

## **Conditions for Dialogue and Dominance in Political Campaigns**

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### **Abstract**

When do competing candidates campaign on the same issues, rather than play to their reputational, strengths on issues they own? This article develops a theory of conditional convergence, in which a race's competitiveness and the salience of an issue combine to alter whether candidates campaign on issues that they do not own. To test this theory, I focus on advertising in three election cycles for the US House and Senate, and use new methods to measure issue salience at the district- and state-level. The analyses indicate that previous null findings on ownership result from a failure to account for ownership's dynamic interaction with salience and competitiveness.

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Ordinary citizens play a limited role in politics. Elections serve as a periodic formal conduit for citizens' preferences into the apparatus of government, and much therefore depends on what elections can be interpreted to mean. It can be difficult to interpret election outcomes when candidates fail to engage each other on issues during the campaign. Without a common set of criteria, the choice between candidates cannot have been based on who offered the better solutions to the most important problems. If instead candidates converge on a few important issues and offer competing alternatives, campaigns and elections can be said to have afforded citizens with the opportunity to articulate what they want from their government.<sup>1</sup>

This minimally normative view of campaigns is threatened when competition encourages candidates to think strategically. Every candidate chooses a set of issues on which to spend her limited resources, in light of her competitor's choices and with the goal of winning high office. The strategic incentive raises an important question: when will competing candidates campaign on the same issues, and when will they play to their strengths? This question is especially relevant for US congressional campaigns, which are decentralized and resource constrained.

Previous work offers conflicting expectations about when candidates will converge on a set of issues. Issue ownership theory predicts that candidates talk about issues on which they have a reputational advantage (Budge and Farlie 1983; Petrocik 1996; Riker 1993; Simon 2002). A candidate who owns an issue campaigns heavily on to increase the salience of the issue, and a candidate who does not own the issue avoids it in the hope that voters will be motivated by different considerations. The result is low convergence on issues. In contrast, issue salience theory predicts that candidates emphasize issues voters care about (Ansolabehere and Iyengar

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<sup>1</sup> The theory of retrospective voting constitutes an alternative way of deriving meaning from election results. That said, issue engagement offers far richer possibilities for interpretation than the binary approval/disapproval sort of interpretations afforded by retrospective voting.

1994; Kaplan, Park, and Ridout 2006; Sigelman and Buell 2004). All candidates, regardless of ownership, attempt to burnish their reputations on such issues, resulting in high convergence.

To date, evidence of ownership effects on convergence is relatively weak, while evidence of salience effects is strong (e.g., Kaplan, Park, and Ridout 2006; Sigelman and Buell 2004; but see Spiliotes and Vavreck 2002).<sup>2</sup> Although these studies identify an important problem and develop innovative ways to measure dialogue, they do not focus on the conditional relationship between ownership and salience. Intuitively, the mechanisms underlying the ownership and salience theories should interact. In issue ownership theory candidates can increase how much voters care about an issue, which is the definition of salience, and in issue salience theory, candidates focus on improving their reputations, which are the foundation of ownership. A candidate might avoid a low salience issue owned by her opponent, while her advantaged opponent talked about the issue to increase its salience, in which case convergence would be low. In contrast, the same disadvantaged candidate might talk about that issue if it were instead very salient in an effort to establish or repair her reputation, in which case convergence would be high. Additionally, this dynamic itself may be conditional on the competitiveness of the race.

In this paper, I develop an account of conditional convergence and use it to derive testable hypotheses.<sup>3</sup> Although the argument is general, I test it using data on television advertising by candidates for the U.S. House of Representatives in 2000, 2002, and 2004.<sup>4</sup>

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<sup>2</sup> Ownership effects in campaign strategies should be distinguished from ownership effects in voting decisions, on which there exists a large and rich, yet fundamentally different body of scholarship.

<sup>3</sup> In concurrent work, Moser and Wakao (n.d.) develop a conditional convergence theory that focuses on the moderating effect of ideological extremity of the constituency. Indeed, it seems likely that the conditionality of convergence is more complicated than the theory presented here contends.

<sup>4</sup> Although it would be desirable to include more recent years in this analysis, a large-scale data collection like WiscAds was not conducted in 2006, and data from later races is embargoed until

Previous studies have focused on convergence in presidential (Sigelman and Buell 2004) and senatorial (Kaplan, Park, and Ridout 2006) elections, but none has analyzed convergence in House races, making this the first such study. House races are potentially better suited to test hypotheses about conditional convergence. Not only are there many more races to examine, but districts also vary widely in competitiveness and salience. This variation provides sufficient power to discern the conditions for convergence. As a final robustness check, I also extend this research design to the Senate and find additional evidence of conditional convergence.

While the primary goal is to understand the conditions for convergence in campaigns, it is essential to carefully measure the conditions themselves. For example, national-level measures of salience are likely poor proxies for salience at the congressional district level. The most salient issue in downtown Detroit is likely different from that in the suburbs of Houston. Fortunately, recent methodological advances have used national-level surveys and multilevel modeling to estimate public opinion at the state-level (Park, Gelman, and Bafumi 2004; Lax and Phillips 2009a,b). I extend this technique to the congressional district level and generate estimates of partisanship, ideology, and salience, which enable a better test of conditional convergence.

### **The Conditional Nature of Issue Convergence**

In this section, I make two main claims that motivate the empirical analysis that follows. First, I develop a theory of issue convergence that subsumes notions of both ownership and salience. Second, I argue that the predictions of this theory are most likely to obtain in the important, albeit limited, subset of highly competitive races.

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at least November 2012. Even after eliminating uncontested races and those in which only one candidate aired ads, my sample includes 245 races from these three years, more than double the comparable number of Senate and presidential races combined.

The theory is based on three assumptions (cf., Vavreck 2009). First, candidates are strategic and desire only to win election. Second, voters use malleable criteria to select their favorite candidate. Specifically, voters evaluate candidates' competence and positions on each issue—each prefers the more competent or more closely positioned candidate—and weigh issues against each other before choosing a candidate. Third, candidates can affect voters' evaluations and weights on an issue by emphasizing it. Throughout, I assume that emphasis choices occur early in the campaign, and therefore depend on initial, pre-campaign season conditions. These conditions, which I define more explicitly below, are ownership, salience, and competitiveness.

In this setting, campaigns are simultaneously competitions on two dimensions: to define the criteria on which voters make decisions and to persuade voters that one candidate is better given those criteria. Consider each dimension in isolation, starting with the competition to define criteria. According to the *pure ownership model*, campaigns are mere struggles for agenda control, and voters do not change their evaluations about candidates during campaigns. In this model, voters reflexively prefer a fixed party on each issue (Budge and Farlie 1983; Petrocik 1996). The candidate who appeals to more voters on an issue is said to have an ownership advantage. In the pure ownership model, campaigns are struggles to increase the weights voters place on issues, perhaps via a mechanism like priming (Iyengar and Kinder 1987). Thus, office-motivated candidates should play to their strengths and avoid their weaknesses (Riker 1993; Simon 2002).<sup>5</sup> A disadvantaged candidate derives little benefit from drawing attention to an issue (Norpoth and Buchanan 1992; Ansolabehere and Iyengar 1994; Iyengar and Valentino 2000). Thus, the pure ownership model yields the following hypothesis:

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<sup>5</sup> The most widely studied source of ownership is party identification, but other sources include gender (Herrnson, Lay, and Stokes 2003) and previous professional experience (Sellers 1998).

*Dominance Hypothesis:* Convergence decreases as ownership increases.

Although this hypothesis may seem compelling, there is surprisingly little evidence to support it (Kaplan, Park, and Ridout 2006; Sigelman and Buell 2004). This finding could result if ownership is more malleable pure ownership model assumes (Sides 2006).<sup>6</sup>

The pure ownership model forces on the dimension of agenda control, but campaigns may also be opportunities for candidates to improve their reputations on issues. Suppose, then, a *pure salience model* in which the weights voters put on issues do not change during the campaign. Instead, office-motivated candidates should seek to be more preferable to voters on the issues that already matter to voters. Candidates would emphasize issues only to change voters' evaluations on those issues. To see how they might do so, consider the micro-foundations of ownership. An ownership advantage can result from a perceived difference in competence (Egan 2009; Krasa and Polborn 2010) or the party's reputation for positions on an issue (Therriault 2011). Candidates may attempt to frame an issue in advantageous terms (see, e.g., Nelson, Clawson, and Oxley 1997; Nadeau, Pétry, and Bélanger 2010). Thus, an initially disadvantaged candidate may profit by "trespassing" on an issue (Holian 2004). A disadvantaged candidate may be able to overcome that disadvantage by competitively framing an issue (Chong and Druckman 2007), or jamming her opponent's messages (Minozzi 2011). According to the pure salience model, an initial ownership disadvantage should not affect convergence at all. Thus, the pure salience model constitutes an explanation for the null hypothesis of no relationship between ownership and convergence.

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<sup>6</sup> On the closely related phenomenon of issue trespassing, see Holian (2004), Iyengar and Valentino (2000), and Norpoth and Buchanan (1992), as well as Sides (2006).

In reality, many campaigns are probably better described by a *hybrid model* that combines these two pure models rather than by either model in isolation. The pure models predict different relationships between ownership and convergence, but combining them raises interesting possibilities.

For example, higher ownership could even lead to higher convergence. To see how, consider a hypothetical issue that is both very salient to voters and on which, one candidate has a reputational advantage. The advantaged candidate is predicted to emphasize the issue in both models; therefore, she would also emphasize it in a hybrid model. A disadvantaged candidate, however, has murkier motivations. He might choose to emphasize a different issue to reduce the voters' weight on the issue in question. Or he might emphasize the issue in question to try and overcome his initial disadvantage because the issue is so salient. According to the hybrid model, the advantaged candidate's emphasis of the issue not only increases the weight voters put on that issue, it also deepens the ownership disadvantage. While the disadvantaged candidate might want to avoid the issue, the worse that disadvantage becomes, the less he can afford to do so. An ownership disadvantage may therefore prompt both candidates to emphasize an issue and result in higher convergence. Importantly, this expectation is predicated on the assumption that the issue is of high initial salience. For issues of low initial salience, the disadvantaged candidate stands to lose little by avoiding the issue, and therefore, dominance effects should prevail on those issues. Combining these two observations yields the following hypothesis:

*Conditional Convergence Hypothesis:* The effect of ownership on convergence is conditional on the initial salience of the issue. Convergence decreases with ownership on issues of low initial salience, and convergence increases with ownership on issues of high initial salience.

Although this hypothesis is stated as though it applies to all races, the dynamics of conditional convergence are unlikely to emerge evenly across all races. Indeed, in noncompetitive races in which one candidate is heavily favored to win, the strategic calculus that animates conditional convergence is not particularly compelling. A frontrunner need not engage the underdog on any particular issue, and the underdog may have other motivations beyond winning, such as building name recognition (Kahn and Kenney 1999). Moreover, the conditional convergence hypothesis implicitly assumes that both candidates are capable of influencing each other's decisions, which is more likely to be the case in competitive races.

*Competitiveness Hypothesis:* Conditional convergence is more common in competitive races and less common in races for safe seats.

To better understand the relationship between competitiveness and conditional convergence, imagine two hypothetical races for high office, one in a dead heat and a second with a clear frontrunner and an underdog.

First, regardless of whether the race is competitive, the reasoning is the same for low salience issues. Following the logic of the pure ownership model, if any candidate decides to talk about this issue, it should be the advantaged candidate. If we assume that the additional emphasis on an issue increases that issue's salience only marginally, it is unlikely that the issue will move from being not at all salient to being highly salient. Therefore, convergence should be zero regardless of whether the advantaged candidate is a frontrunner, an underdog, or in a close race.

Second, consider an issue that is highly salient, and focus on the race that is in a dead heat. Both candidates are likely to discuss this issue regardless of whether there is an ownership advantage because the slightest advantage may tip the race in the direction of one candidate or



the other. In fact, if the issue is salient enough, the disadvantaged candidate may feel compelled to emphasize the issue even *more* as her disadvantage becomes larger, as she may fear that the race may eventually turn on that issue. This is exactly the reasoning behind conditional convergence. The result is that in highly competitive races, ownership negatively affects convergence on nonsalient issues and does not matter on salient issues.

Finally, consider a high salience issue in the noncompetitive race. Here, the pivotal case is the one in which the frontrunner is at an ownership disadvantage. In this case, the underdog would certainly want to campaign on the issue, whether to increase his chances of victory or for any ancillary purpose. The question is whether the frontrunner would also emphasize the issue. On the one hand, given the low likelihood that the frontrunner's lead dematerializes because of a single issue, it seems unlikely that the frontrunner would want to mention the issue to alter her chances of winning. On the other hand, the frontrunner may take the opportunity to co-opt an issue from her opponent (cf. Sulkin 2005). Neither choice seems to be obviously preferable.

These hypothetical examples emphasize differences in strategic calculi based on competitiveness. They do not identify a specific causal mechanism that leads from competitiveness to conditional convergence. There are multiple possibilities: media may cover competitive races more closely than noncompetitive races, or candidates in competitive races may spend campaign money more effectively than other candidates. Instead, I argue that competition fosters favorable conditions for a class of plausible mechanisms to become potentially relevant, and that noncompetitive races do not. Thus, the evidence I offer below does not shed light on any one mechanism. Rather, I test the general hypotheses that (1) convergence is conditionally dependent on ownership and salience, and (2) such conditional convergence is more common in competitive races than in noncompetitive races.

## Data Analysis

To test these hypotheses, I require data that is rich in variation on issue, salience, ownership, and the competitiveness of races. US House campaigns provide an excellent source of such data.

Throughout the analysis, the dependent variable is *Convergence*, the relative difference between the proportions of resources that opposing candidates in a race expend on a given issue (Kaplan, Park, and Ridout 2006). Thus, the unit of observation is a combination of a race and an issue.

More formally, suppose the Democratic Party candidate in a race spends  $p_i^D$ % of her resources discussing issue  $i$ , and the Republican candidate spends  $p_i^R$ % of her resources on  $i$ . The

*Convergence* on issue  $i$  is defined as

$$100 \left( 1 - \frac{|p_i^D - p_i^R|}{p_i^D + p_i^R} \right).$$

The range of *Convergence* is from 0 to 100. If *Convergence* equals 0, one candidate dominated the issue throughout the campaign. If instead *Convergence* equals 100, both candidates expended exactly the same fraction of their resources on the issue. When *Convergence* lies between 0 and 100, both candidates raised the issue, but one candidate raised it with a larger fraction of her resources than the other. For example, suppose the Democratic candidate spends 30% of her resources on some issue, and the Republican candidate spends 60% of her resources on the issue. *Convergence* on that issue is then 50. If instead either the Democrat had spent 60% of her resources on the issue, or the Republican had spent 30% of her resources, *Convergence* would be 100. If one candidate had instead avoided the issue, *Convergence* falls to 0.

The raw percentages of resources expended on each issue are central to this empirical approach. Candidates allocate resources across a wide variety of media, including public appearances and speeches, television and cable advertising, campaign websites, and direct mail.

Each of these media is an important piece of campaign strategy, but in this paper, I focus on televised campaign advertisements. Television ads have recently generated significant scholarly interest (e.g., Sigelman and Buell 2002; Kaplan, Park, and Ridout 2006), and data on televised ads are readily available from the University of Wisconsin Advertising Project (WiscAds), which catalogs each ad that airs in the largest media markets in the United States (Goldstein and Rivlin 2007).<sup>7</sup> But more importantly, the relatively high cost of television ads presents candidates with a stark and constrained choice about how to allocate resources, and therefore these ads provide an excellent test of which issues candidates feel most compelled to discuss. Although candidates may discuss issues through other media that they do not raise in television ads, television ads also represent one of their best chances to define the agenda of a campaign. Therefore, I operationalized the percentage of resources a candidate spends on an issue as the number of ad airings that mentioned the issue, divided by the total airings by the candidate.<sup>8</sup>

Conditional convergence theory is general and applies to a wide variety of races. But, because they are conditional, a test of these hypotheses requires data that exhibit considerable variation in competitiveness and salience without sacrificing too much statistical power. Therefore, I test

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<sup>7</sup> In 2000, the top 75 media markets were included in WiscAds. In 2002, this number was expanded to 100. It is possible that this limitation in the data introduces bias by excluding less competitive races outside major media markets. These races are arguably the least inferentially useful, as outcomes and agenda setting in these races are over-determined. However, there are a large number of included races that CQ Weekly coded as “safe” or “likely,” which provides a partial check on this finding, and *Convergence* is higher in competitive races than in races for safe seats.

<sup>8</sup> To identify the issues raised in each ad, I rely on the issue categories provided by WiscAds, which codes up to four issues per ad. Some may argue that ads can address far more issues, and that the limit to four issues per ad introduces bias into the data. However, Sides (2006) recoded the WiscAds data, finding that “the vast majority mentioned no more than four [issues]” (p. 418). In every case but one, I used the WiscAds coding without amendment or combining categories. The exception is for the economy issue, which WiscAds does not directly code. I therefore coded *Convergence* on the economy issue using WiscAds open-ended “Other” category. All the results presented below are substantively similar if observations for the economy issue are excluded.

these hypotheses with data from the general elections for US House seats in 2000, 2002, and 2004. These races exhibit a larger degree of variation in both the key conditions (competitiveness and salience) than do other races like those for US Senate seats.<sup>9</sup> Moreover, because candidates for seats in the House (as opposed to Senate or presidential candidates), they are more likely to make decisions about television ads early in the campaign season, based solely on initial conditions. Therefore, decisions by House candidates about television ads should provide the clearest test of the hypotheses. After excluding uncontested House races and those in which only one candidate aired ads, 245 races remain.<sup>10</sup> The dependent variable is *Convergence* in each race on up to 23 different issues, with an observation for each race in which a candidate raised the issue (see Table 1 for a list of included issues). On average, there are 6.2 issues for each House race.<sup>11</sup> Summary statistics for *Convergence* and all other variables appear in Table 2.

[Tables 1 and 2 about here]

Some may argue that the theory of issue ownership applies only to specifically valence or consensus issues on which the candidates and voters all agree about policy outcomes, such as

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<sup>9</sup>One might worry that there is too little advertising in some House races to fully capture *Convergence*. To probe this possibility, I re-ran all analyses below including only observations from races in which both candidates aired at least 25 ads each. All the results were substantively similar to those presented below. Below, I also analyze an extension of this research design to the Senate.

<sup>10</sup>Importantly, selecting contested races in which both candidates aired TV ads may introduce bias. However, 115 of the 245 included races were coded by *CQ Weekly* as “safe” or “likely” and involved incumbents running for reelection, which provides good coverage of relatively uncompetitive races.

<sup>11</sup>Not every issue plays a role in every race. Two issues, terrorism and corporate corruption, are excluded for 2000 because WiscAds did not code for them. The additional criteria for including an issue were that at least one poll existed to provide an estimate of *Ownership* on the issue, and that at least one candidate from each party aired an ad on the issue during the election. For these reasons, the issues welfare, minimum wage, poverty, race relations, gay rights, immigration, and the Middle East were excluded. Each of these issues had low salience throughout the study period and nearly uniform zero *Convergence*. If we infer from the lack of polling and the one-sided advertising that *Ownership* on these issues was high, then excluding these issues will bias away from finding evidence of conditional convergence.

crime, as opposed to positional issues on which candidates and voters disagree about outcomes, such as taxes (Stokes 1963). However, in practice it is difficult to credibly distinguish *ex ante* between these two sets of issues. For example, it is not clear whether the issue of health care is better categorized as valence or positional according to these definitions. While better health outcomes are uniformly desirable, there are active positional disagreements over the means of attaining those outcomes. Therefore, I have taken a two-track approach here, combining an inclusive strategy with robustness checks limited to consensus issues.<sup>12</sup> The results presented below include all the issues listed in Table 1.

The independent variables required to test the above hypotheses include issue-specific measures, campaign-specific measures, and district-specific measures. Pre-campaign season competitiveness is measured using the ratings in the early August edition of the *CQ Weekly*.<sup>13</sup> The indicator variable *Competitiveness* equals 1 if the campaign was characterized as a “toss-up” or “leaning” race, and equals 0 for the other categories of “safe” and “likely”.

Turning to the issue-specific variables, *Ownership* on an issue is measured as the absolute difference between the percentages of respondents who say one party is better able to handle the issue and who say the other party is (Petrocik 1996, Sides 2006). To measure *Ownership*, I used the data from the Roper Center at the University of Connecticut, searching for polls conducted between 1999 and 2004 with the phrases “Regardless of how you usually vote”

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<sup>12</sup>Models of data limited to the issues identified by Kaplan, Park, and Ridout (2006) as “consensus” match the substantive findings presented here except for a slight change in statistical significance, probably owing to the loss of power, as the number of observations drops by two-thirds.

<sup>13</sup>As a robustness check, I also re-estimated all models data using the early August rating from the *Cook Political Report* as an alternative measure of competitiveness. All results were substantively similar.

or “better job”.<sup>14</sup> For the most part, language used in these surveys matched the language used in the WiscAds coding exactly. Polls that framed their questions with additional, potentially biasing qualifiers were excluded. For example, questions that asked which party is “more likely to make sure the tax system is fair” are excluded.

**Estimating Salience at the District Level.** Measuring pre-campaign season, district-level salience requires a somewhat more complex process. Existing studies use a single estimate of nation-wide salience for all the races they study in a given election (e.g., Kaplan, Park, and Ridout 2006; Sides 2006). But salience almost certainly varies across districts. Unemployment may be more salient in districts where jobs are scarcer, moral values may be more salient in districts where more evangelical Christians live, and variation is likely to be found on other issues as well. Capturing this variance is vital if we are to accurately test the hypotheses, and we therefore need reliable measures of salience at the district level.

The most straightforward way to estimate salience is to disaggregate the results of national surveys down to the district level (Miller and Stokes 1963). However, most surveys reach about 1000 individuals, and, with 435 congressional districts, this method does not yield sufficient sample sizes for reliable estimates. Fortunately, a recent advance in the estimation of sub-national opinion using national surveys called multilevel regression and poststratification provides a promising alternative method (Park, Gelman, and Bafumi 2004).<sup>15</sup> The procedure begins by estimating a multilevel (i.e., random effects) model, regressing responses to the question of interest on a variety of data including demographic and geographic information.

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<sup>14</sup>I relied on data from 27 different Gallup and by CBS/New York Times polls that prompted respondents to select a party on a particular, specified issue. A list of the polls is available upon request.

<sup>15</sup>Lax and Phillips (2009a) use this technique to measure state-level approval of several gay rights issues.

These estimates are then weighted by demographic information from each geographic region at the level (state, district, etc.) of interest. The result is a set of simulated estimates of what responses to the question would have been if the survey had been conducted with larger samples in that region.<sup>16</sup> In two recent papers, Lax and Phillips (2009a,b) use this technique to study variation in public opinion on gay rights at the state level and systematically show its effectiveness in detecting subnational variation in opinion. Here, I extend this technique to the congressional district level and the measurement of issue salience.

[Figure 1 about here]

Before estimating salience, I first estimated partisanship and ideology at the district level using standard questions asked in most surveys.<sup>17</sup> With these estimates in hand, I then estimated responses to “most important problem” questions using data drawn from 53 different surveys, each of which was conducted before September 1st.<sup>18</sup> The resulting estimates of *District-level Salience* are reminiscent of the national estimates, but exhibit considerable variation both cross-sectionally and temporally. For the sake of comparison, I used the same survey data to create estimates of *National-level Salience* that permit analysis of the value added by using these district-level estimates. However, even before moving to analysis with these data, it is possible to see the explanatory gap these estimates fill. Figure 1 shows kernel densities of the estimates of

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<sup>16</sup>Although this method has been used effectively to estimate state-level opinion on survey questions limited to two responses, there are additional hurdles to overcome in applying the technique to estimate issue salience at the district level. See the appendix for details on the estimation procedure and an example of the estimates. All estimates are available upon request.

<sup>17</sup> Because many included polls did not prompt respondents as to their partisan leaning, independents, moderates, and nonresponses have been excluded.

<sup>18</sup> In almost every case, the language used in WiscAds coding matches the language used in the surveys. The only notable exception is WiscAds’ coding “Government Ethics,” which I matched with CBS’s coding “Politicians/Government” and “Fix Government.” All results below are substantively similar if this issue is excluded. See the online appendix for details on the estimation procedure.

*District-level Salience* for three different issues in 2002 and 2004. In the first row, it is apparent that there was some limited variation across districts in the salience of the values issue in 2002, but, by 2004, districts became much more widely divergent. In contrast, the wide variation in *District-level Salience* of education in 2002 collapses by 2004. And not all issues change as dramatically as did these two, as illustrated by the bottom row, which depicts the nearly static *District-level Salience* of the budget issue.

[Figure 2 about here]

As an initial test of the face validity of the estimation technique, Figure 2 shows maps of congressional districts for two issues in 2004. The map on the left shows the geographic distribution of *District-level Salience* of values, and the map of the right displays the distribution for jobs and unemployment. Darker colors represent higher *District-level Salience*. As can be seen, the salience of values is concentrated in the south and in Utah, areas with many evangelical Christian and Mormon voters. In contrast, jobs and unemployment were most salient in the Great Lakes region, particularly in Michigan. To further validate this measure, I compared the *District-level Salience* of unemployment with estimates of district-level unemployment level; the two have a Spearman correlation of 0.44 ( $p < 0.0001$ ).<sup>19</sup> And, in fact, the values issue is more salient in the Houston suburbs, while unemployment is more salient in downtown Detroit.

One might like to have similar district-level measure of ownership, as party reputations may also vary from district to district. Unfortunately, polls on ownership on any particular issue are much scarcer than polls asking about the “most important problem.” Not only were there fewer surveys that included issue ownership questions than most important problem questions, in

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<sup>19</sup> Because unemployment is not directly reported at the district level, I used the Geographic Correspondence Engine provided by the Missouri Census Data Center to estimate district-level unemployment based on county-level data.



many cases, a survey will split its sample to accommodate more issue ownership questions. Therefore, it was not possible to estimate credible district-level estimates of ownership, and so no such measure is available. That said, there are also distinct advantages to using the national level estimates of ownership. National measures enable us to get a sense of how candidate behavior is associated with party-wide issue reputations as opposed to more personal reputations that may be tied up with district-level ownership. District-level measures of ownership may also reflect other local or state politicians and their reputations.

**Candidate and Demographic Influences on Convergence.** Beyond the issue-specific influences of ownership and salience, *Convergence* may depend on other factors. I therefore include several control variables in some specifications. While theoretical expectations exist for many of these variables, their primary purpose here is to provide a sharper test of the hypotheses. In addition to the indicator of *Competitiveness*, three more variables indicate whether there was at least one *Female* or a *Quality Challenger* in the race, and whether the race was for an *Open Seat*. I further control for the *Total Spending* and *Difference in Spending* in a race.<sup>20</sup>

Finally, I include district-specific variables.<sup>21</sup> First, *Convergence* may be higher in districts in which one party or ideology dwarfs its rival because the dominant party or ideology

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<sup>20</sup> As a robustness check, I also re-estimated all the models presented below replacing *Quality Challenger*, *Total Spending*, and *Difference in Spending* with their first principal component. All results are substantively similar if this principal component is used instead of those three variables. I also re-estimated models including related measures of campaign tone and valence. To that end, I also included the percentage of total ad airings by both candidates that were coded as *Negative* (i.e., attack) and for the *Valence Convergence* between candidates on personal characteristics like candidate biographies, attendance records, and casework. *Valence Convergence* was calculated by first determining the percentage of ads aired by each candidate that are coded by WiscAds as focusing on these non-issue areas and then applying the formula used for *Convergence* to these percentages. All results are substantively similar if these variables are included.

<sup>21</sup> All results are substantively similar if all district-specific controls are excluded.

effectively sets the campaign agenda. To capture the degree of partisan and ideological extremity in a district, I include a measure of the *Absolute Difference in Presidential Vote* between the two major party candidates. Similarly, heterogeneity in districts may discourage candidates from staking out clear positions and thus lower convergence.<sup>22</sup> Therefore, I control for *Heterogeneity*, a version of the Rae index based on % African-American, % Latino, and the remaining percentage (see, e.g., Branton and Jones 2005).<sup>23</sup>

## Results

Before turning to a statistical analysis of ownership effects on *Convergence*, first consider a straightforward, if inferentially weak, test of the conditional convergence hypotheses. Figure 3 depicts average *Convergence* based on *District-level Salience* and *Ownership*, first for all races, and then splitting out races by *Competitiveness*.<sup>24</sup>

[Figure 3 about here]

The figure clearly demonstrates that pooling all races together obscures the dynamic relationships between *Convergence*, *District-level Salience*, and *Ownership*. When examining all races, it appears, if anything, that increasing *Ownership* might be associated with a small increase in *Convergence*, which confirms the current understanding in the empirical literature, yet flies in the face of the theoretically compelling Dominance Hypothesis. This finding holds regardless of the salience level, which might also be taken too quickly to be evidence against the Conditional Convergence Hypothesis. However, once the observations are split by

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<sup>22</sup> As a robustness check, I also ran the models including *Voting Age Population*, % College Graduate, % Over 65, % African-American, % Latino, and % Evangelical in each district.

<sup>23</sup> I also re-estimated the models with an indicator variable for campaign-issue pairs in Southern states, with no substantive changes in the results.

<sup>24</sup> In Figure 3, High Salience is defined as *District-level Salience* over 5%, and High Ownership is defined as *Ownership* over 15%.

competitiveness, it becomes clear that pooling fundamentally different races together has obscured the more dynamic relationships in subsets of races. The differences in average *Convergence* change sign based on salience for both subsets of races, and these signs changes point in opposite directions depending on competitiveness. As a result, when these races are pooled together, these countervailing effects wash each other out, leading to inaccurate conclusions. Thus Figure 3 constitutes initial evidence in favor of conditional convergence theory, albeit based on an inferentially weak test.

To provide a basis for stronger inferences, I estimated a series of multilevel regression models of *Convergence*. The technique is appropriate because each included district yields observation for many different issues.<sup>25</sup> In 2000, 2002, and 2004, there were 245 contested races for House seats in which both candidates aired television ads coded by WiscAds. Combining data on issues with data on campaigns yields 1520 observations in which at least one candidate aired at least on ad on an issue. The multilevel regressions include random intercepts and random slopes on salience and ownership at the campaign level, and fixed effects for election years.

[Table 3 about here]

For comparison, I first present a restricted model that uses *National-level Salience*. And excludes covariates not used by Kaplan, Park and Ridout (2006) in their study of Senate races. Model 1 largely matches the previous results for the Senate (see Table 3).<sup>26</sup> The multilevel structure contributes to the model's fit, as can be seen in the estimated standard deviations of the

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<sup>25</sup> An additional reason to use this technique is that it ensures comparability with earlier work (Kaplan, Park, and Ridout 2006). As noted throughout the previous section and below, the results are consistent with a large number of alternate models and specifications. All results were calculated using the `lmer` function from the `lme4` package in R.

<sup>26</sup> The only finding in Model 1 that differs from that of Kaplan, Park, and Ridout's (2006) is the sign and significance level of the coefficient on the control variable *Difference in Spending*.

random intercepts and slopes.<sup>27</sup> Consistent with prior work, Model 1 does not provide support for the Dominance Hypothesis. However, because conditional effects may be washing each other out, there is no *a priori* reason to expect significant results yet. Model 1 also provides strong evidence of higher *Convergence* in more competitive races ( $p = 0.05$ , two-tailed).<sup>28</sup> The model also indicates that salience is positively associated with *Convergence* ( $p = 0.04$ ). As a test of the robustness of the results in this baseline model, Model 2 includes additional control variables. These covariates improve model fit slightly, but do not drastically alter the coefficient estimates. Like Model 1, Model 2 provides no evidence of dominance effects on owned issues. This finding matches Kaplan, Park, and Ridout's (2006) analysis of Senate races.

Model 3 replicates Model 2, but replaces *National-level Salience* with *District-level Salience*. Model fit improves significantly simply by substituting in the district measure for the national measure, as indicated by the decrease in deviance. Furthermore, the election year fixed effects, which were significant in Model 2, are insignificant in Model 3. Thus, measuring salience at the appropriate level helps to resolve an anomaly first documented by Kaplan, Park, and Ridout (2006), who regard the significance of the election year effects as somewhat puzzling. Moreover, the magnitude of the salience coefficient doubles and becomes much more significant, which indicates that there may be significant bias from measurement error in the national measure. *District-level Salience* ranges from 0 to about 20, which means that *Convergence* on the most salient issues could be as much as 17 points higher than on the least

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<sup>27</sup> One can think of multilevel estimates as weighted averages of the standard OLS estimates and the estimates that would have resulted by doing a separate regression for each level (i.e., each campaign). The standard deviations can then be interpreted as markers of the weights put on the different levels. If the standard deviations were close to zero, the multilevel estimates would not be much different from OLS estimates. In this case, the standard deviations are large and statistically significant, indicating that the multilevel model explains variance in the data. See Gelman and Hill (2007) for more details on the method.

<sup>28</sup> All significance tests reported are two-tailed.

salient issues on a scale that ranges from 0 to 100. However, the coefficient on *Ownership* remains positive and insignificant, indicating the absence of clear dominance effects. The next step is to determine whether the conditional nature of convergence is leading us to a false inference in this case.

**Testing Conditional Convergence.** To test the conditional convergence hypotheses, I estimated a series of models that include interactions between *Ownership*, *District-level Salience*, and *Competitiveness*. In each case, I first present the results of a multilevel model without control variables and then a similar model with controls.

[Table 4 about here]

Models 4A and 4B provides the first tests of the Conditional Convergence Hypothesis (see Table 4).<sup>29</sup> The coefficients are largely similar whether control variables are excluded (as in 4A) or included (as in 4b). The coefficient on *Ownership* should now be interpreted conditionally; it represents the marginal change in *Convergence* associated with a one point increase in *Ownership* when *District-level Salience* is exactly zero, which it is for several issues. This coefficient is negative, indicating the tincture of a dominance effect, although the coefficient is also insignificant at conventional levels. In contrast, the coefficient on the interaction term is both positive and significant ( $p = 0.05$ ), indicating partial support for the Conditional Convergence Hypothesis. That is, although there is no evidence of dominance effects for low

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<sup>29</sup> These results are robust to numerous different modeling assumptions and techniques. For example, the results above use the same technique as previous work by Kaplan, Park, and Ridout (2006) for the sake of comparison, but because the dependent variable is never smaller than 0 or greater than 100, a more appropriate technique is a multilevel tobit analysis. The results of such analysis do not change the substantive conclusions of the analysis presented in the text. Similarly, the results are substantively robust if one drops all observations with *Convergence* equal to 0, or recodes *Convergence* dichotomously. In each of these latter two cases, there is a slight decrease in statistical significance.

salience issues, there is evidence that dialogue effects emerge as salience increases. And, as discussed above, there is good reason to suspect that conditional convergence may depend on the competitiveness of the race.

The next several models presented in Table 4 extend Model 4 to include conditional effects with respect to *Competitiveness*. Model 5 does so by interacting the indicator variable *Competitiveness* with both *District-level Salience* and *Ownership*. Because three-way interactions are somewhat burdensome to interpret, Models 6 and 7 break down the data by *Competitiveness* and re-estimate the specification on each subset of data. Model 6 presents results for safe seats, and Model 7 presents results for competitive races. Collectively, these models demonstrate that conditional convergence depends greatly on competitiveness and incumbency, consistent with the Competitiveness Hypothesis.

Model 5 indicates strong support for the Competitiveness Hypothesis, which says that conditional convergence behaves differently in safe seats and competitive races. Models 5A and 5B differ only in the exclusion or inclusion of the control variables; such a choice entails no substantive differences in inferences. Note that the model deviance is at its lowest for Model 5B, indicating that the fully specified model with the complete set of interactions. Both models indicate that the interactions of *Competitiveness* with *Ownership* are significantly negative, which bespeaks the presence of dominance effects in competitive races for low salience issues.

For ease of interpretation, Models 6 and 7 present a similar specification broken down by *Competitiveness*. Again, the inclusion of control variables is irrelevant for statistical inference. Together, these four models substantiate the initial evidence based on average *Convergence* in Figure 3. Dominance effects appear for low salience issues in competitive races, and dialogue effects appear for high salience issues in those races. Neither appears in races for safe seats.

[Figure 4 about here]

Figure 4 demonstrates the shift from dominance to dialogue for competitive races, and contrasts it with the results for safe seats (Brambor, Clark, and Golder 2006). Three regions are apparent for competitive seats. On the left, when *District-level Salience* is near zero, higher *Ownership* is associated with lower *Convergence*—a dominance effect. For an issue with average *Ownership*, *Convergence* is about 6 points lower (on a scale of 0 to 100) than it is on an issue with no *Ownership*. The rug plot below shows the empirical distribution of *District-level Salience*, indicating that approximately 33% of observations have *District-level Salience* below the point at which the marginal effect of *Ownership* becomes statistically indistinguishable from zero. Continuing to the right, dominance gives way to dialogue when *District-level Salience* reaches about 5%, as the marginal effect of *Ownership* shifts from negative to positive. This shift to dialogue becomes significant when *District-level Salience* reaches about 10%. On the far right, when *District-level Salience* is largest, *Convergence* is approximately 20 points higher with average *Ownership* than with no *Ownership*—a dialogue effect—and 18% of observations lie in this region. To further illustrate how the results depend on competitiveness, Figure 4 also shows the results for safe seats. In these races, there seem to be no significant effects of *Ownership* on *Convergence*, and no evidence of conditional convergence.

As discussed above and throughout the footnotes to the text, the results presented here are substantively robust to a wide variety of alternative modeling techniques, specifications of the dependent variable, inclusions of alternative control variables, and exclusions of the variables included in the analyses reported here. Taken together, all these analyses show that the nuanced relationship between *Ownership* and *Convergence* can be misunderstood by pooling together different kinds of races and issues.

## The Case of the US Senate

Although the US House offers a more varied set of races than the US Senate, there is no obvious theoretical reason to suspect that conditional convergence will work differently in contests for the upper chamber. Therefore, I present a brief extension of this research design to races for the Senate in 2000, 2002, and 2004. Fortunately, the same data that were used to estimate *District-level Saliency* can be used to estimate *State-level Saliency*, and the latter measure can be similarly validated. For example, the Spearman correlation between the *State-level Saliency* of unemployment and state unemployment levels is 0.58 ( $p < 0.001$ ). Furthermore, television ad data for Senate races is available from WiscAds, as was for the House. Almost all the control variables (*Total Spending*, *Difference in Spending*, etc.) have obvious counterparts that can be collected and calculated via very similar processes. The only variable without an obvious analogue is *Challenger Quality*, the omission of which seems unproblematic. Not only is the Senate more likely than the House to attract challengers who have previously won office, meaning that this variable might not have much variation, *Challenger Quality* has been insignificant in every specification that included it.

[Table 5 about here]

After eliminating races in which only one candidate aired ads, the Senate dataset includes 59 races. Using these data, Table 5 replicates results from Table 4. Specifically, Model 8 mirrors Model 4, and Model 9 mirrors Model 5. In most cases, the results do not depend on the inclusion of control variables, and I therefore focus on the test of conditional convergence in Model 9B. The broad contours of the findings for the Senate match those for the House. In Model 9B, the three-way interaction of *Ownership*, *Competitiveness*, and *State-level Saliency* is positive and significant ( $p = 0.07$ ), as was the interaction of *Ownership*, *Competitiveness*, and *District-level*



*Saliency* in Model 5B. The slight difference in significance between these two models may owe to the difference in power between the two datasets. Thus finding further indicates that pooling competitive races with safe seats can lead to mistaken inferences about ownership effects.

To be sure, some differences also emerge between the results for the House and Senate. First, *State-level Saliency* seems to play a larger role in Senate contests than does *District-level Saliency* in the House. Although there are significant ownership effects in the Senate, they are dwarfed by the saliency effects. In the House, the magnitude of ownership effects rivals that of saliency effects. Second, no dominance effects are evident for low saliency issues in competitive Senate races. Instead, moderately significant dialogue emerges on these issues. But the most striking difference between the House and Senate cases is the interaction between *Ownership* and *State-level Saliency* (which applies to the set of safe seats), which is negative in both but significant only in the Senate case. As *State-level Saliency* increases, dominance effects emerge in these races, whereas no such dominance effects emerged in races for safe House seats. This finding indicates that conditional convergence operates somewhat differently in races for safe Senate seats than it does in races for safe House seats. One possibility is that underdog candidates for safe Senate seats are playing a longer game, and choosing their actions with an eye to their future careers. In that case, an underdog may weigh the opportunity costs of emphasizing high saliency issues on which she is disadvantaged as more costly than a candidate for a safe House seat. Regardless of the explanation for this discrepancy, there are more similarities between the analyses of these two datasets than there are differences. Both examples illustrate the conditional dynamics that obscure evidence of ownership effects in the study of campaigns.

## **Conclusion**

The theory of issue ownership seems to have straightforward implications for campaign strategy: candidates should play to their strengths and avoid their weaknesses. If they do so, the result would be a pattern of dominance effects on owned issues, but previous studies have documented few such effects. In this paper, I have argued that this puzzle can be resolved with a combination of new theory and better evidence. First, I develop a new theory of conditional convergence that recognizes the conditioning roles of salience and competitiveness on ownership effects. Second, I have used a new measure of issue salience at the subnational level to provide less biased tests of the key hypotheses.

Conditional convergence effects are prevalent in competitive House races, which are crucial for shaping the national agenda. Control of Congress depends on winning a majority of seats, meaning that fiercely competitive elections are the most relevant for determining who will actually choose the legislation that comes to the fore. While it is potentially unsurprising that competitiveness can encourage candidates to shore up their disadvantages, fierce competition also leads to dominance effects and diminished convergence on less salient issues. Importantly, low salience issues remain very important to relatively small groups—among the lowest salience issues in the races examined here are abortion, the environment, and gun rights. Therefore, these findings point to a potential downside of electoral reform designed to encourage competition (e.g., providing public funds or redrawing districts to be competitive). Just as competition drives dialogue on the most salient issues, it encourages dominance on a host of problems that matter to niche constituencies.

Given the intervening nature of salience and competitiveness in the relationship between ownership and convergence, this study opens the door to future research on the conditional nature of campaign strategy. Foremost is the need for a formal theoretical understanding of

strategic issue emphasis. The theory presented in this paper has added complexity to the understanding of issue selection, and in so doing it clarifies the need for clarity and rigor that formal theory can provide. Moreover, campaign strategy likely depends on factors outside of the theoretical framework considered here. The presence of quality challengers, female and minority candidates, and large racial and religious populations may alter the strategic environments candidates face. And more personalized information about candidates may point to other factors that alter the content of campaigns, for example, including their legislative activities (Sellers 1998). Campaign strategies may also have conditional effects on the policymaking that follows elections. These effects may further shape the agenda that emerges from elections, for example conditioning electoral mandates (Conley 2001). Additionally, the propensity for incumbents to pick up issues from campaigns and act on them in Congress (Sulkin 2005) may also depend on the conditions that generated the campaign strategies in the first place.

The data in this paper are drawn from televised ads, one of the most important outlets for campaign messages. One of the reasons to use these ads is that their high costs force candidates to make tough, resource-constrained choices about which issues to emphasize. However, a consequence is that some candidates were excluded from the analysis because they could not afford to run ads. Future work should therefore compare these findings with those from other sources of data. For example, candidate websites offer an alternative, relatively unconstrained view of candidate priorities (Druckman, Kifer, and Parkin 2009). Future work could also compare these results with those from other media, like speeches and mail.

Finally, convergence in other campaigns is also likely to be conditional. For example, races for state legislatures or legislatures in other countries may depend both on ownership concerns and on salience. However, these contingencies are likely to depend on the legislative

institutions, just as conditional convergence apparently differs between the House and the Senate. In each case, strategic conditions in an election are likely to affect what candidates discuss, and therefore what the election are likely to mean.

## References

- Agresti, Alan. 2002. *Categorical Data Analysis, 2<sup>nd</sup> Edition*. Wiley: Hoboken, New Jersey.
- Ansolabehere, Stephen, and Shanto Iyengar. 1994. "Riding the Wave and Claiming Ownership Over Issues: The Joint Effects of Advertising and News Coverage in Campaigns." *Public Opinion Quarterly* 58(3): 335-357.
- Basinger, Scott, and Howard Lavine. 2005. "Ambivalence, Information, and Electoral Choice." *American Political Science Review* 99(1): 169-184.
- Branton, Regina P, and Bradford S. Jones. 2005. "Reexamining Racial Attitudes: The Conditional Relationship between Diversity and Socioeconomic Environment." *American Journal of Political Science* 49(2): 359-372.
- Budge, Ian, & Farlie, Dennis J. 1983. *Explaining and predicting elections: Issue effects and party strategies in twenty-three democracies*. London: Allen & Unwin.
- Chong, Dennis, and James N. Druckman. 2007. "Framing Public Opinion in Competitive Democracies." *American Political Science Review* 101(4): 637-655.
- Conley, Patricia Heidotting. 2001. *Presidential Mandates: How Elections Shape the National Agenda*. Chicago: University of Chicago Press.
- Druckman, James N., Martin J. Kifer, and Michael Parkin. 2009. "Campaign Contributions in U.S. Congressional Elections." *American Political Science Review* 103(3): 343-366.
- Egan, Patrick J. "Issue Ownership and Representation: A Theory of Legislative Responsiveness to Constituency Opinion." Working paper.
- Gelman, Andrew, and Jennifer Hill. 2007. *Data Analysis Using Regression and Multilevel/Hierarchical Models*. Cambridge: Cambridge University Press.
- Goldstein, Kenneth, and Joel Rivlin. 2007. "Congressional and Gubernatorial advertising, 2003-2004" Combined File [dataset]. Madison, WI: The University of Wisconsin Advertising Project, Department of Political Science at the University of Wisconsin-Madison.
- Herrnson, Paul S. 2008[1995]. *Congressional Elections: Campaigning at Home and in Washington*, 5<sup>th</sup> edition. Washington, DC: CQ Press.
- Herrnson, Paul S., J. Celeste Lay, and Atiya Kai Stokes. 2003. "Women Running "as Women": Candidate Gender, Campaign Issues, and Voter-Targeting Strategies." *Journal of Politics* 65(1): 244-255.
- Holian, David B. 2004. "He's Stealing My Issues! Clinton's Crime Rhetoric and the Dynamics of Issue Ownership." *Political Behavior* 26(2): 95-124.

- Iyengar, Shanto, and Donald R. Kinder. 1987. *News that Matters: Television and American Opinion*. Chicago: University of Chicago Press.
- Iyengar, Shanto, and Nicholas A. Valentino. 2000. "Who Says What? Source Credibility as a Mediator of Campaign Advertising." In Lupia, Arthur, Mathew D. McCubbins, and Samuel Popkin (Eds.) *Elements of Reason: Cognition, Choice, and the Bounds of Rationality* (pp. 108-129). Cambridge: Cambridge University Press.
- Kahn, Kim Fridkin, and Patrick J. Kenney. 1999. *The Spectacle of U.S. Senate Campaigns*. Princeton, NJ: Princeton University Press.
- Kaplan, Noah, David K. Park, and Travis N. Ridout. 2006. "Dialogue in American Political Campaigns? An Examination of Issue Convergence in Candidate Television Advertising." *American Journal of Political Science* 50(3):724-736.
- Krasa, Stefan, and Mattias Polborn. 2010. "Competition between Specialized Candidates." *American Political Science Review* 104(4) 745-765.
- Lax, Jeffrey R., and Justin H. Phillips. 2009a. "Gay Rights in the States." *American Political Science Review* 103(3): 367-386.
- Lax, Jeffrey R., and Justin H. Phillips. 2009b. "How Should We Estimate Public Opinion in the States?" *American Journal of Political Science* 53(1): 107-121.
- Miller, Warren E., and Donald E. Stokes. 1963. "Constituency Influence in Congress." *American Political Science Review* 57(1): 45-56.
- Minozzi, William. 2011. "A Jamming Theory of Politics." *Journal of Politics* 73(2): 301-315.
- Moser, Scott, and Shinya Wakao. n.d. "Is Campaigning Local? Campaign Strategy in the 2010 Congressional Race." Working paper.
- Nadeau, Richard, Francois Pétry, and Eric Bélanger. "Issue-based Strategies in Election Campaigns: The Case of Health Care in the 2000 Canadian Federal Election." *Political Communication* 27(4): 367-88.
- Nelson, Thomas E., Rosalee A. Clawson, and Zoe M. Oxley. "Media Framing of a Civil Liberties Conflict and Its Effect on Tolerance." *American Political Science Review* 91(3): 567-83.
- Norpoth, Helmut, and Bruce Buchanan. 1992. "Wanted: The Education President: Issue Trespassing by Political Candidates." *Public Opinion Quarterly* 56: 87-99.

- Park, David K., Andrew Gelman, and Joseph Bafumi. 2004. "Bayesian Multilevel Estimation with Postratification: State-level Estimates from National Polls." *Political Analysis* 12:375-385.
- Petrocik, John R. 1996. "Issue Ownership in Presidential Elections, with a 1980 Case Study." *American Journal of Political Science* 40(3):825-50.
- Petrocik, John R., Benoit, William L., & Hansen, Glenn J. 2003. "Issue ownership and presidential campaigning, 1952-2000." *Political Science Quarterly* 118:599-626.
- Riker, William H. 1993. "Rhetorical Interaction in the Ratification Campaigns." In *Agenda Formation*, ed. William H. Riker. Ann Arbor, MI: University of Michigan Press, pp. 81-123.
- Sellars, Patrick J. 1998. "Strategy and Background in Congressional Campaigns." *American Political Science Review* 92(1):159-172.
- Sides, John. 2006. "The Origins of Campaign Agendas." *British Journal of Political Science* 36, 407-436.
- Sides, John. 2007. "The Consequences of Campaign Agendas." *American Politics Research* 35(4) 465-488.
- Sigelman, Lee, and Emmett H. Buell, Jr. 2004. "Avoidance or Engagement? Issue Convergence in U.S. Presidential Campaigns, 1960-2000." *American Journal of Political Science* 48(4):650-661.
- Simon, Adam F. 2002. *The Winning Message: Candidate Behavior, Campaign Discourse, and Democracy*. Cambridge: Cambridge University Press.
- Spiliotes, Constantine J., & Vavreck, Lynn. 2002. "Campaign Advertising: Partisan Convergence or Divergence?" *Journal of Politics* 64: 249-261.
- Sulkin, Tracy. 2005. *Issue Politics in Congress*. Cambridge: Cambridge University Press.
- Therriault, Andrew. 2011. "Whose Issue Is It Anyway? A New Look at Party Reputations and Candidate Evaluations." Working paper.
- Vavreck, Lynn. 2009. *The Message Matters*. Princeton NJ: Princeton University Press

***Table 1: Issues Included in the Analysis***

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Abortion	Government Spending
Budget/Debt/Deficit/Surplus	Gun Control
Corporate Scandals	Health Care
Crime	Jobs/Unemployment
Defense	Medicare
Economy	Moral Values
Education	Prescription Drugs
Energy	Social Security
Environment	Taxes
Foreign Policy	Terrorism
Government Ethics	

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The coding of observations into each of these issues is determined by the WiscAds issue coding scheme.



**Table 2: Descriptive Statistics for House Races**

<b>Variables</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Max</b>
<i>Convergence</i>	20.1	32.9	0	100
<i>Ownership</i>	17.0	12.5	0.44	44.95
<i>National-level Saliency</i>	3.90	3.94	0	20.18
<i>District-level Saliency</i>	4.86	4.27	0	28.60
<i>Competitiveness</i>	0.44	0.50	0	1
<i>Open Seat</i>	0.29	0.45	0	1
<i>Quality Challenger</i>	0.39	0.49	0	1
<i>Female in Race</i>	0.39	0.49	0	1
<i>Total Spending</i>	2.74	1.68	0.47	11.24
<i>Difference in Spending</i>	0.80	0.79	0	5.68
<i>Absolute Difference in Presidential Vote</i>	47.1	7.8	28.4	70.7
<i>Heterogeneity</i>	36.8	15.3	3.3	63.9

**Table 3: Explaining Convergence with National- vs. District-level Issue Saliency**

<b>Independent Variables</b>	<b>[1]</b>	<b>[2]</b>	<b>[3]</b>
<b>Issue Characteristics</b>			
<i>Ownership</i>	0.02 (0.07)	0.02 (0.07)	0.00 (0.07)
<i>National-level Saliency</i>	0.47** (0.22)	0.48** (0.22)	-
<i>District-level Saliency</i>	-	-	0.84** (0.23)
<b>Campaign Characteristics</b>			
<i>Competitiveness</i>	4.10** (2.04)	4.87** (2.14)	5.12** (2.10)
<i>Total Spending</i>	2.41** (0.72)	2.42** (0.73)	2.28** (0.72)
<i>Difference in Spending</i>	0.27 (1.28)	-0.09 (1.29)	-0.09 (1.26)
<i>Open Seat</i>	-	-2.04 (2.01)	-2.20 (1.97)
<i>Quality Challenger</i>	-	-0.46 (1.79)	-0.18 (1.77)
<i>Female in Race</i>	-	3.47* (1.84)	2.75 (1.84)
<b>District Characteristics</b>			
<i>Heterogeneity</i>	-0.15** (0.07)	-0.13* (0.07)	-0.14** (0.07)
<i>Absolute Difference in Presidential Vote</i>	-	-0.24** (0.12)	-0.23** (0.12)
<b>Fixed Effects</b>			
<i>Year 2002</i>	-6.81** (2.52)	-6.25** (2.58)	-2.49 (2.71)
<i>Year 2004</i>	-5.14** (2.34)	-5.49** (2.34)	-1.46 (2.49)
<i>Intercept</i>	18.20** (4.21)	27.91** (6.49)	24.40** (6.43)
<b>Random Effects</b>			
Intercept Std. Dev.	4.00	3.67	4.00
<i>Ownership</i> Std. Dev.	0.38	0.60	1.22
<i>Saliency</i> Std. Dev.	1.28	1.30	5.73
Deviance	14874	14867	14851

Note: Multilevel regression estimates of coefficients (standard errors).

$n = 1520$ , number of campaigns = 245.

\*  $p < 0.10$ , \*\*  $p < 0.05$  (two-tailed).

**Table 4: Conditional Convergence by House Race Type**

Independent Variables	All Races				Safe Seats		Competitive Races	
	[4A]	[4B]	[5A]	[5B]	[6A]	[6B]	[7A]	[7B]
<i>Ownership</i>	-0.11 (0.09)	-0.09 (0.09)	0.21 (0.19)	0.23 (0.19)	0.13 (0.11)	0.14 (0.11)	-0.35** (0.14)	-0.34** (0.14)
<i>District-Level Salience</i>	0.28 (0.36)	0.36 (0.36)	0.95* (0.51)	1.33* (0.70)	0.87* (0.47)	0.97** (0.47)	-0.26 (0.56)	-0.21 (0.56)
<i>Competitiveness</i>	7.97** (1.79)	5.01** (2.01)	17.11** (4.13)	14.13** (4.29)	--	--	--	--
<i>Ownership</i> × <i>District-Level Salience</i>	0.04* (0.02)	0.03* (0.02)	-0.01 (0.03)	-0.01 (0.03)	0.00 (0.02)	-0.01 (0.02)	0.07** (0.03)	0.07** (0.03)
<i>Ownership</i> × <i>Competitiveness</i>	--	--	-0.52** (0.17)	-0.49** (0.17)	--	--	--	--
<i>District-Level Salience</i> × <i>Competitive</i>	--	--	-1.38* (0.71)	-1.37* (0.71)	--	--	--	--
<i>Ownership</i> × <i>Competitiveness</i> × <i>District-Level Salience</i>	--	--	0.09** (0.04)	0.09** (0.04)	--	--	--	--
Controls?	No	Yes	No	Yes	No	Yes	No	Yes
<i>n</i>	1520	1520	1520	1520	773	773	747	747
Number of Campaigns	245	245	245	245	138	138	107	107
Deviance	14875	14848	14865	14840	7452	7436	7396	7381

*Note:* Estimates of coefficients (standard errors) from multilevel regressions of Convergence. Also included, but not reported, in each of these models are the following control variables: *Total Spending*, *Difference in Spending*, *Open Seat*, *Quality Challenger*, *Female in Race*, *Absolute Difference in Presidential Vote*, and *Heterogeneity*. All models include random intercepts and slopes on *Ownership* and *Salience* by campaign and fixed effects for election years.  
\*  $p < 0.10$ , \*\*  $p < 0.05$  (two-tailed).

**Table 5: Conditional Convergence in Senate Campaigns**

Independent Variables	All Races			
	Model 8A	Model 8B	Model 9A	Model 9B
<i>Ownership</i>	0.30* (0.17)	0.32* (0.17)	0.13 (0.24)	0.14 (0.24)
<i>State-level Saliency</i>	3.51** (0.88)	3.72** (0.88)	5.15** (1.15)	5.13** (1.14)
<i>Competitiveness</i>	9.95** (3.28)	5.00 (3.83)	10.23 (7.18)	5.04 (7.69)
<i>Ownership</i> × <i>State-level Saliency</i>	-0.11** (0.04)	-0.12** (0.04)	-0.18** (0.05)	-0.18** (0.05)
<i>Ownership</i> × <i>Competitiveness</i>	--	--	0.31 (0.33)	0.33 (0.33)
<i>State-level Saliency</i> × <i>Competitiveness</i>	--	--	-3.91** (1.63)	-3.38** (1.65)
<i>Ownership</i> × <i>Competitiveness</i> × <i>State-level Saliency</i>	--	--	0.15** (0.07)	0.13* (0.07)
Controls?	No	Yes	No	Yes
<i>n</i>	541	541	541	541
Number of Campaigns	59	59	59	59
Deviance	5339	5325	5326	5314

*Note:* Estimates of coefficients (standard errors) from multilevel regressions of *Convergence*. Also included, but not reported, in each of these models are the following control variables: *Total Spending*, *Difference in Spending*, *Open Seat*, *Female in Race*, *Absolute Difference in Presidential Vote*, and *Heterogeneity*. All models include random intercepts and slopes on *Ownership* and *Saliency* by campaign and fixed effects for election years. \*  $p < 0.10$ , \*\*  $p < 0.05$  (two-tailed).

**[Appendices to be made available electronically]**

**Estimating District- and State-Level Partisanship, Ideology, and Salience**

To estimate political variables and salience at the district level, I use the multilevel regression and poststratification technique developed by Park, Gelman, and Bafumi (2004).<sup>31</sup> The procedure begins with the estimation of a multilevel regression model of surveys responses on economic, demographic, and geographic variables. These estimates are weighted by demographics from the relevant subnational level (state, district, etc.). The result is an estimation of what responses to the question would have been if the survey had been conducted in larger numbers in that region.

Here, in brief, is the method for generating district-level salience estimates. Before generating estimates of responses to these (or any other) questions, I first generated estimates of partisanship and ideology at the district level. To do this, I collected every CBS News and CBS News/New York Times survey available on the archive at the Roper Center between 1999 and 2004. These surveys are useful because they contain data on congressional districts for most respondents. Almost every survey features familiar questions about party identification (four responses, including “Don’t know” and “NA/Refused” as a fourth category) and ideology (also four-responses, including “Don’t know” and “NA/Refused” as a fourth category). Because there more than two responses, I estimate the resulting multinomial logit model using a series of (standard) binary logit models (Agresti 2002, 273-4). For question, I combined responses into a single dataset, identified the most popular response, and estimated three multilevel logit models. The models included indicator variables for age categories (18-24, 25-34, 35-44, 45-64), education categories (no high school diploma, high school graduate, some college, college

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<sup>31</sup> All estimations were conducted using the lmer function in the lme4 package in R.

graduate), and gender.<sup>32</sup> The models also included district-level measures of the percentages of African-Americans, Latinos, and evangelical Christians; median income (logged); and per capita income (logged). In addition to these controls, each model includes nested indicator variables for 5 regions (Northeast, Midwest, South, West, and District of Columbia), 51 states, and 436 congressional districts (including the District of Columbia as a state and congressional district). With these models, I estimated district-level partisanship and ideology.

Using these estimates and following a similar strategy, I estimated responses to “most important problem” questions from 2004.<sup>33</sup> I gathered all the CBS News and CBS News/New York Times surveys conducted in the pre-election season months of 2000, 2002, and 2004 that asked open-ended questions about the most important problems facing the country.<sup>34</sup> The mean sample size from each district was 54.2 in 2000, 25.3 in 2002, and 48.2 in 2004. Because there are more than two responses, I again ran a series of binary logit models of each response combined with a baseline category (the “other” responses). The estimated response rates are the measures of *District-level Salience* used in the text. In each case, the estimated response rate is accompanied with a confidence interval, which vary based on the size of the estimated rates, but rarely exceed 3%.

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<sup>32</sup> I do not control for race at the individual response level because 2000 Census data is not available for congressional districts disaggregated down to all four sets of categories. That is, One can find the number of 18-24 year old, African-American women in the first district of Alabama, or the number of 18-24 year old women with college degrees in that district, but one cannot find the number of 18-24 year old, African-American women with college degrees in the district. I ran the models both ways; i.e., I ran one set of models including education as a covariate and not race, and a second set including race but not education. The first set of models fit the data better, as measured by conventional diagnostics (e.g., AIC, BIC, deviance), and I therefore relied on them.

<sup>33</sup> There were a few differences between models of partisanship and those of salience. Salience models include the measures of partisanship and ideology discussed above. The models also exclude region indicators and per capita income, and variables were re-centered, all to aid model convergence.

<sup>34</sup> These surveys were retrieved from the archive at the Roper Center, University of Connecticut.

A similar technique was used to create state-level estimates of issue salience. Because there are so many issues, states, and districts, a complete inventory of these estimates would run to many pages. Therefore, Table A1 presents a small sample of the estimates of state-level salience. All estimates are available from the author.

## **References**

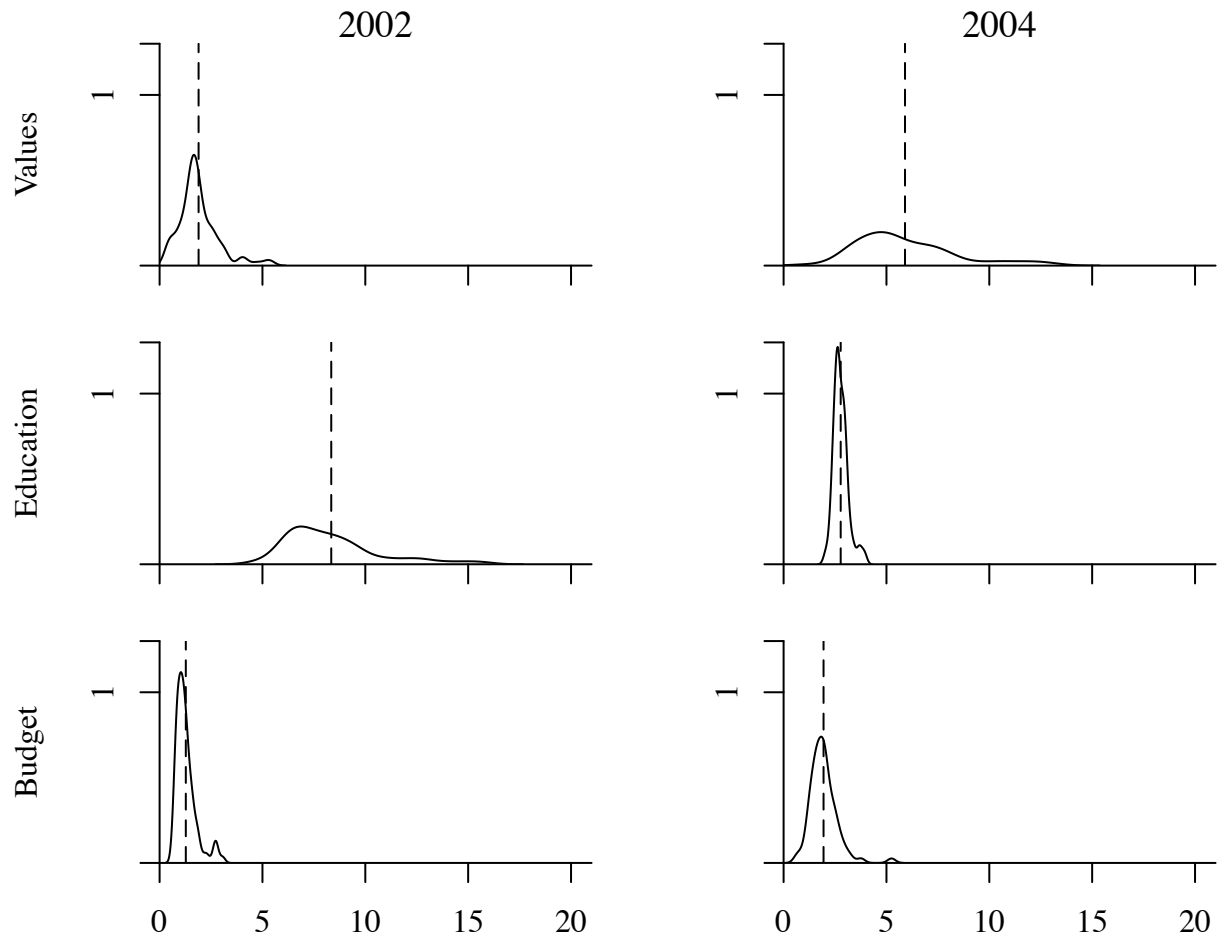
- Agresti, Alan. 2002. *Categorical Data Analysis, 2<sup>nd</sup> Edition*. Wiley: Hoboken, New Jersey.
- Park, David K., Andrew Gelman, and Joseph Bafumi. 2004. "Bayesian Multilevel Estimation with Postratification: State-level Estimates from National Polls." *Political Analysis* 12:375-385.

**Table A1: State-level MRP Estimates of Salience for Three Issues in Three Years**

State	Budget			Education			Jobs and Unemployment		
	2000	2002	2004	2000	2002	2004	2000	2002	2004
Alabama	3.2	2.2	0.8	10.8	5.6	3.2	1.2	3.6	9.5
Alaska	5.2	4.9	2.2	12.9	1.9	2.3	1.5	2.6	8.8
Arizona	3.1	1.3	1.2	11.2	3.7	3.3	1.2	3.2	6.7
Arkansas	2.7	1.9	1.0	10.4	5.6	2.6	0.8	3.2	10.1
California	2.7	1.9	1.1	12.2	4.1	3.0	1.7	3.2	8.1
Colorado	3.6	2.9	0.9	11.3	3.5	2.9	0.9	2.6	8.4
Connecticut	2.8	2.9	0.8	12.4	3.8	2.8	0.7	2.2	9.5
Delaware	1.5	2.3	1.7	15.1	3.7	2.2	1.0	3.4	10.0
DC	2.4	0.9	0.5	12.4	12.5	4.4	2.5	3.7	10.4
Florida	2.9	1.4	0.8	10.4	4.5	3.2	1.3	3.3	7.3
Georgia	3.1	2.3	1.0	11.8	4.9	3.1	1.1	3.5	8.6
Hawaii	2.6	1.4	1.8	14.0	4.0	3.5	0.7	2.5	4.8
Idaho	4.5	2.5	1.3	9.7	3.2	3.0	1.0	2.6	6.0
Illinois	2.8	2.1	1.1	12.8	4.3	2.9	1.4	3.2	8.3
Indiana	3.3	2.2	1.1	10.1	3.3	2.8	0.8	2.9	7.4
Iowa	3.1	1.7	1.5	10.3	3.6	2.8	0.6	2.5	8.2
Kansas	4.6	2.4	1.3	10.6	3.1	2.8	1.0	2.6	8.6
Kentucky	3.2	2.2	0.9	10.2	4.5	2.9	1.1	3.0	9.4
Louisiana	2.5	1.2	0.9	10.3	5.0	3.6	1.9	4.4	9.2
Maine	2.7	2.1	1.3	10.7	2.7	2.5	0.6	2.6	9.8
Maryland	2.7	2.2	1.5	12.9	4.5	3.3	1.1	3.1	7.8
Massachusetts	2.5	2.4	1.0	12.9	4.4	3.1	0.7	2.4	7.7
Michigan	2.8	2.3	1.5	12.2	3.7	2.7	1.0	3.1	9.5
Minnesota	3.0	2.9	1.2	12.7	3.3	3.2	0.6	2.3	7.8
Mississippi	3.0	1.9	1.0	9.9	5.1	2.3	2.1	4.6	10.9
Missouri	3.2	2.0	1.0	10.7	4.7	2.9	0.8	2.9	8.6
Montana	3.6	1.8	0.9	10.9	2.7	3.1	1.1	2.7	7.1
Nebraska	4.2	1.8	0.7	10.2	2.7	3.8	0.9	2.1	9.3
Nevada	3.3	1.7	0.9	10.8	3.6	3.3	1.5	3.1	6.6
New Hampshire	3.2	3.7	1.3	12.0	2.5	2.2	0.6	2.2	9.0
New Jersey	2.8	2.4	1.1	12.6	3.9	3.1	1.1	2.9	7.5
New Mexico	2.7	1.0	1.0	11.8	3.9	3.8	1.4	3.5	8.0
New York	2.7	2.0	0.7	11.7	4.6	2.8	1.7	3.1	9.7
North Carolina	3.4	2.8	0.9	10.6	4.4	2.7	1.3	3.7	10.0
North Dakota	3.6	1.8	0.8	9.5	2.4	3.5	0.7	2.3	7.6
Ohio	3.0	1.8	1.1	11.3	3.6	3.1	1.2	3.2	8.4
Oklahoma	3.6	2.0	0.8	9.7	5.0	3.2	0.7	2.7	7.7
Oregon	3.4	2.3	1.0	11.9	3.6	2.5	1.2	3.1	8.3
Pennsylvania	3.2	1.8	0.9	10.0	3.6	2.2	1.2	2.9	8.3
Rhode Island	2.2	1.2	1.3	12.1	4.1	3.1	0.9	2.7	6.7
South Carolina	3.0	2.2	1.1	10.8	4.5	2.5	1.2	4.1	11.1
South Dakota	3.2	2.1	1.1	9.9	2.9	3.2	0.7	2.2	8.2
Tennessee	3.5	2.2	0.9	9.6	5.6	2.9	1.0	3.0	8.9
Texas	3.0	2.2	0.7	10.6	4.1	3.1	1.6	3.4	8.4
Utah	3.9	2.8	2.4	12.3	5.7	3.9	0.5	2.2	4.1
Vermont	3.1	2.6	1.5	11.2	2.7	2.6	0.4	2.4	9.2
Virginia	3.4	2.7	1.2	11.5	3.9	3.3	0.8	2.8	7.5
Washington	3.3	2.7	1.1	13.2	3.8	2.8	1.2	2.9	7.9
West Virginia	2.6	1.5	0.9	10.2	3.1	2.8	1.4	3.3	9.9
Wisconsin	3.1	2.3	1.2	11.4	3.4	2.7	0.7	2.7	8.1
Wyoming	4.2	2.6	0.9	10.4	2.7	3.4	1.0	2.2	7.0



*Figure 1: Distributions of District-Level Salience for Three Issues*

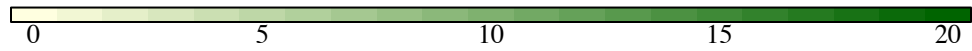
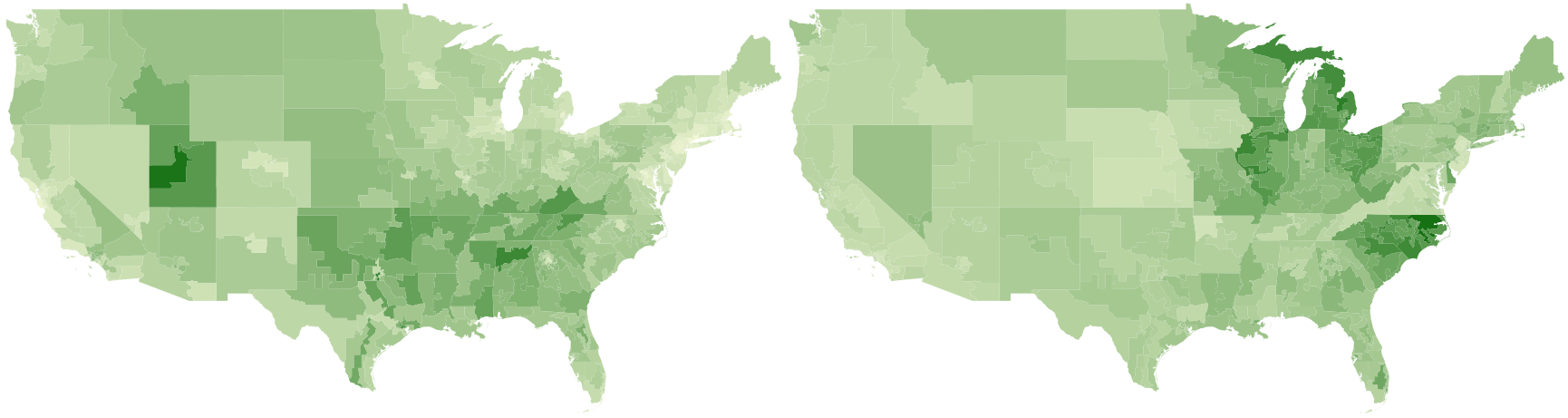


Notes: Kernel density plots of District-level Salience for three different issues. Dashed lines indicate sample means.

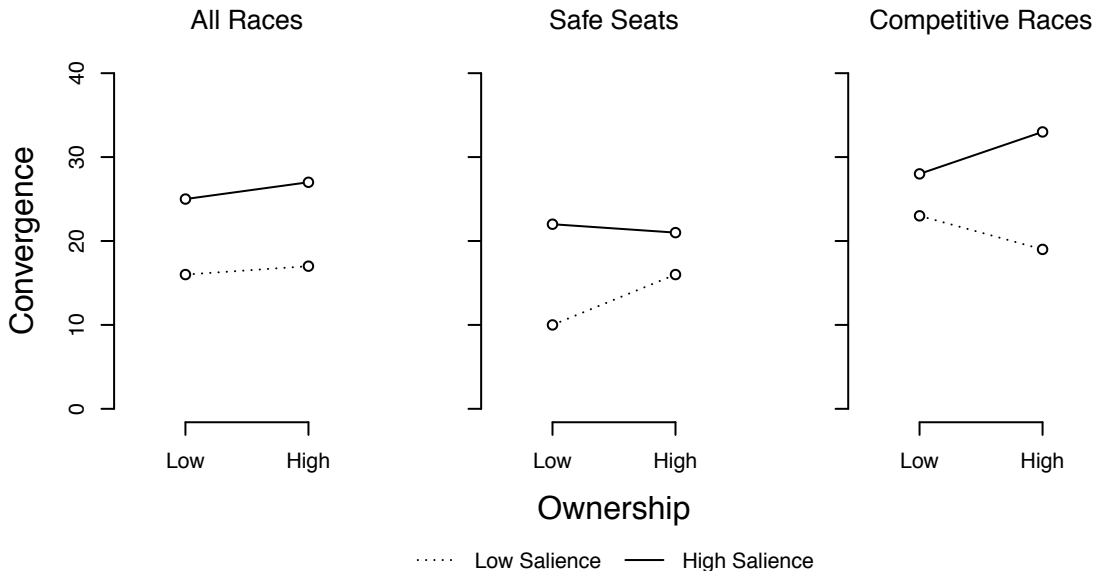
*Figure 2: Maps of District-level Salience for Two Issues in 2004*

**Values**

**Jobs and Unemployment**



**Figure 3: Convergence by Salience and Ownership in the House**



*Figure 4: Conditional Convergence in the House*

