Media and Ideological Movements:
How Fox News Built the Tea Party[*]

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Abstract

Does media influence operate primarily on low-information swing voters, or can it also affect the party activists who shape ideological factions? We examine the role of Fox News in the rise of the Tea Party movement within the Republican party since 2009. We use differences in Fox News' cable channel positions across cable systems to isolate exogenous variation in exposure to the channel (Martin and Yurukoglu, 2017) Earlier in the 2009-10 election cycle, Fox News did not boost Tea Party rally sizes or encourage strategic entry by Tea Party candidates, consistent with content analysis demonstrating a lack of pro-Tea Party slant in Fox News until 2010. However, exposure to Fox News significantly increased campaign fundraising and vote shares in primary elections for Tea Party-backed Republican candidates relative to other Republican candidates. The Tea Party movement benefited from an advantage – rare among insurgent movements – in the backing of a powerful media outlet, which enabled it to rapidly move from the fringe to the center of the Republican party.

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What are the limits on the electoral power of mass media? Existing research on media influence in elections has tended to focus on party vote shares as the primary outcome,[1] implying that media have greatest potential for influence among voters who are close to indifferent between the parties, and limited influence among committed partisans. Consumers' tastes for like-minded news (Gentzkow and Shapiro, 2010) then produce a trade-off for a media outlet seeking to influence electoral politics: more extreme slant may have greater influence on those who choose to read, but reduce the outlet's reach among the moderate readers whose votes might be swayed.

This trade-off generates a constraint on electorally-minded media owners: moving too far towards the extremes can reduce the outlet's electoral impact (Martin and Yurukoglu, 2017; Grossman, Margalit and Mitts, n.d.). More generally, an outlet cannot be said to be powerful in this sense if the baseline propensity of its readers to vote for its favored party approaches 1.

In this paper we show that this conception of who is on the margin for media influence misses important within-party dynamics that have real implications for the electoral landscape, and understates the true power of partisan outlets. The set of readers for whom the electorally-relevant "treatment effect" of exposure to biased media is the greatest may not be those with the weakest ex-ante partisan attachments. Instead, such effects extend to those with well-established partisan preferences, and manifest in within-party factional conflict.

Outlets with highly partisan audiences can thus still be consequential for electoral politics, as their potential influence extends beyond convincing voters to switch from one party to another, to changing the party brands themselves. This intra-party form of influence is becoming more relevant in a media landscape that has recently seen increased entry by highly partisan outlets, and a political setting of mass polarization where the ranks of true swing voters are shrinking.

We investigate the consequences of exposure to slanted media on the development of intra-party ideological movements and factions. We focus on the case of the Tea Party, which transformed the US Republican party beginning in 2009. We show that while the Tea Party was a true grassroots movement, gaining early momentum from protests across the US in April 2009 (Madestam et al., 2013), its electoral success hinged on support from the Fox News Channel (FNC) during the Republican primaries. FNC did not initiate the Tea Party movement, but it did

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[1]E.g. DellaVigna and Kaplan (2007); Gentzkow, Shapiro and Sinkinson (2011); Chiang and Knight (2011); Enikolopov, Petrova and Zhuravskaya (2011); and Martin and Yurukoglu (2017).

throw its weight behind the faction at a critical time in its development. The backing of a pre-built media infrastructure with near-universal reach among party activists — a feature that very few other protest movements can claim — was a crucial mediator of the Tea Party protests' lasting impact. The movement's astonishingly rapid ascent from fringe protest group to wielder of the levers of power within one of the US' two major parties depended on this media support.

How Ideological Movements Can Capture Parties and Transform Elite Politics

The Tea Party movement, a right-wing faction of the Republican party, rose to national prominence in 2009 following conservative backlash against the election of Barack Obama and post-crisis "big government" programs (Blum, 2020; Gervais and Morris, 2018; Kabaservice, 2012; Parker and Barreto, 2013; Skocpol and Williamson, 2012). Tea Party-affiliated candidates' electoral success in the 2010 midterm elections accelerated the Republican party's rightward shift, as most of the 47 newly-elected Tea Party Republicans were more conservative than even the most right-leaning existing members of the House GOP (Skocpol and Williamson, 2012).

In addition to strengthening the position of ideological conservatives within the Republican party's rank and file, the Tea Party movement, now on the inside, waged a Republican "civil war" (Blum, 2020; Kabaservice, 2012). Tea Party legislators engaged in no-holds-barred tactics to advocate for conservative economic policies over the objection of party leaders, such as causing a government shutdown in an attempt to block funding for the Affordable Care Act (Rosenthal, 2013). Moreover, Tea Party Republicans in Congress ousted former Speaker John Boehner, denouncing him as a "Republican In Name Only" (Rosenthal and Trost, 2012). As it continued to amass power within the GOP, the Tea Party flank served as a precursor to the rise of Donald Trump (Blum, 2020; Gervais and Morris, 2018).

The Tea Party movement is a case in point for the potential of ideological movements to transform elite politics in the United States. Despite the entrenched two-party system in the U.S., ideological factions can achieve political representation by waging insurgencies for control established parties (Blum, 2020; Lee, 2020). These movements are not above undermining their own party leadership in the struggle for power, including launching primary challenges against moderate co-partisan incumbents and sabotaging the party establishment's legislative priorities in order to signal ideological purity (Izzo, 2020; Kabaservice, 2012; Skocpol and Williamson, 2012).

Ideological movements that successfully capture existing parties may exacerbate elite polarization, transform electoral competition, and initiate political realignment (Izzo, 2020; Groenendyk, Sances and Zhirkov, 2020; Skocpol and Williamson, 2012; Snyder and Ting, 2002); they may reject legislative compromises even when gridlock generates policy failures (McCarty, Poole and Rosenthal, 2013; Mian, Sufi and Trebbi, 2014); and they may undermine democratic norms in the service of ideological goals (Lee, 2020; Levitsky and Ziblatt, 2018).

How Media Outlets Can Support Ideological Movements

In contrast to the well-documented link between media bias and mass polarization in the United States, existing political economy research has rarely examined the impact of the media environment on intraparty ideological movements. In the context of the Tea Party movement, existing accounts have long speculated that Fox News, the nation's leading conservative news outlet, played an important role in elevating the movement in its infancy and solidifying its central status within the Republican party. For example, ethnographic studies reveal that nearly all Tea Party activists were regular Fox News viewers and vice versa (Skocpol and Williamson, 2012). Similarly, in a survey of mass attitudes towards the Tea Party movement, respondents who claimed to rely on Fox News as their primary source of information were 14 percent more likely to self-identify as movement sympathizers (Parker and Barreto, 2013).

These observations could, however, simply reflect ideological sorting among consumers of political news (Gentzkow and Shapiro, 2010). They are not necessarily evidence that Fox News independently increased support for the Tea Party. Our analysis will aim to establish the causal influence of exposure to Fox News coverage on Tea Party electoral fortunes.

Exposure to Fox News could bolster support for the Tea Party movement for several reasons. First, Fox News may have increased the visibility of the movement through its extensive coverage. For example, while other cable news outlets devoted little air time to the nascent Tea Party movement, Fox News began promoting Tea Party rallies scheduled on Tax Day, April 15th, of 2009 six weeks in advance, which may have ameliorated coordination problems for these rallies (Skocpol and Williamson, 2012). The channel also gave Tea Party candidates a friendly platform to establish name recognition among likely voters and campaign donors (Skocpol and Williamson, 2012). Furthermore, given partisan bias in its coverage of political issues (Schroeder and Stone, 2015),

Fox News may have helped to center public discourse leading up to the 2010 midterm elections around Tea Party candidates' campaign platforms such as opposition to the Affordable Care Act (Skocpol and Williamson, 2012; Rosenthal and Trost, 2012).

Second, Fox News touted Tea Party politicians and activists as "real Americans" who better represented true conservatives than the existing Republican leadership (Peck, 2019). By framing the Tea Party movement as an ideological challenge to the Republican establishment, Fox News may have galvanized its viewers, many of whom are said to be more right-wing than the party median (Skocpol and Williamson, 2012). In addition, by burnishing the Tea Party movement's populist credentials, Fox News may have helped the movement to tap into rising discontent with mainstream parties and party leaders in the United States (Lee, 2020).

Third, while Fox News praised the Tea Party movement for its independence from the Republican establishment, the channel's commentators also insisted that the movement needed to transform the GOP from within in order to leave a lasting legacy (Skocpol and Williamson, 2012). By rebranding the Tea Party movement as the new face of the Republican party, particularly after a large wave of Tea Party candidates entered Congress in 2011, Fox News may have convinced its viewers that one could not self-identify as a Republican without supporting the movement.

Paper Overview

To shed light on how media outlets can facilitate the rise of intraparty ideological movements, we conduct a series of empirical analyses on the effectiveness of Fox News in promoting the Tea Party movement. Section 1 describes our data collection efforts as well as our empirical strategy of leveraging differences in Fox News' cable channel positions across zip codes as a source of exogenous variation in exposure to the channel (Martin and Yurukoglu, 2017). Section 2 reports evidence for a substantial pro-Tea Party slant in Fox News coverage relative to CNN and MSNBC in 2010, but no notable differences in 2009. Section 3 shows that exposure to Fox News had no discernible impact on attendance of Tea Party rallies in 2009, nor did these rallies generate subsequent interest in the channel. In addition, Section 4 finds no evidence that Tea Party candidates were more likely to contest congressional districts with relatively higher Fox News accessibility in the 2010 midterm elections. These findings all suggest that the Tea Party movement was not initially closely tied to Fox News (except through both entities' connection to the Republican party).

The movement was not a creation of Fox News, but rather arose independently, beginning its life as a grassroots protest movement.

In contrast, Fox News' noticeable pro-Tea Party slant in 2010 may have contributed to the electoral success of Tea Party candidates in the 2010 midterm elections. Specifically, we find that Fox News increased both itemized campaign contributions to Tea Party-affiliated Republican candidates (Section 5) and primary-election vote shares for these candidates in the 2010 House of Representative races (Section 6). These effects are precisely estimated and substantively meaningful: a one-standard-deviation increase in exposure to Fox News as proxied by its cable channel position would raise Tea Party candidates' campaign fundraising by 14.3% and primary vote shares by 2.1 percentage points. We conclude in Section 7 by summarizing our existing findings and outlining areas of improvement for future versions of this paper.

1 Data Collection

We use a variety of data sources in our analyses. First, we draw on a few different data sets to construct variables related to media exposure or media programming. Through the Lexis-Nexis database, we obtained broadcast transcripts for the three major cable news outlets during our period of study–namely, CNN, FNC, and MSNBC–by downloading all transcripts for each identifiable cable news program for each of these channels in 2009 and 2010. Also, following Martin and Yurukoglu (2017), we rely on the Nielsen FOCUS database to measure channel lineups by zip code-year. For each cable system and year, the database records the availability and channel positions of CNN, FNC, and MSNBC as well as the zip codes served by said system. Importantly, Martin and Yurukoglu (2017) establish that the cable channel positions of Fox News, which are not correlated with demographics that predict consumption of Fox News or Republican voting, exogenously shift viewership of the channel (in particular, higher channel positions reduce viewership). We therefore use differences in the cable channel positions of Fox News as our main identification strategy in estimating the causal effect of exposure to Fox News on different forms of support for the Tea Party movement. In addition, to acquire data on viewership by channel, we rely on Nielsen Local TV (NLTV) database for daily ratings for CNN, FNC, and MSNBC by county, which are constructed based on Nielsen's survey of a rotating panel of households.

To identify Republican candidates with affiliation to the Tea Party movement, we follow Skocpol and Williamson (2012) and focus on House Republican candidates in 2010. Among these candidates, we identify 173 of them as Tea Party candidates based on their membership in the House Tea Party Caucus (48), or endorsements from Tea Party-affiliated activist organizations such as FreedomWorks, Tea Party Express, Tea Party Nation, and the Independence Caucus during the 2010 midterm elections (138).[2]

We thank Madestam et al. (2013) for generously sharing their replication dataset, which we use to analyze the impact of Fox News on rally attendance. Madestam et al. (2013) collected county-level attendance estimates for Tea Party rallies on Tax Day of 2009. In addition, Madestam et al. (2013) show that rainfall on Tax Day was a strong predictor of smaller turnout at Tea Party rallies, which Madestam et al. (2013) use as an instrument for rally size to the study the effect of these rallies on subsequent electoral support for the Republican party. Based on Madestam et al. (2013)'s findings, we include data on whether it rained in a given county on Tax Day in 2009 as well as the prior probabilities of rain by county as control variables in our analysis of Tea Party rallies. In this analysis, we also incorporate other control variables used in Madestam et al. (2013), specifically county population deciles, region fixed effects, county demographics, and voting outcomes from the 2006 House of Representatives elections and the 2008 presidential elections by county.

We collect campaign contribution records from the Database on Ideology, Money in Politics, and Elections (DIME) (Bonica, 2019). Importantly, DIME reports not only all itemized contributions (including the self-disclosed addresses of contributors), but also time-invariant identifiers of unique contributors. DIME thus allows us to calculate both the total dollar amount of itemized contributions and the number of unique itemized contributors, by zip code, to Tea Party-affiliated Republican candidates versus Republican candidates without such affiliations in the 2010 election cycle.

We gather precinct-level voting data for House Republican primary elections in 2010 that featured Tea Party candidates, which is feasible for 35 states excluding Alabama, Arkansas, Colorado, Connecticut, Delaware, Iowa, Maine, Minnesota, Nevada, North Dakota, Oklahoma, Rhode Is-

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[2]Endorsement data originate from the New York Times (https://archive.nytimes.com/www.nytimes.com/interactive/2010/10/15/us/politics/tea-party-graphic.html; accessed September 11, 2018).

land, South Dakota, Utah, and Wyoming. As a result, we are able to retain 74 Tea Party candidates in our analysis of primary elections. In addition, in order to link precincts to the nearest zip codes (since Nielsen data are recorded by zip codes), we use shape files provided by the Harvard Election Data Archive (Ansolabehere, Palmer and Lee, 2014) to aggregate precinct-level vote shares up to the zip code level.

Finally, unless noted otherwise, we collect demographic data at the zip code, county, and congressional district level from the 2010 U.S. Census. These include the gender, age, and racial compositions of residents, household income by deciles, residents' educational attainment levels, and urbanicity status.

2   Content Analysis of Major Cable News Outlets

To provide some context on Fox News' coverage of the Tea Party movement, we conduct two sets of analyses of broadcast transcripts from FNC, MSNBC, and CNN during the 2009-10 election cycle. First, we test whether Fox News, relative to MSNBC and CNN, employed language that was more similar to congressional speeches made by Tea Party-affiliated legislators during the 111th Congress (40 Republican legislators in the House were members of the Tea Party Caucus by 2010).

Specifically, for each year (2009 and 2010) we estimate an elastic net regularized regression (Zou and Hastie, 2005) of members of Congress' affiliation (or lack thereof) to the Tea Party movement on their frequency of using certain phrases in their congressional speeches. The input phrases are selected according to the chi-square criterion in Gentzkow and Shapiro (2010), which locates phrases with large cross-group differences, adjusted for their overall frequency of use. We use this criterion to select the 1000 two-word phrases (bigrams) in each year with the highest value of the chi-square statistic for Tea Party versus non-Tea Party incumbents, and that meet certain minimum and maximum frequency criteria.[3] We then use the coefficient estimates from these regressions allow us to project a "Tea Party language score" for each cable news outlets

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[3]Specifically, we require that a bigram appear in at least 0.1% of all cable news transcripts, on at least two different channels, and in at most 25% of all transcripts.

based on the frequency of phrases used in congressional speeches that appear in each outlet's broadcast transcripts.
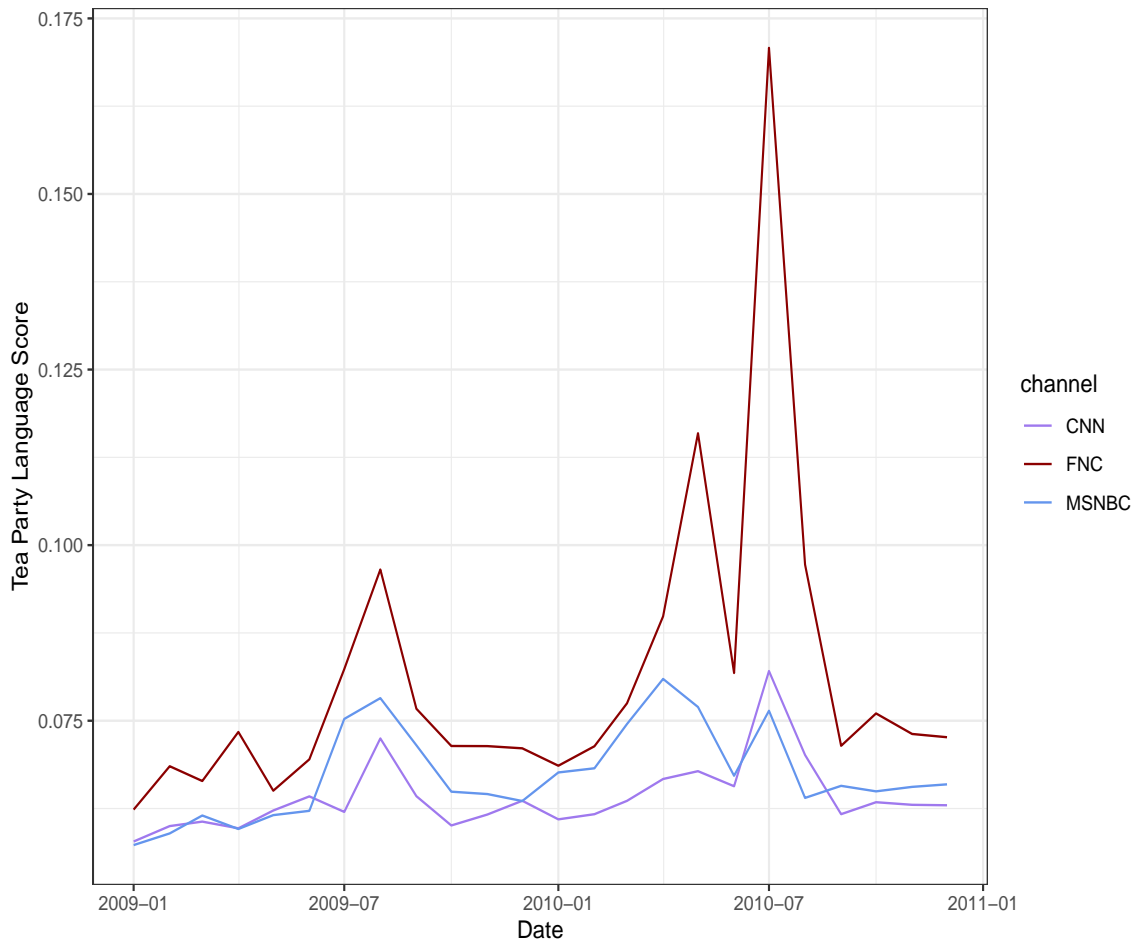

Figure 1: Tea Party Language Scores Across Channels, 2009-2010

Figure 1 displays trends in Tea Party language score estimated for CNN, FNC, and MSNBC month-by-month during the 2009-10 election cycle. These trends moved relatively in tandem during 2009, except a modest bump for FNC during the third quarter of 2009. The relative lack of contrast between Fox News and other cable news outlets in similarity in language to that employed by Tea Party-affiliated congressmen in the first half of 2009 somewhat contradicts the narrative that Fox News began to promote the Tea Party movement during its early stages, particularly around Tax Day when Tea Party rallies took place across the country (Skocpol and Williamson, 2012; Peck, 2019).

However, as shown in Figure 1, starting in 2010 FNC's broadcast transcripts appeared to exhibit much stronger tendencies to invoke language reminiscent of Tea Party-affiliated legislators. The contrast between FNC and the other two cable news channels during 2010 was particularly pronounced during the primary season. This observation dovetails with our latter findings with regard to FNC's mobilization of campaign contributions and primary voting in favor of Tea Party-backed Republican candidates relative to Republican candidates without ties to the movement.

Second, we test whether FNC, relative to MSNBC and CNN, featured Tea Party candidates more prominently during the 2009-10 election cycle. To do so, we first identify unique speakers that appeared on each of the three cable news channels from the broadcast transcripts; we also calculate counts of words spoken by each unique speaker by channel-day. Then, we detect instances where these speakers were Tea Party-affiliated Republican candidates, using name matching. We use this data to calculate the fraction of words spoken on air by Tea Party candidates for each channel and month.

Figure 2 displays month-to-month variation in the fraction of words spoken on air by Tea Party candidates for CNN, FNC, and MSNBC during the 2009-10 election cycle. The time allocated to Tea Party candidates on FNC and MSNBC is quite similar throughout 2009, and higher on both channels than on CNN.

Beginning in 2010, however, FNC's time allocation to Tea Party candidates grows relative to MSNBC, reaching a peak in the summer. The ratio of time on FNC to MSNBC is roughly $2:1$ during these months.

Interestingly, Tea Party candidates' time on MSNBC briefly spikes in November 2010, rising above FNC for that month. This timing difference is suggestive that FNC gave prominent airtime to Tea Party candidates during the Republican primary months, then backed off during the general election (when there may have been concern about hard-edged conservatives costing support among the general electorate). MSNBC may have ramped up the time it allocated to Tea Party candidates during the general election period for precisely the same reason.
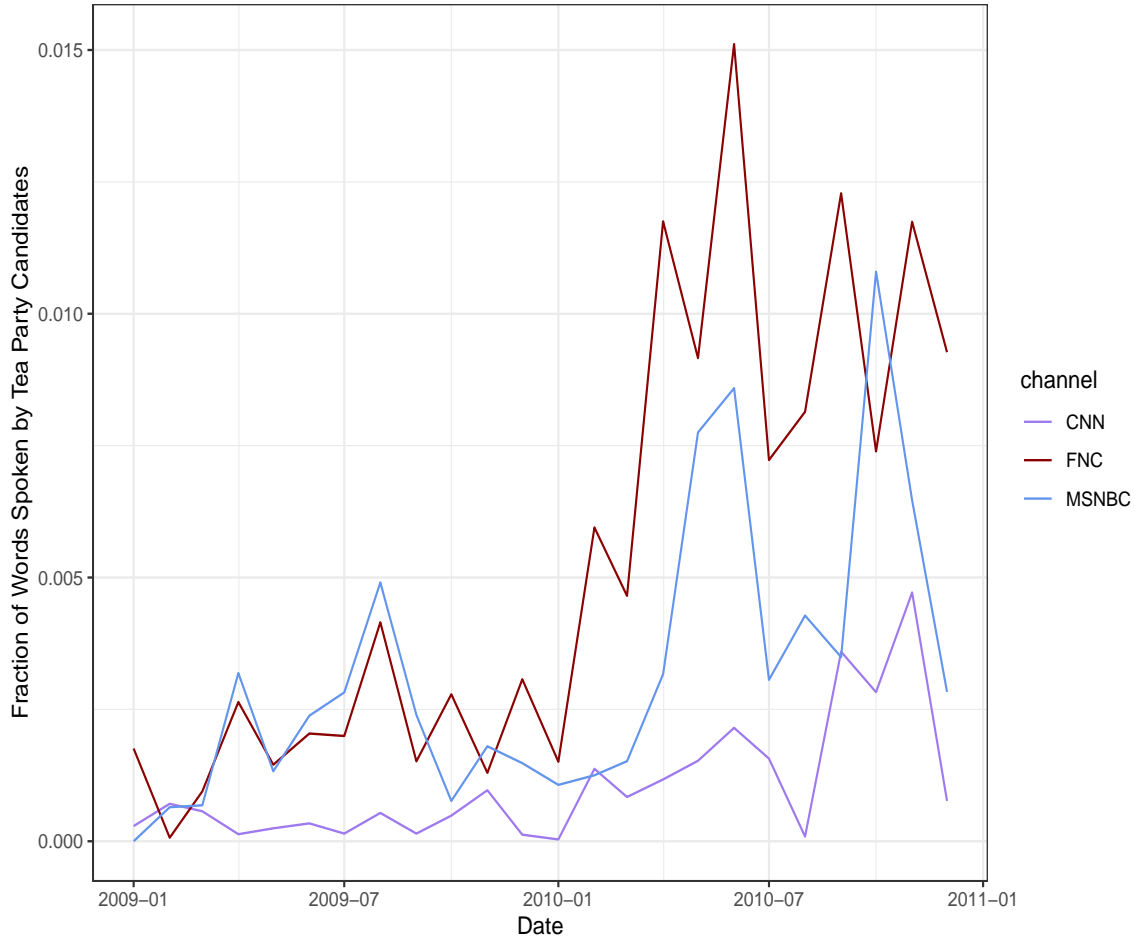
Figure 2: Fraction of Words Spoken by Tea Party Candidates Across Channels, 2009-2010

3 Tea Party Rallies

In this section, we examine the relationship of FNC viewing to attendance of Tea Party rallies in April 2009. We test for possible effects in both causal directions, as it is conceivable that (exogenous variation in) Fox News both increased attendance at Tea Party rallies, and (exogenous variation in) exposure to Tea Party rallies stimulated subsequent interest in news with a conservative slant. We find little evidence of effects in either direction, suggesting that in April of 2009, the Tea Party movement was only connected to Fox News through their mutual association with the Republican party, and had not yet taken a position on the Tea Party's factional claim to power within the party.

3.1 Did Exposure to Fox News Lead to Greater Attendance of Tea Party Rallies?

Existing accounts of the Tea Party movement suggest that Fox News reported on Tea Party rallies planned for Tax Day of 2009 weeks in advance, which may have helped these rallies overcome coordination problems and increase attendance (Skocpol and Williamson, 2012). Consistent with this conjecture, Figure 3 shows that there is a positive association between the average primetime rating of Fox News (aggregated to the county level) during the six months prior to Tax Day of 2009 and Tea Party attendance as a percentage of county population. The size of points indicates the number of Nielsen households in the county average.
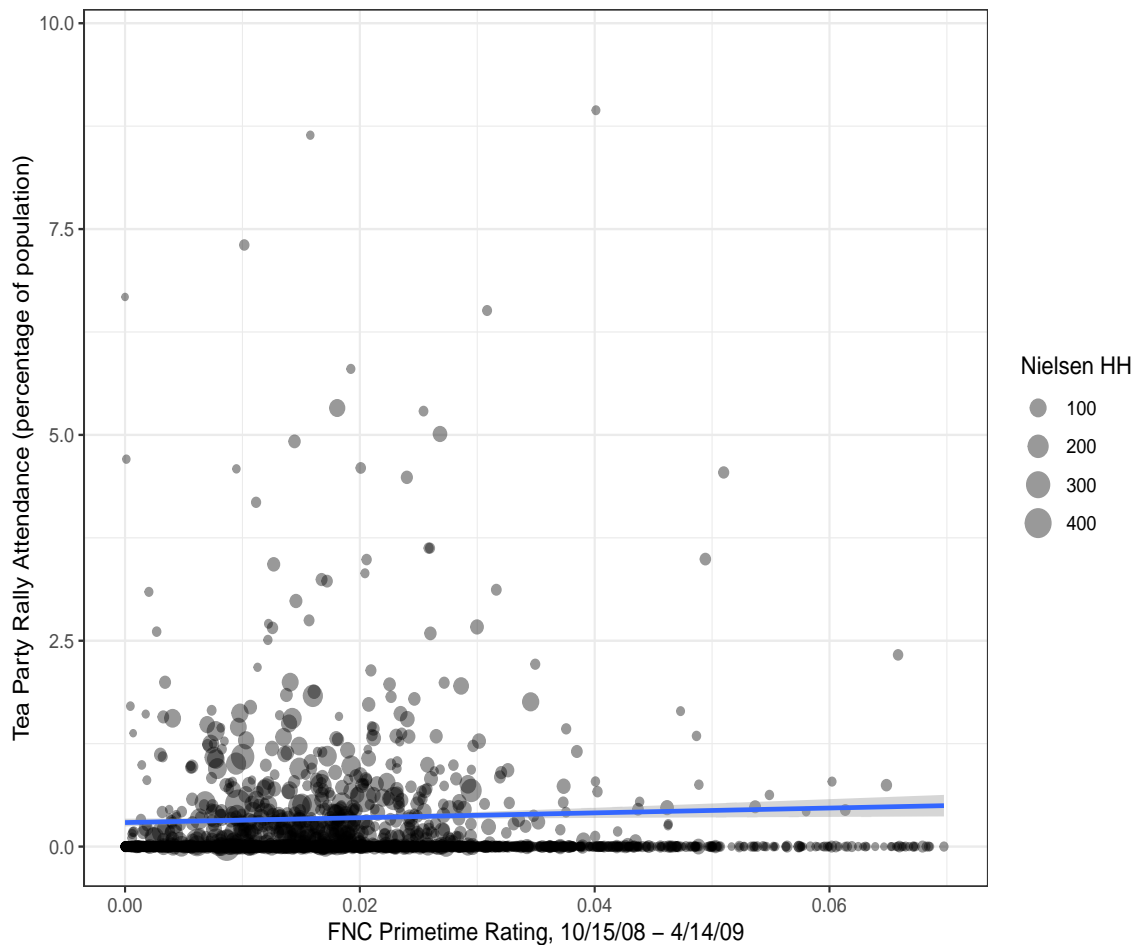

Figure 3: Positive Association between Tea Party Rally Sizes and Pre-Rallies Average Primetime Rating of Fox News.

Nevertheless, the correlation between Fox News viewership and Tea Party rally sizes may be confounded with differential predisposition to supporting the Tea Party movement across counties. To formally test whether exogenous exposure to Fox News lead to greater attendance of Tea Party rallies on Tax Day of 2009, we estimate regressions of the following form:

$$Rally\_Size_c = \alpha FNC\_Pos_c + \beta MSNBC\_Pos_c + \rho Rain\_Rally_c + \mathbf{X}_c \Gamma + \epsilon_c \tag{1}$$

The outcome variable $Rally\_Size_c$ corresponds to the size of the largest Tea Party rally held in county c in 2009 as a percentage of county population. This variable comes from Madestam et al. (2013).

The treatment variable FNC_Pos_c is the average cable channel position of Fox News in county c in 2009 weighted by the number of Fox News subscribers in each zip code that overlaps with said county. Such aggregation is necessary since Tea Party rallies were recorded at at the county level (Madestam et al., 2013). 202 counties are dropped here due to insufficient data for aggregating Fox News channel positions to the county level. Since residents in zip codes where Fox News' cable channel positions were higher watched the channel less often (Martin and Yurukoglu, 2017), we expect the coefficient α to be negative insofar as Fox News increased viewers' propensities to attend Tea Party Rallies on Tax Day in 2009 (Skocpol and Williamson, 2012).

We analogously compute $MSNBC\_Pos_c$ as the subscriber-weighted average cable channel position of MSNBC by county in 2009. We include this variable to control for countervailing media bias from a left-leaning channel. Moreover, since rainfall noticeably reduced turnout for Tea Party rallies (Madestam et al., 2013), we account for $Rain\_Rally_c$ which denotes whether it rained on Tax Day in a given county in 2009.

Last but not least, $\mathbf{X}_c$ captures a range of control variables that mirror those found in Madestam et al. (2013). In the baseline specification, these include counties' population deciles, region fixed effects, deciles of counties' prior probabilities of raining on Tax Day, and county-level cable system characteristics. We also incorporate demographic composition of each county from the 2010 Census. In the most rigorous specification we have, we add county-level electoral outcomes in the 2006 House of Representatives elections and the 2008 presidential elections.

Table 1: No Significant Effect of Exposure to Fox News On Tea Party Rally Size

	Tea Party Rally Attendance (percent of pop., max)		
	(1)	(2)	(3)
FNC Channel Position	-0.0007	-0.0007	-0.0007
	(0.0008)	(0.0007)	(0.0008)
Rain on 4/15	-0.052	-0.059*	-0.063*
	(0.023)	(0.019)	(0.021)
Cable System Controls	✓	✓	✓
County Demographics		✓	✓
2008 and 2006 Voting			✓
Rain Prob. Decile FEs	✓	✓	✓
Population Decile FEs	✓	✓	✓
Region FEs	✓	✓	✓
Observations	2,543	2,543	2,543
R^2	0.05	0.06	0.06

Table 1 reports estimation results based on Specification 1 using different sets of control variables; standard errors are clustered by region throughout this table. Consistent with our hypothesis, the higher the weighted average channel position of FNC in a given county, the lower the predicted size of largest Tea Party rally in that county on Tax Day of 2009. However, none of the estimates in Table 1 attains convectional levels of statistical significance regardless of whether we weight observations by the number of cable subscribers in a given county.

In sum, we find no evidence that counties with on average greater exposure to FNC saw higher turnout rates at local Tea Party rallies in 2009, which contradicts existing accounts of FNC' role in mobilizing grassroots support for these rallies (Skocpol and Williamson, 2012). However, our aggregation of cable-system level cable channel positions of FNC to county level washes out much of the available variation. Because we cannot detect the source of rally attendees from zip codes within a county, it is possible that this aggregation masks a larger effect than we can measure in the county-averaged data.

3.2 Did Greater Attendance of Tea Party Rallies Boost Fox News Ratings?

An alternative conjecture is that counties that saw greater turnout for Tea Party rallies on Tax Day in 2009 subsequently watched Fox News more. To test this conjecture, we first estimate the following OLS regression:

$$Post\_Rally\_FNC\_Ratings_c = \alpha Rally\_Size_c + \mathbf{X}_c\Gamma + \epsilon_c \tag{2}$$

The dependent variable $Post\_Rally\_FNC\_Ratings_c$ measures the average Fox News primetime rating in a given county c between 0 and 26 weeks after Tax Day of 2009. The dependent variable is the size of the largest Tea Party rally held in county c in 2009 as a percentage of county population. We also include different combinations of control variables $\mathbf{X}_c$ that include counties' population deciles, region fixed effects, deciles of counties' prior probabilities of raining on Tax Day, county demographic characteristics from the 2010 Census, and county-level electoral outcomes in the 2006 House of Representatives elections and the 2008 presidential elections.

Insofar as Tea Party rallies generated greater interest in Fox News, we may expect the coefficient of interest α to be positive. However, residents in counties that saw relatively larger Tea Party rallies may also have a higher baseline level of preference for Fox News. To estimate the causal effect of Tea Party rallies on subsequent viewership of Fox News, we adopt Madestam et al. (2013)'s approach to instrument rally sizes with rainfall on Tax Day in a given county.

Table 2: Positive Relationship between Tea Party Rallies and Subsequent Fox News Ratings (OLS)

	Fox News Rating		
	(1)	(2)	(3)
Tea Party Rally Attendance (percent of pop., max)	0.001**	0.001***	0.0007*
	(0.0003)	(0.0002)	(0.0003)
County Demographics		✓	✓
2008 and 2006 Voting			✓
Rain Prob. Decile FEs	✓	✓	✓
Population Decile FEs	✓	✓	✓
Region FEs	✓	✓	✓
Observations	42,918	42,918	42,918
R^2	0.06	0.09	0.11

Table 3: No Significant Effect of Tea Party Rallies on Subsequent Fox News Ratings (2SLS)

	Fox News Rating		
	(1)	(2)	(3)
Tea Party Rally Attendance (percent of pop., max)	-0.008*	-0.003	-0.003
	(0.003)	(0.004)	(0.007)
County Demographics		✓	✓
2008 and 2006 Voting			✓
Rain Prob. Decile FEs	✓	✓	✓
Population Decile FEs	✓	✓	✓
Region FEs	✓	✓	✓
Observations	42,918	42,918	42,918
R^2	-0.04	0.07	0.09

Table 2 reports OLS estimation results based on Specification 2, and Table 3 reports 2SLS estimation results where we instrument rally sizes with rainfall on Tax Day. In both tables, standard errors are clustered by region. Also, in both tables we weight observations based on the number of Nielsen households to account for measurement error in Nielsen's rating estimates. Table 2 finds that counties where Tea Party rally sizes were relatively larger subsequently had higher average primetime ratings for Fox News even after controlling a host of different county-level characteristics. However, such positive association could be confounded by counties' latent propensity to support the Tea Party movement that our control variables cannot fully account for. Indeed, our 2SLS estimation results reported in Table 3 shows that exogenous variation in Tea Party rally attendance due to rainfall on Tax Day does not predict higher subsequent Fox News ratings. Throughout this table, the coefficient estimates are negative rather than positive, though statistically indistinguishable from zero except in the first column. In other words, while Tea Party rally sizes may be strongly correlated with post-rallies Fox News viewership in counties, there is no evidence suggesting that this link is causal.

4   Strategic Entry of Tea Party Candidates

As the Tea Party movement attracted greater national attention following the Tax Day rallies, a large wave of Tea Party-backed Republican candidates entered the 2010 midterm elections in

order to clinch nominations by the Republican party and ultimately seats in Congress (Skocpol and Williamson, 2012). Did Fox News influence prospective Tea Party candidates' choices to enter congressional races in specific congressional districts?

There is some empirical research to support such a conjecture. For example, Arceneaux et al. (2020) show that between 1997 and 2009, Republican candidates were more likely to challenge Democratic incumbents in congressional districts where Fox News was more widely available, possibly due to potential Republican challengers perceiving the incumbents in such districts as more electorally vulnerable (although they find no evidence of strategic entry in primary elections). In this paper, we adopt a similar empirical design to that of Arceneaux et al. (2020) and estimate regressions of the following form:

$$Tea\_Party\_Entry_d = \alpha FNC\_Accessibility_d + \mathbf{X}_d \Gamma + \epsilon_d \tag{3}$$

The outcome variable $Tea\_Party\_Entry_d$ is an indicator of whether any Tea Party-affiliated Republican candidate ran in the 2010 House election in congressional district d. The explanatory variable of interest, $FNC\_Accessibility_d$, represents one of two measures of the accessibility of Fox News via cable TV in congressional district d in 2010. One such measure is the density of Fox News across a congressional district, which equals the share of zip codes overlapping with a congressional district (weighted by population size) that had access to Fox News via cable TV (Arceneaux et al., 2020). However, the expansion of Fox News across the United States was nearly complete by 2010 (Martin and Yurukoglu, 2017), so there is relatively little variation in district-level Fox News density for our analysis. As a result, we also employ an alternative measure of Fox News' accessibility, which is the additive inverse (i.e., multiplying by -1) of average cable channel position of Fox News in zip codes that overlap with a congressional district (weighted by zip code population size). Insofar as Tea Party candidates were more likely to enter the 2010 House of Representatives elections in congressional districts with greater exposure of Fox News, we should expect the estimated coefficient of $\alpha > 0$.

We include $\mathbf{X}_d$ which consists of different sets of congressional district-level control variables. In the baseline specification, these represent congressional district-level weighted average cable

system characteristics. We also include demographic data by congressional district from the 2010 Census. In the most rigorous specification we add a fixed effect for each state.

Table 4 reports estimation results using Fox News' density by congressional district in 2010 as the independent variable of interest, and Table 5 displays analogous estimation results using the additive inverse of the weighted average cable channel position of Fox News in each congressional district in 2010 as the alternative measure of Fox News accessibility. We cluster standard errors at the state level throughout both tables. Even though the estimated coefficient of interest always positive, as expected, it is never statistically distinguishable from zero. In short, we find no evidence that Tea Party candidates strategically entered the 2010 midterm elections in congressional districts that had systematically higher degrees of accessibility to Fox News. Our conclusion echos similar null effects of Fox News accessibility on candidate entry in primary elections as reported in Arceneaux et al. (2020).

Table 4: No Evidence of Strategic Entry of Tea Party Candidates Based on Congressional District-Level Fox News Density

| | Tea Party Entry | | |
	(1)	(2)	(3)
FNC Channel Density	0.049	0.221	0.657
	(0.303)	(0.396)	(0.980)
Cable system controls	✓	✓	✓
Demographic controls		✓	✓
State FEs			✓
Observations	436	435	435
R^2	0.002	0.06	0.17

5   Campaign Contributions

To test whether exposure to Fox News increased willingness to contribute to the campaigns of Tea Party-affiliated Republican candidates in the 2010 House of Representatives elections, we estimate regressions of the following form:

Table 5: No Evidence of Strategic Entry of Tea Party Candidates Based on Congressional District-Level Weighted Average Fox News Channel Position

| | Tea Party Entry | | |
	(1)	(2)	(3)
Weighted Ave. FNC Channel Pos.	0.003	0.002	0.002
	(0.003)	(0.003)	(0.003)
Cable system controls	✓	✓	✓
Demographic controls		✓	✓
State FEs			✓
Observations	436	435	435
R^2	0.004	0.06	0.17

$$Contrib\_Tea\_Party_z = \alpha FNC\_Pos_z + \beta MSNBC\_Pos_z + \rho Contrib\_R\_Non\_Tea\_Party_z + \mathbf{X}_z \Gamma + \epsilon_z$$

$$(4)$$

The outcome variable $Contrib\_Tea\_Party_z$ represents either the total amount of itemized campaign contributions given from donors residing in zip code z to Tea Party candidates in the $2009-2010$ federal election cycle, or the number of unique itemized contributors from zip code z who gave to Tea Party candidates during the $2009-2010$ cycle.

The treatment variable FNC_Pos_z is the cable channel position of Fox News in zip code z in 2009. We expect the coefficient α to be negative insofar as Fox News increased viewers' willingness to donate to Tea Party candidates' campaigns. We also include $MSNBC\_Pos_z$, the cable channel position of MSNBC in zip code z in 2009.

Since we are specifically interested in how exposure to Fox News affected campaign giving to Tea Party candidates, rather than Republican candidates more broadly, we control for itemized contributions given from residents in zip code z to House Republican candidates who were not affiliated with the Tea Party movement during the 2010 midterm elections, denoted by $Contrib\_R\_Non\_Tea\_Party_z$. In other words, $Contrib\_R\_Non\_Tea\_Party_z$ captures the general propensity of residents in a given zip code to donate to Republican candidates' campaigns. Similar to the dependent variable, this variable represents either the total amount of such itemized contributions or the number of qualifying itemized contributors. Other zip code-level control

variables are represented by $\mathbf{X}_z$. Depending on the specification, $\mathbf{X}_z$ could include cable system characteristics, demographic composition, and state fixed effects.

Table 6: Exposure to Fox News Increased Zip-Code Level Total Itemized Contributions to Tea Party Candidates

	Donations to Tea Party Candidates (\$)		
	(1)	(2)	(3)
FNC Channel Pos.	-39.9***	-35.9***	-37.9***
	(14.3)	(13.3)	(13.1)
MSNBC Channel Pos.	15.9	20.7	8.08
	(12.6)	(13.6)	(16.6)
Donations to non-Tea Party R Candidates (\$)	0.122***	0.094**	0.089**
	(0.043)	(0.036)	(0.035)
Cable system controls	✓	✓	✓
Demographic controls		✓	✓
State FEs			✓
Observations	17,364	17,318	17,318
R^2	0.07	0.10	0.12

Table 6 reports estimation results using the total dollar amount of itemized contributions to Tea Party candidates by zip code as the outcome variable, and Table 7 displays analogous estimation results using the total number of itemized contributors to Tea Party candidates by zip code as an alternative outcome variable. We cluster standard errors at the state level throughout both tables. Here we present estimates from linear models so that the regression outputs are easily interpretable. All estimates are qualitatively identical and comparable in magnitudes with negative binomial models that account for over-dispersion in the outcome variables.

In both tables, and across all specifications, we consistently find that the higher the cable channel position of Fox News in a given zip code, the lower the itemized contributions from residents in said zip code to Tea Party candidates during the $2009-10$ election cycle. These findings suggest that exposure to Fox News increased willingness to contribute to Tea Party candidates' campaigns. Importantly, because we control for campaign contributions to House Republican candidates who did not align themselves with the Tea Party movement, our findings are not due to a general boon in fundraising across all Republican candidates that arise from viewership of Fox News. Instead, Tea Party candidates benefited disproportionately during the 2010 midterm elections.

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Table 7: Exposure to Fox News Increased Zip-Code Level Number of Itemized Contributors to Tea Party Candidates

	No. donors to Tea Party Candidates		
	(1)	(2)	(3)
FNC Channel Pos.	-0.037***	-0.033**	-0.032**
	(0.014)	(0.014)	(0.013)
MSNBC Channel Pos.	0.019	0.025	0.018
	(0.017)	(0.016)	(0.015)
No. donors to non-Tea Party R Candidates	0.291***	0.227***	0.213***
	(0.032)	(0.030)	(0.029)
Cable system controls	✓	✓	✓
Demographic controls		✓	✓
State FEs			✓
Observations	17,364	17,318	17,318
R^2	0.25	0.29	0.35

Fox News' effectiveness in raising campaign funds for Tea Party candidates is quite sizable. To see this, we first note that the residualized standard deviation in Fox News' cable channel position by zip code is 13.9. Given an increase in Fox News' cable channel position of this magnitude, we predict itemized contributions to Tea Party candidates to decline by \$527 based on our most rigorous model (i.e., column 3 of Table 6), or a 14.3% reduction in campaign funds to Tea Party candidates relative to the average amount of such contributions by zip code, which was \$3,690.

6 Primary Voting

To test whether exposure to Fox News lead to more support for Tea Party-affiliated Republican candidates vis-a-vis Republican candidates without such affiliations in the 2010 House of Representatives elections, we focus on Republican primary contests that included Tea Party candidates and estimate regressions of the following form:

$$Tea\_Party\_Vote\_Share_z = \alpha FNC\_Pos_z + \beta MSNBC\_Pos_z + \eta_d + \mathbf{X}_z\Gamma + \epsilon_z \qquad (5)$$

The outcome variable $Tea\_Party\_Vote\_Share_z$ is the vote share that Tea Party-affiliated Republican candidate(s) obtained in zip code z in the 2010 primary election for the House of Repre-

sentatives. While we collect primary vote shares at the precinct level, we aggregate them up to the zip code level based on precinct-zip code geographic overlaps so as to match our zip code-level measure of exposure to cable news channels.

As before, FNC_Pos_z and $MSNBC\_Pos_z$ denote the cable channel positions of Fox News and MSNBC, respectively, in each zip code z. Once again, since higher channel positions reduce viewership, we expect α to be negative insofar as exposure to Fox News enhanced Tea Party candidates' electoral performance in House Republican primaries in 2010.

In addition, we control for η_d, which is a fixed effect for each congressional district d. This variable ensures that α is identified from within-district variation in Fox News' channel positions, holding constant the pool of candidates in each primary election. In other words, with η_d, our estimated treatment effect $\hat{\alpha}$ should not be affected by endogenous entry of Tea Party candidates across congressional districts. $\mathbf{X}_z$ captures remaining zip code-level control variables, including cable system characteristics and demographic composition.

Table 8 reports estimation results; we cluster standard errors by congressional district throughout this table. Across specifications, we consistently find that Tea Party candidates received lower vote shares in the 2010 House primary elections in zip codes where Fox News had higher cable channel positions. Put differently, voters with greater exposure to Fox News supported Tea Party-affiliated Republican candidates at higher rates in these primary contests. Importantly, because we control for congressional district fixed effects, our findings are driven by exogenous variation in exposure to Fox News due to differing channel positions across zip codes within each district rather than differences in candidate pools across districts.

Fox News' effect on the primary vote shares of Tea Party candidates is not only precisely estimated, but also substantively meaningful. To see this, we first note that the residualized standard deviation in Fox News' cable channel position by zip code is 15.8. Given an increase in Fox News' cable channel position of this magnitude, we predict Tea Party candidates' primary vote shares to decline by 0.0212 based on our most rigorous model (i.e., column 3 of Table 8). A loss of primary vote shares of this magnitude could have stalled the nominations of a number of Tea Party-backed candidates such as Jeff Duncan (SC-3) and Blake Farenthold (TX-27).[4] Moreover, a

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[4]For Duncan's primary runoff results, see `https://www.ourcampaigns.com/RaceDetail.html?RaceID=657940` (accessed March 31, 2021); for Farenthold, see `https://www.ourcampaigns.com/RaceDetail.html?RaceID=631862` (accessed March 31, 2021)

Table 8: Exposure to Fox News Increased Precinct-Level Primary Vote Shares for Tea Party Candidates

| | Tea Party Cand. Vote Share | | |
	(1)	(2)	(3)
FNC Channel Pos.	-0.001*	-0.002*	-0.002*
	(0.0009)	(0.001)	(0.0010)
MSNBC Channel Pos.		0.0004	0.0003
		(0.0006)	(0.0005)
Cable system controls		✓	✓
Demographic controls			✓
District FEs	✓	✓	✓
Observations	3,071	3,071	3,063
R^2	0.75	0.76	0.77

change in primary vote share by 0.0212 represents a 14.5% standardized effect given that the residualized standard deviation in Tea Party candidates in the 2010 House primary elections was 0.146.

7 Discussion

While there is extensive research on the link between media bias and mass polarization in the United States, we know much less about the effect of media slant on ideological movements that can capture established parties and generate both inter- and intra- party polarization. In this paper, we focus on Fox News, one of the most influential conservative news outlet in the United States, and examine its role in the rise of the Tea Party movement, a right-wing faction of the Republican party that has come to dominate the GOP in the past decade (Blum, 2020; Gervais and Morris, 2018; Kabaservice, 2012; Parker and Barreto, 2013; Skocpol and Williamson, 2012). Our content analysis suggests that although Fox News did not appear to actively promote the Tea Party movement in its early days, such as during the 2009 Tax Day rallies, the channel exhibited a noticeable pro-Tea Party slant relative to other cable news outlets in 2010, particularly during the primary election season. Consistent with this timeline, our empirical analyses find no evidence that Fox News helped to mobilize Tea Party rallies in 2009 (or that these rallies boosted subsequent viewership of the channel), nor that it shaped Tea Party-backed Republican candi-

dates' decisions to enter the 2010 midterm elections in specific congressional districts. However, exposure to Fox News noticeably boosted both campaign fundraising and primary vote shares for Tea Party candidates relative to Republican candidates without such affiliations in the 2010 midterm elections. In particular, a one-standard-deviation increase in the cable channel position of Fox News in a zip code, which reduces viewership of the channel, would cause Tea Party candidates to lose 14.3% of campaign fundraising and 0.0212 share of votes cast in Republican primaries from said zip code, which are sizable losses given baseline values. Taken together, our findings suggest that news outlets with an ideological slant can play an important role in promoting factional divides within parties, which also dovetail with recent reports on the alleged role of conservative media outlets such as One America Network and NewsMax in fueling the 2021 storming of the United States Capitol (Keveney and Puente, 2021).

We hope to conduct additional analyses to disentangle potential mechanisms through which Fox News advanced the Tea Party movement. In particular, it remains an open question whether the effectiveness of Fox News in generating support for the Tea Party movement resulted from the channel's ability to 1) increase awareness of the movement among viewers who are already predisposed to supporting it; 2) shift viewers' ideological preferences rightward (so that Tea Party candidates became more aligned with viewers compared to moderate factions of the Republican party); or 3) portray the Tea Party movement as a bellwether of the contemporary GOP (so that viewers who were attached to the Republican party for identity-based rather than ideological reasons would support the movement out of party loyalty). We hope to explore these these differing though non-exclusive explanations using survey data on mass policy views and perceptions of both the Tea Party movement and the Republican party as a whole.

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