

**Substance in Presidential Nominating Contests:
Negativity as the Dependent Variable**

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This second empirical chapter considers the substance of presidential nominating contests. By substance in this context, I focus on the tone of the campaign. While there is extensive literature in political science about the divisiveness of nominating campaigns and its effect on general election outcomes, there is less scholarly work about negativity during presidential nominating campaigns themselves. Much literature also exists about negativity in a general election environment. However, in nominating contests, candidates from one party compete against each other, which drastically alters the characteristics of the conflict compared to general elections. In nominating contests, candidates are able to say negative things about members of opposing political parties (as in general elections) but also against members of their own political party.

Pundits often assert that divisive primary campaigns harm political parties and provide advantages to the opposing party. This was particularly true during the drawn-out 2008 Democratic presidential nominating contest, when David Broder of *The New York Times*, commented, “That is why so many Democrats are praying for this divisive primary campaign to end. They sense, correctly, that the longer it goes on, the better it is for John McCain” (Broder 2008). Negativity in presidential nominating contests, however, is often studied in the context of its effect on general election outcomes. Instead of focusing on the long-term effects of negativity or divisiveness, however, I am interested in negativity throughout the nominating campaign.

In this chapter, I examine the tone of the 2008 presidential nominating campaigns and ask whether some candidates are simply more negative than others, or whether the negativity of the contest is affected by other factors, such as the competitiveness of the race and the number of candidates involved in the contest. Thus, rather than using negativity within the nominating contest as an independent variable that affects other political factors, I examine negativity of

campaign advertisements during presidential nominating contests as the dependent variable. This is similar to the work done by Haynes and Rhine (1998) and Ridout and Holland (2010) but I make several significant improvements over existing work.

First, I consider campaign advertising as a way to measure how negative the campaigns actually are. This is an improvement over measures of negativity within the media, as advertisements are communications between the candidates and the public without any intermediary. Second, I utilize the entire 2008 Wisconsin Advertising Project database of campaign advertising for my analysis. This allows me not only to speak to whether a candidate is airing negative ads on a particular day, but also discuss the volume and percentage of negativity aired by a particular candidate at a particular juncture of the nominating contest. Third, I use graphical displays to illustrate how the nominating contest varies over time and geographically, and I take this variation into account in my analysis. Finally, in my statistical analysis, I run separate models for each political party, which allows the determinants of negativity to vary in a way that existing empirical work on this topic does not.

Negativity in General Election Campaigns

Much of the literature about the substance of campaigns has focused on negativity within the general election environment. Ansolabehere, Iyengar, Simon, and Valentino (1994) and Ansolabehere and Iyengar (1997) definitively argue that campaigns, and specifically negative advertising, demobilize the American electorate. In an experimental study where they varied the tone of advertising, the authors claim that exposure to negative advertisements decreased intentions to vote by five percent. When replicating their study using observational data, the authors find a less severe but still significant drop in turnout. These results lead Ansolabehere, Iyengar, Simon, and Valentino to conclude that their studies “demonstrate attack advertising

extracts a toll on electoral participation” (1994, 835). In other words, for Ansolabehere and his coauthors, the causal relationship between conflict and participation is clear: the more negativity in campaign advertising, the more disengaged and disinterested the American electorate will be.

Other scholars have not been as convinced about the causal relationship between the negativity of the campaign and the level of turnout and engagement among the electorate. Finkel and Geer (1998) and Geer (2006) argue that voters may learn from negative campaigns and thus be more likely to vote. Specifically, Geer argues there are “real and substantial democratic payoffs to negativity” (2006, 136). Using observational studies of campaign advertising, Franz, Freedman, Goldstein, and Ridout (2007) argue that not only does negative advertising not decrease turnout but that it actually increases the likelihood that individuals will vote. They argue there exist “good theoretical and normative reasons to believe that campaign advertising - even ads that were strikingly negative- might inform, engage, and stimulate voters” (Franz, Freedman, Goldstein, and Ridout 2007, 136). In other words, the causal relationship between negativity of campaigns and voter participation and engagement for Geer, et.al and Franz et.al. is exactly the opposite Ansolabehere's findings. Finally, still other scholars find no statistical relationship between negativity and turnout. (See Lau, Sigelman, Heldman, et al. 1999; Lau, Sigelman, and Rovner 2007) for two meta-analytic views of the literature on negative campaign advertising and voter participation.)

What all this literature has in common, however, is its focus on negativity as an independent variable. These studies question whether negative campaigning has an effect on voter turnout, vote choice, or, normatively, democracy itself. Yet little has been written about negativity as a dependent variable. Through the lens of presidential nominating contests, this chapter of my dissertation will examine negative campaigning as a dependent variable, asking

questions like: Are some candidates simply more negative than other candidates? Does the negativity of a presidential nominating contest differ when there is an open presidential race or a sitting incumbent running for reelection? Does proximity to the general election influence the negativity of presidential nominating campaigns? Are candidates more likely to run negative campaigns when the field narrows as opposed to when there are more candidates in the contest?

Negativity in Presidential Nominating Contests

Presidential nominating contests are assumed to be divisive, in that candidates from the same party are forced to compete for votes, generally by appealing to factions and attacking one another (Polsby 1983). Much of the political science literature on divisive presidential primaries claims that the more divisive – most frequently measured as competitive – the contest is, the more harm it does to the candidate in the general election contest (Kenney and Rice 1987; Lengle 1980; Lengle, Owen, and Sonner 1995; but see Atkeson 1998; Wichowsky and Niebler 2010).¹ Despite this theory of the effects of divisive nominating contests on general election outcomes, few political science studies examine solely the amount and characteristics of negative advertising within the contest of presidential nominating contests.

In one study that does ask when and how negative campaigning functions in presidential nominating contests, Haynes and Rhine (1998) develop a theory about when candidates utilize negative campaigning, saying, “We assume that there are certain conditions that increase the probability that a candidate will or will not attack an opponent and that it will be reported by the news media. ... We have divided the hypotheses into three categories: competitive positioning, reward factors, and media related conditions” (1998, 699). While these factors were developed

¹Ware (1979) points out that divisiveness of a nominating campaign is not the same as the competitiveness of the contest; the two terms are theoretically quite distinct. Wichowsky and Niebler (2010) argue that the tone of the campaign can be measured by examining the percentage of campaign advertisements that were negative.

to apply to intermediated attacks from candidates through media, I argue that many of the hypotheses put forth by Haynes and Rhine are likely to apply as candidates attack via their own televised campaign advertising.

Ridout and Holland (2010) come the closest to examining negativity in presidential nominating contests in the way I aim to do, yet there remains room for improvement in their empirical work. Despite using data from the Wisconsin Advertising Project, which is significantly more comprehensive than media coverage (Haynes and Rhine 1998), Ridout and Holland throw away a lot of what makes the Wisconsin Advertising Project data interesting. They measure negativity of the presidential nominating contest in a dynamic fashion, which is an improvement, but they do not take advantage of the fact that different numbers of ads are aired on different days. Thus, their dependent variable measuring negativity is simply a binary variable indicating whether a particular candidate aired a negative ad in a particular state on a particular day.²

Candidates in presidential nominating contests are able to “go negative” in two distinct fashions. First, they are able to air negative advertisements against a fellow partisan. Alternatively, they are able to air negative ads against the presumed nominee (or sitting president) of the opposing party. In subsequent analyses in this chapter, I focus on two similar but distinct sets of hypotheses regarding the timing of when a candidate employs negative advertising in his or her bid to be the party’s presidential nominee. First, I examine intraparty negativity, that is negative ads against members of the candidate’s own political party. Secondly, I examine interparty negativity, which is negativity directed toward a member (or

² Theoretically, there is a dissatisfying nature to this measure. Imagine a candidate deciding to air negative ads at a particular stage of the nominating contest. A candidate may choose to air a total of 100 advertisements, all of which are negative. Or, a candidate may choose to air a total of 100 ads, only one of which is negative. Ridout and Holland (2010) would operationalize both of these measures as negative, but make no distinction between the two.

multiple members) of the party opposing the candidate airing the ad. In considering both attacks on one's own party as well as attacks against the opposition's party, I offer the following research questions:

1. Are candidates more likely to air negative advertisements against both their own party and the opposing party as the end of the nominating contest approaches?
2. To what degree do candidates air different types of negative advertisements based on the number of candidates remaining in the nominating contest?
3. Do candidates air different types of negative ads depending on the degree to which they are behind the frontrunner in the nominating contest?
4. Are candidates more likely to engage in negative advertising after they have been the direct target of an attack themselves?

In terms of RQ 1, we might hypothesize that candidates are more likely to air negative advertisements on both their own party members as the end of the nominating contest approaches. As the end of the contest looms, nominating contest candidates may become more desperate and need to attack their fellow partisans in order to remain viable candidates themselves. However, we might also hypothesize that candidates competing in the nominating contest would be more likely to attack their co-partisans early in the contest in order to make a name for themselves. They might need to distinguish themselves from their fellow party members in order to be seen as a major contender by the media and party establishment. Thinking about the timing of attacks on opposing party members, we can imagine a scenario in which candidates would wait to attack members of the opposing party until the end of the nominating contest approaches. In this way, the general election would be closer in proximity and the attacks of opposing partisans might be more likely to resonate with the electorate.

However, we can also imagine a scenario in which candidates attack members of the opposing party early in the nominating contest because they are trying to highlight flaws in the ideology and policy positions of the opposing party.

Thinking about RQ2 and whether the number of candidates remaining in the nominating contest affects the likelihood a candidate will air negative ads, we can hypothesize that candidates might be more likely to air intraparty negative ads when there are fewer candidates remaining in the nominating contest. As competition narrows and there are fewer candidates competing for their party's nomination, it becomes easier to define who each candidate is competing against. When there are more than three candidates competing in the nominating contest, it might be difficult to know on which candidate(s) to focus an intraparty attack. Furthermore, a candidate attacking within his/her own party risks a potential backlash effect, in which the negative ad damages the attacked candidate but also damages the attacker because the attacker is seen as dragging the campaign down into the mud. When only two candidates remain in the nominating contest both of these concerns are alleviated. Each candidate has a clearly defined opponent and a backlash effect is drastically reduced. With only two candidates in the race, the candidate sponsoring the negative advertisements might experience some decline in support as a result of his/her negativity, but there are no candidates untarnished. However, as discussed previously, we might conversely expect that candidates need to air negative ads against members of their own party when many candidates are present in the race. These negative ads might serve as a way to distinguish candidates from one another on both personal and policy differences. In terms of intraparty negativity, we might hypothesize that candidates would be more likely to air attacks against members of the opposing party when there are large numbers of candidates competing in the nominating contest. In these circumstances, candidates may simply

wish to establish broad, ideological differences between themselves and their potential general election opponents without engaging in the specifics of policies.

I now turn to RQ3 and whether negativity is affected by how far a candidate trails the frontrunner in his/her nominating contest. Thinking first about intraparty negativity, we might imagine that candidates who are leading the nominating contest are less likely to air negative ads because they have the most to lose from these types of attacks. By engaging and attacking the candidates who trail them in the polls, frontrunners might be seen as doubting their own pathway to the nomination. Candidates who trail by large margins, however, have a clear incentive to attack the frontrunner. In doing so, they may establish themselves as a credible alternative to the frontrunner (at best), and (at worst) gain some free publicity from their attack. That said, however, frontrunners might wish to attack those trailing them closely if they believe doing so will help to end the nominating contest quickly. If frontrunners are able to bury their opposition, they can focus their attention on the general election contest in terms of resources and reputation. In terms of interparty negativity, we might imagine that frontrunners are more likely to air negative ads against members of the opposing party in order to be seen as the eventual general election contender. Immediately following his victory in the 2012 New Hampshire primary, Republican frontrunner Mitt Romney focused his entire speech on the shortcomings of President Barack Obama. By attacking the sitting president, and his general-election opponent if he were to win the Republican nomination, Romney is attempting to make his winning of the Republican nomination appear inevitable.

Finally, thinking about RQ4, we can imagine that candidates who have been the attack of either an intra- or interparty attack would be more likely to air attack advertisements themselves. Candidates who have been attacked about their personal characteristics or policy positions,

especially in television advertisements, might feel compelled to “set the record straight” in their own campaign advertisements. These ads would almost certainly be viewed as negative as they would likely mention the “erroneous” ad aired by the opposing candidate (whether intra- or interparty) and lay out why that ad was unfair in some way. On the other hand, however, candidates who have not been the direct attack of an ad might still be compelled to air negative advertisements as a way to attempt to gain publicity and notoriety in a crowded nominating contest.

In addition to questions about when one candidate will attack another candidate during an intraparty presidential nominating contest, questions about who is being attacked are also paramount. In a multi-candidate contest, candidates must not only decide if and when to attack, but also whom they are going to attack. Contrary to general election campaigns, where an attack by the Democratic candidate is obviously targeting the Republican candidate, the same does not hold true of attacks in nominating campaigns.

When candidates choose to attack, they must then either mention one of their opposing candidates by name, or refer to unpopular issue positions their opponents have taken in the past. This second approach requires the viewer of the advertisement to have a higher degree of political sophistication and knowledge, in order to know who the target of the ad is. In addition to examining which candidates are doing the attacking and when they are doing it, I will also analyze the targets of those attacks. Based somewhat on the hypotheses of Haynes and Rhine (1998, 701) and Ridout and Holland (2010), I offer the following research question.

1. Are candidates who lead their party’s nominating contest (i.e. are frontrunners) more or less likely to be the target of negative advertising?

As mentioned previously, we might imagine frontrunners to be the most likely target of both intra- and interparty negative advertisements. Intraparty opponents need to establish themselves as viable alternatives to the current frontrunner for their party's nomination, while interparty opponents might attack the candidate they believe to be most likely to be their general election competition.

Data and Methods

Data for this chapter come from the 2008 Wisconsin Advertising Project's (WiscAds) database of televised campaign advertising. To examine the tone of the contest, I largely rely upon WiscAds' coding of advertisements as contrast, promote, or attack. For the following analyses on negativity of nominating contests, I consider any advertisement to be negative if it was coded by WiscAds to be either contrast or attack.³ As mentioned earlier, negativity in presidential nominating contests is complex because of the fact that the target of the negativity can be any number of candidates.

In addition to the possibility that a negative ad is targeted at a fellow candidate for the nomination, negative ads might also be targeted at the presumptive nominee of the opposing party. To deal with this nuance, I follow the lead of Ridout and Holland (2010) who code advertisements as either intraparty or interparty negative.⁴ In doing so, I am able to speak to the type of negativity exhibited during the presidential nominating contest and I report results based inter- and intraparty negativity separately.

Initial results simply describe the negativity of each party's nominating contest across years. I provide maps that display where the largest volume of advertising was for each party's

³WiscAds coded advertisements as "promote" if they mentioned only the favored candidate. Ads were coded as attack if they did not mention a favored candidate but instead only mentioned an opposing candidate. Contrast ads were those that mentioned both a favored and opposing candidate.

⁴ Thank you to Travis Ridout for providing me with his data that contained many of the 2008 advertisements coded in this fashion.

nominating contest, as well as its negativity. I do this for each of two time periods: first, the period from the start of the nominating contest through Super Tuesday (March 4, 2008), and then for the period after Super Tuesday until the end of the nominating contest (June 3, 2008). I argue that the geographic variation in advertising is driven almost entirely by the timing of a particular state's presidential primary or caucus.⁵ Thus, other than considering the timing of each state's contest, I do not take the location of the advertisements into account. I then descriptively report the percentage of each candidate's advertising that was negative toward fellow party members (intraparty) and negative toward opposing party candidates (interparty), as well as negative overall (intraparty plus interparty).

Moving then to a multivariate approach, I predict intraparty and interparty negativity separately. In doing so, I run logit models at the ad-level, meaning that each airing of a television commercial is its own observation. I am able to utilize fixed effects at the level of media markets to account for the fact that advertisements within markets are not independent of one another. Despite the fact that I am working with a binary dependent variable, I also estimate OLS models because when including fixed effects for media market within logit models, cases are dropped in media markets where all the ads in that particular market were either positive or negative. The OLS specifications of the models then serve as robustness checks for the logit models and are presented in Appendices B and C. Key independent variables in all the models include:

⁵One could argue that the difference between primaries and caucuses could lead to varying levels of negativity, which is something I could test in the future. Despite the different constituencies of different states, however, I am hard pressed to imagine why the decision to air (or not air) negative advertisements is affected by the state in which the advertisement is being aired.

- Measure(s) of time. Some models include just a linear measure of time, counting the number of days from the beginning of the presidential nominating contest. Additional models include a squared measure to account for any non-linear effects of time.
- The number of candidates remaining in the nominating contest.⁶
- A binary variable indicating whether the candidate airing the advertisement is currently the frontrunner in his/her party's nominating contest.
- A continuous measure of how far the candidate airing the advertisement is behind the current frontrunner of his/her party's nominating contest.⁷
- A binary variable indicating whether the candidate has been the direct target of a negative advertisement at any point prior to the airing of that particular ad.

Ultimately, then, I make several significant changes to existing empirical work that examines the negativity of presidential nominating contests. First, following the lead of Ridout and Holland (2010), I utilize data from the Wisconsin Advertising Project to examine the degree to which candidates are engaging in negative campaigning. I improve upon the Ridout and Holland methodology, however, by estimating models of candidate negativity at the ad-level. This allows me to take into account the fact that a different number of advertisements are aired on different days of the campaign and does not aggregate advertisements and then reduce negativity to a binary measure. Second, in all tables and analyses, I use the airing as the unit of analysis instead of the creative. Simply put, a creative is a unique advertisement aired by a candidate, party, or independent group. Thus, while a candidate may air hundreds of spots, they may be all of the same commercial, which would be considered one creative. Using the airing as

⁶ These data come from “The Green Papers” website (<http://www.thegreenpapers.com/P08/candidates.phtml>). A table of candidates and their dates of withdraw can be found in Appendix A.

⁷ The data for the binary frontrunner variable as well as the variable measuring the continuous distance by which a candidate trails the frontrunner data are from a series of national polls compiled by www.pollster.com. I thank Charles Franklin for providing them for me.

the unit of analysis as opposed to the creative presents a more realistic picture of the advertising environment. It acknowledges that candidates do not air each of the ads they create with the same frequency. For example, Joe Biden produced six different creatives that he aired during his run for the Democratic nomination, one of which contained negative content. He aired these six ads a total of 3,165 times, 940 of which contained negative content. If we were to measure the negativity of Biden's campaign based on the negativity of his creatives, we would conclude that 16.7 percent of his ads were negative. However, if we take into account the total number of ads aired, Biden's negativity increases to 29.7 percent. Finally, throughout my analyses, I run separate models for each year and each of the two parties, which allows the coefficients (slopes) in my models to vary over time and by party.

2008 Data

In 2008, both the Democratic and Republican parties had highly competitive presidential nominating contests. On the Republican side, a total of 12 candidates competed for the nomination (McCain, Brownback, Gilmore, Giuliani, Huckabee, Hunter, Keyes, Paul, Romney, Tancredo, F. Thompson, and T. Thompson), while on the Democratic side, eight candidates vied for the nomination (Obama, Biden, Clinton, Dodd, Edwards, Kucinich, Richardson, and Vilsack). Candidates in both parties began airing television advertisements earlier than in previous contests. Hunter aired the first television ad of the Republican nominating campaign on February 15, 2007, while Richardson aired the first ad of the Democratic campaign on April 23, 2007.⁸ In subsequent analyses, I consider essentially three distinct campaigns: the Republican contest from the date of first airing through the Super Tuesday contests on March 4; the Democratic contest from the date of first airing also through the Super Tuesday contests on

⁸Independent groups aired ads earlier in 2007 than these, but because these analyses examine candidate strategy, I drop all advertisements aired by anyone other than the candidates themselves.

March 4; and the Democratic contest after March 4 concluding on June 3, after the final Democratic primary contests were held in Montana, New Mexico, and South Dakota. The Republican contest wrapped up much more quickly and, for all intents and purposes, was concluded after the March 4 primaries in Rhode Island, Ohio, Texas, and Vermont (Shear and Slevin 2008). In total, Democratic candidates aired a total of 251,335 advertisements over the course of the campaign, 174,639 of those coming before Super Tuesday, while Republican candidates aired 77,366 ads over the course of their contest.⁹

Results

Looking first at empirical results from the 2008 presidential nominating contests for both the Democratic and Republican parties, we first notice just how different those two contests were, particularly with respect to the volume of advertising aired throughout the United States. Figure 1 shows the volume and negativity of the 2008 Democratic nominating contest by media market across the United States prior to and including ads aired on Super Tuesday. Figure 2 shows the exact same map for the 2008 Republican contest. The first thing to notice is simply in terms of the number of advertisements aired. Between the start of the campaign and Super Tuesday, seven Democratic candidates aired a total of 174,639 television ads. During the comparable timeframe, eight Republican candidates aired a total of 77,366 ads, or less than half of the Democratic total. Figures 3 and 4 show the number of campaign ads aired by Democratic and Republican candidates respectively for the time period after Super Tuesday (March 5) to the conclusion of the presidential nominating contests (June 3, 2008). During this time, two Democratic candidates (Obama and Clinton) aired 76,696 ads, while McCain aired a total of

⁹ Republican presidential nominee John McCain did air a total of 6,141 campaign advertisements between Super Tuesday and the conclusion of the Democratic nominating contest. While I discuss these ads in some contexts to provide a comparison to the Democratic contest, I do not consider them ads in the presidential nominating contest and, as such, do not run multivariate statistical models on these data.

6,141 campaign ads. In addition to the difference in advertising volume within the Democratic and Republican nominating contests following Super Tuesday, it is also interesting to note the differences in geographically where the two parties aired their ads between March and June. Figure 3 shows that Clinton and Obama continued to compete in the nominating contest, airing ads in states that had not yet participated in either a primary or caucus. Of the 11 states that had Democratic primaries or caucuses after March 4, Democratic candidates aired advertisements in nine of them (Mississippi, Pennsylvania, Indiana, North Carolina, West Virginia, Kentucky, Oregon, Montana, and South Dakota; not in Wyoming or Idaho). As we can see in Figure 4, McCain's ads following Super Tuesday were not aired in states that continued to hold primaries and caucuses, but rather in battleground states of the 2008 general election contest. Of the 11 states that held Republican primaries or caucuses after Super Tuesday, McCain aired ads in only three of them (Pennsylvania, Oregon, and New Mexico), while also airing ads in Iowa, Michigan, and Ohio.¹⁰ Because the Democratic contest was so lengthy and two viable candidates remained in the race up until the final state held its primary contest, at least some portion of nearly every state in the country saw advertising from Democratic candidates.¹¹ Contrast this with the Republican contest, which was completed in early March 2008. Because McCain won the nomination relatively quickly, many states across the country did not receive any advertising from Republican candidates.

In terms of the negativity of the contest, despite the fact that from the maps it appears as though the Democratic contest was significantly more negative than was the Republican contest,

¹⁰ Despite the fact that Obama won all six of these states in the general election, they were all considered competitive, especially during the early stages of the general election campaign. According to statewide polls collected by Pollster.com, between March and June, all six of these states had McCain and Obama within ten percentage points of one another.

¹¹ Two significant exceptions are Michigan and Florida, which did not receive any advertisements. Democratic candidates agreed not to campaign in these two states after the states moved their nominating contests forward in the calendar year, which resulted in their losing their delegates at the nominating convention. Later, the delegates were reinstated (Banville and Gustafson 2008).

depending how we measure negativity, this is not necessarily the case. When we examine just the total number of airings and the percent of those airings that contained a negative message, we see that 15.5 percent of the Republican airings contained either an explicit attack on another candidate or a contrasting statement between two candidates. The Democratic candidates were slightly more negative than the Republican candidates were, as 17.8 percent of their ads contained a negative attack on either a co-partisan or on a member of the opposing party; the difference between the negativity of the Republican and Democratic contests, however, is much less stark than it appears from the maps. Table 1 illustrates the differences between the Democratic and Republican contests overall, but also shows the negativity of each candidate's advertising. Again, it is important to note here that the percentage of negative ads is not based on the total number of creative (unique advertisements) each individual candidate aired, but the total number of airings the candidate placed on broadcast television. Without taking the number of airings into consideration, we are likely to distort each individual candidate's negativity of advertising.

I now turn to the multivariate analyses predicting when a candidate will air a negative advertisement against a member of his/her own party. Table 3 presents the results of these models, and we can see that for all three groups (Democrats prior to Super Tuesday, Republicans prior to Super Tuesday, and Democrats after Super Tuesday), as the nominating contest draws to a close, candidates are more likely to air negative ads against members of their own party. In other words, as the nominating contest progresses, candidates are significantly more likely to air negative ads against members of their own party. This is not surprising given that candidates become more desperate as the contest continues and may consider negative ads against fellow partisans the only way to get themselves back into contention for their party's nomination.

The distance a candidate trails the frontrunner also positively influences the likelihood that that particular candidate will air a negative advertisement against a member of his/her own party. These two variables, however, are the only ones for which consistent results can be found across all models.

Looking at the number of candidates remaining in the nominating contest, we see the effect differed for Democrats and Republicans in the 2008 nominating contest. As the number of candidates in the Democratic contest decreased, the negativity of the Democratic contest increased. For Republicans, the opposite was true: as the number of candidates in the contest decreased, the intraparty negativity also decreased. Despite the fact that the distance behind the frontrunner has a positive effect on intraparty negativity in the race for both Democratic and Republican candidates, being the frontrunner does not have a consistent effect across parties. Prior to Super Tuesday, in the Democratic Party, the candidate that led the nominating contest was more likely to air negative ads against members of his/her own party.¹² On the Republican side, prior to Super Tuesday, the direction of the coefficient was the same as for the Democratic candidates, but the effect does not reach standard levels of statistical significance. Following Super Tuesday, however, the effect of being the frontrunner shifts for Democratic candidates. In the latter stages of the Democratic contest, the frontrunner was significantly less likely to air negative ads against his opponent.

The effect of having previously been the target of a negative advertisement also does not have consistent effects across the two major parties nominating contests in 2008. For the Republicans prior to Super Tuesday, having been previously the target of a negative ad had a negative effect on a candidate's likelihood of airing an attack ad. For the Democratic candidates,

¹²For the period prior to Super Tuesday, Clinton was the frontrunner in the Democratic contest until February 11, 2008. After that date, Obama became the candidate in the lead and never relinquished his lead in the national polls.

this effect is opposite, but again does not reach conventional levels of statistical significance. These results indicate that candidates who have been previously targeted by a negative advertisement do not air negative ads with more frequency; in fact, they air intraparty negative ads with significantly less frequency than do candidates who were not previously targeted.¹³

Looking at Model 2, we see that the signs of all variables remain the same between Models 1 and 2, but that the effect of a nonlinear function of time differs across parties. For both Democrats and Republicans prior to Super Tuesday, a positive, significant relationship exists between negativity and a squared days term, meaning that as the nominating contest progresses, negativity ramps up exponentially. Following Super Tuesday, however, for the Democratic candidates, the days-squared term has a negative effect. This indicates that there is a ceiling effect to the amount of intraparty negativity in which candidates are willing to engage.

Because of the large number of cases in both the Democratic and Republican Pre-Super Tuesday models, however, it is easier to see the substantive effect of each independent variable by examining the predicted probabilities found in Figure 5. On the x-axis in each of the graphs, the key independent variable is varied across its range, while the other variables in the model are held at their values for each case. The predicted probability of an airing being negative is then displayed on the y-axis. Looking then at which independent variables exert the most effect on ads' likelihood of being negative, we see that for Democrats, it is the distance behind the frontrunner and the number of candidates in the nominating contest. For Democratic candidates who trail the frontrunner by 20 points, the probability of airing a negative ad is approximately 0.35, while for Democratic candidates who trail the frontrunner by fifty points, the likelihood of airing a negative ad is nearly 1.00. When there are seven Democratic candidates in the

¹³Future research may consider interacting the indicator for previously targeted with the variable measuring how far a candidate trails his/her party's leading candidate. It might be the case that candidates only get targeted if they are leading (or almost leading).

nominating contest, the likelihood of airing a negative ad is negligible, but when there are only two candidates in the Democratic contest, the likelihood of a Democrat airing an intraparty negative ad goes up to over 0.4. While the effect of days in the nominating contest and being the frontrunner are statistically significant, the predicted probabilities indicate that those variables are not substantively driving intraparty negativity in the 2008 Democratic nominating contest prior to Super Tuesday. Turning now to the 2008 Republican contest prior to Super Tuesday, we see again that distance behind the frontrunner and the number of candidates in the nominating contest are two variables that have substantive effects on intraparty negativity. The effect of distance behind the frontrunner is slightly less for Republicans than Democrats, but still substantively significant. The number of candidates in the race has a negative, but significant impact on intraparty negativity. When there are 12 candidates in the Republican nominating contest the likelihood of a Republican airing an intraparty negative ad is approximately 0.6; when there are four candidates in the nominating contest, the likelihood of airing an intraparty negative ad is negligible.

I now shift focus to examining interparty negativity – again, that is negativity between members of opposing parties. Results of these models are in Table 4. We first notice that the effect of days is not consistent across models. For the Democratic candidates prior to Super Tuesday, days has a negative effect meaning that as the nominating contest progresses, Democratic candidates are less likely to air negative ads against Republicans. For Republicans, the effect of the days variable is contingent upon whether the days-squared term is also included in the model. When just a linear function of time is included, the effect of days is positive, indicating that Republican candidates attack Democrats more as the nominating contest progresses. However, when including the days-squared term, the effect of linear time is

negative, while the effect of the squared term is also negative. This indicates that as the nominating contest continues, Republicans are less negative toward Democratic candidates, but that the effect is diminishing in nature.

Looking now at the effect of the number of candidates remaining in the race on interparty negativity, we see that across all specifications as the number of candidates decreases, the amount of interparty negativity also decreases. This may be because when a large number of candidates are competing for the race, it is more difficult to determine which member of one's own party a candidate should attack, so it seems less costly to attack members of the opposing party. Prior to Super Tuesday in both the Democratic and Republican contests, being the frontrunner led candidates to be more negative against members of the opposing party. When candidates were leading the race early, they may have wanted to attack members of the opposing party in an effort to be seen as the "obvious" choice for their party's nomination. After Super Tuesday, however, this effect reversed for the Democrats. Here, it was the case that Obama was the frontrunner; looking at the post-Super Tuesday effect of the frontrunner variable on both intra- and interparty negativity, it seems as though Clinton was just more negative overall than was Obama. The effect of the distance candidates trailed the frontrunner varied depending on party; Democratic candidates who trailed by a large margin were less likely to attack Republicans, while Republicans who trailed by large margins were more likely to attack Democrats. Finally, the effect of whether a candidate had been previously attacked also varied by party. Democrats who had been attacked were more likely to attack members of the opposing party, while Republicans who had been attacked were less likely to attack Democrats.

Again, however I want to focus on predicted probabilities as a way of examining substantive effects of these independent variables on interparty negativity, which can be found in

Figure 6. Here, we see that for the Democrats, the variables that exert the most effect are days in the nominating contest and the number of candidates in the contest. At the outset of the nominating contest (Day 0), Democratic candidates are very likely to air ads attacking members of the Republican Party; by the time the nominating contest approaches Day 300 (which was February 17, 2008), the likelihood of a Democratic candidate airing a negative ad against a Republican dropped to approximately 0.10. As the number of candidates in the Democratic contest decreases, those candidates become decreasingly likely to air ads against Republican candidates. When seven candidates are in the contest, the likelihood of airing an interparty negative ad is approximately 0.40; when only two candidates remain in the race, that likelihood drops to approximately 0.10. Considering the probability of intraparty negativity from Republican candidates against Democrats, we see that the distance behind the frontrunner and the number of candidates in the contest have the most substantive effect. When there are 12 candidates in the Republican nominating contest, the likelihood of them airing a negative ad against a Democratic candidate is approximately 0.90; when there are eight candidates remaining in the race, the likelihood of them airing a negative ad against a Democratic candidate is almost zero. When Republicans do not trail the frontrunner in their own nominating contest by much, they are not very likely to air negative ads against Democrats; however, as the distance by which they trail the frontrunner increases, they become increasingly more likely to air negative ads against Democratic candidates.

Interestingly, many of the signs on the variables switch between models predicting intraparty negativity and those predicting interparty negativity. This indicates that, by and large, candidates who attack members of their own party tend not to attack members of the opposing party and vice versa. Table 1 gives us some inclination that this may be the case; we see that

most candidates appear to favor attacking either within or against their own party, but that few candidates attack heavily both within and against their own parties.

Finally, I turn to examining who is the target of a direct attack of a negative ad by a co-partisan. To do so, I return to descriptive statistical methods. Table 4 shows that on the Democratic side, only three candidates were ever the direct target of an intraparty negative ad: Obama, Clinton, and Edwards. Four candidates on the Republican side were the explicit target of intraparty negativity: McCain, Giuliani, Huckabee, and Romney. The first column shows the percentage of total airings that was a direct personal attack on any of the candidates in the nominating contest.

Clinton was the most attacked candidate in either political party; a total of 8,292 television spots directly attacked her, which amount to 3.3 percent of the total airings in the Democratic contest. On the Republican side, Huckabee was the most attacked candidate, and he was mentioned in a total of 1,117 airings, or 1.4 percent of the total Republican campaign airings. Previously, we considered whether it would be the case that frontrunners would be more or less likely to be the target of attacks from fellow partisans. The second and third columns of Table 4 illustrate the complexity of the relationship between frontrunner status and being the target of an intraparty negative ad; it is certainly not the case that candidates are attacked by members of their own party only when they are leading. We first notice that Edwards, Huckabee, and Romney were the targets of negative advertising from within their own party while never being the frontrunner in their respective parties' nominating contests. However, all of the attack ads against John McCain came when he was leading the Republican nominating contest, and over half (65.4 percent) of the attacks against Clinton came when she was leading the Democratic nominating contest. From this analysis, it appears that it is not just the

frontrunner that is likely to be the target of attack, but that any of the candidates seen as potential nominees are likely to be attacked. We can definitively say from this analysis that candidates who trail the frontrunners by large margins are not likely to be attacked by their fellow partisans. In other words, candidates rarely swing down at candidates below them in the polls.

Discussion and Conclusion

This chapter has demonstrated that multiple factors influence whether a candidate airs negative advertisements against members of his/her own party as well as against members of the opposing party. The more influential independent variables include how long the nominating campaign has continued; the number of candidates remaining in the contest; and the distance by which the candidate airing the ad trails the frontrunner. However, these effects are not constant across parties. In particular, when candidates dropped out of the Democratic nominating campaign, those candidates remaining were more likely to attack one another; when candidates dropped out of the Republican nominating campaign, the candidates that remained were less likely to attack one another. We have also seen that not all candidates competing for their party's nomination are equally likely to be attacked by members of their own party. While it is not the case that only frontrunners get attacked, those candidates not seen as legitimate contenders by members of their own party are not likely to get attacked.

Further work specifically considering the negativity of presidential nominating contests might examine other years. Did intra- and interparty negativity look different during the 2008 nominating contests because there was no incumbent president or vice president competing for his party's nomination? There is also much additional work that could be done on the substance of presidential nominating contests looking beyond negativity. Negativity is but one aspect of the substance of a campaign. Future work might think about studying issues in ads during

presidential nominating contests. Since candidates competing against one another in nominating contests are members of the same parties, how do they discuss issues? Do they all attempt to identify themselves as experts on issues that are traditionally "owned" by their own party? Do some candidates discuss issues their party is considered better on, while other candidates discuss issues traditionally owned by the opposing party? Do candidates talk past one another, or do they engage with one another on policy debates?

Finally, looking forward to the third empirical chapter, I aim to explore the variation in geography and timing I presented here. However, instead of considering these factors from the perspective of the candidates, I think about them in terms of the individual voters. I ask whether individuals who live in regions of the country that were exposed to higher levels of campaigning (and negativity) learned more about the candidates than did those individuals who live in regions of the country that did not see as much advertising (and negativity). I examine whether individuals living in states that had primaries or caucuses toward the end of the nominating contest remembered more about the candidates than did individuals living in states like Iowa and New Hampshire.

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Table 1:
2008 Advertising Negativity by Candidate

Candidate	Total Airings	Intraparty Negative	Interparty Negative	Total Percent Negative
Biden	3,165	29.7%	0.0%	29.7%
Clinton	82,789	4.1%	24.0%	28.0%
Dodd	4,028	35.4%	7.5%	42.9%
Edwards	14,732	20.5%	8.4%	28.0%
Kucinich	27	0.0%	0.0%	0.0%
Obama	140,658	2.0%	7.4%	9.4%
Richardson	5,936	5.6%	18.3%	23.9%
All Democrats	251,335	4.8%	13.1%	17.8%
Giuliani	7,127	27.6%	9.8%	37.4%
Huckabee	8,400	0.1%	0.0%	0.1%
Hunter	114	0.0%	0.0%	0.0%
McCain	13,581	3.7%	4.4%	7.3%
Paul	7,172	2.0%	0.0%	2.0%
Romney	36,841	4.7%	17.6%	22.3%
Tancredo	99	0.0%	0.0%	0.0%
Thompson	4,032	0.0%	0.0%	0.0%
All Republicans	77,366	5.6%	10.0%	15.5%

Table 2:
Intraparty Negativity, 2008

	Model 1		Model 2	
Democrats, Pre Super Tuesday	β	(S.E.)	β	(S.E.)
Days	0.0364	(0.0045)*	0.7421	(0.0295)*
Days ²	--	--	0.0139	(0.0006)*
Number of Candidates	-1.8891	(0.0421)*	-1.6139	(0.0462)*
Frontrunner	1.6478	(0.0638)*	1.7302	(0.0671)*
Distance Behind	0.3651	(0.0081)*	0.3834	(0.0088)*
Previously Targeted	0.2222	(0.1383)	0.6083	(0.1434)*
N	91,308		91,308	
Pseudo R ²	0.4808		0.4917	
	Model 1		Model 2	
Republicans, Pre Super Tuesday	β	(S.E.)	β	(S.E.)
Days	1.3335	(0.0289)*	1.9277	(0.0488)*
Days ²	--	--	0.0347	(0.0016)*
Number of Candidates	1.3501	(0.0419)*	1.4810	(0.0435)*
Frontrunner	0.0496	(0.0825)	-0.0899	(0.0836)
Distance Behind	0.0784	(0.0045)*	0.0668	(0.0046)*
Previously Targeted	-0.7188	(0.0519)*	-0.8270	(0.0532)*
N	44,531		44,531	
Pseudo R ²	0.2983		0.3004	
	Model 1		Model 2	
Democrats, Post Super Tuesday	β	(S.E.)	β	(S.E.)
Days	2.1594	(0.0436)*	-42.5236	(1.8244)*
Days ²	--	--	-7.0798	(0.2885)*
Frontrunner	-1.5694	(0.0435)*	-1.8421	(0.0456)*
N	39,638		39,638	
Pseudo R ²	0.3177		0.4437	

* p<0.05

Table 3:
Interparty Negativity, 2008

Democrats, Pre Super Tuesday	Model 1		Model 2	
	β	(S.E.)*	β	(S.E.)*
Days	-0.2754	(0.0045)*	-0.6145	(0.0152)*
Days ²	--	--	-0.0066	(0.0003)*
Number of Candidates	0.4376	(0.1275)*	0.2834	(0.0143)*
Fronrunner	1.1246	(0.0291)*	1.2150	(0.0293)*
Distance Behind	-0.6615	(0.0017)*	-0.0600	(0.0017)*
Previously Targeted	2.3358	(0.0624)*	2.2388	(0.0601)*
N	149,716		149,716	
Pseudo R ²	0.1977		0.2020	
Republicans, Pre Super Tuesday	Model 1		Model 2	
	β	(S.E.)*	β	(S.E.)*
Days	0.3336	(0.0080)*	-2.2428	(0.0557)*
Days ²	--	--	-0.0942	(0.0022)*
Number of Candidates	2.0455	(0.0494)*	1.5699	(0.0695)*
Fronrunner	0.5914	(0.0656)*	0.2849	(0.0856)*
Distance Behind	0.0744	(0.0035)*	0.0145	(0.0056)*
Previously Targeted	-2.7986	(0.0964)*	-0.4043	(0.1172)*
N	65,189		65,189	
Pseudo R ²	0.2453		0.3858	
Democrats, Post Super Tuesday	Model 1		Model 2	
	β	(S.E.)*	β	(S.E.)*
Days	0.0715	(0.0119)*	0.2824	(0.0350)*
Days ²	--	--	0.0258	(0.0040)*
Fronrunner	-2.0790	(0.0279)*	-2.0557	(0.0280)*
N	73,675		73,675	
Pseudo R ²	0.1644		0.1651	

* p<0.05

Table 4:
Direct Target of Attack, 2008

Candidate	Number of Airings Attacking	Obama Leading	Clinton Leading
Obama	7,557 (3.0%)	3,342 (44.2%)	4,215 (55.8%)
Clinton	8,292 (3.3%)	2,867 (34.6%)	5,425 (65.4%)
Edwards	565 (0.2%)	0 (0.0%)	565 (100.0%)
Total Airings	251,335	136,878	114,457
Candidate		McCain Leading	Giuliani Leading
McCain	906 (1.2%)	906 (100.0%)	0 (0.0%)
Giuliani	252 (0.3%)	140 (55.6%)	112 (44.4%)
Huckabee	1117 (1.4%)	492 (44.0%)	625 (56.0%)
Romney	654 (0.8%)	542 (82.9%)	112 (17.1%)
Total Airings	77,366	42,150	35,216

Figure 1:
2008 Democratic Party Advertising prior to Super Tuesday,
Volume and Tone by Media Market

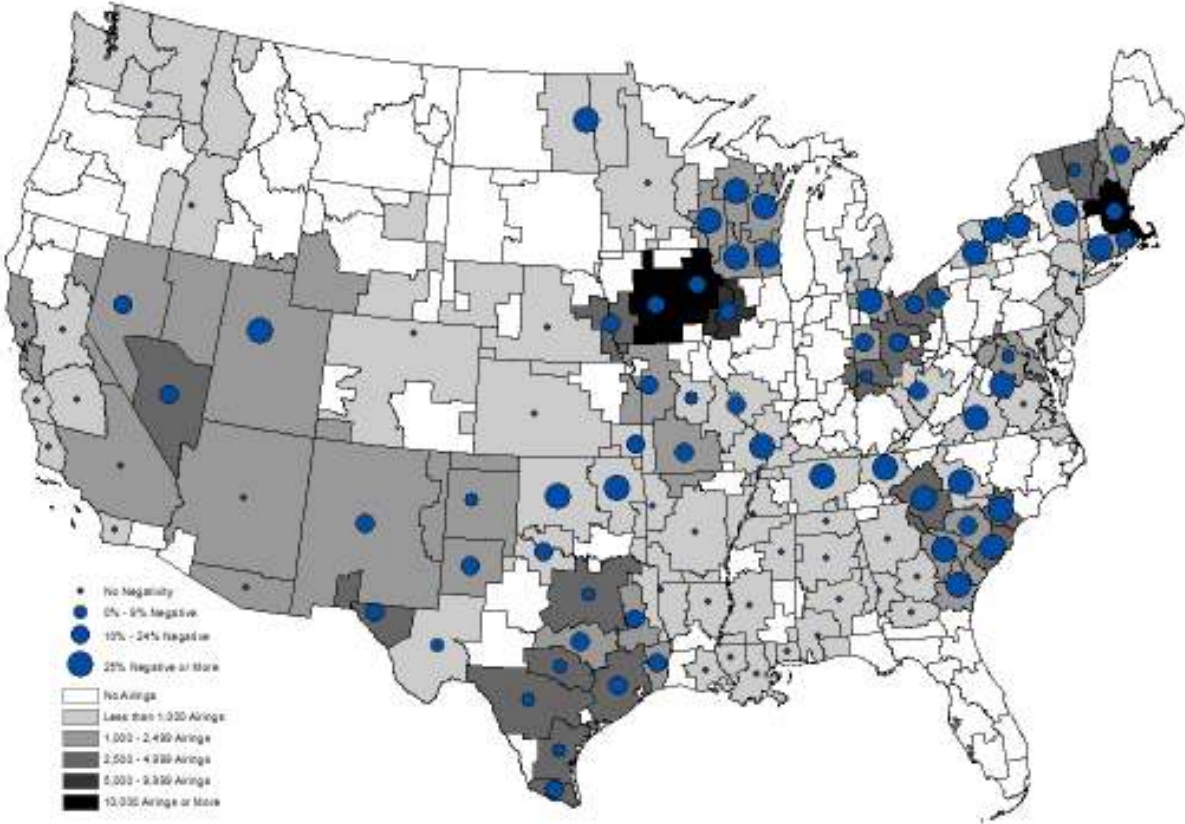


Figure 2:
2008 Republican Party Advertising prior to Super Tuesday,
Volume and Tone by Media Market

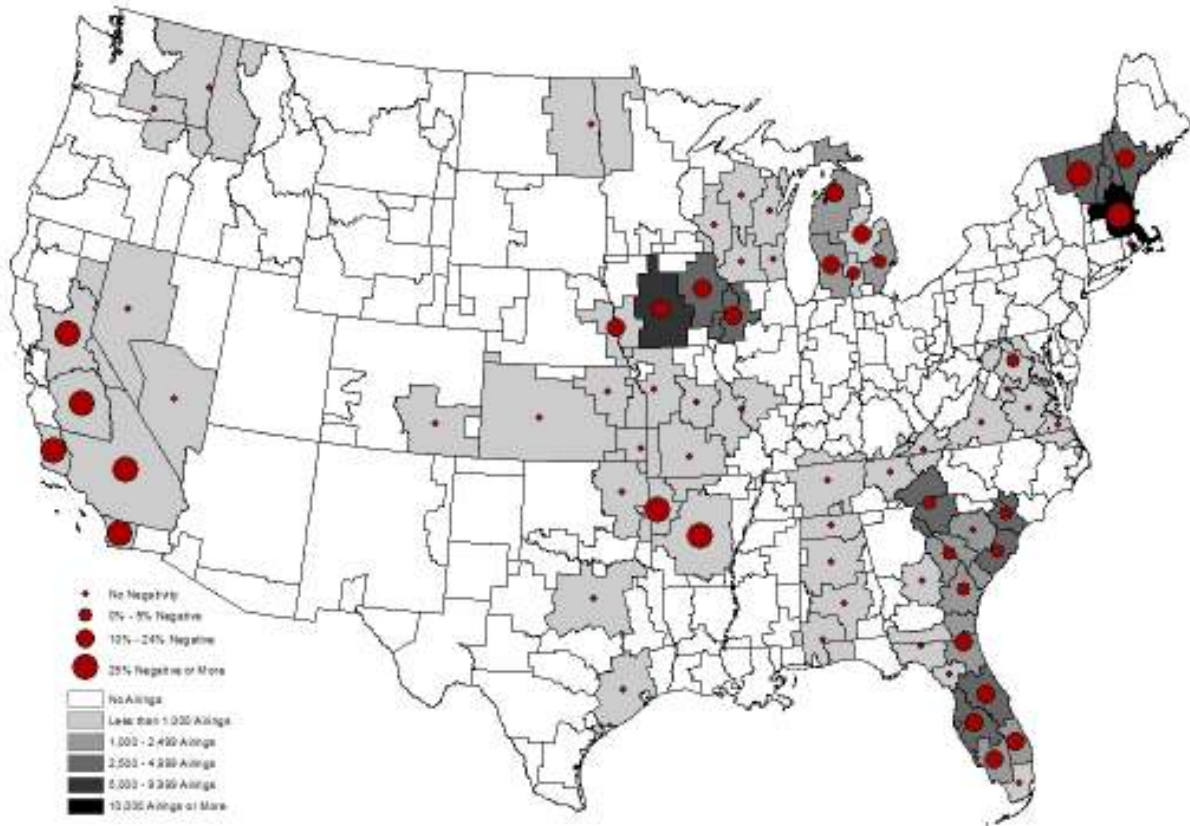


Figure 3:
2008 Democratic Party Advertising after Super Tuesday,
Volume and Tone by Media Market

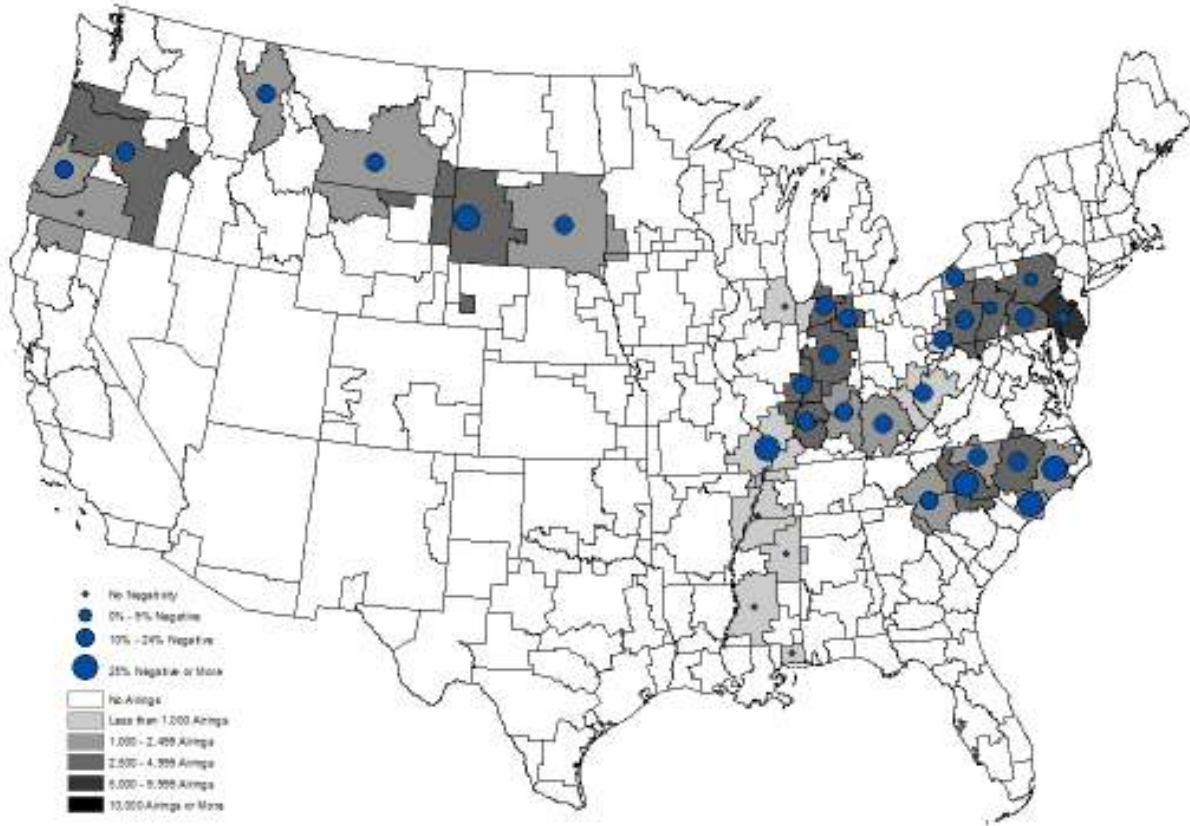


Figure 4:
2008 Republican Party Advertising after Super Tuesday,
Volume and Tone by Media Market

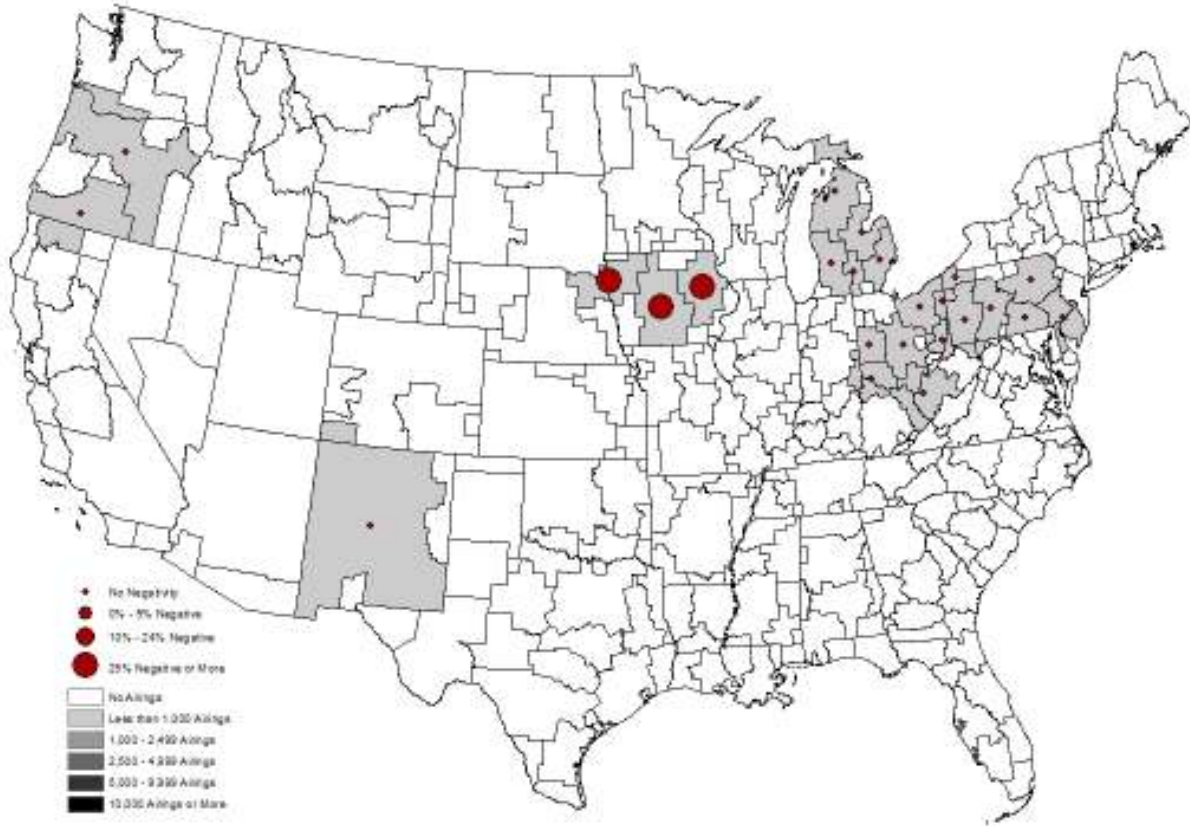


Figure 5:
 Predicted Probabilities of Intraparty Negativity,
 2008 Democrats and Republicans

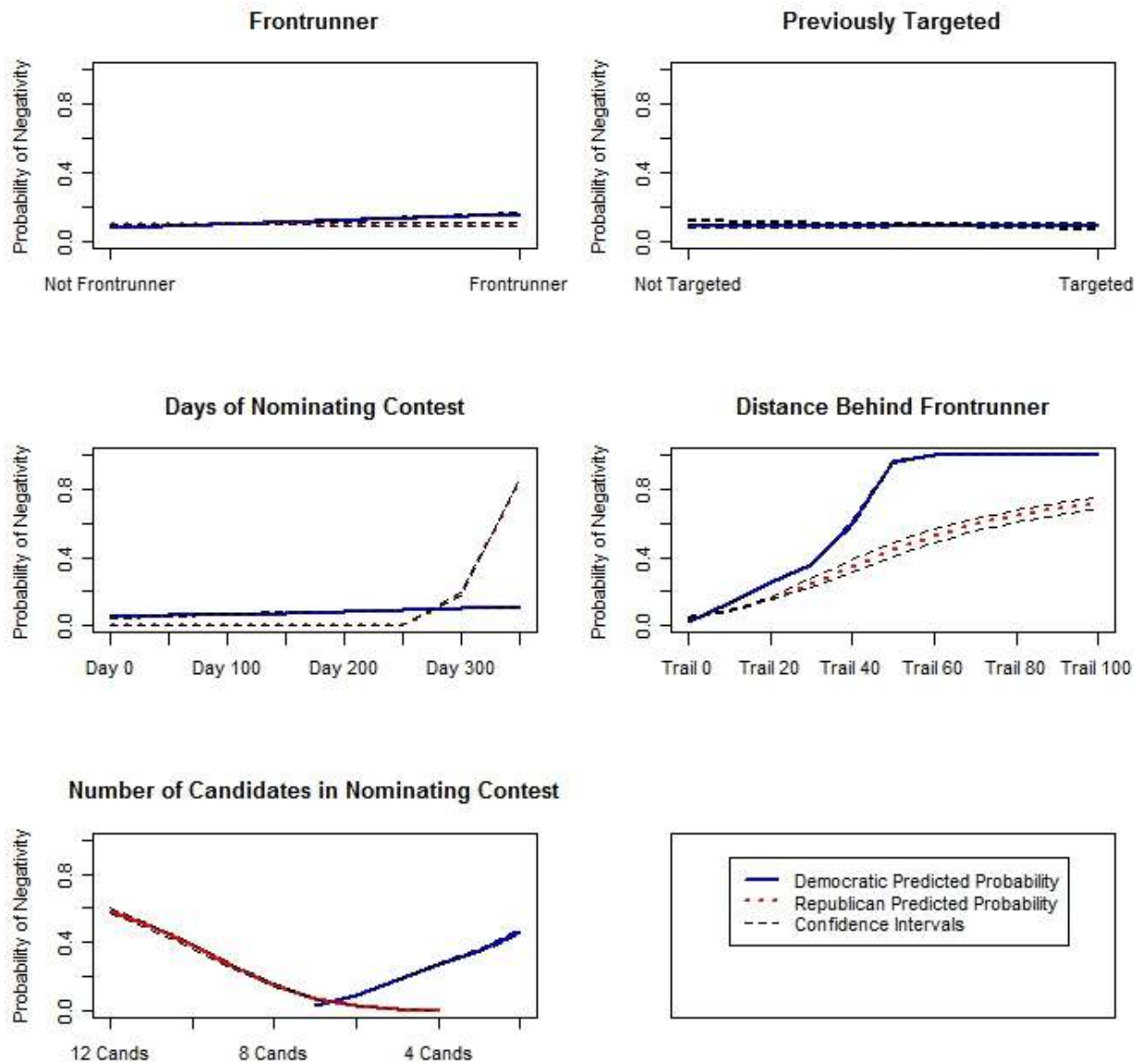
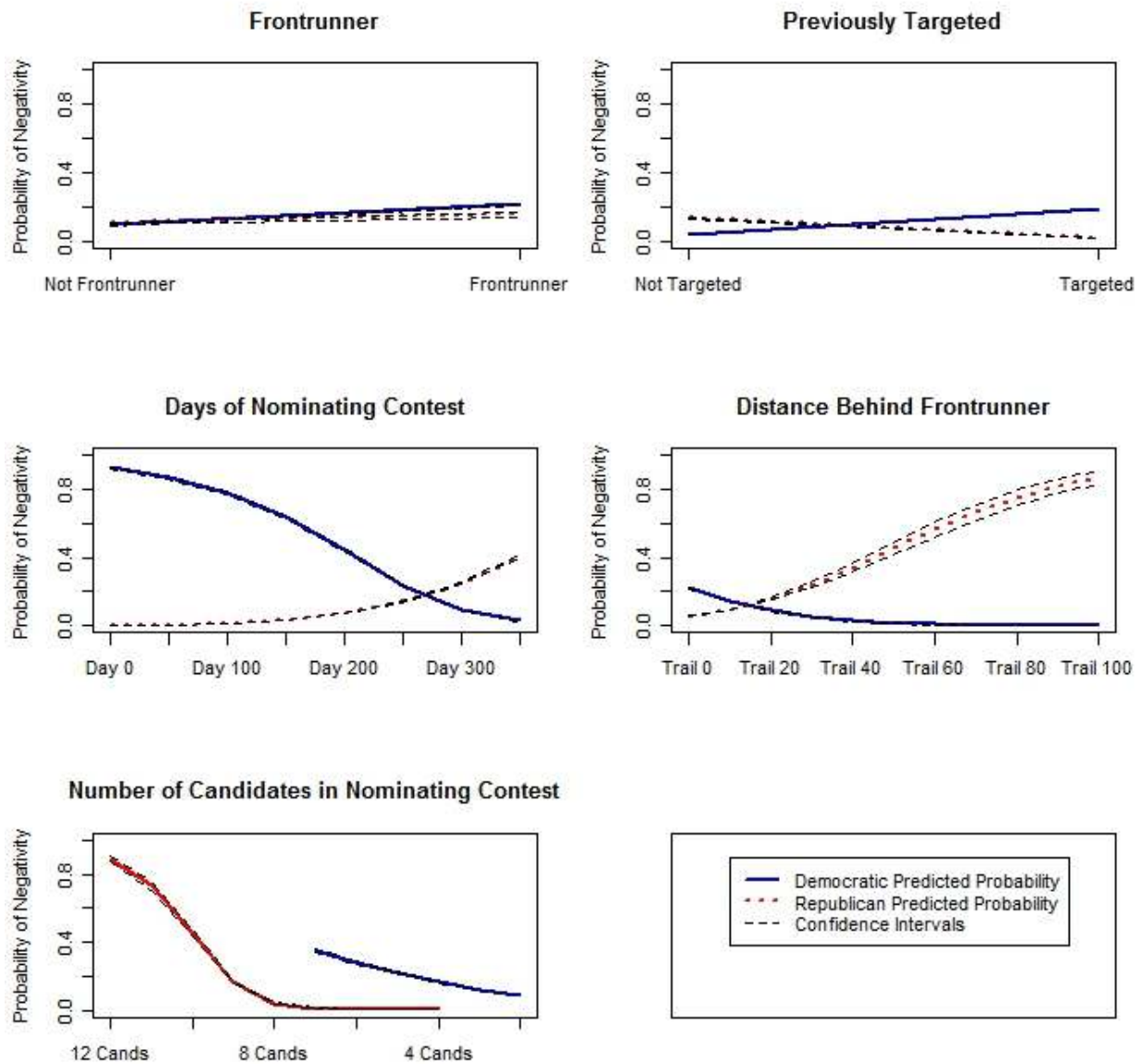


Figure 6:
 Predicted Probabilities of Interparty Negativity,
 2008 Democrats and Republicans



Appendix A:
Table of Candidates and Dates of Withdraw

Candidate	Party	Date of Withdraw
Tom Vilsack	D	2/23/2007
Chris Dodd	D	1/3/2008
Joe Biden	D	1/3/2008
Bill Richardson	D	1/10/2008
Dennis Kucinich	D	1/25/2008
John Edwards	D	1/30/2008
Hillary Clinton	D	6/7/2008
Barack Obama	D	.
Jim Gilmore	R	7/14/2007
Tommy Thompson	R	8/12/2007
Sam Brownback	R	10/18/2007
Tom Tancredo	R	12/20/2007
Duncan Hunter	R	1/19/2008
Fred Thompson	R	1/22/2008
Rudy Giuliani	R	1/30/2008
Mitt Romney	R	2/7/2008
Mike Huckabee	R	3/4/2008
Alan Keyes	R	3/26/2008
Ron Paul	R	6/12/2008
John McCain	R	.

Appendix B:
 OLS Specification of Intraparty Negativity Models
 (Robustness Check of Table 2)

Democrats, Pre Super Tuesday	Model 1		Model 2	
	β	(S.E.)	β	(S.E.)
Days	0.0122	(0.0002)*	0.0215	(0.0009)*
Days ²	--	--	0.0002	(0.0000)*
Number of Candidates	-0.0375	(0.0006)*	-0.0334	(0.0007)*
Fronrunner	0.0826	(0.0013)*	0.0815	(0.0013)*
Distance Behind	0.0091	(0.0001)*	0.0091	(0.0001)*
Previously Targeted	-0.1114	(0.0026)*	-0.1102	(0.0026)*
N	174,639		174,639	
Adjusted R ²	0.2659		0.2664	
Republicans, Pre Super Tuesday	Model 1		Model 2	
	β	(S.E.)	β	(S.E.)
Days	0.0080	(0.0003)*	0.0391	(0.0008)*
Days ²	--	--	0.0007	(0.0000)*
Number of Candidates	-0.0033	(0.0019)	0.0288	(0.0020)*
Fronrunner	-0.0031	(0.0033)	-0.0222	(0.0033)*
Distance Behind	0.0036	(0.0002)*	0.0025	(0.0002)*
Previously Targeted	-0.0063	(0.0025)*	-0.0339	(0.0025)*
N	77,366		77,366	
Adjusted R ²	0.1141		0.1361	
Democrats, Post Super Tuesday	Model 1		Model 2	
	β	(S.E.)	β	(S.E.)
Days	0.0386	(0.0007)*	0.0415	(0.0023)*
Days ²	--	--	0.0003	(0.0003)
Fronrunner	-0.0622	(0.0016)*	-0.0621	(0.0016)*
N	76,696		76,69	
Adjusted R ²	0.1233		0.1233	

* p<0.05

Appendix C:
 OLS Specification of Interparty Negativity Models
 (Robustness Check of Table 3)

	Model 1		Model 2	
Democrats, Pre Super Tuesday	β	(S.E.)	β	(S.E.)
Days	-0.0142	(0.0003)*	-0.0527	(0.0015)*
Days ²	--	--	-0.0008	(0.0000)*
Number of Candidates	0.0453	(0.0010)*	0.0282	(0.0012)*
Fronrunner	0.1253	(0.0022)*	0.1298	(0.0022)*
Distance Behind	-0.0058	(0.0001)*	-0.0055	(0.0001)*
Previously Targeted	0.0480	(0.0044)*	0.0428	(0.0044)*
N	174,639		174,639	
Adjusted R ²	0.1661		0.1693	
	Model 1		Model 2	
Republicans, Pre Super Tuesday	β	(S.E.)	β	(S.E.)
Days	0.0129	(0.0004)*	-0.0381	(0.0009)*
Days ²	--	--	-0.0012	(0.0000)*
Number of Candidates	0.0757	(0.0022)*	0.0228	(0.0023)*
Fronrunner	0.0247	(0.0040)*	0.0560	(0.0039)*
Distance Behind	0.0019	(0.0002)*	0.0037	(0.0002)*
Previously Targeted	-0.0781	(0.0030)*	-0.0328	(0.0030)*
N	77,366		77,366	
Adjusted R ²	0.2475		0.2826	
	Model 1		Model 2	
Democrats, Post Super Tuesday	β	(S.E.)	β	(S.E.)
Days	0.0107	(0.0011)*	0.0705	(0.0036)*
Days ²	--	--	0.0069	(0.0004)*
Fronrunner	-0.2131	(0.0025)*	-0.2103	(0.0025)*
N	76,696		76,696	
Adjusted R ²	0.1287		0.1321	

* p<0.05