High-school	0.213	0.163	0.012	9462	0.192	0.01	9462
Employed	0.493	-0.045	0.01	9140	-0.058	0.01	9140
TV use	0.748	0.06	0.012	9462	0.09	0.011	9462
Radio use	0.437	-0.019	0.01	9462	0.013	0.01	9462
Newspaper readership	0.615	-0.114	0.01	9462	-0.118	0.01	9462
Nearest dist. to Ebola case	0.54	-0.047	0.011	9462	-0.048	0.011	9462
Distance to Cleveland	0.834	-0.039	0.008	9462	-0.032	0.008	9462
Distance to Dallas	0.974	-0.055	0.013	9462	-0.101	0.012	9462
Distance to NYC	1.028	-0.029	0.007	9462	-0.017	0.006	9462

Notes: This table reports point estimates, robust standard errors, and the number of observations for 28 OLS individual-level regressions of one of the two measures of ebola concerns on a covariate (listed at the left). The ebola concern measures are an indicator taking value of 1 if the individual states to be worried about ebola, 0 otherwise; and an indicator taking value 1 if the individual agrees with at least one of the two control measures regarding ebola (i.e., banning flights from Africa and requiring a quarantine for people who have been in countries where there was a major Ebola outbreak). 57% of the individuals stated to be at least somewhat worried about ebola while 68% agreed with at least of the two restrictive ebola measures. Distance measures are expressed in thousands of kilometers and age in logs to ease the exposition of coefficients. Data comes from the 2014 CCES Panel Study.

Table A.2: Characterization People Concerned about Ebola - Political Preferences

	Worried about Ebola				Agreed Ebola Measures		
	Mean	Coeff.	Std. Err.	N	Coeff.	Std. Err.	N
Registered with Rep. party	0.336	0.211	0.01	9462	0.33	0.008	9462
Registered with Dem. party	0.375	-0.194	0.01	9462	-0.325	0.01	9462
Democrat	0.363	-0.214	0.01	9462	-0.34	0.01	9462
Preference for Rep. House	0.505	0.32	0.011	7510	0.481	0.009	7510
Preference for Rep. Senate	0.505	0.322	0.015	3825	0.482	0.013	3825
Preference for Rep. Governor	0.503	0.311	0.012	6247	0.488	0.01	6247
Any preference for Rep.	0.807	0.359	0.016	5516	0.538	0.015	5516

Notes: This table reports point estimates, robust standard errors, and the number of observations for 14 OLS individual-level regressions of one of the two measures of ebola concerns on a covariate (listed at the left). The ebola concern measures are an indicator taking value of 1 if the individual states to be worried about ebola, 0 otherwise; and an indicator taking value 1 if the individual agrees with at least one of the two control measures regarding ebola (i.e., banning flights from Africa and requiring a quarantine for people who have been in countries where there was a major Ebola outbreak). 57% of the individuals stated to be at least somewhat worried about ebola while 68% agreed with at least one of the two restrictive ebola measures. Distance measures are expressed in thousands of kilometers and age in logs to ease the exposition of coefficients. Preference measures refer to vote intentions in 2014 election. Data comes from the 2014 CCES Panel Study.

Table A.3: Characterization People Concerned about Ebola -By Party Affiliation

Panel A: Registered Democrats							
	Worried about Ebola				Agreed Ebola Measures		
	Mean	Coeff.	Std. Err.	N	Coeff.	Std. Err.	N
Nearest dist. to Ebola case	0.543	-0.067	0.017	3547	-0.085	0.017	3547
Distance to Cleveland	0.838	-0.054	0.012	3547	-0.066	0.012	3547
Distance to Dallas	1.017	-0.063	0.021	3547	-0.099	0.022	3547
Distance to NYC	1.016	-0.043	0.01	3547	-0.044	0.01	3547
Preference for Rep. House	0.093	0.329	0.03	2875	0.381	0.026	2875
Preference for Rep. Senate	0.076	0.399	0.044	1372	0.493	0.031	1372
Preference for Rep. Governor	0.086	0.33	0.033	2455	0.446	0.026	2455

Panel B: Registered Republicans							
	Worried about Ebola				Agreed Ebola Measures		
	Mean	Coeff.	Std. Err.	N	Coeff.	Std. Err.	N
Nearest dist. to Ebola case	0.538	-0.005	.019	3178	.006	.012	3178
Distance to Cleveland	0.845	-0.016	0.013	3178	0.004	0.008	3178
Distance to Dallas	0.926	-0.001	0.022	3178	-0.004	0.014	3178
Distance to NYC	1.052	-0.012	0.011	3178	0.004	0.007	3178
Preference for Rep. House	0.929	0.192	0.037	2682	0.273	0.035	2682
Preference for Rep. Senate	0.938	0.167	0.056	1334	0.279	0.053	1334
Preference for Rep. Governor	0.931	0.248	0.042	2203	0.305	0.04	2203

Notes: This table reports point estimates, robust standard errors, and the number of observations for 28 OLS individual-level regressions of one of the two measures of ebola concerns on a covariate (listed at the left). The ebola concern measures are an indicator taking value of 1 if the individual states to be worried about ebola, 0 otherwise; and an indicator taking value 1 if the individual agrees with at least one of the two control measures regarding ebola (i.e., banning flights from Africa and requiring a quarantine for people who have been in countries where there was a major Ebola outbreak). 57% of the individuals stated to be at least somewhat worried about ebola while 68% agreed with at least one of the two restrictive ebola measures. Distance measures are expressed in thousands of kilometers and age in logs to ease the exposition of coefficients. Preference measures refer to vote intentions in 2014 election. Panel A focuses on registered democrats while Panel B focuses on republicans. Data comes from the 2014 CCES Panel Study.

Table A.4: Summary Statistics - Voting Sample

County-level variables	Obs	Mean	Std. Dev.	Min	Max
2014 Democratic Voting Share - HOUSE	3103	33.029	18.685	0	100
2012 Democratic Voting Share - HOUSE	3112	35.632	19.399	0	99.526
2010 Democratic Voting Share - HOUSE	3090	35.553	17.489	0	90.292
2014 Incumbent Vote Share - HOUSE	2962	66.47	15.796	0	100
Δ Democratic Voting Share 2010-2006 - HOUSE	3076	-10.877	14.393	-69.813	75.226
Δ Democratic Voting Share 2010-2008 - HOUSE	3033	-10.904	13.779	-78.253	43.803
Δ Democratic Voting Share 2012-2010 - HOUSE	3088	.128	13.162	-79.932	58.386
Δ Democratic Voting Share 2006-2002 - HOUSE	3094	7.458	19.374	-73.054	89.296
2014 Democratic Voting Share - GOVERNOR	2146	35.228	14.213	1.075	88.153
2010 Democratic Voting Share - GOVERNOR	2176	37.844	14.524	8.562	87.93
2006 Democrat Vote Share - GOVERNOR	2149	45.269	16.878	3.909	89.39
2014 Incumbent Vote Share - GOVERNOR	2145	57.8	16.793	0	96.774
Δ Democrat Vote Share 2010-2006 - GOVERNOR	2145	-7.259	14.748	-57.535	26.345
Δ Democrat Vote Share 2006-2002 - GOVERNOR	2149	3.925	13.512	-40.646	49.533
2014 Democrat Voting Share - SENATE	2287	32.897	17.188	0	87.765
2012 Democrat Voting Share - SENATE	1873	42.571	16.44	0	93.092
2006 Democrat Voting Share - SENATE	1875	45.454	18.889	0	90.375
2008 Democrat Voting Share - SENATE	2289	46.401	17.741	6.09	94.884
2002 Democrat Voting Share - SENATE	2404	38.455	20.593	0	91.597
2014 Incumbent Vote Share - SENATE	2287	55.765	19.597	7.692	99.282
Δ Democrat Voting Share 2012 - 2006 - SENATE	1873	-2.862	15.684	-45.906	69.286
Δ Democrat Voting Share 2006 - 2000 - SENATE	1875	4.122	12.092	-57.043	60.769
Ebola Newsletter Sent by Republican (House)	3153	.206	.404	0	1
Population Density	3143	255.481	1708.543	.039	69357.68
Median Age	3143	39.862	4.922	18	62.5
Share of white population	3143	.787	.198	.012	1
Share of college population	3143	.19	.087	.037	.71
Income per capita	3142	22505.45	5409.365	7772	64381
Share of unemployed population	3143	.075	.034	0	.309
DMA-level variables	Obs	Mean	Std. Dev.	Min	Max
Ebola Concerns (Google Trends)	203	53.963	9.476	14	100
Ebola Concerns (Tweets per capita)	206	3.987	2.076	0	15.447
Cable penetration	203	58.138	11.276	29	84
Anxiety (Google Trend, 2013)	204	70.848	8.405	44	100
Virus (Google Trend, 2013)	205	77.298	8.904	58	100
2009 Swine Flu Concerns (Google Trends, 2009)	203	41.111	9.973	16	100
Placebo Ebola Searches (Google Trends, Aug.2014)	203	52.944	12.656	25	100
Placebo Ebola Tweets (Twitter, Aug.2014)	206	.013	.017	0	.116
Distance to Nearest case (miles, in logs)	206	5.997	.844	2.311	7.73

Table A.5: Democratic Vote Share in Other Races (IV)

	Democratic Vote Share			
	Senatorial		Gubernatorial	
	(1)	(2)	(3)	(4)
Ebola Searches	-0.213** (0.102)		-0.330*** (0.110)	
Ebola Tweets		-1.054** (0.487)		-1.545*** (0.538)
Std Dev Vote Share	17.68	17.68	15.68	15.67
Std Dev Ebola (Searches or Tweets)	13.49	3.03	13.09	2.92
Effect of Std Dev Δ in Searches/Tweets	-2.87	-3.19	-4.32	-4.52
Anderson-Rubin CI	[-0.41, -0.01]	[-2.15, -0.19]	[-0.58, -0.14]	[-2.84, -0.67]
County-Level Controls	Yes	Yes	Yes	Yes
DMA-Level Controls	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes
Yes				
Previous Election Controls	Yes	Yes	Yes	Yes
Effective F Statistic	55.64	46.12	114.40	69.28
Adjusted- R^2	0.76	0.75	0.80	0.80
Observations	2274	2276	2136	2138
Number of Clusters (DMA)	153	154	172	173

Notes: All regressions are weighted by DMA population. The dependent variable in columns 7 and 8 is the democratic vote share in 2014 house election computed as total votes normalized by county's eligible voting population. The variable Ebola Searches accounts for the google search volume of the term 'ebola' during the 5 weeks before the 2014 election. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. Anderson-Rubin CI reports the 95% confidence set which is robust to weak identification and efficient in the just-identified case (Andrews et al., 2019). Effective F Statistic reports Olea and Pflueger (2013) robust weak instrument F-Statistics. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013.

Table A.6: Ebola Tweets from Republicans and Democratic Vote Share (OLS and IV)

	Democrat Vote Share in 2014 House Reps. Election					
	OLS			IV		
	(1)	(2)	(3)	(4)	(5)	(6)
Ebola Tweets by Republican Candidates (in logs)	-1.734*** (0.508)	-1.680*** (0.619)	-1.064* (0.603)	-4.168*** (1.295)	-4.432*** (1.469)	-4.273** (1.644)
Std Dev Vote Share	20.61	20.61	20.61	20.61	20.61	20.61
Std Dev Ebola Messages	1.02	1.02	1.02	1.02	1.02	1.02
Effect of Std Dev Δ in Ebola Messages	-1.77	-1.72	-1.09	-4.26	-4.53	-4.36
First-Stage F-Statistics				139.17	133.07	135.35
County-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	Yes	Yes	No	Yes	Yes	No
Previous Election Controls	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	No	No	Yes	No	No
State FE	No	Yes	No	No	Yes	No
DMA FE	No	No	Yes	No	No	Yes
Adjusted- R^2	0.74	0.78	0.80	0.68	0.66	0.64
Observations	3056	3056	3057	3056	3056	3057
Number of Clusters (DMA)	202.00	202.00	197.00	202.00	202.00	197.00

Notes: All regressions are weighted by DMA population. IV estimates exploit as instrument the number of tweets by republican candidates before the first-case of Ebola. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013.

Table A.7: Republican-Driven Tweeting?

	Ebola-Related Tweets per 10,000 inhabitants			
	(1)	(2)	(3)	(4)
Ebola Tweet by Republicans in t-1	0.002 (0.003)	0.027*** (0.008)	0.010* (0.006)	0.001 (0.002)
Post-Onset Case * Ebola Tweet by Republicans in t-1	0.196** (0.093)	0.184** (0.082)	0.088 (0.059)	
Post-Onset Case * Distance (in logs) to Case	-0.095*** (0.022)	-0.026*** (0.008)	-0.016** (0.007)	
Triple Interaction	-0.027* (0.015)	-0.033*** (0.012)	-0.016* (0.009)	
Post-Onset Dallas * Ebola Tweet by Republicans in t-1				0.206*** (0.062)
Post-Onset Cleveland * Ebola Tweet by Republicans in t-1				0.236** (0.092)
Post-Onset NYC * Ebola Tweet by Republicans in t-1				0.045 (0.112)
Post-Onset Dallas * Distance (in logs) to Dallas				-0.069*** (0.019)
Post-Onset Cleveland * Distance (in logs) to Cleveland				-0.018*** (0.005)
Post-Onset NYC * Distance (in logs) to NYC				0.013** (0.006)
Triple Interaction Dallas				-0.027*** (0.009)
Triple Interaction Cleveland				-0.041*** (0.014)
Triple Interaction NYC				-0.010 (0.016)
Case	Dallas	Cleveland	NYC	All
Day FE	Yes	Yes	Yes	Yes
DMA FE	Yes	Yes	Yes	Yes
DMA-Specific Linear Trends	Yes	Yes	Yes	Yes
Adjusted- R^2	0.64	0.53	0.51	0.60
Observations	5974	5974	5974	12978
Number of Clusters (DMA)	206	206	206	206

Notes: The dependent variable is the number of ebola related tweets per 10,000 inhabitants in DMA (using 2010 census population). The unit observation is a DMA-day. The samples in columns 1 to 3 includes daily data by DMA 15 days before and 15 days after the ebola diagnosis of the case. The sample in column 4 includes daily data by DMA from September 1st to the election day. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses.

Table A.8: Republican-Driven Googling?

	Ebola-Related Google Searches			
	(1)	(2)	(3)	(4)
Ebola Tweet by Republicans in t-1	0.588 (0.433)	1.709** (0.784)	0.718 (0.582)	-0.011 (0.259)
Post-Onset Case * Ebola Tweet by Republicans in t-1	12.476** (5.891)	7.390** (3.507)	5.824* (3.015)	
Post-Onset Case * Distance (in logs) to Case	-6.815*** (1.035)	-0.309 (0.581)	-2.403*** (0.695)	
Triple Interaction	-1.931** (0.904)	-1.404*** (0.536)	-1.078** (0.428)	
Post-Onset Dallas * Ebola Tweet by Republicans in t-1				11.792** (4.587)
Post-Onset Cleveland * Ebola Tweet by Republicans in t-1				4.877 (3.057)
Post-Onset NYC * Ebola Tweet by Republicans in t-1				6.942 (4.371)
Post-Onset Dallas * Distance (in logs) to Dallas				-7.734*** (1.069)
Post-Onset Cleveland * Distance (in logs) to Cleveland				-1.215*** (0.388)
Post-Onset NYC * Distance (in logs) to NYC				-1.000* (0.585)
Triple Interaction Dallas				-1.428** (0.677)
Triple Interaction Cleveland				-0.964** (0.462)
Triple Interaction NYC				-1.430** (0.667)
Case	Dallas	Cleveland	NYC	All
Day FE	Yes	Yes	Yes	Yes
DMA FE	Yes	Yes	Yes	Yes
DMA-Specific Linear Trends	Yes	Yes	Yes	Yes
Adjusted- R^2	0.72	0.58	0.67	0.70
Observations	5945	5945	5945	12915
Number of Clusters (DMA)	205	205	205	205

Notes: The dependent variable accounts for google search volume of the term 'ebola' in DMA. The unit observation is a DMA-day. The coefficients are estimated from separate regressions in which we control for DMA fixed effect, day fixed effect, and DMA-specific linear trends while restricting the sample as a function of the proximity each Ebola Case. The sample includes daily data by DMA 15 days before and 15 days after the ebola diagnosis of the case. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses.

Table A.9: Balance Test

Covariate	Distance (in logs) to Nearest Case					
	Panel A: Unweighted			Panel A: Weighted		
	Coef.	P-value	BH Q-value	Coef.	P-value	BH Q-value
Population	-33854.598	0.194	0.609	-50595.871	0.444	0.730
Density	-393.475	0.160	0.609	-1114.365	0.063	0.472
Median Age	0.354	0.073	0.556	0.204	0.107	0.472
Share with College Degree	-0.004	0.542	0.925	-0.020	0.105	0.472
Share White	-0.002	0.881	0.953	0.015	0.344	0.666
Share Black	-0.007	0.320	0.714	-0.007	0.170	0.472
Share Hispanic	0.000	0.960	0.960	-0.007	0.465	0.730
Share Foreign	-0.003	0.692	0.953	-0.018	0.179	0.472
Income per Capita	-661.407	0.232	0.612	-1775.540	0.063	0.472
Share Owners	-0.003	0.466	0.845	-0.008	0.217	0.525
Share Married	0.007	0.046	0.556	0.005	0.160	0.472
Ebola GT pre-treatment	-1.855	0.108	0.556	-3.147	0.068	0.472
Ebola tweets pc pre-treatment	-0.003	0.042	0.556	-0.003	0.000	0.001
Anxiety GT 2013	-1.509	0.210	0.609	-0.155	0.853	0.884
Virus GT 2013	-0.383	0.699	0.953	0.427	0.589	0.743
Swineflu GT 2009	-0.157	0.812	0.953	-0.218	0.585	0.743
Cable TV Penetration 2010	-2.785	0.115	0.556	-4.204	0.126	0.472
Dem. Vote Share House 2012	0.426	0.788	0.953	-1.860	0.478	0.730
Dem. Vote Share House 2010	0.487	0.722	0.953	-0.988	0.663	0.770
Dem. Vote Share House 2006	0.196	0.882	0.953	-1.567	0.436	0.730
Δ Dem. Vote Share House 2010-2006	0.291	0.602	0.953	0.579	0.152	0.472
Dem. Vote Share Pres. 2012	0.486	0.755	0.953	-1.178	0.638	0.770
Dem. Vote Share Pres. 2008	-0.126	0.920	0.953	-1.248	0.543	0.743
Dem. Vote Share Sen. 2012	0.231	0.899	0.953	-0.841	0.766	0.823
Dem. Vote Share Sen. 2006	2.165	0.188	0.609	-0.107	0.962	0.962
Δ Dem. Vote Share Sen. 2006-2000	0.816	0.349	0.723	-0.235	0.751	0.823
Dem. Vote Share Gov. 2010	-1.329	0.261	0.631	-2.281	0.330	0.666
Dem. Vote Share Gov. 2006	-1.747	0.440	0.845	-1.981	0.539	0.743
Δ Dem. Vote Share Gov. 2006-2002	-3.207	0.102	0.556	-3.593	0.248	0.554

Notes: This table reports point estimates, p-values (standard errors clustered at the DMA level), and False Discovery Rate (FDR) adjusted p-values (Anderson, 2008) for 30 OLS county-level regressions of a covariate (listed at the left) on our instrument (Distance (in logs) to Nearest Case). Regressions in Panel B are weighted by DMA population.

Table A.10: Campaign Ads on Ebola (21 Oct 14 - 04 Nov 14)

	Total	Fear	Immigration	Terrorism	Healthcare	Guns
Republicans	1,845	1,845 (100%)	847 (45.9%)	1,635 (88.6%)	1,330 (72.1%)	0
Democrats	91	0	0	0	0	0

This table characterizes campaign ads mentioning ebola during the two weeks before the election as coded by Political Advertising in 2014 (Wesleyan Media Project). Data for the House are complete while data for Senate and Governor races are either incomplete or have not been collected. Hence we focus on the former. The coding of a fear-appealing ad is based on coding by Political Advertising in 2014 (Wesleyan Media Project) in two dimensions: 1) whether any ominous/tense music is played during the ad, or 2) there is direct appeal to fear in ads regardless of the music.

Table A.11: Post-Election Newsletters and Twitter Activity

	Newsletter		Tweets	
	Ebola (1)	Any (2)	Ebola (3)	Any (4)
Post-Election x Republican	-0.069*** (0.016)	-0.039 (0.024)	-0.197*** (0.037)	-0.142 (0.180)
Week FE	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes
Race/Constituency-Specific Linear Trends	Yes	Yes	Yes	Yes
Newsletter/Tweet-level Controls	Yes	Yes	Yes	Yes
Adjusted- R^2	0.13	0.56	0.16	0.99
Observations	8441	8441	17512	17512
Number of Clusters (Race/Constituency)	285	285	460	460

Notes: The unit of observation is a politician - week. The sample of columns 1 and 2 focuses on 367 members of the congress (i.e., senators and house representatives) who sent at least one official e-newsletter between August 2014 and the midterm election. The sample on columns 3 and 4 focuses on 796 democratic and republican candidates for Congress with twitter activity during the same period. The dependent variables are (1) Newsletters (Ebola and Any): an indicator variable if a member of Congress sent at least one official ebola-related (any e-newsletter) during the week; (2) Tweets (Ebola and Any): the number of ebola related (any) tweets posted by each candidate. The main independent variable accounts for the interaction between a dummy indicating the post-election period and an indicator taking value 1 if the politician is republican, 0 otherwise. Newsletter and Tweet-level controls are the weekly and accumulated wordcounts. Heteroskedasticity robust standard errors estimates clustered at the race (constituency for newsletters)-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table A.12: Ebola and Other Issues

	Ebola-Related Newsletters		Ebola-Related Tweets	
	Health	Guns	Health	Guns
	(1)	(2)	(3)	(4)
Post-Onset First-Case x Republican	0.029*** (0.011)	0.004 (0.003)	0.007* (0.004)	-0.000 (0.001)
Week FE	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes
Race/Constituency-Specific Linear Trends	Yes	Yes	Yes	Yes
Newsletter/Tweets-Level Controls	Yes	Yes	Yes	Yes
Adjusted- R^2	0.15	0.03	0.03	-0.01
Observations	5505	5505	11144	11144
Number of Clusters (Race)	285	285	460	460

Notes: The unit of observation is a politician - week. Newsletter sample focuses on 367 member of the congress (i.e., senators and house representatives) who sent at least one official e-newsletters between August 2014 and the midterm election. Twitter sample focuses on 796 democratic and republican candidates for congress with twitter activity between August and November of 2014. The dependent variables are (1) an indicator variable if a member of Congress sent that week at least one official e-newsletter containing the term 'ebola' in conjunction with the issue listed in column (Ebola-Related Newsletter) and (2) the weekly number of ebola-related tweets in conjunction with the issue listed in column posted by each candidate (Ebola-Related Tweets). Health indicates whether at least one of the following keywords was mentioned in the message: Affordable Care Act, ACA, health care, medicare or obamacare. Guns indicates whether at least one of the following keywords was mentioned in the message: gun, firearm, weapon or second amendment. Heteroskedasticity robust standard errors estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. Newsletters and Tweets controls are the weekly and accumulated wordcounts.

Online Appendix - Not Intended for Publication

Table B.1: First-Stage (Standard Errors Adjustment for Spatial Autocorrelation)

	Ebola Searches					Ebola Tweets	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Distance (in logs) to Nearest Case	-5.475***	-8.434***	-7.974***	-7.866***	-7.309***	-1.766***	-1.609***
100 km	(1.756)	(1.142)	(0.808)	(0.793)	(0.852)	(0.201)	(0.216)
200 km	(2.403)	(1.738)	(1.213)	(1.190)	(1.298)	(0.302)	(0.316)
500 km	(2.629)	(2.137)	(1.568)	(1.531)	(1.652)	(0.386)	(0.354)
1000 km	(2.569)	(2.217)	(1.755)	(1.713)	(1.770)	(0.406)	(0.380)
Mean Value Dep. Var.	54.9	54.9	54.9	54.9	54.1	5.6	4.2
County-Level Controls	No	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	No	Yes	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	No	No	Yes	Yes	Yes	Yes	Yes
Previous Election Controls	No	No	No	Yes	Yes	Yes	Yes
Population Weights	Yes	Yes	Yes	Yes	No	Yes	No
Observations	3068	3067	3062	3062	3062	3064	3064
Number of Clusters (DMA)	203	203	202	202	202	203	203

Notes: The variable Ebola Searches accounts for the google search volume of the term 'ebola' during the 5 weeks before the 2014 election. The variable Ebola Tweets accounts for the number of tweets about 'ebola' per 10,000 inhabitants in DMA during the same period. Spatial auto-correlation corrected standard errors (Conley, 1999) are reported in parentheses (cutoff distances reported on the left); *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches/Tweets before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013.

Table B.2: Ebola Searches and Distances to Large Cities (First-Stage)

	Ebola Searches				
	(1)	(2)	(3)	(4)	(5)
Distance (in logs) to Nearest Case	-7.866*** (1.261)	-7.802*** (1.212)	-7.765*** (1.120)	-7.988*** (1.280)	-8.245*** (1.197)
Distance (in logs) to Nearest Non-Ebola Large City		-0.493 (0.689)	-1.020 (0.729)	0.359 (0.588)	1.919** (0.796)
Definition of Nearest Large City		Top 100	Top 50	More than 500k	More than 1 million
Std Dev Vote Share	11.96	11.96	11.96	11.96	11.96
Std Dev Distance Nearest Case	1.23	1.23	1.23	1.23	1.23
Effect of Std Dev Δ in Distance	-10.54	-10.46	-10.41	-10.71	-11.05
County-Level Controls	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes
Previous Election Controls	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.68	0.68	0.68	0.68	0.69
Observations	3062	3062	3062	3062	3062
Number of Clusters (DMA)	202	202	202	202	202

Notes: All regressions are weighted by DMA population. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches/Tweets before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013.

Table B.3: Ebola-Related Twitter Activity and Distances to Large Cities (First-Stage)

	Ebola Tweets				
	(1)	(2)	(3)	(4)	(5)
Distance (in logs) to Nearest Case	-1.766*** (0.311)	-1.759*** (0.303)	-1.736*** (0.268)	-1.708*** (0.311)	-1.760*** (0.330)
Distance (in logs) to Nearest Non-Ebola Large City		-0.056 (0.143)	-0.314** (0.150)	-0.162 (0.131)	-0.032 (0.153)
Definition of Nearest Large City		Top 100	Top 50	More than 500k	More than 1 million
County-Level Controls	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes
Previous Election Controls	Yes	Yes	Yes	Yes	Yes
Std Dev Vote Share	2.76	2.76	2.76	2.76	2.76
Std Dev Distance Nearest Case	1.34	1.34	1.34	1.34	1.34
Effect of Std Dev Δ in Distance	-2.37	-2.36	-2.33	-2.29	-2.36
Adjusted- R^2	0.80	0.80	0.81	0.80	0.80
Observations	3064	3064	3064	3064	3064
Number of Clusters (DMA)	203	203	203	203	203

Notes: All regressions are weighted by DMA population. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches/Tweets before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013.

Table B.4: Democratic Vote Share and Distances to Large Cities

	Democratic Vote Share in 2014 House Reps. Election				
	(1)	(2)	(3)	(4)	(5)
Distance (in logs) to Nearest Case	2.918*** (0.455)	2.862*** (0.472)	2.840*** (0.505)	2.726*** (0.500)	2.612*** (0.377)
Distance (in logs) to Nearest Non-Ebola Large City		0.444 (0.396)	0.821** (0.377)	0.570 (0.391)	1.546*** (0.460)
Definition of Nearest Large City		Top 100	Top 50	More than 500k	More than 1 million
County-Level Controls	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes
Previous Election Controls	Yes	Yes	Yes	Yes	Yes
Std Dev Vote Share	20.61	20.61	20.61	20.61	20.61
Std Dev Distance Nearest Case	1.22	1.22	1.22	1.22	1.22
Effect of Std Dev Δ in Distance	3.90	3.83	3.80	3.65	3.49
Adjusted- R^2	0.75	0.75	0.75	0.75	0.75
Observations	3056	3056	3056	3056	3056
Number of Clusters (DMA)	202	202	202	202	202

Notes: All regressions are weighted by DMA population. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches/Tweets before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013.

Table B.5: Ebola Concerns, Democratic Vote Share and Extended Set of Previous Election Controls

	Democratic Vote Share in 2014 House Reps. Election					
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Controlling for All House Elections in 2012-2006						
Distance (in logs) to Nearest Case	2.621*** (0.412)	1.980*** (0.628)				
Ebola Searches			-0.340*** (0.091)	-0.280*** (0.088)		
Ebola Tweets					-1.452*** (0.403)	-1.118*** (0.359)
Observations	3001	3001	3001	3001	3003	3003
Number of Clusters (DMA)	202	202	202	202	203	203
Panel B: Controlling for 2012 and 2008 Presidential Elections						
Distance (in logs) to Nearest Case	2.463*** (0.548)	2.488*** (0.588)				
Ebola Searches			-0.323*** (0.099)	-0.351*** (0.105)		
Ebola Tweets					-1.282*** (0.399)	-1.386*** (0.437)
Observations	3056	3056	3056	3056	3058	3058
Number of Clusters (DMA)	202	202	202	202	203	203
Panel C: Controlling for Elections in Panel A and B						
Distance (in logs) to Nearest Case	2.550*** (0.469)	1.971*** (0.582)				
Ebola Searches			-0.338*** (0.099)	-0.279*** (0.083)		
Ebola Tweets					-1.372*** (0.402)	-1.094*** (0.335)
Observations	3001	3001	3001	3001	3003	3003
Number of Clusters (DMA)	202	202	202	202	203	203
County-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Previous Election Controls	Yes	Yes	Yes	Yes	Yes	Yes
Population Weight	Yes	No	Yes	No	Yes	No

Notes: The different panels show that main results are unaffected by the inclusion of democratic vote share in previous house and presidential elections. The variable Ebola Searches accounts for the google search volume of the term 'ebola' during the 5 weeks before the 2014 election. The variable Ebola Tweets accounts for the number of tweets about 'ebola' per 10,000 inhabitants in DMA during the same period. All regressions but those on columns (4) and (6) are weighted by DMA population. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. Anderson-Rubin CI reports the 95% confidence set which is robust to weak identification and efficient in the just-identified case (Andrews et al., 2019). Effective F Statistic reports Olea and Pflueger (2013) robust weak instrument F-Statistics. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches/Tweets before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013.

Table B.6: Ebola Searches/Tweets and Democratic Vote Share (IV - Standard Errors Adjustment for Spatial Autocorrelation)

	Democratic Vote Share in 2014 House Reps. Election					
	(1)	(2)	(3)	(4)	(5)	(6)
Distance (in logs) to Nearest Case	2.918***	2.492***				
100km	(0.582)	(0.663)				
200km	(0.547)	(0.758)				
500km	(0.335)	(0.885)				
1000km	(.)	(0.804)				
Ebola Searches			-0.373***	-0.342***		
100km			(0.088)	(0.092)		
200km			(0.099)	(0.103)		
500km			(0.096)	(0.084)		
1000km			(0.077)	(0.055)		
Ebola Tweets					-1.644***	-1.485***
100km					(0.410)	(0.434)
200km					(0.485)	(0.486)
500km					(0.493)	(0.381)
1000km					(0.391)	(.)
Std Dev Vote Share	18.66	18.66	18.66	18.66	18.66	18.66
Std Dev Ebola (Searches or Tweets)	0.80	0.80	10.48	10.48	2.12	2.12
Effect of Std Dev Δ in Searches/Tweets	2.32	2.32	-3.88	-4.15	-3.29	-3.98
County-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Previous Election Controls	Yes	Yes	Yes	Yes	Yes	Yes
Population Weight	Yes	No	Yes	No	Yes	No
Observations	3056	3056	3056	3056	3058	3058

Notes: The variable Ebola Searches accounts for the google search volume of the term 'ebola' during the 5 weeks before the 2014 election. The variable Ebola Tweets accounts for the number of tweets about 'ebola' per 10,000 inhabitants in DMA during the same period. All regressions but those on columns (4) and (6) are weighted by DMA population. Spatial auto-correlation corrected standard errors (Conley, 1999) are reported in parentheses (cutoff distances reported on the left); *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches/Tweets before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013.

Table B.7: Ebola Concerns and Democratic Vote Share. Excluding DMAs for Dallas, NYC, and Cleveland

	Democratic Vote Share in 2014 House Reps. Election					
	(1)	(2)	(3)	(4)	(5)	(6)
Distance (in logs) to Nearest Case	3.566*** (0.989)	2.108* (1.151)				
Ebola Searches			-0.696*** (0.239)	-0.361* (0.201)		
Ebola Tweets					-2.406*** (0.731)	-1.616 (0.991)
Std Dev Vote Share	19.52	18.49	19.52	18.49	19.52	18.49
Std Dev Ebola (Searches or Tweets)	0.70	0.64	8.50	9.44	1.88	1.72
Effect of Std Dev Δ in Searches/Tweets	2.49	1.34	-5.92	-3.41	-4.53	-2.78
Anderson-Rubin CI			[-1.41, -0.33]	[-0.81, 0.01]	[-4.11, -1.16]	[-3.85, 0.31]
County-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Previous Election Controls	Yes	Yes	Yes	Yes	Yes	Yes
Population Weight	Yes	No	Yes	No	Yes	No
Effective F Statistic	-	-	17.64	27.4	42.7	25.57
Adjusted- R^2	0.69	0.62	0.64	0.59	0.68	0.61
Observations	2980	2980	2980	2980	2982	2982
Number of Clusters (DMA)	199	199	199	199	200	200

Notes: The variable Ebola Searches accounts for the google search volume of the term 'ebola' during the 5 weeks before the 2014 election. The variable Ebola Tweets accounts for the number of tweets about 'ebola' per 10,000 inhabitants in DMA during the same period. All regressions but those on columns (4) and (6) are weighted by DMA population. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. Effective F Statistic reports Olea and Pflueger (2013) robust weak instrument F-Statistics. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches/Tweets before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013. Previous election controls include the Democratic vote share for House in the midterm election of 2010 and its change with respect to the 2006 midterm election.

Table B.8: Ebola Concerns and Democratic Vote Share.Excluding Texas, Ohio, and New York

	Democratic Vote Share in 2014 House Reps. Election					
	(1)	(2)	(3)	(4)	(5)	(6)
Distance (in logs) to Nearest Case	3.243*** (0.917)	1.986 (1.263)				
Ebola Searches			-0.748*** (0.286)	-0.429 (0.289)		
Ebola Tweets					-4.328** (1.729)	-2.348 (1.763)
Std Dev Vote Share	19.28	18.02	19.28	18.02	19.28	18.01
Std Dev Ebola (Searches or Tweets)	1.03	0.64	7.85	8.60	1.93	1.61
Effect of Std Dev Δ in Searches/Tweets	3.35	1.28	-5.88	-3.69	-8.35	-3.78
Anderson-Rubin CI			[-1.69, -0.33]	[-1.29, 0.11]	[-10.01, -1.79]	[-7.58, 0.79]
County-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Previous Election Controls	Yes	Yes	Yes	Yes	Yes	Yes
Population Weight	Yes	No	Yes	No	Yes	No
Adjusted- R^2	0.71	0.61	0.64	0.57	0.65	0.58
Observations	2653	2653	2653	2653	2655	2655
Number of Clusters (DMA)	178	178	178	178	179	179

Notes: The variable Ebola Searches accounts for the google search volume of the term 'ebola' during the 5 weeks before the 2014 election. The variable Ebola Tweets accounts for the number of tweets about 'ebola' per 10,000 inhabitants in DMA during the same period. All regressions but those on columns (4) and (6) are weighted by DMA population. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. Effective F Statistic reports Olea and Pflueger (2013) robust weak instrument F-Statistics. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches/Tweets before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013. Previous election controls include the Democratic vote share for House in the midterm election of 2010 and its change with respect to the 2006 midterm election.

Table B.9: Ebola Concerns and Democratic Vote Share using Linear Instrument

	Democratic Vote Share in 2014 House Reps. Election					
	(1)	(2)	(3)	(4)	(5)	(6)
Distance to Nearest Case (in '000 miles)	8.889*** (2.075)	4.650* (2.495)				
Ebola Searches			-0.446*** (0.113)	-0.329* (0.168)		
Ebola Tweets					-2.126*** (0.555)	-1.742* (0.891)
Std Dev Vote Share	20.61	18.69	20.61	18.69	20.61	18.69
Std Dev Ebola (Searches or Tweets)	390.18	340.45	11.86	10.45	2.75	2.11
Effect of Std Dev Δ in Searches/Tweets	3.47	1.58	-5.29	-3.44	-5.84	-3.67
Anderson-Rubin CI			[-0.86, -0.28]	[-0.73, 0.01]	[..., -1.36]	[-4.24, 0.13]
County-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Region FE	Yes	Yes	Yes	Yes	Yes	Yes
DMA-Level Controls	Yes	Yes	Yes	Yes	Yes	Yes
Previous Election Controls	Yes	Yes	Yes	Yes	Yes	Yes
Population Weight	Yes	No	Yes	No	Yes	No
Effective F Statistic	-	-	11.47	16.45	9.8	10.54
Adjusted- R^2	0.74	0.62	0.72	0.61	0.73	0.62
Observations	3056	3056	3056	3056	3058	3058
Number of Clusters (DMA)	202	202	202	202	203	203

Notes: The variable Ebola Searches accounts for the google search volume of the term 'ebola' during the 5 weeks before the 2014 election. The variable Ebola Tweets accounts for the number of tweets about 'ebola' per 10,000 inhabitants in DMA during the same period. All regressions but those on columns (4) and (6) are weighted by DMA population. Heteroskedasticity robust standard error estimates clustered at the DMA-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. Anderson-Rubin CI reports the 95% confidence set which is robust to weak identification and efficient in the just-identified case (Andrews et al., 2019). Effective F Statistic reports Olea and Pflueger (2013) robust weak instrument F-Statistics. County-level controls are population density, median age, share of white population, share of population with college degree, income per capita, and unemployment. DMA-level controls are cable TV penetration 2010, Ebola Searches/Tweets before first case in the US, and google searches for the terms 'anxiety' and 'virus', both in 2013. Previous election controls include the Democratic vote share for House in the midterm election of 2010 and its change with respect to the 2006 midterm election.

Table B.10: Ebola Newsletters and Timing of Each Case

	Ebola Newsletter							
	Indicator	Stock	Indicator	Stock	Indicator	Stock	Indicator	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.080*** (0.020)	0.134*** (0.030)					0.036 (0.025)	0.059** (0.025)
Post-Onset Cleveland x Republican			0.070*** (0.023)	0.209*** (0.036)			0.068** (0.030)	0.218*** (0.039)
Post-Onset NYC x Republican					-0.090*** (0.022)	0.049* (0.028)	-0.113*** (0.026)	0.062** (0.030)
Mean Dep.Var.	0.06	0.13	0.09	0.22	0.09	0.41	0.02	0.27
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constituency-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Newsletter-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.29	0.66	0.32	0.77	0.37	0.93	0.24	0.77
Observations	1468	1468	1468	1468	1468	1468	5505	5505
Number of Clusters (Constituency)	285	285	285	285	285	285	285	285

Notes: The unit of observation is a politician - week. The sample focuses on 367 member of the congress (i.e., senators and house representatives) who sent at least one official e-newsletter. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The variable Ebola Newsletter 'Indicator' takes value 1 if the member of Congress sent at least one official ebola-related newsletter during the week, 0 otherwise. The variable Ebola Newsletter 'Stock' accounts for the accumulated number of ebola-related newsletters that were sent up to that week by the member of Congress. The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case and an indicator taking value 1 if the member of the Congress is republican, 0 otherwise. Newsletter-level controls are the weekly and accumulated wordcounts. Heteroskedasticity robust standard error estimates clustered at the constituency-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.11: Ebola Tweets and Timing of Each Case

	Ebola Tweets							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.590*** (0.113)	0.869*** (0.186)					0.634*** (0.125)	1.000*** (0.249)
Post-Onset Cleveland x Republican			0.105 (0.104)	1.484*** (0.264)			-0.070 (0.108)	1.177*** (0.213)
Post-Onset NYC x Republican					-0.824*** (0.145)	0.493*** (0.107)	-0.474*** (0.124)	0.226*** (0.076)
Mean Dep.Var.	0.41	0.82	0.56	1.38	0.49	2.43	0.13	1.56
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Tweet-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.34	0.62	0.45	0.71	0.36	0.97	0.27	0.70
Observations	3184	3184	3184	3184	3184	3184	11144	11144
Number of Clusters (Race)	460	460	460	460	460	460	460	460

Notes: The unit of observation is a candidate - week. The sample focuses on 796 democratic and republican candidates for congress with twitter activity. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the weekly flow and accumulated stock of ebola-related tweets posted by each candidate. The main independent variable accounts for the interaction between a dummy indicating the post-onset of each ebola case and an indicator taking value 1 for the republican candidate, 0 otherwise. Tweet-level controls are the weekly and accumulated wordcounts. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.12: Fear Appealing Ads and Timing of Each Case

	Fear Ads							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	12.477 (15.022)	42.747 (30.161)					19.914* (11.142)	12.001 (66.171)
Post-Onset Cleveland x Republican			5.810 (20.009)	32.866 (34.987)			-10.072 (18.039)	1.863 (25.294)
Post-Onset NYC x Republican					16.973 (17.654)	50.030 (36.992)	19.990 (17.397)	33.902 (30.807)
Mean Dep.Var.	141.26	877.35	202.29	1249.24	180.17	1429.41	108.30	752.32
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Ad-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.79	0.98	0.84	0.98	0.83	0.98	0.77	0.94
Observations	2376	2376	2376	2376	2376	2376	8316	8316
Number of Clusters (Race)	227	227	227	227	227	227	227	227

Notes: The unit of observation is a candidate - week. The sample focuses on 575 democratic and republican candidates for congress that aired at least one campaign TV ads. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the number of fear-appealing ads (weekly flow and accumulated stock). The coding of a fear-appealing ad is based on coding by Political Advertising in 2014 (Wesleyan Media Project) in two dimensions: 1) whether any ominous/tense music is played during the ad, or 2) there is direct appeal to fear in ads regardless of the music. The main independent variable accounts for the interaction between a dummy indicating the post-onset of each ebola case and an indicator taking value 1 for the republican candidate, 0 otherwise. Ad-level controls are the weekly and accumulated airing time length and number of ads. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.13: Twitter Activity and Competitive Races (Restricted Sample)

	Number of Tweets			At least 1 Ebola Tweet
	(1)	(2)	(3)	(4)
Post-Onset First-Case x Republican	0.428*** (0.086)	0.251*** (0.056)	0.772* (0.409)	0.137* (0.069)
Post-Onset First-Case x Republican x Competitive Race	-0.103 (0.135)	0.039 (0.118)	0.366 (0.418)	0.199** (0.082)
Post-Onset First-Case x Competitive Race	-0.150** (0.069)	-0.110* (0.065)	0.125 (0.207)	0.011 (0.065)
Mean Dep.Var.	0.19	0.15	0.33	0.11
Sample	Full	Exc. Top 10 Ebola-Tweet	Senate Race	Senate Race
Week FE	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	Yes	Yes	Yes	Yes
Tweets-Level Controls	Yes	Yes	Yes	Yes
Adjusted- R^2	0.27	0.23	0.32	0.34
Observations	11144	11004	882	882
Number of Clusters (Race)	460	458	31	31

Notes: The unit of observation is a politician - week. Twitter sample focuses on 796 democratic and republican candidates for congress with twitter activity between August and November of 2014. In column 2, 10 candidates with a disproportionate number of ebola-related tweets are excluded. In columns 3 and 4, the sample exclusively focus in candidates in the US Senate race. The dependent variables are (1) the weekly number of ebola-related tweets posted by each candidate in columns 1 to 3, and (2) an indicator variable if the candidate tweeted at least once the term 'ebola' that week. Heteroskedasticity robust standard errors estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests. Tweets controls are the weekly and accumulated wordcounts.

Table B.14: Ebola Newsletters, Timing and Distance To Cases

	Ebola Newsletters							
	Indicator	Stock	Indicator	Stock	Indicator	Stock	Indicator	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.083*** (0.023)	0.119*** (0.030)					0.034 (0.025)	0.033 (0.027)
Post-Onset Dallas x Republican x Distance Dallas (logs)	-0.039 (0.043)	-0.006 (0.047)					-0.051 (0.038)	-0.053 (0.070)
Post-Onset Dallas x Distance Dallas (logs)	0.007 (0.032)	-0.038 (0.026)					0.011 (0.028)	-0.053* (0.031)
Post-Onset Cleveland x Republican			0.075*** (0.023)	0.203*** (0.035)			0.078** (0.031)	0.214*** (0.038)
Post-Onset Cleveland x Republican x Distance Cleveland (logs)			-0.028 (0.033)	-0.087* (0.050)			-0.046 (0.028)	-0.113* (0.065)
Post-Onset Cleveland x Distance Cleveland (logs)			-0.022 (0.019)	-0.019 (0.024)			-0.002 (0.016)	-0.003 (0.035)
Post-Onset NYC x Republican					-0.107*** (0.023)	0.052* (0.030)	-0.131*** (0.027)	0.069** (0.033)
Post-Onset NYC x Republican x Distance NYC (logs)					0.029 (0.023)	-0.017 (0.035)	0.043** (0.021)	-0.052 (0.053)
Post-Onset NYC x Distance NYC (logs)					0.017** (0.009)	0.000 (0.011)	0.004 (0.008)	0.007 (0.014)
Mean Dep.Var.	0.07	0.13	0.10	0.22	0.09	0.41	0.03	0.13
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constituency-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Newsletter-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.31	0.66	0.33	0.77	0.39	0.93	0.25	0.77
Observations	1468	1468	1468	1468	1468	1468	5505	5505
Number of Clusters (Constituency)	285	285	285	285	285	285	285	285

Notes: The unit of observation is member of congress - week. The sample focuses on 367 member of the congress (i.e., senators and house representatives) who sent at least one official e-newsletter. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the number of ebola-related newsletters (weekly flow and accumulated stock). The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case, an indicator taking value 1 if the member of the congress is republican and 0 otherwise, and the distance (in logs) to the correspondent ebola case. Newsletter-level controls are the weekly and accumulated content wordcounts. To ease the interpretation of the uninteracted coefficients, distance variables in the interaction terms were demeaned. Heteroskedasticity robust standard error estimates clustered at the constituency-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.15: Ebola Tweets, Timing and Distance To Cases

	Ebola Tweets							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.560*** (0.111)	0.782*** (0.180)					0.635*** (0.125)	0.978*** (0.255)
Post-Onset Dallas x Republican x Distance Dallas (logs)	-0.301* (0.170)	-0.394 (0.399)					-0.240 (0.153)	-1.330* (0.743)
Post-Onset Dallas x Distance Dallas (logs)	-0.106* (0.056)	-0.549** (0.261)					0.037 (0.058)	-0.057 (0.378)
Post-Onset Cleveland x Republican			0.106 (0.104)	1.485*** (0.261)			-0.067 (0.108)	1.196*** (0.214)
Post-Onset Cleveland x Republican x Distance Cleveland (logs)			-0.069 (0.120)	-0.770** (0.302)			-0.003 (0.059)	-1.055*** (0.381)
Post-Onset Cleveland x Distance Cleveland (logs)			-0.088* (0.049)	0.051 (0.089)			-0.019 (0.048)	0.165 (0.138)
Post-Onset NYC x Republican					-0.829*** (0.146)	0.505*** (0.107)	-0.473*** (0.124)	0.243*** (0.078)
Post-Onset NYC x Republican x Distance NYC (logs)					0.026 (0.094)	-0.030 (0.085)	-0.052 (0.060)	0.109 (0.190)
Post-Onset NYC x Distance NYC (logs)					0.023 (0.036)	-0.076* (0.046)	0.037 (0.029)	-0.060 (0.076)
Mean Dep.Var.	0.41	0.82	0.56	1.38	0.49	2.43	0.13	1.56
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Tweet-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.34	0.63	0.45	0.71	0.36	0.97	0.27	0.70
Observations	3184	3184	3184	3184	3184	3184	11144	11144
Number of Clusters (Race)	460	460	460	460	460	460	460	460

Notes: The unit of observation is a candidate - week. The sample focuses on 796 democratic and republican candidates for congress with twitter activity. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the weekly flow and accumulated stock of ebola-related tweets posted by each candidate. The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case, an indicator taking value 1 if the member of the congress is republican and 0 otherwise, and the distance (in logs) to the correspondent ebola case. Tweet-level controls are the weekly and accumulated content wordcounts. To ease the interpretation of the uninteracted coefficients, distance variables in the interaction terms were demeaned. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.16: Fear Appealing Ads, Timing and Distance To Cases

	Fear Ads							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	11.897 (15.079)	45.550 (29.572)					18.977* (10.964)	9.556 (67.484)
Post-Onset Dallas x Republican x Distance Dallas (logs)	-51.127 (45.845)	13.545 (69.824)					-20.286 (23.138)	290.651 (257.729)
Post-Onset Dallas x Distance Dallas (logs)	18.255 (26.117)	21.420 (40.652)					-6.787 (18.217)	-194.470 (165.436)
Post-Onset Cleveland x Republican			5.795 (19.992)	32.781 (34.650)			-9.918 (18.069)	2.598 (24.996)
Post-Onset Cleveland x Republican x Distance Cleveland (logs)			-18.312 (23.975)	55.827 (45.581)			3.137 (22.603)	30.811 (97.707)
Post-Onset Cleveland x Distance Cleveland (logs)			13.722 (13.570)	-21.909 (33.901)			2.808 (13.814)	20.212 (57.355)
Post-Onset NYC x Republican					17.704 (17.755)	51.721 (36.640)	20.841 (17.544)	36.202 (31.047)
Post-Onset NYC x Republican x Distance NYC (logs)					-9.339 (11.971)	37.425 (23.524)	7.468 (11.753)	136.339*** (51.292)
Post-Onset NYC x Distance NYC (logs)					-3.635 (8.915)	-36.060** (15.482)	-10.865 (8.652)	-79.935*** (30.029)
Mean Dep.Var.	141.26	877.35	202.29	1249.24	180.17	1429.41	108.30	752.32
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Ad-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.79	0.98	0.84	0.98	0.83	0.98	0.77	0.94
Observations	2376	2376	2376	2376	2376	2376	8316	8316
Number of Clusters (Race)	227	227	227	227	227	227	227	227

Notes: The unit of observation is a candidate - week. The sample focuses on 575 democratic and republican candidates for congress that aired at least one campaign TV ads. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the number of fear-appealing ads (weekly flow and accumulated stock). The coding of a fear-appealing ad is based on coding by Political Advertising in 2014 (Wesleyan Media Project) in two dimensions: 1) whether any ominous/tense music is played during the ad, or 2) there is direct appeal to fear in ads regardless of the music. The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case, an indicator taking value 1 if the member of the congress is republican and 0 otherwise, and the distance (in logs) to the correspondent ebola case. Ad-level controls are the weekly and accumulated airing time length and number of ads. To ease the interpretation of the uninteracted coefficients, distance variables in the interaction terms were demeaned. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.17: Ebola and Terrorism Newsletters and Timing of Each Case

	Ebola and Terrorism Newsletter							
	Indicator	Stock	Indicator	Stock	Indicator	Stock	Indicator	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.021** (0.009)	0.037** (0.015)					0.019 (0.014)	0.020 (0.013)
Post-Onset Cleveland x Republican			0.002 (0.010)	0.039*** (0.014)			-0.006 (0.016)	0.029** (0.014)
Post-Onset NYC x Republican					-0.017* (0.010)	0.001 (0.013)	-0.020* (0.011)	0.001 (0.014)
Mean Dep.Var.	0.01	0.03	0.01	0.04	0.01	0.07	0.00	0.05
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constituency-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Newsletter-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.08	0.58	0.19	0.66	0.18	0.91	0.11	0.71
Observations	1468	1468	1468	1468	1468	1468	5505	5505
Number of Clusters (Constituency)	285	285	285	285	285	285	285	285

Notes: The unit of observation is member of congress - week. The sample focuses on 367 member of the congress (i.e., senators and house representatives) who sent at least one official e-newsletter. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The variable Ebola Newsletter 'Indicator' takes value 1 if the member of Congress sent at least one official ebola & terrorism-related newsletter during the week, 0 otherwise. The variable Ebola Newsletter 'Stock' accounts for the accumulated number of ebola & terrorism-related newsletters sent up to that week by the member of Congress. The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case and an indicator taking value 1 if the member of the Congress is republican, 0 otherwise. Newsletter-level controls are the weekly and accumulated wordcounts. Heteroskedasticity robust standard error estimates clustered at the constituency-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.18: Ebola and Terrorism Tweets and Timing of Each Case

	Ebola and Terrorism Tweets							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.009 (0.009)	0.015 (0.009)					0.013* (0.007)	0.025* (0.015)
Post-Onset Cleveland x Republican			0.012 (0.012)	0.048*** (0.014)			0.008 (0.013)	0.043*** (0.012)
Post-Onset NYC x Republican					-0.025** (0.010)	0.493*** (0.107)	-0.016 (0.011)	0.012* (0.007)
Mean Dep.Var.	0.01	0.03	0.01	0.04	0.01	2.43	0.00	0.05
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Tweet-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.04	0.70	-0.01	0.70	0.00	0.97	0.02	0.62
Observations	3184	3184	3184	3184	3184	3184	11144	11144
Number of Clusters (Race)	460	460	460	460	460	460	460	460

Notes: The unit of observation is a candidate - week. The sample focuses on 796 democratic and republican candidates for congress with twitter activity. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the weekly flow and accumulated stock of ebola & terrorism -related tweets posted by each candidate. The main independent variable accounts for the interaction between a dummy indicating the post-onset of each ebola case and an indicator taking value 1 for the republican candidate, 0 otherwise. Tweet-level controls are the weekly and accumulated content wordcounts. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.19: Fear Appealing Ads with Terrorism and Timing of Each Case

	Fear-Terrorism Ads							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	4.636 (2.817)	13.773** (5.358)					7.456** (3.150)	26.720*** (8.154)
Post-Onset Cleveland x Republican			3.046 (4.095)	21.972*** (7.719)			2.505 (2.923)	16.994*** (5.676)
Post-Onset NYC x Republican					-3.327 (4.009)	18.231** (7.789)	-2.914 (3.172)	14.427** (5.790)
Mean Dep.Var.	4.15	13.13	5.90	24.12	5.00	29.12	2.43	11.72
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Ad-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.27	0.75	0.29	0.78	0.26	0.82	0.16	0.53
Observations	2376	2376	2376	2376	2376	2376	8316	8316
Number of Clusters (Race)	227	227	227	227	227	227	227	227

Notes: The unit of observation is a candidate - week. The sample focuses on 575 democratic and republican candidates for congress that aired at least one campaign TV ads. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the number of fear-appealing ads mentioning terrorism (weekly flow and accumulated stock). The coding of a fear-appealing ad is based on coding by Political Advertising in 2014 (Wesleyan Media Project) in two dimensions: 1) whether any ominous/tense music is played during the ad, or 2) there is direct appeal to fear in ads regardless of the music. The main independent variable accounts for the interaction between a dummy indicating the post-onset of each ebola case and an indicator taking value 1 for the republican candidate, 0 otherwise. Ad-level controls are the weekly and accumulated airing time length and number of ads. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.20: Ebola and Immigration Newsletters and Timing of Each Case

	Ebola and Immigration Newsletter							
	Indicator	Stock	Indicator	Stock	Indicator	Stock	Indicator	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.031*** (0.012)	0.043** (0.019)					0.018 (0.016)	0.009 (0.018)
Post-Onset Cleveland x Republican			0.028** (0.014)	0.068*** (0.021)			0.021 (0.020)	0.064*** (0.020)
Post-Onset NYC x Republican					-0.031** (0.014)	0.024 (0.016)	-0.038** (0.015)	0.023 (0.017)
Mean Dep.Var.	0.02	0.05	0.03	0.07	0.03	0.13	0.01	0.09
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constituency-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Newsletter-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.15	0.59	0.20	0.68	0.15	0.90	0.10	0.68
Observations	1468	1468	1468	1468	1468	1468	5505	5505
Number of Clusters (Constituency)	285	285	285	285	285	285	285	285

Notes: The unit of observation is member of congress - week. The sample focuses on 367 member of the congress (i.e., senators and house representatives) who sent at least one official e-newsletter. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The variable Ebola Newsletter 'Indicator' takes value 1 if the member of Congress sent at least one official ebola & immigration-related newsletter during the week, 0 otherwise. The variable Ebola Newsletter 'Stock' accounts for the accumulated number of ebola & immigration-related newsletters sent up to that week by the member of Congress. The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case and an indicator taking value 1 if the member of the Congress is republican, 0 otherwise. Newsletter-level controls are the weekly and accumulated content wordcounts. Heteroskedasticity robust standard error estimates clustered at the constituency-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.21: Ebola and Immigration Tweets and Timing of Each Case

	Ebola and Immigration Tweets							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.017*	0.031**					0.020***	0.034*
	(0.009)	(0.014)					(0.007)	(0.020)
Post-Onset Cleveland x Republican			0.007	0.043***			0.003	0.033***
			(0.010)	(0.013)			(0.010)	(0.010)
Post-Onset NYC x Republican					-0.015**	0.022**	-0.016*	0.011
					(0.007)	(0.009)	(0.009)	(0.008)
Mean Dep.Var.	0.01	0.03	0.01	0.04	0.01	0.06	0.00	0.04
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Tweet-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.04	0.67	0.09	0.82	0.04	0.94	0.04	0.67
Observations	3184	3184	3184	3184	3184	3184	11144	11144
Number of Clusters (Race)	460	460	460	460	460	460	460	460

Notes: The unit of observation is a candidate - week. The sample focuses on 796 democratic and republican candidates for congress with twitter activity. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the weekly flow and accumulated stock of ebola & immigration -related tweets posted by each candidate. The main independent variable accounts for the interaction between a dummy indicating the post-onset of each ebola case and an indicator taking value 1 for the republican candidate, 0 otherwise. Tweet-level controls are the weekly and accumulated content wordcounts. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.22: Fear Appealing Ads with Immigration and Timing of Each Case

	Fear-Immigration Ads							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	3.724	23.649**					7.448	57.519***
	(6.367)	(10.301)					(5.727)	(16.647)
Post-Onset Cleveland x Republican			8.076	38.693**			6.021	28.669**
			(8.530)	(16.530)			(8.601)	(13.673)
Post-Onset NYC x Republican					-3.347	35.526***	-4.387	28.849***
					(6.733)	(12.897)	(7.002)	(8.938)
Mean Dep.Var.	12.54	63.43	16.44	94.33	13.14	107.47	8.02	52.99
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Ad-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.50	0.88	0.58	0.90	0.51	0.93	0.34	0.73
F-Statistic	1.22	1.52	2.22	2.86	3.30	6.08	3.44	2.64
Observations	2376	2376	2376	2376	2376	2376	8316	8316
Number of Clusters (Race)	227	227	227	227	227	227	227	227

Notes: The unit of observation is a candidate - week. The sample focuses on 575 democratic and republican candidates for congress that aired at least one campaign TV ads. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the number of fear-appealing ads mentioning immigration (weekly flow and accumulated stock). The coding of a fear-appealing ad is based on coding by Political Advertising in 2014 (Wesleyan Media Project) in two dimensions: 1) whether any ominous/tense music is played during the ad, or 2) there is direct appeal to fear in ads regardless of the music. The main independent variable accounts for the interaction between a dummy indicating the post-onset of each ebola case and an indicator taking value 1 for the republican candidate, 0 otherwise. Ad-level controls are the weekly and accumulated airing time length and number of ads. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.23: Ebola and Obama Newsletters and Timing of Each Case

	Ebola and Obama Newsletter							
	Indicator	Stock	Indicator	Stock	Indicator	Stock	Indicator	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.043*** (0.015)	0.071*** (0.020)					0.020 (0.015)	0.016 (0.018)
Post-Onset Cleveland x Republican			0.034** (0.015)	0.106*** (0.026)			0.036* (0.019)	0.109*** (0.027)
Post-Onset NYC x Republican					-0.044*** (0.016)	0.031 (0.019)	-0.059*** (0.017)	0.032* (0.019)
Mean Dep.Var.	0.03	0.06	0.04	0.10	0.04	0.19	0.01	0.13
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constituency-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Newsletter-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.23	0.61	0.26	0.72	0.27	0.92	0.15	0.73
Observations	1468	1468	1468	1468	1468	1468	5505	5505
Number of Clusters (Constituency)	285	285	285	285	285	285	285	285

Notes: The unit of observation is member of congress - week. The sample focuses on 367 member of the congress (i.e., senators and house representatives) who sent at least one official e-newsletter. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The variable Ebola Newsletter 'Indicator' takes value 1 if the member of Congress sent at least one official ebola & Obama-related newsletter during the week, 0 otherwise. The variable Ebola Newsletter 'Stock' accounts for the accumulated number of ebola & Obama-related newsletters sent up to that week by the member of Congress. The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case and an indicator taking value 1 if the member of the Congress is republican, 0 otherwise. Newsletter-level controls are the weekly and accumulated wordcounts. Heteroskedasticity robust standard error estimates clustered at the member of constituency-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.24: Ebola and Obama Tweets and Timing of Each Case

	Ebola and Obama Tweets							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.086*** (0.017)	0.108*** (0.021)					0.088*** (0.018)	0.113*** (0.026)
Post-Onset Cleveland x Republican			0.022 (0.021)	0.202*** (0.035)			-0.006 (0.023)	0.164*** (0.029)
Post-Onset NYC x Republican					-0.105*** (0.021)	0.083*** (0.017)	-0.062*** (0.021)	0.043*** (0.012)
Mean Dep.Var.	0.03	0.05	0.04	0.09	0.04	0.18	0.01	0.11
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Tweet-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.07	0.41	0.13	0.50	0.16	0.93	0.10	0.58
Observations	3184	3184	3184	3184	3184	3184	11144	11144
Number of Clusters (Race)	460	460	460	460	460	460	460	460

Notes: The unit of observation is a candidate - week. The sample focuses on 796 democratic and republican candidates for congress with twitter activity. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the weekly flow and accumulated stock of ebola & Obama -related tweets posted by each candidate. The main independent variable accounts for the interaction between a dummy indicating the post-onset of each ebola case and an indicator taking value 1 for the republican candidate, 0 otherwise. Tweet-level controls are the weekly and accumulated content wordcounts. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.25: Fear Appealing Ads with Obama and Timing of Each Case

	Fear-Obama Ads							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	25.245** (11.875)	138.864*** (26.643)					51.417*** (11.515)	305.996*** (55.287)
Post-Onset Cleveland x Republican			32.033*** (10.945)	201.579*** (38.956)			28.961*** (10.739)	159.226*** (30.281)
Post-Onset NYC x Republican					-24.466* (13.158)	177.409*** (35.125)	-32.034** (12.936)	137.380*** (25.263)
Mean Dep.Var.	32.70	193.21	48.27	281.12	43.61	324.73	24.36	170.19
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Ad-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.52	0.86	0.66	0.88	0.60	0.90	0.46	0.79
Observations	2376	2376	2376	2376	2376	2376	8316	8316
Number of Clusters (Race)	227	227	227	227	227	227	227	227

Notes: The unit of observation is a candidate - week. The sample focuses on 575 democratic and republican candidates for congress that aired at least one campaign TV ads. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the number of fear-appealing ads mentioning Obama (weekly flow and accumulated stock). The coding of a fear-appealing ad is based on coding by Political Advertising in 2014 (Wesleyan Media Project) in two dimensions: 1) whether any ominous/tense music is played during the ad, or 2) there is direct appeal to fear in ads regardless of the music. The main independent variable accounts for the interaction between a dummy indicating the post-onset of each ebola case and an indicator taking value 1 for the republican candidate, 0 otherwise. Ad-level controls are the weekly and accumulated airing time length and number of ads. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.26: Ebola and Terrorism Newsletters, Timing and Distance To Cases

	Ebola and Terrorism Newsletters							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.022** (0.010)	0.039*** (0.015)					0.021 (0.014)	0.023* (0.013)
Post-Onset Dallas x Republican x Distance Dallas (logs)	-0.005 (0.010)	-0.005 (0.015)					-0.001 (0.007)	0.006 (0.016)
Post-Onset Dallas x Distance Dallas (logs)	0.003 (0.004)	0.006 (0.008)					0.004 (0.003)	0.008 (0.008)
Post-Onset Cleveland x Republican			0.002 (0.010)	0.039*** (0.014)			-0.006 (0.015)	0.029** (0.014)
Post-Onset Cleveland x Republican x Distance Cleveland (logs)			0.004 (0.010)	-0.014 (0.015)			-0.001 (0.009)	0.000 (0.015)
Post-Onset Cleveland x Distance Cleveland (logs)			-0.006 (0.008)	0.005 (0.008)			-0.002 (0.006)	0.009 (0.009)
Post-Onset NYC x Republican					-0.020* (0.010)	0.004 (0.015)	-0.023* (0.012)	0.007 (0.017)
Post-Onset NYC x Republican x Distance NYC (logs)					0.014 (0.013)	-0.025 (0.022)	0.017 (0.012)	-0.048 (0.040)
Post-Onset NYC x Distance NYC (logs)					0.001 (0.003)	0.002 (0.005)	-0.001 (0.003)	0.003 (0.005)
Mean Dep.Var.	0.01	0.03	0.01	0.04	0.01	0.07	0.01	0.02
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constituency-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Newsletter-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.08	0.58	0.19	0.66	0.18	0.91	0.11	0.71
Observations	1468	1468	1468	1468	1468	1468	5505	5505
Number of Clusters (Constituency)	285	285	285	285	285	285	285	285

Notes: The unit of observation is member of congress - week. The sample focuses on 367 member of the congress (i.e., senators and house representatives) who sent at least one official e-newsletter. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the number of ebola & terrorism - related newsletters (weekly flow and accumulated stock). The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case, an indicator taking value 1 if the member of the congress is republican and 0 otherwise, and the distance (in logs) to the correspondent ebola case. Newsletter-level controls are the weekly and accumulated content wordcounts. To ease the interpretation of the uninteracted coefficients, distance variables in the interaction terms were demeaned. Heteroskedasticity robust standard error estimates clustered at the constituency-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.27: Ebola and Terrorism Tweets, Timing and Distance To Cases

	Ebola-Terrorism Tweets							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.009 (0.009)	0.014 (0.009)					0.014* (0.007)	0.027* (0.015)
Post-Onset Dallas x Republican x Distance Dallas (logs)	-0.005 (0.010)	-0.006 (0.011)					-0.008 (0.006)	-0.055* (0.028)
Post-Onset Dallas x Distance Dallas (logs)	-0.003 (0.008)	-0.003 (0.013)					0.001 (0.005)	0.024 (0.016)
Post-Onset Cleveland x Republican			0.012 (0.012)	0.048*** (0.014)			0.008 (0.013)	0.043*** (0.012)
Post-Onset Cleveland x Republican x Distance Cleveland (logs)			0.001 (0.010)	-0.017 (0.012)			0.002 (0.006)	-0.015 (0.023)
Post-Onset Cleveland x Distance Cleveland (logs)			-0.006* (0.003)	0.002 (0.004)			-0.004 (0.004)	0.004 (0.010)
Post-Onset NYC x Republican					-0.026*** (0.010)	0.023** (0.009)	-0.017 (0.011)	0.012* (0.007)
Post-Onset NYC x Republican x Distance NYC (logs)					0.001 (0.006)	0.004 (0.006)	0.001 (0.004)	0.000 (0.012)
Post-Onset NYC x Distance NYC (logs)					0.004 (0.003)	0.000 (0.003)	0.004 (0.003)	0.002 (0.005)
Mean Dep.Var.	0.01	0.03	0.01	0.04	0.01	0.07	0.00	0.05
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Tweet-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.04	0.70	-0.01	0.70	0.00	0.93	0.02	0.62
Observations	3184	3184	3184	3184	3184	3184	11144	11144
Number of Clusters (Race)	460	460	460	460	460	460	460	460

Notes: The unit of observation is a candidate - week. The sample focuses on 796 democratic and republican candidates for congress with twitter activity. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the weekly flow and accumulated stock of ebola & terrorism -related tweets posted by each candidate. The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case, an indicator taking value 1 if the member of the congress is republican and 0 otherwise, and the distance (in logs) to the correspondent ebola case. Tweet-level controls are the weekly and accumulated content wordcounts. To ease the interpretation of the uninteracted coefficients, distance variables in the interaction terms were demeaned. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.28: Fear Appealing Ads with Terrorism, Timing and Distance To Cases

	Fear-Terrorism Ads							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	4.269 (2.735)	13.780** (5.346)					7.247** (3.099)	26.811*** (8.198)
Post-Onset Dallas x Republican x Distance Dallas (logs)	-6.520 (5.073)	-1.752 (8.046)					-5.213 (5.074)	-8.899 (19.028)
Post-Onset Dallas x Distance Dallas (logs)	-0.579 (1.889)	0.892 (3.291)					-1.395 (1.537)	4.264 (6.351)
Post-Onset Cleveland x Republican			3.058 (4.103)	21.962*** (7.703)			2.553 (2.937)	16.997*** (5.692)
Post-Onset Cleveland x Republican x Distance Cleveland (logs)			-1.301 (2.847)	3.505 (7.318)			0.913 (2.915)	8.974 (11.116)
Post-Onset Cleveland x Distance Cleveland (logs)			-0.927 (1.711)	-0.779 (1.383)			-1.001 (1.579)	-2.280 (2.704)
Post-Onset NYC x Republican					-3.198 (4.018)	18.175** (7.715)	-2.791 (3.146)	14.388** (5.755)
Post-Onset NYC x Republican x Distance NYC (logs)					-2.383 (2.233)	4.376 (4.649)	-0.854 (2.093)	4.828 (5.772)
Post-Onset NYC x Distance NYC (logs)					-0.291 (0.609)	-1.429 (1.304)	-0.429 (0.862)	-1.497 (2.141)
Mean Dep.Var.	4.15	13.13	5.90	24.12	5.00	29.12	2.43	11.72
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Ad-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.27	0.75	0.29	0.78	0.26	0.82	0.16	0.53
Observations	2376	2376	2376	2376	2376	2376	8316	8316
Number of Clusters (Race)	227	227	227	227	227	227	227	227

Notes: The unit of observation is a candidate - week. The sample focuses on 575 democratic and republican candidates for congress that aired at least one campaign TV ads. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the number of fear-appealing ads mentioning terrorism (weekly flow and accumulated stock). The coding of a fear-appealing ad r is based on coding by Political Advertising in 2014 (Wesleyan Media Project) in two dimensions: 1) whether any ominous/tense music is played during the ad, or 2) there is direct appeal to fear in ads regardless of the music. The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case, an indicator taking value 1 if the member of the congress is republican and 0 otherwise, and the distance (in logs) to the correspondent ebola case. Ad-level controls are the weekly and accumulated airing time length and number of ads. To ease the interpretation of the uninteracted coefficients, distance variables in the interaction terms were demeaned. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.29: Ebola and Immigration Newsletters, Timing and Distance To Cases

	Ebola and Immigration Newsletters							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.031** (0.012)	0.046** (0.019)					0.019 (0.016)	0.013 (0.018)
Post-Onset Dallas x Republican x Distance Dallas (logs)	0.002 (0.013)	-0.003 (0.018)					-0.004 (0.009)	-0.005 (0.023)
Post-Onset Dallas x Distance Dallas (logs)	-0.002 (0.008)	0.009 (0.012)					0.004 (0.006)	0.016 (0.014)
Post-Onset Cleveland x Republican			0.028** (0.014)	0.067*** (0.020)			0.021 (0.020)	0.063*** (0.020)
Post-Onset Cleveland x Republican x Distance Cleveland (logs)			0.005 (0.016)	-0.028 (0.024)			0.001 (0.013)	-0.013 (0.024)
Post-Onset Cleveland x Distance Cleveland (logs)			-0.006 (0.010)	-0.002 (0.011)			-0.003 (0.007)	0.002 (0.010)
Post-Onset NYC x Republican					-0.035** (0.015)	0.031* (0.017)	-0.041** (0.016)	0.032* (0.019)
Post-Onset NYC x Republican x Distance NYC (logs)					0.004 (0.018)	-0.027 (0.026)	0.009 (0.017)	-0.043 (0.042)
Post-Onset NYC x Distance NYC (logs)					0.008 (0.007)	-0.005 (0.008)	0.004 (0.006)	-0.006 (0.009)
Mean Dep.Var.	0.02	0.05	0.03	0.07	0.03	0.13	0.01	0.09
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constituency-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Newsletter-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.15	0.59	0.19	0.68	0.15	0.90	0.10	0.68
Observations	1468	1468	1468	1468	1468	1468	5505	5505
Number of Clusters (Constituency)	285	285	285	285	285	285	285	285

Notes: The unit of observation is member of congress - week. The sample focuses on 367 member of the congress (i.e., senators and house representatives) who sent at least one official e-newsletter. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the number of ebola & immigration - related newsletters (weekly flow and accumulated stock). The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case, an indicator taking value 1 if the member of the congress is republican and 0 otherwise, and the distance (in logs) to the correspondent ebola case. Newsletter-level controls are the weekly and accumulated content wordcounts. To ease the interpretation of the uninteracted coefficients, distance variables in the interaction terms were demeaned. Heteroskedasticity robust standard error estimates clustered at the constituency-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.30: Ebola and Immigration Tweets, Timing and Distance To Cases

	Ebola-Immigration Tweets							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.017*	0.031**					0.020***	0.034*
	(0.009)	(0.014)					(0.007)	(0.020)
Post-Onset Dallas x Republican x Distance Dallas (logs)	-0.008	0.012					-0.006	-0.001
	(0.011)	(0.018)					(0.011)	(0.043)
Post-Onset Dallas x Distance Dallas (logs)	0.006	-0.005					0.000	-0.000
	(0.006)	(0.007)					(0.005)	(0.017)
Post-Onset Cleveland x Republican			0.007	0.043***			0.003	0.033***
			(0.010)	(0.013)			(0.010)	(0.010)
Post-Onset Cleveland x Republican x Distance Cleveland (logs)			0.014	-0.023*			-0.001	-0.051**
			(0.010)	(0.014)			(0.005)	(0.023)
Post-Onset Cleveland x Distance Cleveland (logs)			-0.002	0.004			0.005	0.016**
			(0.005)	(0.004)			(0.004)	(0.007)
Post-Onset NYC x Republican					-0.015**	0.022**	-0.016*	0.011
					(0.007)	(0.009)	(0.009)	(0.008)
Post-Onset NYC x Republican x Distance NYC (logs)					0.003	-0.003	0.001	-0.005
					(0.004)	(0.006)	(0.004)	(0.012)
Post-Onset NYC x Distance NYC (logs)					0.000	0.003	0.000	0.007*
					(0.001)	(0.002)	(0.002)	(0.004)
Mean Dep.Var.	0.01	0.03	0.01	0.04	0.01	0.06	0.00	0.02
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Tweet-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.04	0.67	0.09	0.82	0.04	0.94	0.04	0.67
Observations	3184	3184	3184	3184	3184	3184	11144	11144
Number of Clusters (Race)	460	460	460	460	460	460	460	460

Notes: The unit of observation is a candidate - week. The sample focuses on 796 democratic and republican candidates for congress with twitter activity. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the weekly flow and accumulated stock of ebola & immigration -related tweets posted by each candidate. The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case, an indicator taking value 1 if the member of the congress is republican and 0 otherwise, and the distance (in logs) to the correspondent ebola case. Tweet-level controls are the weekly and accumulated content wordcounts. To ease the interpretation of the uninteracted coefficients, distance variables in the interaction terms were demeaned. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.31: Fear Appealing Ads with Immigration, Timing and Distance To Cases

	Fear-Immigration Ads							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	2.962 (6.310)	21.676** (10.622)					7.329 (5.637)	57.498*** (16.342)
Post-Onset Dallas x Republican x Distance Dallas (logs)	-9.084 (8.394)	-8.309 (20.529)					-11.977 (10.079)	-69.754 (52.175)
Post-Onset Dallas x Distance Dallas (logs)	-3.289 (6.967)	-15.649 (28.362)					4.734 (7.987)	26.987 (21.751)
Post-Onset Cleveland x Republican			8.051 (8.530)	38.581** (16.317)			5.995 (8.549)	28.725** (13.634)
Post-Onset Cleveland x Republican x Distance Cleveland (logs)			3.392 (7.395)	17.316 (16.767)			8.423 (6.036)	15.355 (27.591)
Post-Onset Cleveland x Distance Cleveland (logs)			1.713 (5.234)	6.295 (6.480)			-1.211 (4.988)	2.069 (11.654)
Post-Onset NYC x Republican					-3.005 (6.565)	34.697*** (12.506)	-3.943 (6.840)	28.545*** (8.924)
Post-Onset NYC x Republican x Distance NYC (logs)					-3.870 (5.268)	17.295** (8.762)	-2.829 (3.757)	18.859* (10.973)
Post-Onset NYC x Distance NYC (logs)					-1.933 (2.566)	0.974 (2.265)	-3.639* (2.160)	-3.495 (4.177)
Mean Dep.Var.	12.54	63.43	16.44	94.33	13.14	107.47	8.02	52.99
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Ad-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.50	0.88	0.58	0.90	0.51	0.93	0.34	0.73
Observations	2376	2376	2376	2376	2376	2376	8316	8316
Number of Clusters (Race)	227	227	227	227	227	227	227	227

Notes: The unit of observation is a candidate - week. The sample focuses on 575 democratic and republican candidates for congress that aired at least one campaign TV ads. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the number of fear -appealing ads mentioning immigration (weekly flow and accumulated stock). The coding of a fear-appealing ad is based on coding by Political Advertising in 2014 (Wesleyan Media Project) in two dimensions: 1) whether any ominous/tense music is played during the ad, or 2) there is direct appeal to fear in ads regardless of the music. The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case, an indicator taking value 1 if the member of the congress is republican and 0 otherwise, and the distance (in logs) to the correspondent ebola case. Ad-level controls are the weekly and accumulated airing time length and number of ads. To ease the interpretation of the uninteracted coefficients, distance variables in the interaction terms were demeaned. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.32: Ebola and Obama Newsletters, Timing and Distance To Cases

	Ebola and Obama Newsletters							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.039** (0.016)	0.067*** (0.022)					0.014 (0.015)	0.005 (0.020)
Post-Onset Dallas x Republican x Distance Dallas (logs)	0.010 (0.018)	0.019 (0.023)					0.001 (0.014)	0.022 (0.031)
Post-Onset Dallas x Distance Dallas (logs)	-0.018 (0.011)	-0.018 (0.014)					-0.019** (0.009)	-0.035 (0.023)
Post-Onset Cleveland x Republican			0.035** (0.015)	0.102*** (0.025)			0.039** (0.020)	0.106*** (0.027)
Post-Onset Cleveland x Republican x Distance Cleveland (logs)			-0.024 (0.024)	-0.051 (0.036)			-0.040* (0.022)	-0.043 (0.044)
Post-Onset Cleveland x Distance Cleveland (logs)			-0.017 (0.015)	-0.015 (0.020)			-0.002 (0.013)	-0.011 (0.027)
Post-Onset NYC x Republican					-0.057*** (0.017)	0.034* (0.020)	-0.070*** (0.019)	0.037* (0.022)
Post-Onset NYC x Republican x Distance NYC (logs)					0.041** (0.018)	-0.038 (0.024)	0.046*** (0.016)	-0.074* (0.043)
Post-Onset NYC x Distance NYC (logs)					0.006 (0.005)	0.009 (0.007)	0.000 (0.005)	0.017** (0.007)
Mean Dep.Var.	0.03	0.06	0.04	0.10	0.04	0.19	0.01	0.13
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constituency-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Newsletter-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.23	0.60	0.26	0.72	0.27	0.92	0.16	0.74
Observations	1468	1468	1468	1468	1468	1468	5505	5505
Number of Clusters (Constituency)	285	285	285	285	285	285	285	285

The unit of observation is member of congress - week. The sample focuses on 367 member of the congress (i.e., senators and house representatives) who sent at least one official e-newsletter. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the number of ebola & Obama - related newsletters (weekly flow and accumulated stock). The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case, an indicator taking value 1 if the member of the congress is republican and 0 otherwise, and the distance (in logs) to the correspondent ebola case. Newsletter controls are the weekly and accumulated content wordcounts. To ease the interpretation of the uninteracted coefficients, distance variables in the interaction terms were demeaned. Heteroskedasticity robust standard error estimates clustered at the constituency-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.33: Ebola and Obama Tweets, Timing and Distance To Cases

	Ebola-Obama Tweets							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	0.084*** (0.018)	0.106*** (0.021)					0.088*** (0.018)	0.113*** (0.025)
Post-Onset Dallas x Republican x Distance Dallas (logs)	-0.032 (0.024)	-0.026 (0.026)					-0.018 (0.018)	-0.069 (0.061)
Post-Onset Dallas x Distance Dallas (logs)	0.000 (0.004)	-0.001 (0.006)					0.003 (0.005)	0.024 (0.023)
Post-Onset Cleveland x Republican			0.022 (0.021)	0.202*** (0.035)			-0.006 (0.023)	0.164*** (0.029)
Post-Onset Cleveland x Republican x Distance Cleveland (logs)			-0.005 (0.024)	-0.067** (0.034)			-0.004 (0.013)	-0.064 (0.046)
Post-Onset Cleveland x Distance Cleveland (logs)			-0.006 (0.009)	0.002 (0.010)			0.000 (0.006)	0.006 (0.013)
Post-Onset NYC x Republican					-0.106*** (0.021)	0.085*** (0.017)	-0.062*** (0.021)	0.045*** (0.012)
Post-Onset NYC x Republican x Distance NYC (logs)					0.018 (0.020)	-0.023 (0.016)	-0.001 (0.011)	-0.037 (0.040)
Post-Onset NYC x Distance NYC (logs)					-0.002 (0.004)	-0.001 (0.004)	0.005 (0.005)	0.009 (0.009)
Mean Dep.Var.	0.03	0.05	0.04	0.09	0.04	0.18	0.01	0.06
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Tweet-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.07	0.41	0.13	0.50	0.16	0.93	0.10	0.58
Observations	3184	3184	3184	3184	3184	3184	11144	11144
Number of Clusters (Race)	460	460	460	460	460	460	460	460

Notes: The unit of observation is a candidate - week. The sample focuses on 796 democratic and republican candidates for congress with twitter activity. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the weekly flow and accumulated stock of ebola & Obama -related tweets posted by each candidate. The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case, an indicator taking value 1 if the member of the congress is republican and 0 otherwise, and the distance (in logs) to the correspondent ebola case. Tweet-level controls are the weekly and accumulated content wordcounts. To ease the interpretation of the uninteracted coefficients, distance variables in the interaction terms were demeaned. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.34: Fear Appealing Ads with Obama, Timing and Distance To Cases

	Fear-Obama Ads							
	Flow	Stock	Flow	Stock	Flow	Stock	Flow	Stock
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Post-Onset Dallas x Republican	23.364**	138.909***					50.305***	307.221***
	(11.410)	(25.887)					(11.131)	(54.149)
Post-Onset Dallas x Republican x Distance Dallas (logs)	-41.510**	-77.953*					-46.142**	-284.392*
	(20.621)	(43.209)					(21.547)	(147.857)
Post-Onset Dallas x Distance Dallas (logs)	0.843	37.045					0.407	151.946*
	(3.340)	(25.933)					(12.174)	(81.878)
Post-Onset Cleveland x Republican			32.010***	201.495***			29.185***	158.907***
			(10.940)	(38.843)			(10.741)	(30.116)
Post-Onset Cleveland x Republican x Distance Cleveland (logs)			6.145	32.602			11.039	-12.808
			(10.961)	(34.735)			(10.370)	(87.023)
Post-Onset Cleveland x Distance Cleveland (logs)			-0.260	-7.695			-0.306	14.084
			(2.554)	(13.419)			(5.337)	(39.322)
Post-Onset NYC x Republican					-24.178*	176.057***	-31.400**	136.307***
					(13.088)	(34.561)	(12.857)	(24.800)
Post-Onset NYC x Republican x Distance NYC (logs)					-12.509	48.955**	-7.421	71.543*
					(9.565)	(19.438)	(7.850)	(37.679)
Post-Onset NYC x Distance NYC (logs)					2.700	-8.110	-0.405	-22.735
					(3.038)	(8.437)	(2.685)	(16.765)
Mean Dep.Var.	32.70	193.21	48.27	281.12	43.61	324.73	24.36	170.19
Week FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Politician FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Race-Specific Linear Trends	No	No	No	No	No	No	Yes	Yes
Ad-level Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.52	0.86	0.66	0.88	0.60	0.90	0.46	0.80
Observations	2376	2376	2376	2376	2376	2376	8316	8316
Number of Clusters (Race)	227.00	227.00	227.00	227.00	227.00	227.00	227.00	227.00

Notes: The unit of observation is a candidate - week. The sample focuses on 575 democratic and republican candidates for congress that aired at least one campaign TV ads. The analysis restricts to: (1) 2 weeks before and 2 weeks after the ebola diagnosis of each case in columns 1 to 6, and (2) period between August 2014 and the midterm election in columns 7 and 8. The dependent variables are the number of fear-appealing ads mentioning Obama (weekly flow and accumulated stock). The coding of a fear-appealing ad is based on coding by Political Advertising in 2014 (Wesleyan Media Project) in two dimensions: 1) whether any ominous/tense music is played during the ad, or 2) there is direct appeal to fear in ads regardless of the music. The main independent variables account for the interaction between a dummy indicating the post-onset of each ebola case, an indicator taking value 1 if the member of the congress is republican and 0 otherwise, and the distance (in logs) to the correspondent ebola case. Ad-level controls are the weekly and accumulated airing time length and number of ads. To ease the interpretation of the uninteracted coefficients, distance variables in the interaction terms were demeaned. Heteroskedasticity robust standard error estimates clustered at the race-level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.

Table B.35: Attitudes in CCES and Proximity to Ebola Cases

	Anti-Immigration	Pro-Gun	Religious	Anti-gay Marriage	Conservative
	(1)	(2)	(3)	(4)	(5)
Onset Dallas Case x Distance (in logs) to Dallas	-0.035** (0.015)	-0.014 (0.021)	-0.013 (0.018)	-0.004 (0.005)	-0.013** (0.005)
Onset Cleveland Case x Distance (in logs) to Cleveland	-0.065*** (0.020)	-0.009 (0.022)	0.022 (0.019)	-0.004 (0.007)	-0.008 (0.006)
Onset NYC Case x Distance (in logs) to NYC	0.016 (0.028)	0.026 (0.025)	0.035 (0.023)	0.009 (0.009)	0.006 (0.008)
County FE	Yes	Yes	Yes	Yes	Yes
Day FE	Yes	Yes	Yes	Yes	Yes
Individual Controls	Yes	Yes	Yes	Yes	Yes
Sample Weights	Yes	Yes	Yes	Yes	Yes
Adjusted- R^2	0.17	0.15	0.14	0.14	0.12
Observations	2370	2370	2370	2370	2369

Notes: Sample includes all CCES's respondents for years 2013 and 2014. The variable Anti-Immigration (pro-gun)[religious] corresponds to the first principal component of responses to 5 (5)[3] questions regarding immigration (disagreement with gun-control measures)[importance of religion]. The variable Anti-gay Marriage takes value of 1 if respondent is against gay marriage. The variable conservative takes value of 1 if respondent is conservative or very conservative, 0 otherwise (all related questions are described in the appendix) The main independent variable accounts for the interaction between the distance (in logs) to an Ebola Case and a dummy indicating the onset of that case. Individual-levels control are age and a set of indicators variables for male, white, hispanic, college or higher education, married, and annual income above US median (i.e., usd 59,000). Heteroskedasticity robust standard error estimates (two-way) clustered at the county and day level are reported in parentheses; *** denotes statistical significance at the 1% level, ** at the 5% level, and * at the 10% level, all for two-sided hypothesis tests.