doi:10.1017/S0003055409990037

Campaign Communications in U.S. Congressional Elections

JAMES N. DRUCKMAN *Northwestern University*
MARTIN J. KIFER *High Point University*
MICHAEL PARKIN *Oberlin College*

Electoral campaigns are the foundation of democratic governance; yet scholarship on the content of campaign communications remains underdeveloped. In this paper, we advance research on U.S. congressional campaigns by integrating and extending extant theories of campaign communication. We test the resulting predictions with a novel dataset based on candidate Web sites over three election cycles. Unlike television advertisements or newspaper coverage, Web sites provide an unmediated, holistic, and representative portrait of campaigns. We find that incumbents and challengers differ across a broad range of behavior that reflects varying attitudes toward risk, that incumbents' strategies depend on the competitiveness of the race, and that candidates link negative campaigning to other aspects of their rhetorical strategies. Our efforts provide researchers with a basis for moving toward a more complete understanding of congressional campaigns.

Electoral campaigns are a defining feature of democratic polities. Yet scholarship on electoral campaigns, particularly on the content of campaign communications, remains disjointed. The field has not changed very much since Riker's (1996, 4) description over a decade ago: "we have very little knowledge about the rhetorical content of campaigns, which is, however, their principal feature ... the fact remains that we know very little about what to say in campaigns—but this is what both political scientists and candidates want to know." Shortcomings are particularly acute in the United States for nonpresidential campaigns. "From reading our literature," notes Perloff (2002, 621), "you would assume that the only campaigns in America are for the presidency."

In what follows, we advance research on campaigns, focusing on communication in U.S. congressional campaigns. We begin by offering a framework for studying campaign communication that integrates and extends prior work. The analysis focuses on the extent to which candidates take risks or play it safe in their campaign strategies. We test expectations from the framework with new data based on candidate Web sites over time, which offer an unmediated, holistic, and representative portrait of campaigns. The view from these data significantly differs from that of previous studies that rely on advertising and newspaper stories to study candidate behavior. Our efforts provide researchers with a foundation for moving toward a more complete understanding of congressional campaigns.

CONGRESSIONAL CAMPAIGN RHETORICAL STRATEGY

In many ways, the literature on congressional campaigns is progressive and wide-ranging. Scholars devote considerable attention to distinct topics, such as going negative, issue ownership, and position-taking (Franklin 1991; Lau and Pomper 2004; Petrocik 1996). They also have identified important determinants of campaign strategy—most notably, showing how competition and incumbency influence rhetorical choices (Kahn and Kenney 1999; Trent and Friedenberg 2008). We aim to bring these various strands of the literature together (e.g., work on negativity and issue ownership) while also generating additional insights into campaigns' rhetorical choices. We start with a set of widely agreed-upon premises about congressional campaign behavior, from which we deduce empirical predictions.

First, a primary purpose of campaign rhetoric is to establish the criteria on which voters base their decisions. Campaigns attempt to do this by emphasizing or highlighting their preferred criteria. Evidence on this point comes from an array of literatures, including work on priming (Miller and Krosnick 1996), issue ownership (Petrocik 1996), heresthetics (Riker 1996), campaigns (Berelson, Lazarsfeld, and McPhee 1954; Schattschneider 1960), and political polling (Druckman, Jacobs, and Ostermeier 2004; Jacobs and Shapiro 1994). Second, when it comes to congressional elections, voters tend to base their decisions on incumbency, issues, candidates' personal features, and/or party (Druckman 2004; Niemi and Weisberg 1993, 99; Rahn et al. 1990). It follows from these two premises that campaigns will

James N. Druckman is Associate Professor of Political Science and Faculty Fellow at the Institute for Policy Research, Northwestern University, 601 University Place, Evanston, IL 60208 (druckman@northwestern.edu).

Martin J. Kifer is Assistant Professor of Political Science and Director of the Survey Research Center, High Point University, 833 Montlieu Avenue, High Point, NC 27262 (mkifer@highpoint.edu).

Michael Parkin is Assistant Professor of Politics, Oberlin College, 10 N. Professor Street, Oberlin, OH 44074 (Michael.Parkin@oberlin.edu).

We thank Nora Paul and Brian Southwell for critical guidance in constructing our original coding framework, Gary Jacobson for providing candidate background data, and the dozens of individuals who assisted in data collection. We also thank Lonna Atkeson, Amber Wichowsky, and many others for providing advice. We owe a special debt of gratitude to the *APSR's* reviewers and editors for insightful guidance that fundamentally shaped all aspects of the paper. Support for this research was provided by the University of Minnesota McKnight Land-Grant Professorship, Northwestern University's AT&T Research Scholar Fund, and, for the survey of website designers, the National Science Foundation (SES-0822819 and SES-0822819). Authors' names are listed in alphabetical order.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

emphasize incumbency, issues, personal features, and/or partisanship, depending on which of these criteria they wish voters to use.

Third, half a century of voting research shows that voters pay scant attention to campaign rhetoric, and base their decisions on a subset of accessible considerations (Iyengar and Kinder 1987; Kinder 1998; Zaller 1992). Fourth, in congressional elections, incumbency serves as a highly accessible basis of vote choice; all else constant, voters favor incumbents (Gronke 2000, 140–41). This manifests itself in the well-known benefit from incumbency that provides incumbents with up to a 10-percentage-point advantage (Abramowitz, Alexander, and Gunning 2006; Ansolabehere and Snyder 2004, 487). The incumbency advantage stems, in part, from three particular candidate characteristics: voters find incumbents appealing because they possess experience in office, are familiar (e.g., have ties to the district), and have provided benefits for the district or state (e.g., organizing events concerning a local issue, casework, pork-barrel projects) (e.g., Fiorina 1989; Gronke 2000; Jacobson 2004). These assumptions imply that incumbents will emphasize experience, familiarity, and benefits, and that candidates who are not advantaged—i.e. challengers—have an incentive to (a) induce voters to attend to rhetoric and (b) use the rhetoric to cause voters to base their decisions on criteria other than incumbency.

Our final premise concerns ways in which candidates motivate voters to attend to rhetoric. One well-known approach is to employ negative language (i.e., "go negative"). Evidence on the attention-grabbing nature of negativity comes from political psychology research (Druckman and McDermott 2008; Marcus, Newman, and MacKuen 2000), as well as a long line of work in psychology showing that individuals pay more attention and give more weight to negative than to positive information (e.g., people attend more when told of 5% unemployment than when told of 95% employment) (Baumeister et al. 2001; Wason 1959).[1] Another way to stimulate attention that has become relevant in recent years is to engage voters by using new media technologies (Bucy 2004). This includes, for example, allowing Web site visitors to adjust content and/or interpersonally communicate with the campaign and/or other voters (e.g., message boards, forums, live chats, interactive blogs). Just as with negativity, extant research shows that allowing interaction stimulates attention and information-seeking behavior (e.g., Southwell and Lee 2004, 645).

From these premises, we deduce a set of predictions. First, compared to incumbents, challengers will employ significantly more negative rhetoric and provide more opportunities for voters to engage with the campaign (i.e., through interactive Internet technologies). The goal is to induce voters to attend to new information (also see Kahn and Kenney 1999, 2004). Second, compared to incumbents, challengers will put significantly more emphasis on issues, personal features, and party affiliation. They will do so in an attempt to shift voters' focus away from incumbency towards alternative criteria (see, e.g., Groseclose 2001). Issue strategies include emphasizing or priming issues that advantage the candidate (e.g., issues "owned" by the candidate's party), stating unambiguous issue positions that enable voters to evaluate the candidate, and publicizing endorsements from policy-oriented groups that voters can use as issue shortcuts (Downs 1957; Lupia and McCubbins 1998; Sniderman, Brody, and Tetlock 1991, 93–120). Strategies focusing on personal features include discussing leadership, competence, and empathy (e.g., Fenno 1978; Funk 1999; Kinder 1986), as well as making reference to polls that demonstrate the candidate's viability and standing in the public's eyes (Lau and Redlawsk 2006).

Our third hypothesis is that, compared to challengers, incumbents will put significantly more emphasis on experience in public office, familiarity, and providing district or state benefits; as mentioned, these factors underlie the incumbent's advantage. A caveat to this prediction is that safe incumbents have little incentive to campaign actively. Incumbents enjoy an inherent advantage and, all else constant, prefer that voters do not pay attention to campaign rhetoric. In noncompetitive races—where voters often ignore the campaign (e.g., Kahn and Kenney 1999, 182–83)—safe incumbents will opt to be silent on the campaign trail, refusing to engage in active advocacy (for fear of appearing insecure about the campaign) (Jacobson 2004, 97; Trent and Friedenberg 2008, 100). In this case, incumbents will not necessarily put more emphasis than challengers on incumbency factors. As a campaign becomes increasingly competitive, however, incumbents have little choice but to enter the fray and increase the relative emphasis on their advantages, particularly aspects of incumbency.

Our predictions echo extant work by identifying incumbency–challenger status as a critical determinant of campaign behavior over a range of strategies (Jacobson 2004, 91–98; Latimer 2007; Trent and Friedenberg 2008; 86–118) with competition playing a moderating role (Kahn and Kenney 1999; 93–97).[2] As will soon be clear, our predictions also extend to a broad range of strategies that either are treated within distinct frameworks (e.g., going negative and issue ownership) or are not widely studied (e.g., the use of polls, endorsements, partisanship, personal feature emphasis, aspects of incumbency) (Lin 2004).

Moreover, there is an underlying dynamic that we believe ties our predictions together. The distinction between incumbent and challenger strategies amounts to variation in risk-taking (also see, e.g., Kahn and Kenney 1999, 75–76; Lau and Pomper 2004, 31–32). Challenger strategies have less certain, higher variance outcomes. For example, going negative—which

[1] Campaigns also appear to recognize the value of negative information in prompting attention and affecting voters (e.g., Kern 1989).

[2] The behavior of open seat candidates likely depends on other factors (see Jacobson 2004, 98–99), including the candidate's ability to tie himself or herself to the incumbent, district partisanship, and the candidate's standing in the race. We will later explore some of these dynamics.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

challengers do to stimulate attention—entails some risk; many voters disdain negativity (Geer 2006, 1–2; Mark 2006) and its effect remains "uncertain" (Lau and Pomper 2004, 74). Similarly, utilizing interactive Web technologies introduces substantial risk because candidates lose message control, with users choosing what to view (Chadwick 2006, 8; Eveland and Dunwoody 2002).

Risk dynamics also exist with the content of messages. Incumbents emphasize qualities—experience, familiarity, and district benefits—that most voters favor, and that very likely benefit incumbents. Challengers, in contrast, highlight criteria that may or may not advantage them. For example, offering precise issue positions may alienate some voters (Page 1978), providing endorsements can backfire (Lupia and McCubbins 1998, 60–61), and introducing personal features may, in the end, favor the incumbent (e.g., discussing leadership). Similarly, partisan emphasis could sway, alienate, or have no effect on leaners, whereas emphasizing partisan-owned issues could shape vote preferences, have no impact, or even deter voters who care about other issues (such as leaners or voters from the other party). In sum, risk constitutes a latent factor that links our predictions—challengers who must overcome the incumbency hurdle engage in significantly more risky behavior. This portrayal coheres with McDermott, Fowler, and Smirnov's (2008, 346) evolutionary theory of decision making that posits that "when political ... survival is threatened, [politicians] appear much more likely to engage in risky actions. ..." It also provides a generalizable portrait of behavior, one that we will empirically explore in what follows.

USING CANDIDATE WEB SITES TO STUDY CAMPAIGN STRATEGY

A central challenge for work on campaigns concerns the identification of an appropriate source of data. Lau and Pomper (2004, 133–34) explain, "Campaigns are not simple, in practice or analysis ... data—in particular, on the nature of the campaign itself—are much harder to come by" (also see Lipinski 2004, 9; Simon 2002, 94). Ideally, the data should be unmediated (i.e., directly from the campaign), complete (i.e., covering a full range of rhetorical strategies), and representative of the population of campaigns.

We submit that candidate campaign Web sites uniquely meet these criteria. First, Web sites are unmediated. Even when a campaign hires a consulting firm to help construct its Web site, it is the campaign that determines the site's content (Ireland and Nash 2001, 60–61). This contrasts with news media coverage of campaigns (e.g., newspapers), on which some prior work relies (e.g., Lau and Pomper 2004; Sigelman and Buell 2003). Lipinski (2004, 10) explains, candidates' "abilities to communicate through the mass media vary significantly [depending on] relations with local journalists. ... Therefore any analysis of media coverage will not provide an accurate measure of the messages that [candidates] are attempting to communicate. Because of the problems associated with studying mediated communication, it is essential to examine direct methods. ..."

Second, Web sites offer as holistic or complete a portrait of campaign strategy as is available. A "campaign goes well beyond its televised political advertisements. ... Candidates engage in many activities—they give speeches, conduct rallies, distribute literature, and meet with local opinion leaders, editors, and other elites to seek endorsements (Shaw 1999). ... To examine the effects of the campaign more broadly, we need a more comprehensive view beyond political advertisements" (Lau and Pomper 2004, 134). On their Web sites, campaigns can post copious information, including copies of advertisements, speeches, or other material (Ireland and Nash 2001, 60–61). As a result, a campaign Web site potentially captures the aggregation of campaign communications that reflect a campaign's overall rhetorical strategy. This differs from speeches or television advertisements that require candidates to choose brief snippets of their overall message; candidates cannot possibly incorporate the full range of their rhetorical strategies (e.g., references to endorsements, polls, various issues, personal features).[3]

Third, virtually all congressional campaigns launch Web sites, which are critical for capturing a representative sample of the population of congressional campaigns. In contrast, many House candidates and some noncompetitive Senate candidates fail to produce television advertisements (Goldstein and Rivlin 2005, 16; Kahn and Kenney 1999, 34).[4] Similarly, major newspapers spend little time covering House races and noncompetitive Senate races. As a result, studies that rely on advertisements or media coverage use biased samples that often exclude House campaigns and less competitive (or less well-funded) Senate races. In the next section, we empirically demonstrate just how biased advertisement and newspaper coverage is, relative to Web sites.[5]

To assess the validity of our claim that Web sites capture the aggregation of campaign communication aimed at voters in general (e.g., the median voter), we conducted a survey of individuals involved in the design of congressional campaign Web sites during the 2008 campaign ($N = 137$). We provide details of the survey in Appendix A. Here we focus on the most telling results, many of which are consistent with what Stromer-Galley et al. (2003) report from a similar survey in 2002–3.

We asked site designers to rate the priority of several groups of voters as Web site target audiences;

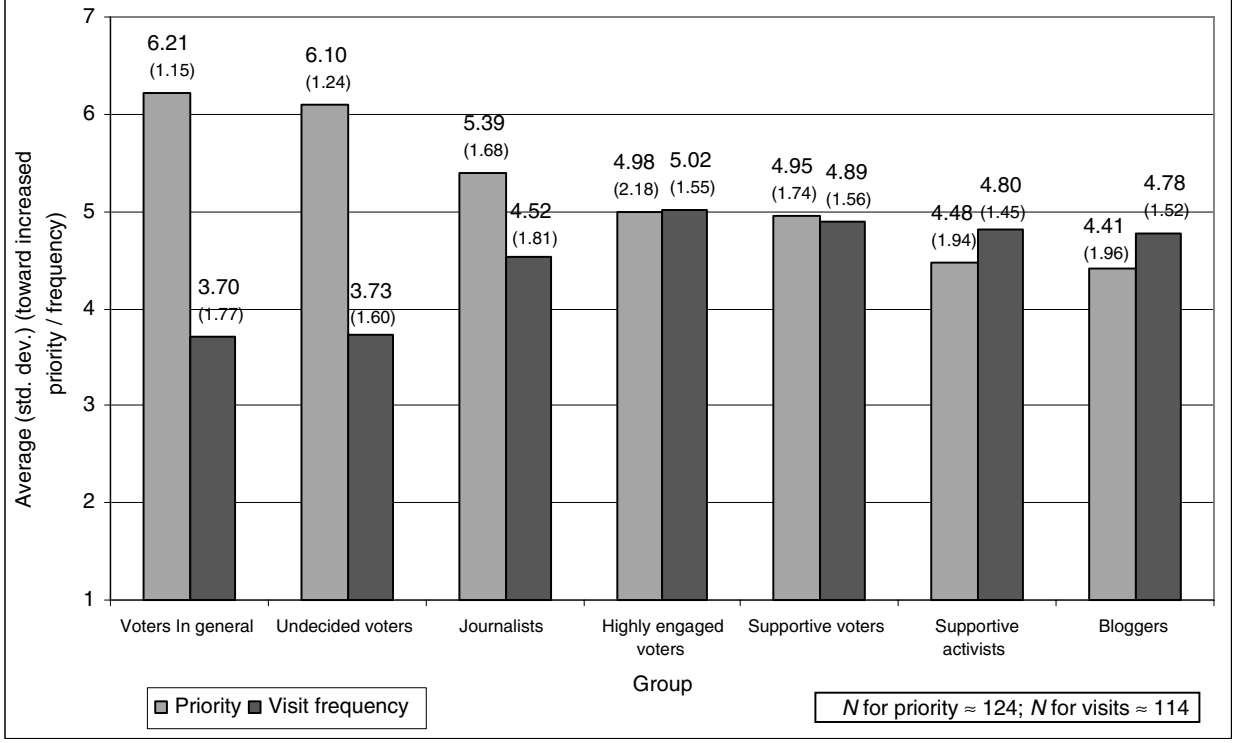
[3] Indicative of the limitations of using television advertisements to capture the range of rhetorical campaign strategy is that the Wisconsin Advertising Project (http://wiscadproject.wisc.edu/; accessed January 2009) does not code for many of the rhetorical features that are evident on Web sites.

[4] We base this claim on what is available from the Wisconsin Advertising Project.

[5] We do not mean to minimize the importance of studying television advertisements and media coverage, particularly for research focused on the effects of mass communication on voters. Rather, our point concerns using these media as unbiased measures of overall campaign strategy.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

FIGURE 1. Web Site Visitor Priority and Visit Frequency



we measured this on a seven-point scale with higher scores indicating increased priority. Respondents also rated their perception of how often an average member of each group visited the site, on a seven-point scale with higher scores indicating more frequent visits. The results, which we present in Figure 1, show that those involved in the creation of the sites view "voters in general" and "undecided voters" as the primary target audiences. These two groups register significantly higher priority scores than all other groups (e.g., comparing "undecided voters" to "journalists," gives $t_{123} = 3.86$, $p < .01$ for a two-tailed test). This matches Stromer-Galley et al.'s (2003) aforementioned survey, which also finds that "undecided voters" were the top-rated audience.

Interestingly, the respondents also recognize that "voters in general" and "undecided voters" visit less frequently than all other groups. Instead, they believe "highly engaged voters" access the site most often (also see Democracy Online Project 1999), even though these voters are not the primary target of the site (e.g., comparing the frequency question for "highly engaged voters" to "undecided voters" gives $t_{112} = 8.97$, $p < .01$ for a two-tailed test). This accentuates the importance of *not* confounding the frequency with which particular voters visit Web sites with the intentions of those designing the sites (e.g., certain groups may be more important even if they visit less often) (cf. Trent and Friedenberg 2008, 402–4). And it is the intent of the designers that is critical to us, as a window into campaign strategy.[6] In Appendix A, we describe additional survey results that also strongly suggest that Web sites are aimed at general voters (e.g., the designers view Web sites as more representative of the "entire campaign" than any other form of communication).

For a final piece of confirmatory evidence, we compared the tone of the rhetoric (i.e., negativity) on Web sites with that found in television advertisements and newspaper coverage. Although these latter two media contain limited and mediated content, respectively, we expect the general tone of the campaign—that is, negativity—to be correlated across media (e.g., although television advertisements cannot contain nearly the range of messages found on a Web site, they can be classified as negative in general tone or not). We report details, including the results, in Appendix B. The main point is that we find significant correlation in general tone across these communication channels, suggesting that Web sites capture the general rhetorical thrust of the campaign, while providing a near limitless opportunity for a campaign to directly include any information it deems relevant.

All of this evidence supports the claim that Web sites offer a valid measure of campaign strategy; they provide an unmediated, holistic, and representative

[6] The importance of "journalists" is interesting because they often visit a site to obtain information that they then use in writing stories that reach broad audiences (e.g., Bimber and Davis 2003, 68–72; Semiatin 2005, 166–67).

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

portrait of messages aimed at voters in general. We now turn to a description of our data collection and approach to measurement.

WEB SITE DATA COLLECTION

Our Web site data cover three election cycles, starting in 2002, a year in which Web sites first became "a critical part of any candidate's strategy" (Chinni 2002, 1). In each year—2002, 2004, and 2006—we identified the universe of major party (Democrat and Republican) House and Senate candidates using the *National Journal*, *Congressional Quarterly*, and various state party home pages.[7] We included the universe of Senate candidates and then selected a systematic random sample of approximately 20% of House races, stratified by state and district to ensure regional diversity in the sample. We searched for all of the Web sites in our sample by following links from the *National Journal*'s Web site (www.nationaljournal.com) and using search engines such as Google (www.google.com). We carefully identified candidates' personal campaign Web sites, excluding official congressional Web sites and Web sites sponsored by other groups or individuals.

We successfully identified nearly all Senate candidate Web sites and more than 95% of House sites in our sample. The few cases where the candidates did not launch Web sites came largely from earlier year races where the candidates had no or very weak (e.g., inexperienced, low-funded) opponents. Our sample consisted of a total of 736 Web sites, with 26% coming from the Senate and 74% coming from the House.[8] Not surprisingly—given our sampling approach—our sites accurately reflect the universe of campaigns, albeit with a slight overrepresentation of competitive races.[9]

To evaluate the biasness of other approaches, we identified the candidates in our sample who produced advertisements in 2002 and 2004 (relying on the Wisconsin Advertising Project, which is fully available only for these years[10]) and who received coverage in major newspapers in these same years. For the newspapers, we identified relevant newspapers and then searched for pertinent campaign articles that mentioned either candidate (from Labor Day until Election Day) (Lau and Pomper 2004; Sigelman and Buell 2003).[11] We identified campaigns for which there were at least 16 articles, in accordance with Lau and Pomper's (2004, 135) minimal standard for capturing campaign content. The total possible number of candidates producing television advertisements is 444, because that is the number in our sample for 2002–4; for the newspaper articles, the maximum number is 387, because we failed to identify electronically available newspapers from eight races.[12]

TABLE 1. Candidates Lacking Television Advertisements and News Coverage, 2002–2004

	% with *no* TV Ads	% from races with *fewer* than 16 articles
Toss-up	21.28% (10/47)	16.22% (6/37)
Likely or leaning	9.47% (9/95)	26.19% (22/84)
Solid	63.91% (193/302)	55.26% (147/266)
Incumbents	47.94% (93/194)	52.12% (86/165)
Challengers	56.83% (104/183)	46.50% (73/157)
Open seats	21.21% (14/66)	25.00% (16/64)

We find that nearly half of our sample would be missing if we relied on television advertisements or newspaper articles. Specifically, 47.75% (212/444) of the campaigns in our sample did *not* produce even a single television advertisement, and 45.22% (175/387) participated in races that did *not* generate the minimal standard of 16 news articles. Moreover, samples relying on these data display systematic biases. Table 1 reports the percentage of candidates who did *not* produce an advertisement and *failed* to participate in a minimally covered race, broken down by competitiveness (based on Cook's ratings; see note 9) and candidate status. Clearly, a disproportionate number of candidates without advertisements or sufficient news coverage come from the least competitive (i.e., "solid") races—64% and 55% of candidates from these races lack advertisements and sufficient news coverage, respectively. Interestingly, however, a nontrivial number of

[7] We also included independent Bernard Sanders of Vermont, who was a 2002 House incumbent and 2006 open seat Senate candidate, as well as incumbent Democrat turned independent Joe Lieberman in 2006.

[8] The list of all sites coded is available from the authors. The only other study of candidate Web sites that approaches the breadth of our data is Foot and Schneider (2006). However, their focus significantly differs from ours.

[9] Since we take a near census of Senate campaigns (e.g., excluding only the few candidates who did not have sites), this part of our sample almost perfectly matches the population in terms of incumbency and competitiveness. Our House sample contains 46% incumbents, 43% challengers, and 12% open seat candidates, which mimics the respective population totals of 49%, 40.5%, and 10.5%. In terms of competitiveness—according to Cook's nonpartisan ratings (www.cookpolitical.com)—our House sample ended up slightly overrepresenting toss-up campaigns, with 9% being toss-up, 18% being leaning or likely, and 73% being solidly in favor of one candidate, compared to respective population figures of 5%, 14%, and 81%. The small overrepresentation of competitive races stems, in part, from our regional stratification, which inadvertently resulted in multiple races from some states with relatively few congressional districts that happen to regularly be competitive (e.g., New Mexico). It also stems slightly from our retaining some districts in our sample in each election cycle in order to allow researchers to follow candidates over time.

[10] In 2006, the project only coded a small subset of campaigns in the Midwest.

[11] The list of newspapers used is available from the authors (see also Kahn and Kenney 1999).

[12] This includes races from Iowa, Connecticut, Delaware, Hawaii, Idaho, Kentucky, Mississippi, and South Dakota. We also have one missing observation for the candidate status analyses; hence the total *N*s of 443 and 386 for those data.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

TABLE 2. Dependent Measures

Variable	Measure	Percentage/ mean (std. dev.)
	Negativity and interactivity	
Negativity	Negative (critical) statement about opponent.	47.95%
Issue negativity[a]	Negative (critical) issue-oriented statement about opponent.	43.91%
Personal negativity[a]	Negative (critical) personal statement about opponent.	30.11%
Interactivity	Web Site allows for content or interpersonal interactivity.	29.08%
	Issues	
Issue ownership	Weighted relative partisan advantage of issues discussed (average, based on annual public opinion measures). (The range is −20 to 26, with negative scores being the inverse of ownership and 0 being neutral.)	1.77 (9.55)
Positions	Number of unambiguous issue positions taken (0–4).	1.83 (.97)
Endorsements	Number of nonpartisan official endorsements provided (0–100).	11.82 (20.40)
	Personal features	
Leadership	Statement about why the candidate is running for office (e.g., discussion of leading in a certain direction).	34.65%
Competence	Statement about prior occupations and experiences relevant to holding office.	82.20%
Empathy	Details about family.	46.52%
Polls[a]	Inclusion of a poll result.	15.54%
	Party	
Party emphasis	Party highlighted on front page.	8.56%
	Incumbency	
Prior office experience	Statement about holding prior elected public office.	66.17%
Familiarity	Statement about growing up in or being from the state/district.	61.82%
District benefits	Number of statements (0–4) about an action taken to address an issue or promote a policy (that may benefit constituents).	0.86 (1.03)

[a] Data collected only in 2004 and 2006.

candidates from even the most competitive races would be absent from a data set relying on advertisements or news coverage (21% and 16%, respectively). The bottom part of the table shows that only 21% and 25% of open seat candidates lack advertisements or coverage, compared to roughly 50% of incumbents and challengers; this suggests a relative overrepresentation of open seat candidates.[13] These results further accentuate the advantages of using Web sites to measure campaign strategy—unlike other approaches, we can generalize beyond highly competitive races and include a representative sample of House, and not just Senate campaigns.

Web Site Measures

To analyze the Web sites each year, we assembled teams of student coders. All coders participated in a detailed training session before being randomly assigned sets of candidate Web sites. We conducted all coding in the 10 days preceding Election Day. However, we also tracked a small sample of Web sites from after Labor Day until Election Day and found little evidence of changes that would have significantly altered our coding (i.e., changes usually concerned items such as the candidate's schedule). For the years in our sample, we thus believe that our coding approach successfully captured campaign strategy.

To measure our dependent variables, coders examined the front page, the page(s) devoted to fundraising, the page(s) devoted to issues, the page(s) devoted to biographical information, and any other "major" page (e.g., with a link from the front page; this included newsroom and media pages). In practice, this amounted to coding the entire self-contained site (coders did not follow links to other Web sites). We describe our specific variables for each hypothesis in Table 2.

Our first prediction states that, compared to incumbents, challengers will go negative more often and provide more opportunities for voters to engage with the campaign. We measure the latter concept by distinguishing Web sites that allow some form of interaction—regarding content or interpersonal communication—from those that do not.[14] To

[13] In analyses available from the authors, we find that competitiveness and challenger status significantly determine whether or not a candidate produces an advertisement (also see Franz et al. 2008, 57). The same is true for newspaper coverage. These biases are evident in strict comparisons with the population of campaigns (as opposed to comparisons with our Web site sample, which, as mentioned, slightly overrepresents competitive races). In other words, our minimal bias toward competitive races comes nowhere near the extent of the bias in newspaper coverage and television advertisements.

[14] Specifically, we coded whether sites allow users to personalize information, arrange information, add information, and/or

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

measure negativity, we follow Geer's (2006, 23) depiction of it as "any criticism leveled by one candidate against another during a campaign" (also see Buell and Sigelman 2008). We used a dichotomous variable indicating whether a candidate included material on the site that was negative or critical of his or her opponent (in tone or explicitly). We opted for a dichotomous measure, rather than a count across the entire Web site, for two reasons. First, on a particular page, we found it difficult to reliably count the number of negative statements (when does a negative statement end and another one begin?). Second, using a subsample of 41 sites, we counted the number of distinct pages (e.g., the front page, personal page, issue page) that included negativity. We found very little variance, such that most candidates who went negative on their sites did so twice (most typically, on the front page and issues page). Not surprisingly, then, we find virtually identical results when using this count or employing our simpler and more reliable dichotomous indicator across the entire site.[15]

In 2004 and 2006, we also coded each site for whether the negativity focused exclusively on issues (e.g., "my opponent has a bad record on taxes"), exclusively on the person (e.g., "my opponent is not trustworthy"), or on both issues and the person (e.g., Geer 2006; Kahn and Kenney 1999; Lau and Pomper 2004). These distinctions enable us to assess whether our prediction holds across types of negativity.

Operationalizing our second hypothesis requires measuring the aforementioned issue, personal features, and partisan variables. To capture candidate emphasis on advantageous issues, we build on issue ownership theory, which suggests that candidates benefit from highlighting issues on which their party is preferred (e.g., a focus on the environment favors Democrats whereas a focus on homeland security favors Republicans). We collected data from multiple polls on the public's perception of which party owned a host of policy issues (Hayes 2005, 910; Petrocik 1996, 832).[16] We then computed, for each candidate, the weighted partisan advantage (according to public opinion) of the issues emphasized on their front page, biography page, and/or issues page.[17] The scores range from –20 to 26, with positive numbers indicating increased ownership of the emphasized issues by the candidate's party and negative scores the inverse. We operationalize position taking by summing the number of unambiguous issue positions (where a counter position is easily identified) offered by the candidate on the front page or issues part of the site (up to four, which captures most variation among candidates). We also counted the number of official endorsements (e.g., from the AFL-CIO, farmer groups, teachers, Right to Life, NRA, NOW, Sierra Club) anywhere on the site (up to 100).[18]

Previous research offers less guidance on how to reliably measure personal feature rhetoric, leading us to develop plausible proxies. For leadership, we coded whether the candidate included a statement (on the front page or biography pages) explaining why he or she was running for office. These statements invariably invoke the desire to make a difference and help lead in a certain direction. For competence, we coded for discussion of prior relevant occupations and experiences. We measured empathy with whether the candidate offered details of his or her family. Although this last variable is fairly indirect, we suspect that candidates include this type of information in the hope of portraying themselves as "down to earth" people who are in touch with the concerns of typical families. We coded whether a candidate included poll data, which in every case demonstrated the candidate's good standing in the race. (We did not collect poll data in 2002.)[19] Finally, for party emphasis, we measured whether the candidate highlighted his or her party on the front page (i.e., in the banner at the top of the front page).

To test our incumbency hypothesis, we measured the three aforementioned incumbency features—experience in office, familiarity, and the provision of district or state benefits (which we hereafter call "district benefits") (Jacobson 2004). We used dichotomous measures to indicate whether the candidate discussed, on the front page or biography pages, having held any public office and whether he or she accentuated ties to the district/state by mentioning having grown up or lived much of his or her life in the area (thereby displaying familiarity). To measure district benefits, we summed (up to four) the number of candidate statements about an action taken that potentially benefited the constituents; examples include obtaining something for the district, organizing events or introducing legislation concerning a local issue, and meeting or working with other politicians to discuss a locally relevant issue.

To assess coding reliability, we randomly sampled approximately 30% of the Web sites and had one of two reliability coders code these sites. Specific reliability statistics are available from the authors; for all the

communicate with other voters and/or the candidate (e.g., interactive posts to a blog) (see Druckman, Kifer, and Parkin 2007).

[15] In our subsample, the average number of negative statements across the Web site is 2.07, with a standard deviation of 0.46.

[16] Sources for this data came from a search of the iPoll databank provided by the Roper Center for Public Opinion Research, University of Connecticut. Further details are available from the authors.

[17] For each issue, in each individual year, we average the party's advantage/disadvantage and assign points to the candidates based on the number of times that each issue is emphasized on their front pages, biography pages, and/or issues pages. For example, a Democratic candidate in 2002 would get 22.9 points for every time he or she mentioned the environment because the Democrats enjoyed a 22.9% public opinion point advantage over Republicans on this issue in 2002. The same Democratic candidate would lose 16 points; however, for every time he or she mentioned homeland security, because the Republicans held the public's confidence by 16 points on that issue in 2002. We then divided the sum by the total number of issues mentioned by the candidate. These scores enable us to explore variation in issue ownership—that is, which candidates engaged in more or less ownership (cf. Dolan 2005; Sellers 1998; Sides 2006; Sulkin and Evans 2006).

[18] These endorsements nearly always came from issue-oriented groups, with the only notable exception being newspapers.

[19] As with negativity, we coded a small sample of sites to assess any changes in our results if we instead counted the number of polls referenced across the site. We found no change whatsoever using this variable.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

variables used in the analyses below, we find high levels of reliability, nearly always exceeding the .80 threshold, correcting for chance agreement (Neuendorf 2002, 143; Riffe, Lacy, and Fico 1998, 131).

RESULTS

Our hypotheses involve two key explanatory variables: candidate status and competition. We use dichotomous variables to distinguish challengers, incumbents, and open seat candidates. As mentioned, for competitiveness, we use Cook's ratings to classify races as 0 = solid Democratic or Republican, .33 = likely Democratic or Republican, .67 = leaning Democratic or Republican, or 1 = toss-up. Scholars commonly rely on Cook scores because they have the virtue of being exogenous to the races themselves (e.g., Goldstein and Freedman 2002; Gronke 2000, 100–101; Sulkin 2001).[20]

Candidate status and competitiveness correlate with a number of other variables shown to affect campaign behavior. Testing our hypotheses, therefore, requires the inclusion of control variables including year, office (Senate or House), party, gender, funds raised, frontrunner status, and district/state partisanship. Moreover, a few of our particular measures require additional controls, such as the holding of any prior office for the incumbency measures (e.g., challengers who never held prior office cannot talk about their experiences doing so) and issue salience for the issue ownership measure (e.g., candidates might emphasize salient issues). We describe all of the control measures in Appendix C.

We test our first three hypotheses by regressing each dependent variable on candidate status, competition, and the controls. We display the regressions in Appendix D, where interested readers can assess the impact of the control variables. We focus here on the impact of candidate status across the dependent measures. Specifically, we use regressions akin to those in Appendix D to generate the predicted probability that an average challenger will engage in a given behavior and the predicted probability that an average incumbent will do so.[21] (For interval-level dependent variables, we focus—for presentational reasons—on the probability of being above the mean value, such as citing more than the mean number of district benefits.) We set all other variables to their mean values.

We present the results in Figure 2. They show that, in every case, there are statistically significant and substantively meaningful differences between challengers and incumbents. For example, the probability of the average challenger going negative is .65, which is dramatically higher than the incumbent likelihood of .31 (also see Druckman, Kifer, and Parkman n.d.). This same dynamic holds for both issue and personal negativity. It also occurs with Web site interactivity, with the likelihood of an average challenger employing some form of interactivity being .32, compared to .24 for the average incumbent. Even more impressively, challengers exhibit significantly greater likelihood of emphasizing *every* issue, personal feature, and party measure. It is striking, then, that the probabilities completely shift when it comes to the incumbency behavior of prior office experience, familiarity, and district benefits. The substantive differences range from .40 in the case of issue negativity to .10 in the case of party emphasis. Across all behaviors, the average difference probability for engaging in a behavior is .18 (std. dev. .09). This means that, all else constant, incumbents and challengers differ in their likelihood of employing different rhetorical strategies by 18% on average. The results not only constitute the first empirical confirmation for many of the individual measures (e.g., even the issue ownership literature had yet to explore variance in claims of ownership), but also, when taken together, reveal fundamental alternative approaches to campaigning.[22]

We test our next hypothesis—that incumbents place greater relative emphasis on incumbency factors as the race becomes increasingly competitive—by adding interactions between competitiveness and the candidate status variables to the incumbency regressions (again available in Appendix D). We then generate relative probabilities (i.e., incumbency probability – challenger probability) of engaging in each type of incumbency strategy for noncompetitive (solid), moderately competitive (likely/leaning), and highly competitive (toss-up) races.[23] We display the results in Figure 3, with the asterisks indicating significant differences between incumbents and challengers for the given competitiveness level. As expected, incumbents differ significantly from challengers in their likelihood of emphasizing aspects of incumbency *only* as the race becomes more competitive. For example, in the least competitive races, incumbents do not place significantly more emphasis than challengers on any of the variables; in fact, they put less weight on prior office and district benefits (although the differences are not significant). In contrast, in the most competitive races, we see that the incumbents are respectively 52%, 28%, and 16% more likely to highlight district benefits, familiarity, and prior office than challengers (all significant differences).

We also coded for whether the candidate provided a campaign event schedule on his or her Web site. Consistent with the results, just reported, we find the relative likelihood of incumbents posting a schedule increases as the race becomes more competitive (i.e., in less competitive races, they are less likely to actively campaign). Specifically, incumbents are approximately 18% less likely than challengers to post a schedule in

[20] In Table 1, we collapsed the two middle categories for presentational purposes; unless otherwise noted, we do not do so in our analyses.

[21] We compute all probabilities presented in the paper using *Clarify* (Tomz, Wittenberg, and King 1999).

[22] Our results are not being driven by a particular chamber; when we add interactions between candidate status and chamber (e.g., Senate), the challenger variable remains significant, in all analyses, for both chambers (also see Gronke 2000). We will later explore chamber differences in more detail.

[23] For presentational purposes, in Figure 3, we merge likely and leaning into one category. The results are robust if we break these out, although there are no significant shifts, in the expected direction, between likely and leaning races.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

FIGURE 2. Candidate Status and Campaign Content

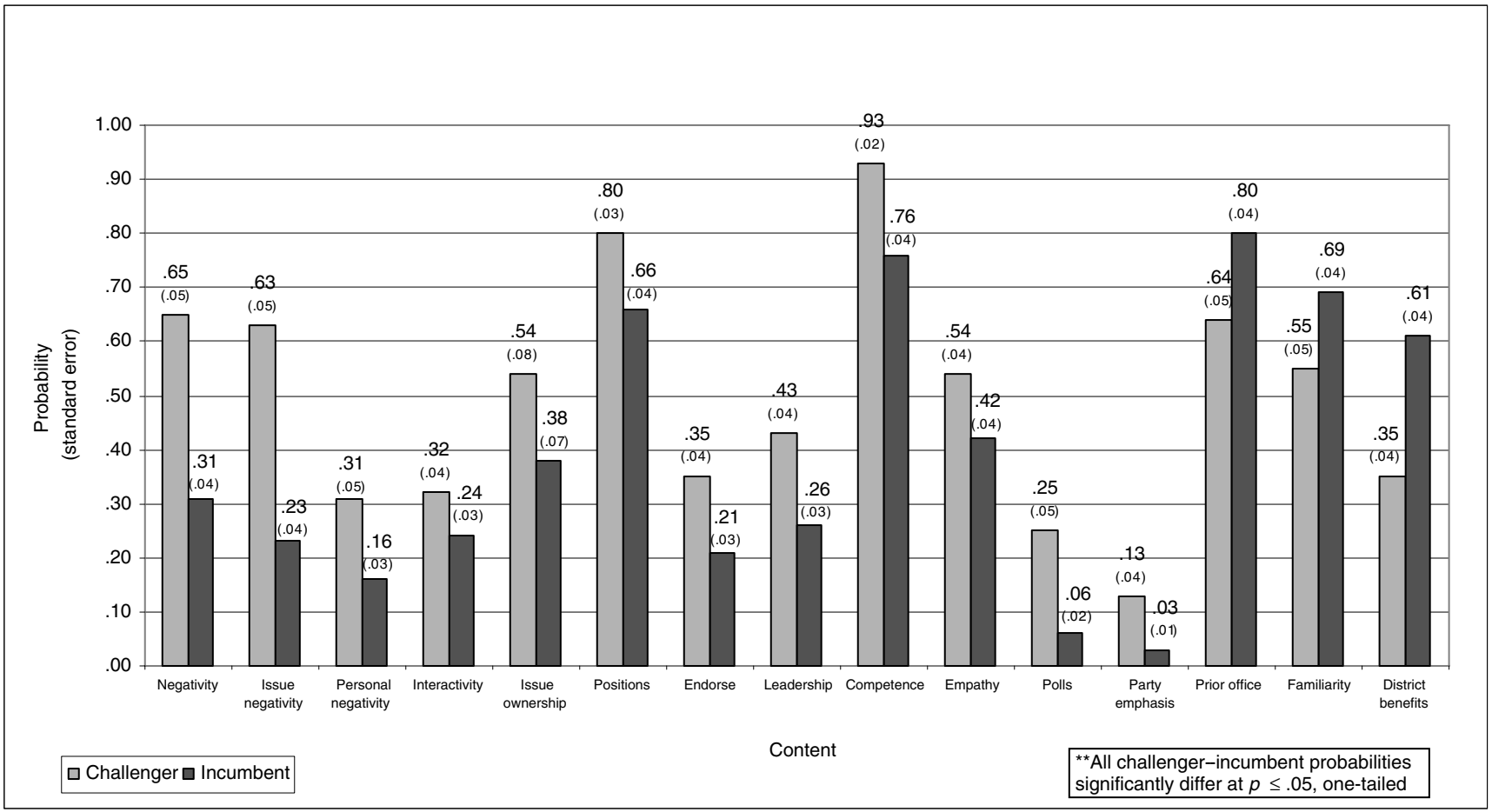
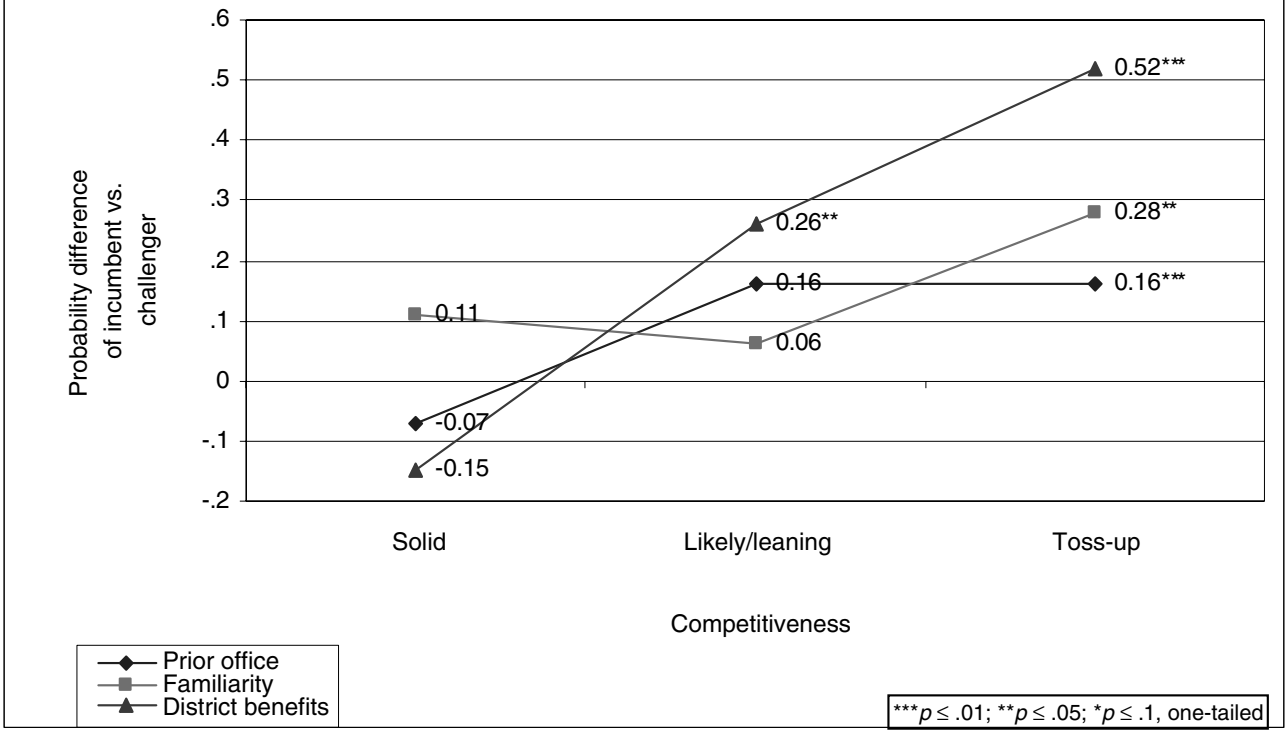


FIGURE 3. Relative Probability of Incumbent Behavior



noncompetitive and leaning/likely races, but only 10% less likely in the competitive races (which is a significant change). These incumbency results support the notion that incumbents operate in two distinct political universes, depending on the competitive nature of the race. Importantly, when we explore interactions between competitiveness and candidate status for the other (challenger) behaviors, we find significance in only two cases (i.e., negativity and issue ownership).[24] This suggests that, unlike incumbents, challengers' strategies do not substantially change based on competitiveness.

Challengers as Risk Takers[25]

We previously explained that risk-taking constitutes a latent factor distinguishing challengers' and incumbents' strategies. Challengers employ tactics with uncertain consequences (e.g., will negativity alienate? will partisanship resonate?) whereas incumbents enjoy more certainty (e.g., nearly all voters prefer district ties, benefits, office experience). We operationalize this argument by aggregating the strategies we have explored into a single risk-taking measure. For each candidate, we summed the number of risky ("challenger") strategies, and from that sum, subtracted the use of any of the safe ("incumbent") strategies.[26] (We exclude issue and personal negativity as well as polling because we do not have data on these variables for 2002.) The result is a count variable ranging from −3 to 8, with higher scores indicating an increased tendency toward risk. The average is 2.28 (std dev. 2.15). In Table 3, we present results from regressing the measure on the key explanatory factors (see Appendix C for details on the independent variables).[27]

The first column of Table 3 confirms our central prediction—challengers engage in significantly more risky behavior than incumbents. Substantively, the average challenger undertakes 3.32 (standard error: 0.13) risky behaviors, whereas the average incumbent employs 1.23 (0.13).[28] The results also reveal the

[24] We find that the relative probability of challengers (as opposed to incumbents) going negative shrinks as races become more competitive, and that the relative probability of challengers (as opposed to incumbents) engaging in issue ownership increases with competition.

[25] We thank the *APSR*'s editors for suggesting the analyses and discussion contained in this section.

[26] As we did in generating Figure 2, we transform ordinal/interval level variables based on falling below or above the mean. This allows us to create an aggregate measure that gives equal weight to each strategy (which, although debatable, is agnostic). We exclude candidates who had missing data on any one of the strategies in the risk index.

[27] The sample size drops because of missing fund raising data and missing data on our issue ownership variable (i.e., we did not compute issue ownership scores for candidates who failed to mention an issue for which we had commensurate public opinion data).

[28] To compute these values, we treat our risk index as interval level and use *Clarify*, setting all other variables to their mean values.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

TABLE 3. Risk-Taking

	All data	House data	Senate data	All data
Challenger	1.37***	1.40***	1.34***	1.78***
	(0.15)	(0.19)	(0.27)	(0.29)
Open seat	0.77***	0.74***	0.93***	1.32***
	(0.14)	(0.17)	(0.26)	(0.30)
Competition	0.26**	0.46***	−0.10	0.35***
	(0.12)	(0.18)	(0.22)	(0.15)
2004	0.18**	0.06	0.37**	0.17**
	(0.11)	(0.13)	(0.19)	(0.11)
2006	0.31***	0.18*	0.53***	0.31***
	(0.10)	(0.12)	(0.20)	(0.10)
Senate	−0.15*	—	—	−0.17*
	(0.11)			(0.11)
Democrat	0.95***	0.96***	1.04***	0.95***
	(0.08)	(0.10)	(0.17)	(0.08)
Female	0.07	0.09	−0.06	0.08
	(0.11)	(0.12)	(0.21)	(0.11)
Funds raised	1.52***	1.96	1.32**	1.66***
	(0.60)	(2.65)	(0.70)	(0.61)
Front-runner status	−0.51***	−0.59***	−0.33	−0.06
	(0.15)	(0.19)	(0.27)	(0.29)
District Republican	0.002	0.004	−0.014*	0.002
	(0.004)	(0.004)	(0.010)	(0.004)
Open × front-runner status	—	—	—	−0.84**
				(0.40)
Challenger × front-runner status	—	—	—	−0.54
				(0.47)
Log likelihood	−1265.12	−917.52	−333.46	−1262.92
N	692	509	183	692

Note: The dependent variable is our index of risk-taking behavior, ranging from −3 to 8. Entries are ordered probit coefficients with standard errors in parentheses. $^{***}p \leq .01$; $^{**}p \leq .05$; $^{*}p \leq .10$ for one-tailed tests. The coefficients and standard errors for $\tau_{1 \text{ through } \tau_{11}}$ are as follows (reading across the table): for model 1, −2.21 (0.33), −1.45 (0.28), −0.55 (0.26), 0.16 (0.25), 0.87 (0.25), 1.48 (0.26), 2.17 (0.26), 2.69 (0.27), 3.37 (0.28), 4.03 (0.30), 4.77 (0.35); for model 2, −2.14 (0.36), −1.43 (0.32), −0.58 (0.30), 0.10 (0.30), 0.82 (0.29), 1.53 (0.30), 2.20 (0.30), 2.72 (0.31), 3.45 (0.33), 4.11 (0.35), 5.00 (0.43); for model 3, −2.35 (0.70), −1.10 (0.62), −0.28 (0.61), 0.43 (0.61), 0.83 (0.61), 1.57 (0.62), 2.14 (0.63), 2.74 (0.64), 3.41 (0.66), 3.93 (0.71); for model 4, −1.78 (0.41), −1.03 (0.37), −0.12 (0.36), 0.58 (0.36), 1.29, (0.36), 1.91 (0.36), 2.60 (0.36), 3.12 (0.37), 3.81 (0.38), 4.47 (0.39), 5.21 (0.43).

importance of competition, with the significance both of our competition variable and of the funds raised measure (e.g., fund raising increases in close races). Not surprisingly, front-runners avoid risk—they have no need to take chances. Risky behavior also increases with open seat candidates and Democrats (who were largely the minority party for these years) and over time. Perhaps most interesting is the (marginally) significant negative Senate effect. The average Senate candidate engages in 2.09 (0.14) risky behaviors, compared to 2.33 (0.07) for the House. Senate candidates, particularly in competitive races, may put more emphasis on less risky incumbency factors, in light of recent trends of a greater Senate incumbency advantage (Ansolabehere and Snyder 2002, 320).[29] In the next two columns of Table 3, we probe chamber differences further by presenting regressions separately for the House and the Senate. Although the results reveal some distinctions, the challenger–incumbent difference is robust, and in fact virtually identical across chambers.[30] It thus appears that chamber variation in risky behavior applies across candidates (and not just to incumbents or challengers).

The final regression in Table 3 explores a dynamic about which we have thus far said little—the behavior of open seat candidates. Our approach suggests that front-running open seat candidates may act like incumbents. These candidates, who in practice almost always come from the prior incumbent's party,[31] do not need to overcome an incumbency advantage, and their front-runner status means they have little incentive to take risks. We test this by adding an interaction between open seat status and front-runner status

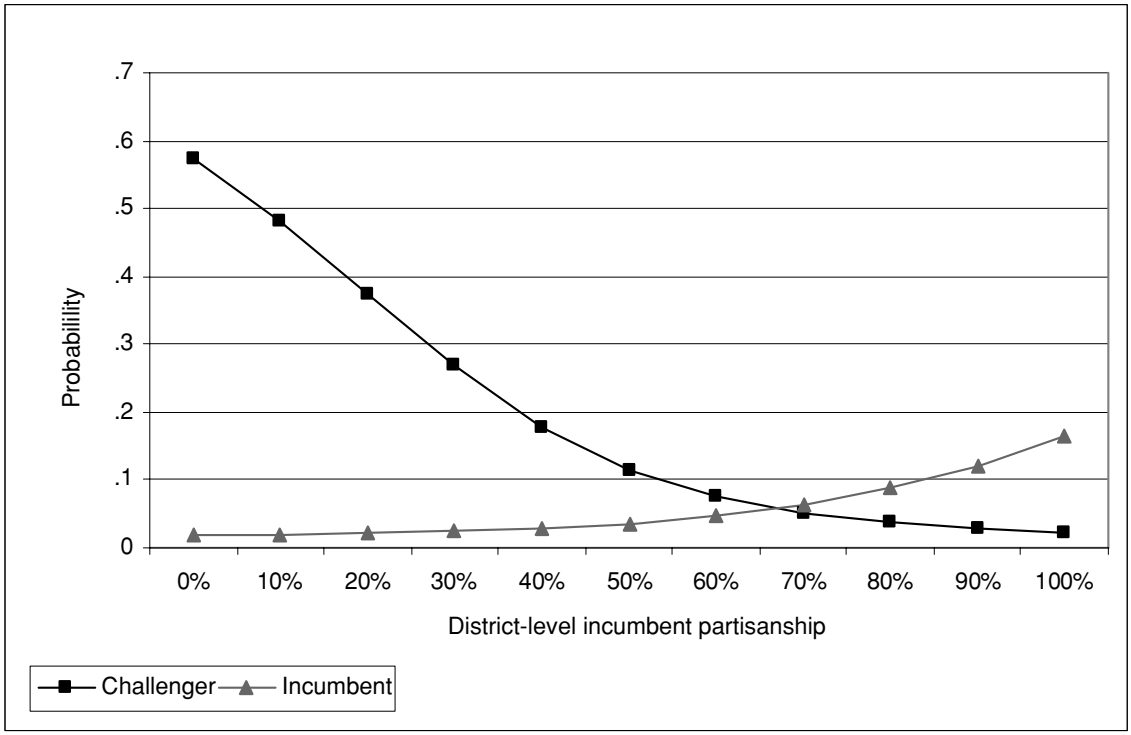
[29] Ansolabehere and Snyder (2002, 320) show that from 1992 to 2000 the Senate incumbency advantage exceeded the House's by 2.77%.

[30] We posit that the differential chamber effects of competition and funds raised reflect funds being a more precise measure of competition in the Senate, due to much greater variance in Senate funds raised.

[31] For example, 78% of open seat candidates who fall into our highest front-runner category come from the party of the prior incumbent.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

FIGURE 4. Party Emphasis



with the expectation of a significant negative coefficient (which would indicate a smaller open seat main effect). We add an analogous interaction between challengers and front-runner status, although we do not expect it to be significant. Even front-running challengers need to take steps to overcome the incumbency advantage (and thus we do not expect the challenger main effect to diminish, as would be indicated by a significant negative interaction). The results support these expectations; the open seat–front-runner interaction is highly significant and the challenger interaction is not.[32] The significant negative interaction shows that the open seat main effect dramatically shrinks for front-runners; the average front-running open seat candidate engages in 1.67 (0.27) risk behaviors compared to 3.02 (0.26) for the average trailing open seat candidate. These predicted means nicely match the aforementioned respective challenger and incumbent means of 1.23 and 3.32.[33]

To gauge just how much risk challengers are willing to take, we now further explore partisan strategies. Emphasizing one's party and/or engaging in issue ownership (i.e., focusing on issues of particular importance to fellow partisans) become increasingly risky as the number of fellow partisans in the district/state decreases (e.g., highlighting Democratic party status is risky when there are fewer Democratic voters). In Figures 4 and 5, we plot the extent to which incumbents and challengers, on average, emphasize partisanship and engage in issue ownership (i.e., on a standardized scale where 0% indicates equal attention to owned and unowned issues and 100% equals maximum attention to owned issues).[34] The *x*-axis displays the percentage of the district or state that shares the incumbent's partisanship, as indicated by the standard presidential vote in the district or state measure (Carson, Engstrom, and Roberts 2006). Both figures show that, as revealed in Figure 2, challengers employ these strategies significantly more often, and that the candidates sensibly respond to district partisanship—for example, challengers become less likely to use partisan tactics when more of their constituency consists of members of the opposing party.

More important are the regions where a majority of the constituency voted for the presidential candidate of the incumbent's party (e.g., suggesting that the median voter is of the incumbent's party or perhaps an

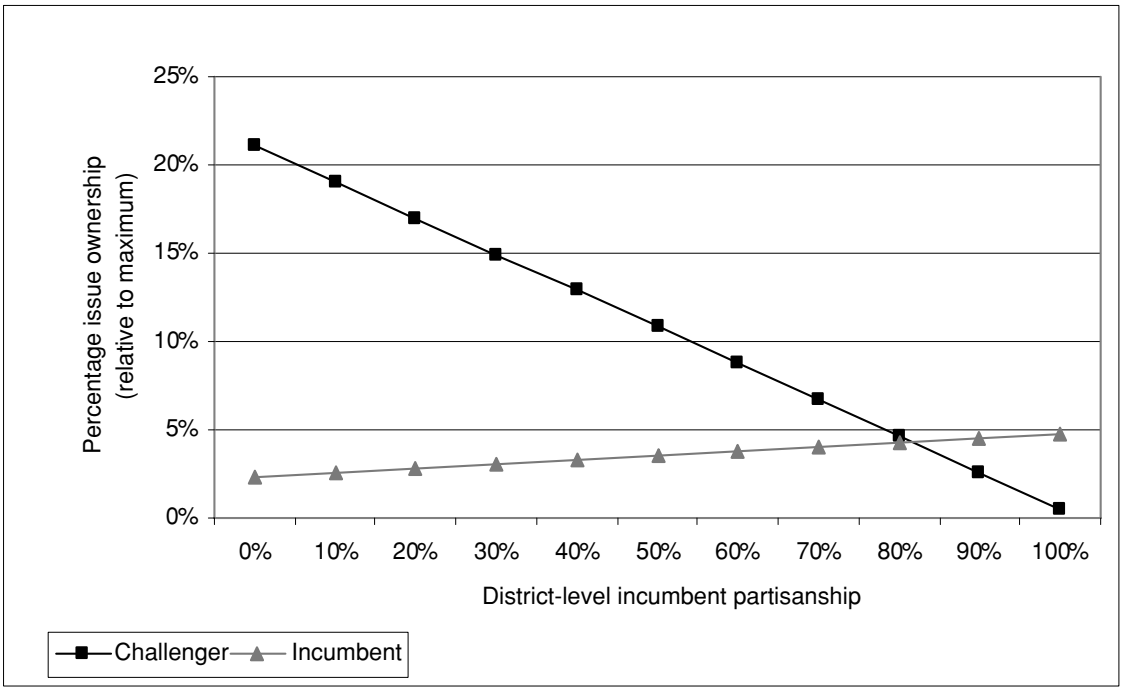
[32] Twice the difference in log likelihoods is distributed as chi-square with the difference in the number of parameters as the degrees of freedom. Thus the first model in the table compared to the final one gives Prob($\chi^2_2 \geq 4.4$) = .11. If we only include the open seat–front-runner interaction, the chi-squared probability becomes .08.

[33] When we run this regression separately for the House and Senate, we find the interaction is only significant for the House, possibly reflecting the aforementioned perception of a smaller incumbency advantage in the Senate.

[34] Recall that the issue ownership variable ranges from –20 to 26 (where negative numbers indicate putting more emphasis on issues owned by the other party). We computed predicted scores for challengers and incumbents on this scale. We then standardized them by dividing the predicted scores by the empirical maximum of ownership (in our sample). By so doing, we ignore the possibility of negative scores; however, including this possibility in our standardization leaves the displayed trends unchanged.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

FIGURE 5. Issue Ownership



Independent), but challengers, nonetheless, continue to employ partisan approaches more than incumbents. That is, challengers put relatively more emphasis on aspects of their party despite the fact that the majority of their potential constituents are, at the very least, not strong supporters of their party. This accentuates the tremendous extent to which incumbents avoid uncertainty using incumbency-focused messages "devoid of partisan or even programmatic content" (Jacobson 1992, 141). It also reflects the small choice challengers have other than to employ strategies whose ultimate outcomes are uncertain at best (perhaps reflecting some desperation).

Negativity and Content

Our portrayal of risk as the underlying latent factor behind incumbent and challenger strategies suggests a coherence to these strategies—that is, candidates' strategies entail more than a patchwork of various points of emphasis. Consistent with this argument, we expect a connection between the type of negativity (used to stimulate attention) and the content of a candidate's message.

As discussed, a candidate can go negative by attacking the opponent on issues, personal features, or both (e.g., Geer 2006). If, as we have argued, candidates go negative to motivate voters to attend to rhetoric that shifts the criteria of choice, then it is sensible that the type of negativity employed would cohere with the criteria the candidate emphasizes. Candidates who go negative on issues are likely to emphasize issues more than those who do not go negative on issues; candidates who go personally negative are likely to emphasize personal features more than those who do not go personally negative.[35] Extant work has yet to explore this possibility, instead treating negativity as an end in itself, rather than as part of a larger rhetorical strategy aimed at altering the criteria of electoral choice.

We test this by adding two variables—indicating whether the candidate went personally negative and whether the candidate went negative on issues—to the same regressions that generated the probabilities reported in Figure 2 (and that can be found in Appendix D).[36] We then compare the computed probabilities of engaging in a given type of rhetoric for candidates who went personally negative against those for candidates who did not go personally negative. We do the same for issue negativity. (Candidates may have engaged in both types of negativity.)

Figure 6 reports the changes in probability for both personal and issue negativity.[37] For example, the likelihood of emphasizing unambiguous issue positions

[35] Our prediction is not that they will put relatively more emphasis on issues or personal features *within* their Web sites. Rather, we purport that they will pay greater attention to these criteria than will other candidates who do not go negative in the same way. It is possible that a candidate might pursue both an issue and a personal feature strategy, in which case we would expect both issue and personal negativity.

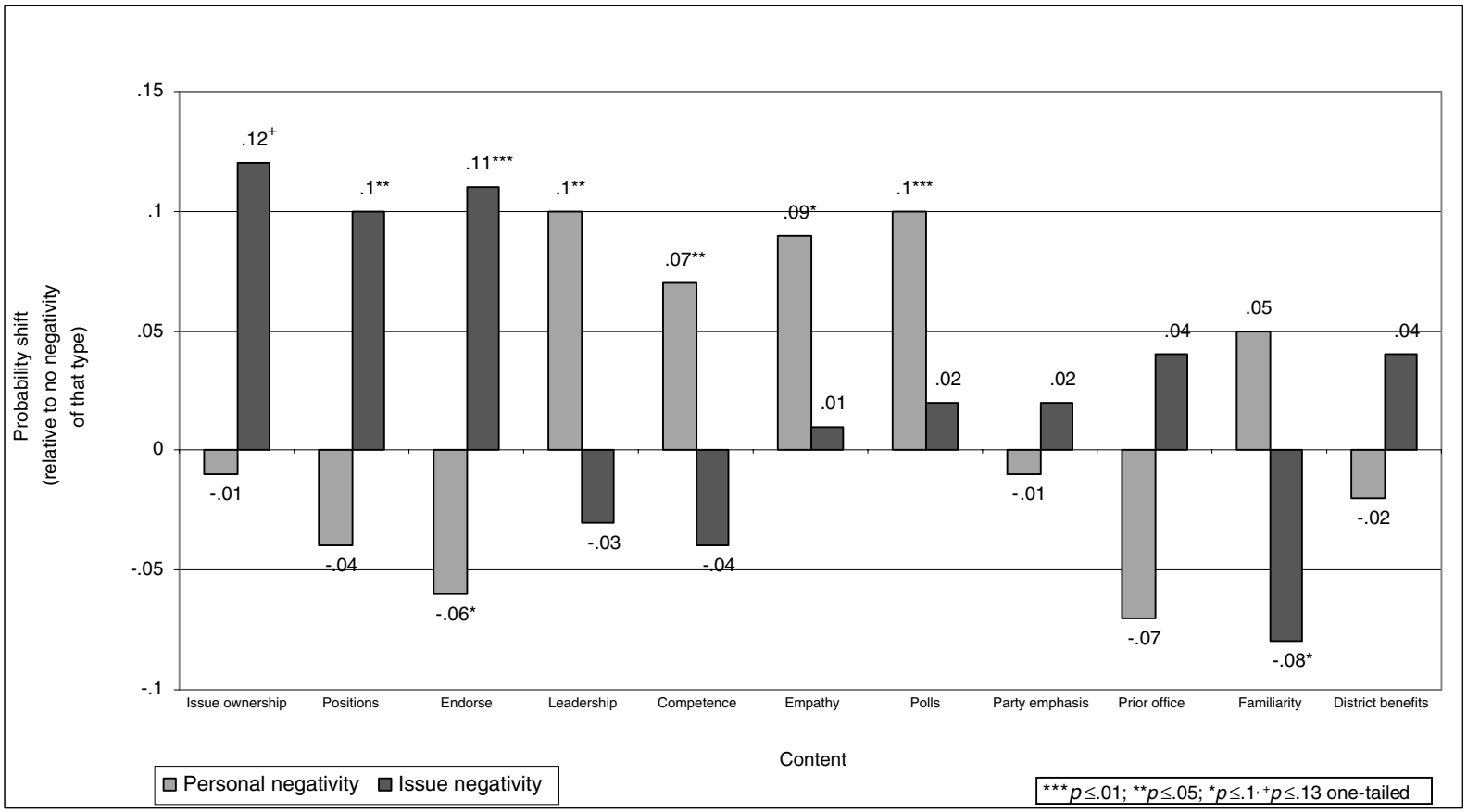
[36] Recall that our data on type of negativity are limited to 2004 and 2006. The regressions are available from the authors.

[37] All other variables are again set at mean values (including the alternative type of negativity). We do not provide standard errors because the figure presents differences. Indications of statistical significance in the figure reflect the significance of the given type of negativity in the regression that generated the probabilities.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

FIGURE 6. Negativity Type and Campaign Content



increases by a significant 10% for candidates who go negative on issues (compared to those who do not). The results support our contention that negativity forms part of a larger campaign strategy aimed at inducing voters to base their decisions on issue and/or personal criteria. Indeed, the likelihood of engaging in each type of issue strategy—issue ownership, position-taking, and offering endorsements—significantly increases when a candidate goes negative on issues (ranging from 10% to 12% increases). Analogously, candidates who go personally negative display a significantly greater likelihood of emphasizing personal rhetoric, including leadership, competence, empathy, and polls (with the increased likelihood ranging from 7% to 10%). We find little evidence of a relationship between negativity and the incumbency-based rhetoric or party emphasis, which is not surprising, as we had no expectation of meaningful connections.

These results support our overall portrait of campaign strategy. Challengers and incumbents fundamentally differ in the criteria they emphasize, with challengers placing more emphasis on issues, personal features, and party, and incumbents putting more relative weight on the factors that underlie incumbency. Challengers and incumbents also differ in terms of their responsiveness to competition. Whereas challengers are consistently willing to take risks, incumbents will only do so when races tighten. These distinct tactics cohere into comprehensive campaign strategies, which basically amount to challengers opting for riskier options. That candidates connect the content of their rhetoric to its tone (i.e., type of negativity) constitutes further evidence that candidates carefully calibrate their entire strategies.

Advantages of Web Data

We argued that an advantage of the Web data—in addition to their being unmediated and holistic—is their representativeness (e.g., see Table 1). To see how this can impact substantive conclusions, consider Lau and Pomper's (2004, 36) finding, based on Senate newspaper coverage from 1992 through 2002, that challengers do not significantly differ from incumbents in terms of the likelihood of going negative. This contradicts our finding (also see Kahn and Kenney 1999, 74–98). In addition to using alternative media and different years, it may be that their nonfinding stems from reliance on a sample that excludes noncompetitive races (and House races) and overrepresents open seat races (see Table 1). To test this possibility, we reran our basic negativity analysis (see Figure 2; Table D-1) on the subsample of all candidates for whom we could access newspaper articles and who met the 16-article minimum used by Lau and Pomper (for 2002–4, the period for which we counted newspaper articles). We find that the challenger variable becomes insignificant ($b = 0.15$, se $= 0.69$, $p < .45$, for a one-tailed test).[38] When we do an analogous analysis but just for campaigns that produced television advertisements in 2002 and 2004, we find that the challenger effect just falls short of significance ($b = 0.61$, se $= 0.56$, $p < .15$).[39] Yet, if we analyze the full sample of our Web data for those same years, we continue to find significant challenger effects ($b = 0.82$, se $= 0.46$, $p < .05$).

To evaluate the overall impact of limited television and newspaper samples, we reran our basic analysis for each dependent variable using only the data that would be available based on accessible newspaper coverage with at least 16 articles, and only on the production of television advertisements. For newspapers, we find that we would have failed to find a significant challenger–incumbent distinction for eight of the dependent variables explored in Figure 2: negativity, positions, leadership, competence, polls, party emphasis, prior office, and familiarity. We would have failed to find significant effects with a sample akin to what would be available with television advertisements for six variables: negativity, personal negativity, competence, polls, prior office, and familiarity.[40] Clearly, the nature of the sample used to study campaign communications can have notable effects on the findings. Limited samples may obscure an important distinction in the way that incumbents and challengers campaign.

CONCLUSION

Campaigns are critical to democracy and thus deserve significant scholarly attention. Extant research often proceeds in a piecemeal fashion, focusing on one strategy at a time (e.g., negativity, issue ownership), and relies on less than ideal data. We have attempted to advance the study of campaigns by integrating past work and offering a new data source. In so doing, we brought together previously disparate literatures and incorporated a wide range of understudied campaign behaviors (e.g., the use of polls, personal feature emphasis). We also established the virtues of using Web data as an unmediated, holistic, and representative way to measure campaigns. As in other work, we find that challengers and incumbents behave differently, but unlike prior work, we systematically explored these differences across campaign behaviors, recognized the contingent nature of incumbent behavior (based on competition), identified a potential underlying dynamic behind strategic differences (i.e., risk-taking), and linked negativity to the content of candidates' rhetoric.

[38] To be fair, this likely stems in part from Lau and Pomper's (2004) 16-article minimum. When we use our own coding of Senate newspaper coverage from 2002 through 2006 (see Appendix B), we find significant challenger effects on negativity for all coding, but the significance of the effect disappears (just barely) when we limit analyses to races that included a minimum of 16 articles.

[39] We find a significant relationship if we exclude the independent variable of whether the opponent went negative. Also, when we run a basic model using the number of television attack advertisements produced as the dependent variable (only for those who produced ads), we find a barely significant effect. (We find a similar effect when we combine attack and contrast television advertisements as the dependent variable; see Franz et al. 2008).

[40] When we use our full sample but only for 2002 and 2004 (i.e., the period for which we analyze the TV and newspaper data), we continue to find significant challenger effects for all variables except going personally negative.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

Our results suggest a number of intriguing directions for future research. First is the question of whether our findings will hold over future years, as political conditions continue to evolve. The extent and nature of the incumbency advantage changed in the 1990s with the rise of nationalized elections, active parties, and issue-oriented interest groups (Fiorina 2004; also see Koch 2008). Although it is unclear whether these changes affected campaign strategies, it seems likely that conditions will continue to change in ways that may or may not impact strategies. Similarly, future work can identify when the same basic dynamics hold across communication channels, including television advertisements, news coverage, speeches, direct mail, and debates. Second, the ultimate success of these alternative campaign strategies remains unclear. Do incumbents who emphasize aspects of incumbency fare better than those who do not? As the literature on the effects of campaign spending (e.g., Gerber 2004) reveals, assessing these effects will not be straightforward. Third, we have left unanswered the question of why some challengers opt for an issue focus, whereas others emphasize personal features or party (or some mix). The sources of these choices likely lie in the nature of the candidate's constituency.

Fourth, we are struck by the similarity between our work and Groseclose's (2001) influential formal model. Groseclose examines a situation where one candidate has a potential valence advantage, such as incumbency. He shows that in an attempt to counter the valence/incumbency advantage, a challenger will take relatively extreme policy positions (i.e., diverge from the median). The challenger does this because it minimizes the salience of the valence advantage (see Groseclose 2001, 864–65). Similarly, we show that to counter a valence/incumbency advantage, challengers engage in risky strategies that alter the relative importance of different considerations. For us, candidates do this by explicitly priming alternative considerations. An intriguing direction for future research would be to further integrate our approaches; for example, one could extend Groseclose's model to incorporate alternative criteria of voter choice (e.g., disaggregate his valence term), add salience weights to the criteria, and allow candidates to choose between attempts to alter salience or engage in extreme position taking. Negativity also could potentially be brought into his model by allowing candidates to go negative and then with some probability cause voters to reconsider the basis of their vote choice. On the flip side, our approach could draw on Groseclose's and incorporate position-taking and a more explicit consideration of the opponent's position and strategy.[41]

Another literature with which more definitive connections should be made is work on political marketing and segmentation (e.g., Newman 1999, Newman and Perloff 2004, Palmer 2004). We focused on "on average" strategies, but candidates of course also fine-tune parts of their messages for particular audiences, and we imagine will do so to a greater extent in the future (e.g., in our data, candidates do not seem to be taking full advantage of targeting opportunities, as indicated by the relatively few candidates who allow interactivity on their Web sites). Also, some of the work on which we explicitly built—particularly Trent and Friedenberg (2008)—offers additional predictions about incumbent and challenger behavior that can be tested (e.g., challengers will emphasize traditional values).

Finally, like most other work on campaign strategy, the implications of our findings for democratic responsiveness remain unclear (although see Sulkin 2005). Do officeholders who emphasize issues in their campaigns pursue these issues once elected? Does highlighting certain personal features lead elected officials to behaviors aimed at sustaining those features? Do candidates who place weight on their parties subsequently behave as loyal partisans? If not, is it disingenuous of representatives to emphasize these factors? If so, what does it mean for representation that aspects of responsiveness are driven, in part, by the candidate's status as an incumbent or challenger?[42] These are critical questions about democratic representation and require an explicit link be made between work on campaigns and studies of governing behavior.

APPENDIX A: SURVEY OF WEB PRODUCERS

We conducted a survey of individuals involved in the creation of congressional campaign Web sites. We identified potential respondents by accessing the universe of U.S. Senate and House campaign Web sites in 2008. We contacted the 716 campaigns that provided a workable e-mail address or online inquiry form on October 17. We followed up, on subsequent days, by calling each campaign (when a phone number was provided). We asked that an individual involved in the creation and/or updating of the campaign's Web site either complete a confidential 5-minute on-line survey or e-mail the embedded survey back to us. We contacted each campaign up to three times (with the last contact occurring on November 5), receiving a total of 137 responses (a 19.13% response rate, which falls within a typical range; see Couper 2008, 340).[43] The sample reflected the population of campaigns fairly well in terms of office (14% came from Senate campaigns), party

[41] We reran all of our analyses with an added variable indicating whether the opponent engaged in the given behavior (e.g., for the dependent variable of issue ownership, we included a measure of the opponent's issue ownership). Although we find that this variable is significant in several cases—indicating that the more likely the opponent engages in a given behavior, the more likely the candidate does—in no cases did it alter the main statistical or substantive results. The challenge in interpreting these results is that it is unclear whether the dynamic stems from a reaction to the opponent or from a mutual desire (by both campaigns) to cater to the tastes of the voters in the district/state (even if suitable instrumental variables could be discovered, it would remain unclear). In future work, one way to explore this would be to add an explicit time component to the analyses.

[42] One fruitful route may be to compare representatives' Web sites (e.g., Esterling, Lazer, and Neblo 2005) with their campaign Web sites.

[43] We thank Jennifer Stromer-Galley for advice (see Foot and Schneider 2006, 225; Stromer-Galley et al. 2003).

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

(53% came from Democratic campaigns), and status (31% came from incumbents, 53% came from challengers, and 15% came from open seats). We asked respondents, on a seven-point scale, to indicate the extent to which they are informed about how the content of the site is determined, with higher scores indicating more knowledge. The average response is 6.51 (std. dev. = 1.16; $N = 136$).

In addition to the items described in the text, we asked respondents to rate how well various forms of communication "capture the campaign's overall strategy (e.g., the message your campaign hopes to relay to voters at large, as opposed to more targeted messages)" on a seven-point scale, with higher scores indicating fuller capture of the overall strategy. Respondents rated the Web site (mean = 5.88; std. dev. = 1.50; $N = 109$) as significantly more representative than all other media, followed by speeches (5.63; 1.54; 111), informal conversations (5.57; 1.66; 109), television advertisements (for those campaigns that had ads; 4.99; 2.19; 69), direct mail (4.86; 1.91; 98), and media coverage (4.72; 1.81; 107) (e.g., comparing the Web to speeches gives $t_{108} = 1.63$, $p < .11$ for a two-tailed test). The lower score for television advertisements may reflect the aforementioned information constraint as well as targeting towards particular audiences (e.g., Goldstein 2004). Relatedly, respondents reported that 91% of other campaign material included the campaign Web site's address.

Another item on the survey asked respondents to rate the importance of various goals for their Web sites on a seven-point scale, with higher scores indicating increased importance. Of note is that the top-rated activities are those aimed at information provision (e.g., about issues and personal background) and persuasion. Respondents rated fundraising and volunteer-oriented activities as dramatically (and significantly) less important (see Foot and Schneider 2006, 170 and Stromer-Galley et al. 2003 for similar results from their 2002–3 survey).

APPENDIX B: COMPARISONS WITH TELEVISION ADVERTISING AND NEWSPAPER COVERAGE

To compare the tone of rhetoric on our Web sites with television advertising and newspaper coverage, we used data from the Wisconsin Advertising Project for 2002 and 2004 (for candidates who produced advertisements, meaning a total of 232 candidates, or 52% of the candidates in our sample) and data from our own content analysis of newspaper coverage of Senate campaigns from 2002 through 2006. (Note that this newspaper content analysis is distinct—although it overlaps—from the data presented in Table 1.) In analyzing the newspapers, we coded each distinct statement attributed to the campaign in up to 30 randomly drawn articles from the state's major newspaper, for all states that had an available electronic newspaper (a total of 157 candidates, which equals 79% of our Senate sample); (see Lau and Pomper 2004).[44] For the television advertising comparison, we find a highly significant relationship such that those who did not go negative on their Web sites produce, on the average, only 1.02 (se = 0.17; $N = 124$) negative television advertisements, compared to 1.87 (0.20; 105) negative advertisements for those who went negative on their Web sites ($t_{227} = 3.22$, $p < .01$).[45] Similarly, for newspaper coverage, those who did not go negative on the Web had, on the average, only 1.29 (0.38; $N = 59$) negative statements attributed to them, whereas those who went negative had 4.32 (0.72; 92) attributed negative statements ($t_{149} = 3.18$, $p < .01$).[46]

APPENDIX C: INDEPENDENT VARIABLES

In Table C.1, we display the additional variables included in our analyses (see Appendix D), along with some descriptive statistics. All of these data are measured at the candidate level, and, unless otherwise noted, the data come from *The Almanac of American Politics* (complemented by the *National Journal* Web site). For all analyses, we included variables that prior work shows have significant effects on campaign behavior. We included additional independent variables for certain dependent variables (either because prior work on that variable suggests it, or because it strikes us as an obviously relevant factor). The last column of Table C.1 lists the dependent variable(s) for which the given variable is included.

Variables included in all analyses that are dichotomous indicators include year (2004, 2006), office (Senate), party (Democrat), and gender (Female). We also include front-runner status in all analyses, because it is a prominent variable in some prior work (e.g., Buell and Sigelman 2008; Skaperdas and Grofman 1995), and it correlates with candidate status (e.g., incumbents are typically front-runners, and it also, as noted in the text, impacts the behavior of open seat candidates). We measure front-runner status by taking the difference between a candidate's support (measured in the proportion of the vote he or she received in the election) and the support for his or her opponent, and then creating three categories of "clear front-runner," "not clear trailer or front-runner," and "clear trailer" (e.g., Lau and Pomper 2004: 35).[47]

We measure a campaign's resources by the amount of money each candidate raised (in millions of dollars) as

[44] We exclude House races because major newspapers pay little to no attention to most House races. We coded articles for all Senate races (in our Web sample) for which an electronic version of a major newspaper from the state was available. Following Lau and Pomper (2004), we coded each distinct statement attributed to a campaign within each article. There could be multiple statements within each article. If we identified more than 30 articles, we drew a random sample of 30. The average number of articles coded for each candidate is 26.42 (std. dev. = 6.92; $N = 157$). The average number of statements is 30.43 (18.68; 157). Further coding details (and reliability analyses) are available from the authors.

[45] Television advertisements differ from Web sites insofar as candidates who produce advertisements typically develop more than one (but all candidates have a single Web site). This is why we compare the number of negative television advertisements produced, on the average, for candidates who went negative on their sites compared to those who did not go negative on their sites. Our statistics include only candidates who produced television advertisements. Of these candidates, the average number of advertisements produced is 6.90 (6.0; 232). The average number of advertisements produced by all candidates is 3.61 (5.54; 444). Also, our statistics include television attack advertisements only. If we merged attack and contrast advertisements, the respective means are 3.64 (0.41; 124) and 4.58 (0.44; 105) ($t_{227} = 1.57, p < .06$) (see Franz et al. 2008, 121). If we include all candidates, regardless of whether they produced an ad, the respective attack advertisement means are 0.5 (0.09; 254) and 1.05 (0.13; 186) ($t_{438} = 3.61, p < .01$), while the attack and contrast advertisements means are 1.78 (0.23; 254) advertisements compared to 2.59 (0.30; 186) ($t_{438} = 2.19, p < .01$).

[46] The results are virtually the same if we limit the analysis to races with 16 or more articles (e.g., Lau and Pomper 2004).

[47] Our front-runners won by more than 10%, whereas our trailers lost by at least 10%. Others were in the middle category.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

TABLE C.1. Independent Variables

Variable	Measure	Percentage/Mean (std. dev.)	Dependent Variable
Candidate status (Challenger, open seat)	Two dichotomous variables indicating challenger status or open seat status (baseline is incumbent).	41.85% challengers 13.59% open seat	All
Competition	Four point Cook rating with 0 = solid Democratic or Republican; .33 = likely Democratic or Republican; .67 = leaning Democratic or Republican; 1 = toss-up.	67.66% solid 8.02% likely 11.28% leaning 13.04% toss-up	All
Year (2004, 2006)	Two dichotomous variables indicating 2004 and 2006 (baseline is 2002).	36.55% 2004 39.67% 2006	All
Office (Senate)	Dichotomous variable indicating Senate candidate (baseline is House candidate).	25.95% Senate	All
Party (Democrat)	Dichotomous variable indicating Democratic party candidate (baseline is Republican party candidate).	48.10% Democrats	All
Gender (Female)	Dichotomous variable indicating female (baseline is male).	17.12% Females	All
Funds raised	Amount of money candidate raised (according to the Federal Election Commissions).	$2,257,233 ($3,598,908) (On 0–1 standardized scale)	All
Front-runner status	Three point rating with 0 = clear trailer; .5 = not clear trailer or front-runner; 1 = clear front-runner.	39.67% clear trailer 19.29% not clear trailer or front-runner 41.03% clear front-runner	All
District/state Republican partisanship (district Republican)	Percentage of district/state voters for Bush in 2000/2004.	51.21% (11.25%) for Bush	All
Opponent negativity	Dichotomous variable indicating opponent's negative statement about the candidate.	44.70%	Negativity, issue negativity, personal negativity
Issue salience	Weighted national importance of issues discussed (based on public opinion "most important issues" measures). (The range is 0% to 50.50%.)	13.21% (7.38%)	Issue ownership
District/state Republican partisanship × Democrat	Interaction between district/state partisanship and Democratic party candidate.	24.50% (26.65%) for Bush	Issue ownership, party emphasis
2004 × Democrat	Interaction between year 2004 and Democratic party candidate.	17.53%	Issue ownership, party emphasis
2006 × Democrat	Interaction between year 2006 and Democratic party candidate.	20.11%	Issue ownership, party emphasis
Held prior office	Dichotomous variable indicating holding of prior elected office.	67.93%	Prior office experience, familiarity, district benefits

reported by the Federal Election Commission (FEC). The FEC failed to report financial data for 18 of our 736 candidates. Given the importance of funds in general, we opt to report analyses with the fund-raising variable included and, thus, we exclude the 18 missing cases (resulting in an *N* of 718). Our results are unchanged if we exclude fundraising and run the analyses on all 736 cases.

We measure "District/State (D/S) Republican Vote," for 2002 and 2004, with the percentage of votes in the district/state cast for George W. Bush in 2000, and for 2006 with the percentage of votes cast for Bush in 2004 (Carson, Engstrom and Roberts 2006; Lau and Pomper 2004). We also collected data on other district/state features such as percentage urban, percentage with high school diploma, median income, and percentage of homes in the state with Internet connections; we do not include these variables in the analyses, as their inclusion does not change the results.

For our negativity regressions, we include a variable that indicates whether the candidate's opponent went negative on his or her Web site, because other work suggests that a negative statement triggers a negative response (see Ansolabehere and Iyengar 1995; Kahn and Kenney 1999; Lau and Pomper 2004, 33). For our issue ownership model, we add a variable to control for the salience of the issues discussed in order to test for the possibility that issue ownership stems from a party's issues being publicly salient

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

TABLE D.1. Going Negative and Interactivity (Figure 2)

	Negativity	Issue negativity	Personal negativity	Interactivity
Challenger	1.45***	1.76***	0.82**	0.43*
	(0.36)	(0.39)	(0.39)	(0.32)
Open seat	0.28	0.50*	0.66**	0.37
	(0.33)	(0.38)	(0.40)	(0.31)
Competition	1.75***	0.95***	1.66***	0.22
	(0.32)	(0.34)	(0.34)	(0.26)
2004	0.61***	−0.37**	−0.92***	0.67***
	(0.26)	(0.22)	(0.23)	(0.25)
2006	1.07***	—	—	0.78***
	(0.26)			(0.25)
Senate	0.33	0.27	0.07	0.30
	(0.28)	(0.32)	(0.31)	(0.25)
Democrat	0.50***	0.26	0.61***	0.67***
	(0.20)	(0.22)	(0.24)	(0.18)
Female	0.41*	0.45*	−0.01	−0.10
	(0.26)	(0.28)	(0.29)	(0.23)
Funds raised	2.16*	2.61**	1.10	2.63**
	(1.48)	(1.53)	(1.39)	(1.30)
Front-runner status	−1.74***	−1.63***	−1.79***	−0.05
	(0.37)	(0.40)	(0.43)	(0.33)
District Republican	−0.001	−0.002	−0.01	0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Opponent negativity	0.21	0.55**	0.44*	
	(0.24)	(0.29)	(0.28)	—
Constant	−1.57***	−0.99*	−0.76	−2.71***
	(0.60)	(0.66)	(0.68)	(0.57)
Log likelihood	−337.61	−268.23	−256.94	−406.22
N	714	546	546	718

Note: Entries are logit coefficients with standard errors in parentheses. ***$p \leq .01$; **$p \leq .05$; *$p \leq .10$ for one-tailed tests.

(see Sides 2006). We constructed our issue saliency measure based on data from Harris Interactive's "two most important issues" question.[48] Also, for our issue ownership analysis, as well as the party emphasis regression, we add three other variables. This includes an interaction between Democratic candidate status and district ideology, due to the possibility of a negative impact of district ideology (measured in the Republican direction), particularly for Democratic candidates (see Abramowitz, Alexander, and Gunning 2006). We also include interactions for year (2004 and 2006) and Democratic candidate status because, over the time of our data, the Democratic Party's relative approval continually grew, and thus, Democratic candidates had increasing incentives to emphasize partisan-related features.[49]

Finally, for our three incumbent dependent variables—prior office experience, familiarity, and district benefits—we add a variable indicating whether the candidate held any prior office. This is an important control to preclude the possibility that an incumbency effect does not only reflect the fact that the incumbent held a prior office and thus can emphasize those experiences.

APPENDIX D: ANALYSES

In Tables D.1–D.4, we report regressions akin to the ones used to generate the probabilities presented in Figure 2. The exceptions involve the interval level dependent variables. In this Appendix, we use the full range of these variables, but in Figure 2, we report probabilities based on regressions that transformed the variables to dichotomous measures indicating whether the candidate was below or above the mean value. Also, in this Appendix, the incumbency regressions that include interactions between candidate status and competition use the full four-point competition scale; however, as noted in the text, Figure 3 is based on a three-point competition scale that collapses likely and leaning races. All analyses for the figures are available from the authors. Also, for all analyses, we recoded the independent variables to be on 0 to 1 scales. We also use one-tailed tests, because our predictions have clear directional content (Blalock 1979, 163).

[48] Candidates receive points based on the degree of issue saliency for each issue they discuss in each year. For example, a candidate in 2002 would receive 9.67 points for every time he or she mentioned Education because 9.67% of the public thought Education to be one of the two most important issues for the government to deal with in that year. We then summed the saliency score for all issues the candidate mentioned each year and divided by the number of issues mentioned.

[49] The Republican Party's favorability ratings (according to Gallup) dropped in the respective years from 54.7% to 51.7% to 38.6%. The Democratic favorability ratings stayed relatively stable at around 53% meaning that their relative advantage grew over time. This also parallels President Bush's declining approval.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

TABLE D.2. Issues and Party Emphasis (Figure 2)

	Issue ownership	Positions	Endorsements	Party emphasis
Challenger	1.25*	0.22**	0.71***	1.52**
	(0.80)	(0.11)	(0.26)	(0.68)
Open seat	1.11*	0.21**	0.53***	0.07
	(0.76)	(0.10)	(0.23)	(0.65)
Competition	0.54	0.03	0.51***	−0.60
	(0.64)	(0.09)	(0.21)	(0.50)
2004	−5.73***	0.09	0.22	−0.14
	(0.75)	(0.08)	(0.18)	(0.61)
2006	−11.90***	0.13**	0.29**	−1.07*
	(0.75)	(0.08)	(0.17)	(0.75)
Senate	0.25	−0.03	0.18	−0.21
	(0.60)	(0.08)	(0.21)	(0.44)
Democrat	4.47**	0.03	0.42***	5.12***
	(2.50)	(0.06)	(0.13)	(1.88)
Female	0.45	0.08	0.18	0.36
	(0.56)	(0.07)	(0.17)	(0.34)
Funds raised	−6.25**	0.06	0.89	−1.04
	(3.18)	(0.42)	(1.36)	(2.32)
Front-runner status	1.35*	0.03	0.59**	0.31
	(0.89)	(0.11)	(0.27)	(0.72)
District Republican	0.02	0.001	−0.01	0.04*
	(0.03)	(0.003)	(0.01)	(0.03)
Issue salience	0.07**	—	—	—
	(0.03)			
District Republican × Democrat	−0.06	—	—	−0.10***
	(0.05)			(0.04)
2004 × Democrat	8.92***	—	—	0.36
	(1.12)			(0.83)
2006 × Democrat	20.49***	—	—	2.10**
	(1.13)			(0.92)
Constant	−1.08	0.24*	1.47***	−5.62***
	(1.80)	(0.18)	(0.46)	(1.60)
α	—	0.00	2.77	—
		(0.00)	(0.16)	
R^2/log likelihood	0.68	−1068.34	−2265.04	−180.86
N	701	718	718	718

Note: Entries are coefficients with standard errors in brackets. Issue ownership is a least squared regression. Positions and endorsements are negative binomial regressions. Party emphasis is a logit regression. $^{***}p \leq .01$; $^{**}p \leq .05$; $^{*}p \leq .10$ for one-tailed tests.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

TABLE D.3. Personal Features (Figure 2)

	Leadership	Competence	Empathy	Polls
Challenger	0.77***	1.56***	0.50**	1.75***
	(0.31)	(0.50)	(0.30)	(0.43)
Open seat	0.43*	1.03***	−0.05	0.85**
	(0.30)	(0.40)	(0.28)	(0.45)
Competition	0.35*	0.71**	0.44**	1.98***
	(0.25)	(0.39)	(0.24)	(0.35)
2004	0.29*	−0.07	−0.48**	−0.73***
	(0.23)	(0.28)	(0.21)	(0.28)
2006	0.45**	0.11	−0.17	—
	(0.22)	(0.29)	(0.20)	
Senate	0.08	0.02	0.01	−0.24
	(0.24)	(0.33)	(0.23)	(0.41)
Democrat	0.55***	0.35*	0.17	0.13
	(0.17)	(0.23)	(0.16)	(0.27)
Female	−0.23	−0.25	0.28*	−0.31
	(0.22)	(0.29)	(0.21)	(0.36)
Funds raised	−0.63	−1.85	1.98*	1.47
	(1.29)	(1.57)	(1.27)	(1.65)
Front-runner status	−0.45*	−0.74*	−0.25	0.83**
	(0.32)	(0.49)	(0.30)	(0.47)
District Republican	0.01	0.03***	0.01	−0.01
	(0.01)	(0.01)	(0.01)	(0.01)
Constant	−1.66***	0.02	−0.65*	−3.09***
	(0.52)	(0.73)	(0.50)	(0.79)
Log likelihood	−431.37	−284.09	−473.03	−197.61
N	718	718	715	548

Note: Entries are logit coefficients with standard errors in brackets. ***$p \leq .01$; **$p \leq .05$; *$p \leq .10$ for one-tailed tests.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

TABLE D.4. Incumbency (Figures 2 and 3)

	Prior office experience	Familiarity	District benefits	Prior office experience	Familiarity	District benefits
Challenger	−0.83**	−0.59**	−0.56***	−0.12	−0.12	−0.32*
	(0.44)	(0.32)	(0.17)	(0.58)	(0.44)	(0.25)
Open seat	−0.56*	−0.14	−0.39***	−0.32	−0.04	−0.20
	(0.43)	(0.30)	(0.15)	(0.56)	(0.42)	(0.22)
Competition	0.58**	0.30	0.17*	1.82**	0.78*	0.37**
	(0.35)	(0.26)	(0.13)	(0.91)	(0.46)	(0.18)
2004	−0.12	−0.24	−0.01	−0.13	−0.24	−0.01
	(0.30)	(0.21)	(0.12)	(0.30)	(0.21)	(0.12)
2006	−0.26	−0.04	0.26***	−0.27	−0.04	0.25***
	(0.30)	(0.21)	(0.11)	(0.30)	(0.21)	(0.11)
Senate	0.38	0.36*	0.44***	0.35	0.34*	0.45***
	(0.32)	(0.24)	(0.12)	(0.32)	(0.24)	(0.12)
Democrat	−0.32*	−0.25*	0.11	−0.30*	−0.24*	0.12*
	(0.23)	(0.16)	(0.09)	(0.23)	(0.16)	(0.09)
Female	0.36	0.04	0.03	0.32	0.01	0.02
	(0.30)	(0.21)	(0.11)	(0.30)	(0.22)	(0.11)
Funds Raised	−1.51	−1.93*	−0.54	−1.57	−1.94*	−0.55
	(1.53)	(1.22)	(0.58)	(1.53)	(1.23)	(0.58)
Front-Runner Status	0.29	−0.08	0.44***	0.77*	0.24	0.61***
	(0.43)	(0.32)	(0.17)	(0.49)	(0.38)	(0.21)
District Republican	−0.01	0.02**	0.003	−0.01	0.02**	0.004
	(0.01)	(0.01)	(0.004)	(0.01)	(0.01)	(0.004)
Held Prior Office	2.80***	0.11	0.21*	2.87***	0.17	0.25**
	(0.29)	(0.23)	(0.15)	(0.29)	(0.24)	(0.16)
Competition × Challenger	—	—	—	−1.94**	−0.98*	−0.47*
				(1.08)	(0.64)	(0.34)
Competition × Open seat	—	—	—	−0.90	−0.22	−0.35
				(1.11)	(0.68)	(0.33)
Constant	0.06	0.18	−0.82***	−0.56	−0.23	−1.05***
	(0.72)	(0.53)	(0.31)	(0.79)	(0.59)	(0.35)
α	—	—	0.05	—	—	0.04
			(0.08)			(0.08)
Log likelihood	−278.01	−461.68	−849.63	−276.00	−460.34	−848.45
N	715	718	718	715	718	718

Note: Entries are coefficients with standard errors in brackets. Prior office experience and familiarity are logits. District benefits is a negative binomial regression. ***$p \leq .01$; **$p \leq .05$; *$p \leq .10$ for one-tailed tests.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

REFERENCES

Abramowitz, Alan I., Brad Alexander, and Matthew Gunning. 2006. "Incumbency, Redistricting, and the Decline of Competition in U.S. House Elections." *Journal of Politics* 68: 75–88.

Ansolabehere, Stephen, and Shanto Iyengar. 1995. *Going Negative: How Political Advertisements Shrink and Polarize the Electorate*. New York: The Free Press.

Ansolabehere, Stephen, and James M. Snyder. 2002. "The Incumbency Advantage in U.S. Elections: An Analysis of State and Federal Offices, 1942–2000." *Election Law Journal* 1: 315–38.

Ansolabehere, Stephen, and James M. Snyder. 2004. "Using Term Limits to Estimate Incumbency Advantages When Officeholders Retire Strategically." *Legislative Studies Quarterly* 29: 487–515.

Baumeister, Roy. F., Ellen Bratslavsky, Catrin Fickenauer, and Kathleen D. Vohs. 2001. "Bad Is Stronger Than Good." *Review of General Psychology* 5: 323–70.

Berelson, Bernhard R., Paul F. Lazarsfeld, and William N. McPhee. 1954. *Voting: A Study of Opinion Formation in a Presidential Campaign.* Chicago: University of Chicago Press.

Bimber, Bruce, and Richard Davis. 2003. *Campaigning Online: The Internet in U.S. Elections.* New York: Oxford University Press.

Blalock, Hubert M., Jr. 1979. *Social Statistics*. 2nd ed. New York: McGraw–Hill.

Bucy, Erik P. 2004. "Interactivity in Society: Locating an Elusive Concept." *The Information Society* 20: 373–83.

Buell, Emmett H., Jr., and Lee Sigelman. 2008. *Attack Politics*. Lawrence, KS: University Press of Kansas.

Carson, Jamie L., Erik J. Engstrom, and Jason M. Roberts. 2006. "Redistricting, Candidate Entry, and U.S. House Elections." *American Political Science Review* 50: 283–93.

Chadwick, Andrew. 2006. *Internet Politics: States, Citizens, and New Communication Technologies*. New York: Oxford University Press.

Chinni, Dante. 2002. Oct. 29. How the Web Is Changing Election Campaigns. *Christian Science Monitor* (on-line edition). <http://www.csmonitor.com/2002/1029/p02s01-uspo.html>. (August 2, 2007).

Couper, Mick P. 2008. *Designing Effective Web Surveys*. New York: Cambridge University Press.

Democracy Online Project. 1999. *Online Campaigning: A Primer*. Washington, DC: Graduate School of Political Management, George Washington University.

Dolan, Kathleen. 2005. "Do Women Candidates Play to Gender Stereotypes? Do Men Candidates Play to Women? Candidate Sex and Issues Priorities on Campaign Web Sites." *Political Research Quarterly* 58: 31–44.

Downs, Anthony. 1957. *An Economic Theory of Democracy*. New York: Harper Collins.

Druckman, James N. 2004. "Political Preference Formation: Competition, Deliberation, and the (Ir)relevance of Framing Effects." *American Political Science Review* 98: 671–86.

Druckman, James N., Lawrence R. Jacobs, and Eric Ostermeier. 2004. "Candidate Strategies to Prime Issues and Image." *The Journal of Politics* 66: 1205–27.

Druckman, James N., Martin J. Kifer, and Michael Parkin. 2007. "The Technological Development of Candidate Web Sites: How and Why Candidates Use Web Innovations." *Social Science Computer Review* 25: 425–42.

Druckman, James N., Martin J. Kifer, and Michael Parkin. N.d. "Timeless Strategy Meets New Medium: Going Negative on Congressional Campaign Web Sites, 2002–2006." *Political Communication*. Forthcoming.

Druckman, James N., and Rose McDermott. 2008. "Emotion and the Framing of Risky Choice."*Political Behavior* 30: 297–321.

Esterling, Kevin M., David M. J. Lazer, and Michael A. Neblo. 2005. "Home (Page) Style: Determinants of the Quality of House Members' Web Sites." *International Journal of Electronic Government Research* 1: 50–63.

Eveland, William P., and Sharon Dunwoody. 2002. "An Investigation of Elaboration and Selective Scanning as Mediators of Learning from the Web and Print." *Journal of Broadcasting and Electronic Media* 46: 34–53.

Fenno, Richard. 1978. *Homestyle: House Members in Their Districts*. Glenview, IL: Scott Foresman, and Company.

Fiorina, Morris P. 1989. *Congress: Keystone of the Washington Establishment*. 2nd ed. New Haven, CT: Yale University Press.

Fiorina, Morris P. 2004. "Keystone Reconsidered." In *Congress Reconsidered*, ed. Lawrence C. Dodd and Bruce I. Oppenheimer. Washington, DC: Congressional Quarterly Press.

Foot, Kirsten A., and Steven M. Schneider. 2006. *Web Campaigning*. Cambridge: MIT Press.

Franklin, Charles H. 1991. "Eschewing Obfuscation? Campaigns and the Perception of U.S. Senate Incumbents." *American Political Science Review* 85: 1193–1214.

Franz, Michael M., Paul B. Freedman, Kenneth M. Goldstein, and Travis N. Ridout. 2008. *Campaign Advertising and American Democracy.* Philadelphia: Temple University Press.

Funk, Carolyn L. 1999. "Bringing the Candidate into Models of Candidate Evaluations." *Journal of Politics* 61: 700–720.

Geer, John G. 2006. *In Defense of Negativity: Attack Ads in Presidential Campaigns*. Chicago: University of Chicago Press.

Gerber, Alan S. 2004. "Does Campaign Spending Work? Field Experiments Provide Evidence and Suggest New Theory." *American Behavioral Scientist* 47: 541–74.

Goldstein, Kenneth M. 2004. "What Did They See and When Did They See It?" In *The Medium and the Message*, ed. Kenneth M. Goldstein and Patricia Strach. Upper Saddle River, NJ: Pearson, Prentice-Hall, 27–42.

Goldstein, Kenneth M., and Paul Freedman. 2002. "Campaign Advertising and Voter Turnout: New Evidence for a Stimulation Effect." *Journal of Politics* 64: 721–40.

Goldstein, Kenneth M., and Joel Rivlin. 2005. *Political Advertising in the 2002 Elections*. <http://www.polisci.wisc.edu/tvadvertising/Political%20Advertising%20in%20the%202002%20Elections.htm>. (April 17, 2006).

Gronke, Paul. 2000. *The Electorate, the Campaign, and the Office: A Unified Approach to Senate and House Elections*. Ann Arbor: University of Michigan Press.

Groseclose, Timothy. 2001. "A Model of Candidate Location When One Candidate Has a Valence Advantage." *American Journal of Political Science* 45: 862–86.

Hayes, Danny. 2005. "Candidate Quality through a Partisan Lens: A Theory of Trait Ownership." *American Journal of Political Science* 49: 908–23.

Ireland, Emilienne, and Phil Tajitsu Nash. 2001. *Winning Campaigns Online: Strategies for Candidates and Causes, 2nd ed*. Bethesda, MD: Science Writers Press.

Iyengar, Shanto, and Donald R. Kinder. 1987. *News That Matters.* Chicago: University of Chicago Press.

Jacobs, Lawrence R., and Robert Y. Shapiro. 1994. "Issues, Candidate Image, and Priming: The Use of Private Polls in Kennedy's 1960 Presidential Campaign." *American Political Science Review* 88: 527–40.

Jacobson, Gary. 1992. *The Politics of Congressional Elections, 3rd ed*. New York: Harper Collins.

Jacobson, Gary. 2004. *The Politics of Congressional Elections, 6th ed*. New York: Pearson Longman.

Kahn, Kim Fridkin, and Patrick J. Kenney. 1999. *The Spectacle of U.S. Senate Campaigns.* Princeton, NS: Princeton University Press.

Kahn, Kim Fridkin, and Patrick J. Kenney. 2004. *No Holds Barred: Negativity in U.S. Senate Campaigns*. Upper Saddle River, NJ: Pearson, Prentice-Hall.

Kern, Montague. 1989. *30-Second Politics: Political Advertising in the 80's*. New York: Praeger.

Kinder, Donald R. 1986. "Presidential Character Revisited." In *Political Cognition: The 19th Annual Carnegie Symposium on Cognition*, ed. Richard R. Lau and David O. Sears. Hillsdale, NJ: Erlbaum, 233–55.

Kinder, Donald R. 1998. "Opinion and Actions in the Realm of Politics" In *The Handbook of Social Psychology*, ed. Daniel T. Gilbert, Susan T. Fiske and Gardner Lindzey. Boston, MA: McGraw-Hill, 778–867.

Koch, Jeffrey. 2008. "Has the Importance of the Incumbency Advantage Diminished in House Elections?" Presented at the annual meeting of the American Political Science Association, Philadelphia, August 31–September 2.

Latimer, Christopher P. 2007. "Utilizing the Internet as a Campaign Tool: The Relationship between Incumbency, Political Party Affiliation, Election Outcomes, and the Quality of Campaign Websites

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press

in the United States." *Journal of Information Technology and Politics* 4: 81–95.
Lau, Richard R., and Gerald M. Pomper. 2004. *Negative Campaigning: An Analysis of U.S. Senate Elections*. New York: Rowman and Littlefield.
Lau, Richard R., and David P. Redlawsk. 2006. *How Voters Decide: Information Processing in Election Campaigns.* Cambridge, MA: Cambridge University Press.
Lin, Yan. 2004. "Fragmentation of the Structure of Political Communication Research: Diversification or Isolation?" In *Handbook of Political Communication Research*, ed. Lynda Lee Kaid. Mahwah, NJ: Lawrence Erlbaum Associates, 69–108.
Lipinski, Daniel. 2004. *Congressional Communication: Content and Consequences*. Ann Arbor, MI: University of Michigan Press.
Lupia, Arthur, and Mathew D. McCubbins. 1998. *The Democratic Dilemma.* New York: Cambridge University Press.
Marcus, George E., W. Russell Neuman, and Michael MacKuen. 2000. *Affective Intelligence and Political Judgment*. Chicago: University of Chicago Press.
Mark, David. 2006. *Going Dirty: The Art of Negative Campaigning*. Lanham, MD: Rowman and Littlefield.
McDermott, Rose, James H. Fowler, and Oleg Smirnov. 2008. "On the Evolutionary Origin of Prospect Theory Preferences." *Journal of Politics* 70: 335–50.
Miller, Joanne M., and Jon A. Krosnick. 1996. "News Media Impact on the Ingredients of Presidential Evaluations." In *Political Persuasion and Attitude Change*, ed. Diana C. Mutz, Paul M. Sniderman, and Richard A. Brody. Ann Arbor, MI: University of Michigan Press, 79–100.
Neuendorf, Kimberly A. 2002. *The Content Analysis Guidebook*. Thousand Oaks, CA: Sage Publications.
Newman, Bruce I. 1999. Ed. *Handbook of Political Marketing*. Thousand Oaks, CA: Sage Publications.
Newman, Bruce I., and Richard M. Perloff. 2004. "Political Marketing." In *Handbook of Political Communication Research*, ed. Lynda Lee Kaid. Mahwah, NJ: Lawrence Erlbaum Associates, 17–44.
Niemi, Richard G., and Herbert F. Weisberg. 1993. *Classics in Voting Behavior*. Washington, DC: CQ Press.
Page, Benjamin I. 1978. *Choices and Echoes in Presidential Elections: Rational Man and Electoral Democracy*. Chicago: University of Chicago Press.
Palmer, Jerry. 2004. "Source Strategies and Media Audiences." *Journal of Political Marketing* 4: 57–77.
Perloff, Richard M. 2002. "Political Campaign Persuasion and Its Discontents." In *The Persuasion Handbook*, ed. James Price Dillard, and Michael Pfau. Thousand Oaks, CA: Sage Publications.
Petrocik, John R. 1996. "Issue Ownership in Presidential Elections, with a 1980 Case Study." *American Journal of Political Science* 40: 825–50.
Rahn, Wendy M., John H. Aldrich, Eugene Borgida, and John L. Sullivan. 1990. "A Social-Cognitive Model of Candidate Approval." In *Information and Democratic Processes*, ed. John Ferejohn and James Kuklinki. Urbana: University of Illinois Press.
Riffe, Daniel, Stephen Lacy, and Frederick G. Fico. 1998. *Analyzing Media Messages*. Mahwah, NJ: Lawrence Erlbaum Associates.
Riker, William H. 1996. *The Strategy of Rhetoric*, ed. Randell L. Calvert, John Mueller, and Rick Wilson. New Haven, CT: Yale University Press.
Schattschneider, E. E. 1960. *The Semi-sovereign People: A Realist's View of Democracy in America*. New York: Holt, Rinehart, and Winston.
Sellers, Patrick. 1998. "Strategy and Background in Congressional Campaigns." *American Political Science Review* 92: 159–71.
Semiatin, Richard. 2005. *Campaigns in the 21st Century*. New York: McGraw-Hill.
Shaw, Daron R. 1999. "The Effect of TV Ads and Candidate Appearances on Statewide Presidential Votes, 1988–96." *American Political Science Review* 83: 345–61.
Sides, John M. 2006. "The Origins of Campaign Agendas." *British Journal of Political Science* 36: 407–36.
Sigelman, Lee, and Emmett H. Buell, Jr. 2003. "You Take the High Road and I'll Take the Low Road? The Interplay of Attack Strategies and Tactics in Presidential Campaigns." *Journal of Politics* 65: 518–31.
Simon, Adam F. 2002. *The Winning Message: Candidate Behavior, Campaign Discourse, and Democracy*. Cambridge, MA: Cambridge University Press.
Skaperdas, Stergios, and Bernard Grofman. 1995. "Modeling Negative Campaigning." *American Political Science Review* 89: 49–61.
Southwell, Brian G., and Mira Lee. 2004. "A Pitfall of New Media? User Controls Exacerbate Editing Effects on Memory." *Journalism and Mass Communication Quarterly* 81: 643–56.
Sniderman, Paul M., Richard A. Brody, and Philip E. Tetlock. 1991. *Reasoning and Choice: Explorations in Political Psychology*. New York: Cambridge University Press.
Stromer-Galley, Jennifer, Philip N. Howard, Steven M. Schneider, and Kirsten A. Foot. 2003. "The New Political Campaign Position: A Survey of Web Site Producers and Managers." Presented at annual meeting of the International Communication Association, San Diego (May).
Sulkin, Tracy. 2001. "Explaining Campaign Intensity." *American Politics Research* 29: 608–24.
Sulkin, Tracy. 2005. *Issue Politics in Congress*. New York: Cambridge University Press.
Sulkin, Tracy, and Jillian Evans. 2006. "Dynamics of Diffusion: Aggregate Patterns in Congressional Campaign Agendas." *American Politics Research* 34: 505–34.
Tomz, Michael, Jason Wittenberg, and Gary King. 1999. "Clarify." Version 1.2.1. Cambridge, MA: Harvard University, June 1. <http://gking.harvard.edu/> (Accessed January 2009).
Trent, Judith S., and Robert V. Friedenberg. 2008. *Political Campaign Communication*. New York: Rowman and Littlefield.
Wason, Peter C. 1959. "The Processing of Positive and Negative Information." *The Quarterly Journal of Experimental Psychology* 11: 92–107.
Zaller, John. 1992. *The Nature and Origins of Public Opinion.* New York: Cambridge University Press.

https://doi.org/10.1017/S0003055409990037 Published online by Cambridge University Press