We investigate the connection between legislative parties and election outcomes, focusing on ideological party brand names that inform voters. If the source of information conveyed by brand names is the party’s aggregate roll-call record, then changes in legislative party membership should influence election returns. We formalize the argument with an expected utility model of voting and derive district-level hypotheses, which we test on U.S. House elections from 1952 to 2000. We test alternative specifications that vary with respect to the specificity of voter information and find that party positions and heterogeneity both affect vote share independently of incumbents’ positions. The results provide modest support for the expected utility model but nevertheless suggest that Congress is an important source of the public’s beliefs about the parties, and this effect is clearest for challengers, rather than incumbents, who run under the party’s label.

Political scientists and democratic theorists have long been concerned with understanding the role of parties as intermediaries between the people and their representatives. Decades ago, Stokes and Miller asked whether a necessary condition in the theory of responsible party government was satisfied: “To what extent do public reactions to the legislative records of the major parties influence voter’s choices among party candidates . . . ?” (1962, 531). They concluded that legislative parties and voters are disconnected for two reasons. First, it is difficult to attribute any record of accomplishment to legislative parties that are a “cacophony of blocs and individuals” (545).

Second, voters lack the necessary knowledge about political affairs to make informed decisions.

While acknowledging the two problems identified by Stokes and Miller, a growing body of rational choice theorizing rooted in Downs’ (1957) seminal work argues that the importance of parties is as the producers of brand names (Aldrich 1995; Cox and McCubbins 1993; Kiewiet and McCubbins 1991; Snyder and Ting 2002, 2003). These theories effectively turn the Stokes and Miller logic on its head: the lack of perfect information on the part of voters does not necessarily impede the connection between congressional parties and the electorate. Rather, it provides the basis for a linkage: uninformed voters use party labels as informational shortcuts, and it is the congressional parties who produce the information in party labels through their legislative activities.

How well does the proposition that parties produce ideological brand names hold up under empirical scrutiny? In this paper, we derive and test the implications of a model of party labels at the level of district election returns. Our analysis is an important contribution for at least three reasons. First, to our knowledge, no empirical tests have been carried out directly on electoral data. Tests of party label theories grounded in models of expected utility have thus far relied on indirect evidence.

One of the reasons for the lack of direct individual-level tests is the fact that the American National Election Studies does not ask respondents about their perceptions of each party’s ideological cohesiveness—key variables of the model.

Earlier work by Cox and McCubbins (1993) is even more indirect. They showed there is a party-specific component of the electoral fortunes of incumbents, but they do not show how such partisan tides are related to the party brand name or even to the behavior of the parties in the legislatures.
Second, in order to properly test whether party labels are meaningful linkages between legislative parties and the electorate, it is critical that we examine whether aggregate voting behavior responds to actual congressional behavior. While individual-level analysis of voting is important, it is insufficient for drawing conclusions about the informational role of party labels. For one, observing individual-level behavior consistent with the use of party labels does not guarantee that we will observe behavior consistent with its use in the aggregate.\(^4\) For another, the theories suggest that the parties themselves should care much more about how well their candidates do (and hence aggregate voting behavior) than about what individual voters do.\(^5\) Furthermore, party leaders have incentives to shape their parties’ brand names through congressional activity only if voters are responsive to those activities (as opposed to perceptions arising from voters’ observations of activity external to the legislature).

Third, research on political behavior suggests that partisan cues are important for individual-level voting decisions (Conover and Feldman 1989; Rahn 1993) but party stereotypes are treated as exogenous. That is, this line of existing research fails to investigate the institutional sources of voters’ beliefs about the parties and therefore misses an important link between elite and mass behavior.

Under alternative assumptions about the nature of party brand names, our empirical analysis finds some support for the proposition that voters, in the aggregate, use party labels as informational shortcuts about the ideological positions of candidates. When we assume that voters only have information about the two national parties, we find mixed support for our formally derived hypotheses. However, when we refine the theory and investigate the possibility that voters may be better informed about subsets of parties (i.e., Southern Democrats) or individual incumbents than the national parties, our comparisons show that a combined model using both challenger party labels and incumbent-specific information best explains the data. This model also outperforms a purely incumbent-centered model in which aggregate party information is ignored. Over-

\(^4\)This micro-macro discrepancy is emphasized, for example, by Erikson, Mackuen, and Stimson (2002).

\(^5\)Stated somewhat differently, although we derive the electoral implications of party labels from a decision-theoretic model, when the behavior of party leaders in shaping their parties’ labels is of interest, voter decision making is embedded in a larger game theoretic model (Snyder and Ting 2002, 2003). In such models, it is the aggregate behavior of voters that is of interest to the parties.

Nevertheless, our results provide new and important insights about the relationship between congressional parties and the electorate. We find that congressional election returns vary systematically with the relative positions and heterogeneity between the parties’ memberships, as revealed through roll-call voting. Party labels therefore reflect not only the left-right ordering of Democratic and Republican candidates but also variation in party membership, which suggests that party brand names are not immutable stereotypes but have congressional origins. Our findings also suggest that a party’s brand name provides the most benefit to challengers rather than incumbents that run under it. Political leaders therefore have good reasons to be concerned about their parties’ public images, but those reasons do not appear to include helping incumbents achieve reelection.

**Information and Party Labels**

Political scientists widely recognize Downs’s *An Economic Theory of Democracy* for popularizing the use of spatial models for the study of elections, yet it is sometimes overlooked that the very reason that parties compete in terms of ideological platforms is because voters are uncertain and have limited information. Downs introduced the idea that parties produce brand names:

> Under these conditions, many a voter finds party ideologies useful because they remove the necessity of his relating every issue to his own philosophy ... With this short cut a voter can save himself the cost of being informed upon a wider range of issues. (1957, p. 98, emphasis added)

For Downs, parties are organized teams, but the fact that legislators are individualistic, as noted by Stokes and Miller and emphasized by Mayhew (1974), poses a problem for any theory of political parties.\(^6\)

Taking into consideration the individualistic nature of political candidates, Snyder and Ting (2002, 2003) develop a rigorous model of parties as producers of brand names in an environment where voters cannot observe an individual candidate’s

\(^6\)See Krehbiel (1993) for a similar critique and Aldrich (1995) for an explanation of how parties overcome collective action problems induced by individualism.
position but instead observe the parties’ platform decision and candidates’ party affiliation decisions. The intuition behind the argument is straightforward. To the extent that voters care about the ideological or policy positions of individual representatives but face uncertainty about the specific views and stances of the individual candidates, then a party brand name provides a natural shortcut because it conveys information about the set of candidates that run under it. Snyder and Ting prove that the informativeness of party brand names arises endogenously because in equilibrium, parties choose distinct platforms and candidates of different ideological persuasions sort themselves into distinct parties.

The argument that party brand names provide ideological shortcuts rests not only on rational choice theorizing but is also grounded in empirically based knowledge about political psychology and behavior. First, a number of scholars have shown that citizens use heuristics, shortcuts, or inference processes to compensate for their lack of specific information (Brady and Sniderman 1985; Lupia 1994; Lupia and McCubbins 1998, Popkin 1991). Indeed, the use of partisan cues and inference about candidates from knowledge about parties has been well-documented (Conover and Feldman 1989; Lodge and Hamill 1986; Rahn 1993). Second, even if voters cannot recall specific facts about legislative politics, they may nevertheless form evaluations or impressions through on-line processing (Lodge, McGraw, and Stroh 1989) or similar updating processes (Achen 1992; Gerber and Green 1997; Fiorina 1981). This literature is silent, however, about whether those impressions are grounded in institutional activity.

What kind of information does a party label convey? If voters are concerned about the ideological positions of candidates but face uncertainty about actual candidate locations, then an appropriate representation of that uncertainty is to think of a candidate’s location as a random variable or probability distribution (Enelow and Hinich 1981; Shepsle 1972). Party labels are useful if they convey information about the distribution of candidates’ ideological positions, and we argue that the public’s perceptions of those distributions are strongly influenced by congressional behavior. Using information about the congressional parties’ existing membership is a natural heuristic (as well as an appropriate data-driven method) for forming beliefs about the parties’ candidates. More specifically, we assume that party labels reflect information conveyed in the congressional roll-call record because it is a common source of data about representatives’ ideological preferences for many political observers and because there are many organizations (e.g., interest groups) through which such information might be relayed and diffused.

How reasonable is the assumption that voters’ beliefs about the parties reflect their respective congressional memberships? Unfortunately, direct evidence for extensively testing the assumption itself is limited by the lack of appropriate survey data. Nevertheless, if Congress is the source of voters’ beliefs, then we would expect aggregate perceptions to vary with changes in the roll-call record. Hetherington (2001) provides empirical support for this prediction with respect to the parties’ average positions. He shows that as elite polarization increases over time (as measured by the mean NOMINATE scores of the parties’ House delegations), public perceptions of party differences also increase.

In Figure 1 we present original evidence that perceptions of the parties vary with the roll-call record. The data is from a module of the 2006 Cooperation Congressional Election Study and shows that mean perceptions of party unity on specific issues are highly correlated with actual levels of party voting across different roll-call votes. The available data, although limited, suggests that our assumption is quite plausible. The proper test of the theory, however, is whether aggregate election returns vary with congressional party membership, which the remainder of this paper investigates.

### Formal Model and Hypotheses

We present and analyze a simple model of voter decision making under uncertainty. The model is important because it provides a useful framework for organizing the analysis, for identifying the appropriate independent variables, and for specifying the

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7 The Downsian assumption that voters care about candidates’ positions receives plenty of support in the empirical literature for both presidential and congressional elections and at both the individual and aggregate levels (Amsalabehere Snyder, and Stewart 2001; Canes-Wrone, Brady, and Cogan 2002; Erikson 1971; Erikson and Wright 1980; Markus and Converse 1979; Page and Jones 1979; Wright 1978; Wright and Berkman 1986). Voter decision making under uncertainty is empirically supported by Bartels (1986) and Alvarez (1997), although their work is confined to presidential elections.

8 We designed the survey questions included in the module sponsored by the Center for the Study of Elections and Democracy at Brigham Young University. Additional details regarding this data can be found in the online appendix at http://www.journalofpolitics.org/articles.html
district-level implications of individual decision making. The basic model is sufficiently simple that we are not the first to use it to describe the voting decision theoretically or empirically (Alvarez 1997; Bartels 1986; Enelow and Hinich 1981; Grynaviski 2006; Hinich and Munger 1994; Snyder and Ting 2002, 2003). Our novel contributions are in extracting several clear, testable hypotheses about the electoral consequences of party labels, connecting beliefs about parties to their congressional memberships, and subjecting our predictions to empirical scrutiny.

Suppose that the policy space is unidimensional.9 In any given congressional district, there are two candidates described by their position in the policy space, each from one of two political parties D and R (for Democrats and Republicans, respectively). Let \( c_D \) and \( c_R \) denote the candidates’ locations, where the subscripts indicate party affiliations. Suppose that voters do not know the precise locations of the candidates’ positions but instead know something about the distribution of ideal points from which each candidate is drawn (Enelow and Hinich 1981; Shespele 1972).10 For candidates from party D, the mean is \( \mu_D \) and the variance is \( \sigma_D^2 \). Likewise, the distribution for party R has mean \( \mu_R \) and variance \( \sigma_R^2 \). Voters do not need to know the exact shape of the distribution (or all of the individual ideal points of members), only these two parameters.

Voter preferences are single-peaked and symmetric, and we assume that decision making reflects expected utility maximization (Alvarez 1997; Bartels 1986). More specifically, preferences can be described by a quadratic utility function,

\[
U_i(c_j) = -(c_j - \nu_i)^2,
\]

where \( \nu_i \) is voter \( i \)'s ideal point and \( c_j \) is the policy position of the candidate from party \( j \). The quadratic utility function is technically convenient, but it is not entirely necessary for our argument.11

Voters act sincerely and cast their lot in favor of the candidate whose position yields the highest expected utility. In other words, a voter cares about the position of her representative. The expected utility of voter \( i \) if she casts her vote in favor of candidate \( j \) can be written in terms of the mean and variance of \( j \)'s party, where the subtraction of variance can be interpreted as a risk-adjustment:

\[
EU_i(c_j) = -(\mu_j - \nu_i)^2 - \sigma_j^2.
\]

Next, suppose that \( \mu_R > \mu_D \). We can define a cutpoint \( \nu^* \) by identifying the voter who is indifferent between the two candidates. (The cutpoint divides voters who prefer candidate \( c_D \), who are to the left of \( \nu^* \), from the supporters of candidate \( c_R \), who are to the right of \( \nu^* \).) This is done by solving for the voter ideal point that satisfies the equality

\[\text{FIGURE 1 Perceived and actual party support on key roll call votes}\]

\[\text{Notes: Data are from the 2006 Cooperative Congressional Election Study. Issues are abortion, stem-cell research, Iraq redeployment, minimum wage, immigration, and capital gains tax cuts. See the online appendix for additional details.}\]

In addition to the evidence presented in the previous section, data from the American National Election Study suggests the assumption is plausible. In the 2000 survey, 13% of respondents correctly named their local House candidate and 37.3% were willing to place their Democratic House candidate on a 7-point ideological scale, while in contrast, 88.8% were willing to place the Democratic Party on the same scale.

One implication of the quadratic utility function is that expected utility depends only on the voter’s ideal point and the mean and variance of the party distributions (not on the specific shape or symmetry of the distributions). This is desirable because we wish to impose minimal information requirements on voters. A second implication of quadratic utility is that voters are globally risk averse. However, all voters with single-peaked utility functions are risk averse when the distribution of candidates puts positive probability on opposite sides of a voter’s ideal point (Shespele 1972). Thus, our qualitative predictions should hold if we relax the assumption of quadratic utility.
$EU(c_D) = EU(c_R)$. Straightforward algebraic manipulation yields:

$$\nu^* = \frac{\mu_R + \mu_D}{2} + \frac{\sigma_R^2 - \sigma_D^2}{2(\mu_R - \mu_D)}.$$  \hspace{1cm} (1)

If voter ideal points follow a distribution with cumulative density function $F$, then candidate $c_D$’s vote share is $F(\nu^*)$, and $c_R$’s vote share is $1 - F(\nu^*)$. Since $F$ is monotonic, by virtue of being a CDF, we note the following useful result: candidate $c_D$’s vote share $F(\nu^*)$ is increasing in $\nu^*$.

Three variables, useful for describing the relationship between the two parties’ distributions, are suggested by equation (1): midpoint, gap, and party heterogeneity advantage. The midpoint variable, $MID = (\mu_D + \mu_R)/2$, corresponds to the cutpoint (the indifferent voter) in a world of full information. The second variable, $GAP = \mu_R - \mu_D$, effectively describes interparty polarization. The third variable (Democratic heterogeneity advantage), $DHA = \sigma_R^2 - \sigma_D^2$, measures the relative cohesion of the two parties’ memberships. Given these three variables, the expression for the cutpoint in equation (1) can be rewritten,

$$\nu^* = MID + \frac{DHA}{2 \times GAP}.$$  \hspace{1cm} (2)

The second term on the right-hand side, $DHA/(2 \times GAP)$, captures the effects of risk aversion. A candidate benefits if there is less uncertainty about his party than about his opponent’s party. The cutpoint $\nu^*$ can therefore be thought of as a risk-adjusted midpoint. From equation (2), combined with the fact that vote share is increasing in $\nu^*$, the following three hypotheses follow. \footnote{See the online appendix for a graphical illustration of the hypotheses.}

**Hypothesis 1:** All else equal, the Democratic candidates’ vote share is increasing in the midpoint between the two parties.

**Hypothesis 2:** All else equal, the Democratic candidates’ vote share is increasing in Democratic heterogeneity advantage.

**Hypothesis 3:** All else equal, the Democratic candidates’ vote share is decreasing in the gap between the parties when $DHA$ is positive and increasing in the gap when $DHA$ is negative.

The midpoint hypothesis is algebraically equivalent to the effect of candidate positioning in a perfect information environment, which is well known. Our hypothesis, in contrast, is stated in terms of aggregate party membership and not individual candidate positions, although the underlying intuition is isomorphic: candidates of the more extreme ideological party will suffer from lower electoral returns.

**Hypothesis 2** relates the relative cohesion of the parties to electoral results. If a party becomes more ideologically diverse, its members would fare worse in elections. Although the direction of the effect depends on the sign of $GAP$, in practice the party centers have maintained a consistent ordering throughout the period of study. Thus, for national party brand names, the direction of the effect is effectively unconditional and does not depend on the sign of the other variables.

The effect of party polarization on elections is stated in Hypothesis 3. The intuition is that as the parties become more polarized—and hence more distinct from the viewpoint of imperfectly informed voters—uncertainty matters less, which benefits the more diverse party. Note that this effect is independent of changes in the midpoint. \footnote{Equation (1) helps us to see, all else equal, that the effect of a change in one party’s mean on the vote share has two components: one from the change in midpoint and one from the change in polarization. The latter is conditional on relative heterogeneity, so without any other information, the effect of a change in one party’s mean is ambiguous.}

These hypotheses are about direction—that is, they predict the sign of the relationship between the independent variables and vote share. Testing the qualitative predictions of the formal model is desirable insofar as one believes we should not take the model too literally. Nevertheless, the equation also suggests a stronger hypothesis based on the relative magnitudes of $GAP$ and $DHA$. When there is a small relative difference in ideological heterogeneity between the parties—that is, when the magnitude of $DHA$ is small—then the change in the $GAP$ between the parties will produce a small change in vote share. On the other hand when one party has a clear coherence advantage—if one party is a “big tent” party and the other represents a single point of view—then changes in the distance between parties produces larger corresponding changes in vote share. We state this implication as a separate hypothesis.

**Hypothesis 4:** All else equal, the effect of $GAP$ will have a higher magnitude at higher magnitudes of $DHA$, be relatively weaker at lower magnitudes of $DHA$, and have no effect when $DHA = 0$. 


Empirical Analysis

In order to test the hypotheses about party positions and heterogeneity we need three types of data: election returns, district preferences, and party distributions.

Congressional Election Returns. The dependent variable of our empirical model is two-party Democratic House vote share for the period 1952–2000. Uncontested seats are excluded from the sample because without a genuine contest between candidates representing two parties these races cannot reflect the type of decision making that underlies our model. Redistricted seats have also been omitted.

District Preferences. Not all districts are alike: some are liberal, others conservative. In order to control for the location of each district’s median voter, we follow the practice of existing research on candidate positioning of using the presidential vote as a measure of district ideology (Ansolabehere, Snyder, and Stewart 2001; Canes-Wrone, Brady, and Cogan 2002; Erikson and Wright 1993, 2005). Specifically, we use the Democratic share of the district two-party presidential vote from the same (contemporaneous) or most recent election.

Ideological Positions. In order to measure the distribution of each party’s legislative positions, we use Poole and Rosenthal’s DW-NOMINATE scores. In addition to their availability and widespread acceptance, we have chosen these measures because they use a larger set of roll calls than interest group ratings and because they are designed to be comparable across time. Within each year and party, we compute the mean and variance of members’ first-dimension scores.

To test the three directional hypotheses about the effects of party information on election results, we estimate the parameters of the following equation:

\[
DEMvote_{it} = \beta_0 + \beta_1 MID_{it} + \beta_2 DHA_{it} + \beta_3 GAP_{it} + \beta_4 PVOTE_{it} + \beta_5 Dem Incumbent_{it} + \beta_6 Rep Incumbent_{it} + \beta_7 Dem Quality_{it} + \beta_8 Rep Quality_{it} + \beta_9 South_{it} + \beta_{10} Midterm \times DemPres_{it} + \beta_{11} Midterm \times RepPres_{it} + \eta_i + \epsilon_{it}.
\]  

The dependent variable is the Democratic House candidate’s share of the two-party vote in district \(i\) during election \(t\). The independent variables of interest are the midpoint (\(MID\)), relative heterogeneity (\(DHA\)), and distance (\(GAP\)) between the parties, which are computed from DW-NOMINATE scores.\(^{14}\) The variable \(PVOTE\) is the Democratic share of the two-party presidential vote and is included as a control for the location of the district median voter.

In addition to the variables suggested by the formal model, we include several controls to account for potential confounds. \(Dem Incumbent\) and \(Rep Incumbent\) are dummy variables to account for the incumbency advantage (Gelman and King 1990). To account for challenger quality (Jacobsen 1989), \(Dem Quality\) is a dummy variable that is 1 if the nonincumbent Democratic candidate has held elective office, and \(Rep Quality\) is the corresponding variable for Republican nonincumbent candidates. We also include a dummy variable for the South, given historical advantages of the Democratic party in that region. Finally, to account for the empirical regularity of midterm loss (Erikson 1988), the variable \(Midterm \times DemPres\) is a dummy variable for midterm elections in which the president is a Democrat and \(Midterm \times RepPres\) is a dummy variable for midterms with a Republican president.\(^ {15}\) There are two stochastic terms: \(\epsilon_{it}\), which is observation specific, and \(\eta_i\), which is common to an election year. This is therefore a random effects-model, which also allows for the possibility of within-year correlation between districts.

The theoretical framework predicts the signs of \(\beta_1, \beta_2,\) and \(\beta_3\) as follows. If Hypothesis 1 is correct, then \(\beta_1\) should be positively signed. If Hypothesis 2 is correct, then \(\beta_2\) should be positively signed as well. Since congressional Republicans are ideologically more cohesive throughout the entire period of study (i.e., \(DHA\) is negative for all \(t\)), from Hypothesis 3 we also expect the sign of \(\beta_3\) to be positive.

The first column of Table 1 presents the estimated coefficients for the basic specification in equation (3), and the results show that changes in party labels do have statistically significant effects on election returns.\(^ {16}\)

\(^{14}\)While it may seem extreme to ignore information about individual candidates given the body of candidate-centered election analyses, we have argued that it is nevertheless plausible if information about parties is cheaper and more readily available than information about individual candidates—even, perhaps, incumbents. We relax this assumption in the next section.

\(^{15}\)In addition, following Erikson, Mackuen, and Stimson’s macro-level analysis (2002), we considered including year-level controls for macropartisanship, consumer sentiment, and policy mood. Including these controls has no effect on our substantive conclusions. Indeed, the coefficients for the additional controls have signs opposite of what we expect them to have. Thus, they have been omitted from the analysis presented here.

\(^{16}\)Since our model includes election-year random effects, we used feasible generalized least squares as our estimation method.
Although the coefficient for MID is not statistically significant, it is in the expected direction.\footnote{The lack of significance may be due to the fact that there is very little variation in the midpoint between parties over time.} The results show that the coefficients for DHA and GAP are both statistically significant. This implies that party labels matter. The sign of DHA is in the expected direction. Contrary to our expectations, the sign of the coefficient for GAP is negative. This means that increased polarization appears to hurt, rather than help, Democratic candidates (members of the less cohesive party) even after controlling for district ideology and the midpoint between parties.

To give a sense of the magnitude of the effects, a two standard deviation increase in DHA is about 0.02, so if the Democrats become more homogeneous (or the Republicans more heterogeneous) by this amount, the average Democrat’s vote share would increase by about 3.5 percentage points. The magnitude of this effect is roughly the same as that for a quality nonincumbent Democrat. The effect of increasing polarization is somewhat larger. A two standard deviation increase in GAP is roughly 0.22, which corresponds to a decrease in Democratic vote share of approximately 4.8 percentage points.

The above specification omits the stronger claim in Hypothesis 4. Recall that Hypothesis 4 states that the effect of GAP increases in magnitude when DHA increases in magnitude and that there should be no effect of GAP when DHA is zero. Thus, we expand on equation (3) to include several interaction terms.\footnote{We model interaction effects with dummy variables because the direct interaction GAP \times DHA is too highly correlated with DHA (r = 0.99) and thus presents a near multicollinearity problem. The interaction is still captured qualitatively in the dummy variable form.}

We define a set of dummy variables and interact them with GAP so that the coefficient on the interaction terms represent the change in the effect of GAP for increasing magnitudes of DHA. Specifically, let DQ be a dummy variable defined by finding the quartile ranges of DHA such that DQ$_3$ is 1 if DHA $\leq -0.11$, DQ$_3$ is 1 if DHA $\leq -0.019$, and DQ$_3$ is 1 if DHA $\leq -0.029$. (The omitted variable is the quartile closest to zero.)

If Hypothesis 4 is correct, then in the equation including interactions, we expect $\beta_3 > 0$ (it should only be zero when DHA is exactly 0), and since the interaction effects are additive we expect that their coefficients are positive. The second column of Table 1 reports our estimates for the expanded model. None of the interaction coefficients are statistically significant, so we find no support for Hypothesis 4.

### Table 1: National Party Label Effects on Democratic House District Vote Share

<table>
<thead>
<tr>
<th></th>
<th>Basic</th>
<th>Extended</th>
</tr>
</thead>
<tbody>
<tr>
<td>MID</td>
<td>0.129 (0.127)</td>
<td>0.121 (0.124)</td>
</tr>
<tr>
<td>DHA</td>
<td>1.742** (0.467)</td>
<td>1.315 (0.959)</td>
</tr>
<tr>
<td>GAP</td>
<td>-0.220** (0.044)</td>
<td>-0.222** (0.052)</td>
</tr>
<tr>
<td>GAP $\times$ DQ$_2$</td>
<td>-0.003 (0.013)</td>
<td></td>
</tr>
<tr>
<td>GAP $\times$ DQ$_3$</td>
<td>-0.017 (0.016)</td>
<td></td>
</tr>
<tr>
<td>GAP $\times$ DQ$_4$</td>
<td>-0.001 (0.022)</td>
<td></td>
</tr>
<tr>
<td>Presidential Vote</td>
<td>0.536** (0.009)</td>
<td>0.535** (0.009)</td>
</tr>
<tr>
<td>Dem. Incumbent</td>
<td>0.110** (0.003)</td>
<td>0.110** (0.003)</td>
</tr>
<tr>
<td>Rep. Incumbent</td>
<td>-0.139** (0.003)</td>
<td>-0.139** (0.003)</td>
</tr>
<tr>
<td>Dem. Quality</td>
<td>0.038** (0.003)</td>
<td>0.038** (0.003)</td>
</tr>
<tr>
<td>Challenger</td>
<td>-0.054** (0.003)</td>
<td>-0.054** (0.003)</td>
</tr>
<tr>
<td>South</td>
<td>0.024** (0.002)</td>
<td>0.024** (0.002)</td>
</tr>
<tr>
<td>Midterm $\times$ Dem. Pres</td>
<td>-0.047** (0.006)</td>
<td>-0.046** (0.006)</td>
</tr>
<tr>
<td>Midterm $\times$ Rep. Pres</td>
<td>0.053** (0.006)</td>
<td>0.052** (0.006)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.431** (0.035)</td>
<td>0.432** (0.044)</td>
</tr>
<tr>
<td>$N$</td>
<td>8,339</td>
<td>8,339</td>
</tr>
<tr>
<td>$\sigma^2$</td>
<td>0.01</td>
<td>0.01</td>
</tr>
<tr>
<td>$\sigma^2_{R}$</td>
<td>0.077</td>
<td>0.077</td>
</tr>
<tr>
<td>$R^2$ overall</td>
<td>0.772</td>
<td>0.772</td>
</tr>
<tr>
<td>$R^2$ within year</td>
<td>0.791</td>
<td>0.791</td>
</tr>
<tr>
<td>$R^2$ between year</td>
<td>0.398</td>
<td>0.404</td>
</tr>
</tbody>
</table>

Note: model estimated by FGLS with election-year random effects, *p < .05, **p < .01, standard errors in parentheses

Thus far, the results establish a tentative link between congressional parties and the electorate. Voters respond to changes in the relative heterogeneity and distance between the two parties’ memberships. However, the initial analysis shows that the link is only partly consistent with a theoretical model in which party labels matter because voters behave as if they were expected utility maximizers. On the one hand, voters respond to relative heterogeneity of the parties in a manner consistent with risk aversion: greater party heterogeneity means greater uncertainty about individual candidate locations and, all else equal, leads to lower vote shares. On the other hand, the effect of polarization runs counter to that predicted from the expected utility framework.

It is possible that the mixed findings are the product of a severely restrictive assumption: that voters only have information about the two national parties. Although the assumption is minimal in terms of the information and sophistication required of voters, it is worth investigating whether alternative
assumptions about voters’ information lead to clearer empirical results.

Two possibilities are considered in the remainder of the paper. First, we consider the effects of incumbency and the information revealed by individual position taking. Second, we examine whether party brand names reflect regional rather than national sets of candidates.

**Incumbent Positions and Challenger Parties**

Natural differences in the informational environments of electoral contests with and without incumbents provide an opportunity to assess, within our framework, whether voters use candidate-specific information in addition to national party labels. The difference arises due to the fact that incumbents have revealed their positions on matters before Congress while challengers have not.

We can modify our expected utility framework to explicitly incorporate the assumption that voters know the position of the incumbent candidate while having only party-level information about challengers. Suppose, for example, that the incumbent in district $k$ is a Democrat whose roll-call record reveals her position to be $x_k$. In terms of our framework, we will assume that all voters in district $k$ know this with certainty, so we effectively have $\mu_D = x_k$ and $\sigma_D^2 = 0$. The utility from voting for the incumbent is therefore simply $EU_i(x_k) = U_i(x_k) = -(x_k - \nu_i)^2$. In contrast, voters do not know the location of the Republican challenger but do know, as before, the mean $\mu_R$ and variance $\sigma_R^2$ of the Republican Party.

More generally, let $P_k \in \{D, R\}$ denote the party of the incumbent in district $k$. The variables MID, DHA, and GAP can then be modified as follows to

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Individual Incumbent Positions and Challenger Party Label Effects on Democratic House District Vote Share</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
</tr>
<tr>
<td>$incMID$</td>
<td>0.183** (0.010)</td>
</tr>
<tr>
<td>NOMINATE</td>
<td></td>
</tr>
<tr>
<td>Dem. Mean</td>
<td>$-0.004$ (0.197)</td>
</tr>
<tr>
<td>Rep. Mean</td>
<td>$2.377**$ (0.228)</td>
</tr>
<tr>
<td>$incDHA$</td>
<td></td>
</tr>
<tr>
<td>Dem. Variance</td>
<td>$-1.893$ (1.098)</td>
</tr>
<tr>
<td>Rep. Variance</td>
<td></td>
</tr>
<tr>
<td>$incGAP \times (incDHA &lt; 0)$</td>
<td>$-0.384**$ (0.034)</td>
</tr>
<tr>
<td>$incGAP \times (incDHA &gt; 0)$</td>
<td>$0.020$ (0.026)</td>
</tr>
<tr>
<td>Presidential Vote</td>
<td></td>
</tr>
<tr>
<td>Dem. Incumbent</td>
<td>$0.573**$ (0.010)</td>
</tr>
<tr>
<td>Dem. Quality</td>
<td>$-0.189**$ (0.037)</td>
</tr>
<tr>
<td>Challenger</td>
<td></td>
</tr>
<tr>
<td>Rep. Quality</td>
<td>$-0.052**$ (0.003)</td>
</tr>
<tr>
<td>South</td>
<td>$0.008**$ (0.002)</td>
</tr>
<tr>
<td>Midterm $\times$ Dem. Pres</td>
<td>$-0.049**$ (0.007)</td>
</tr>
<tr>
<td>Midterm $\times$ Rep. Pres</td>
<td>$0.056**$ (0.006)</td>
</tr>
<tr>
<td>Constant</td>
<td>$0.462**$ (0.030)</td>
</tr>
<tr>
<td>$N$</td>
<td>7,287</td>
</tr>
<tr>
<td>$\sigma_D^2$</td>
<td>$0.011$</td>
</tr>
<tr>
<td>$\sigma_R^2$</td>
<td>$0.073$</td>
</tr>
<tr>
<td>$R^2$ overall</td>
<td>$0.799$</td>
</tr>
<tr>
<td>$R^2$ within year</td>
<td>$0.821$</td>
</tr>
<tr>
<td>$R^2$ between year</td>
<td>$0.332$</td>
</tr>
</tbody>
</table>

Note: model estimated by FGLS with election-year random effects, *$p < .05$, **$p < .01$, standard errors in parentheses
reflect the relative evaluations of an individual incumbent’s position with information about the challenger’s party.\textsuperscript{19}

\[
\text{incMID}_k = \begin{cases} \frac{x_i + \mu_k}{2} & \text{if } P_k = D \\ \frac{x_i + \mu_D}{2} & \text{if } P_k = R \end{cases}
\]

\[
\text{incDHA}_k = \begin{cases} \sigma^2 & \text{if } P_k = D \\ -\sigma^2 & \text{if } P_k = R \end{cases}
\]

\[
\text{incGAP}_k = \begin{cases} \mu_R - x_D & P_k = D \\ x_R - \mu_D & P_k = R \end{cases}
\]

In Table 2 we present estimates for models analogous to equation (3) where the original party-only variables are replaced by the appropriate incumbent and challenger party variables (i.e., \text{incMID} instead of MID, etc.). Since we assume that the variance term is zero for incumbents, this means that \text{incDHA} will take on positive values for Democrats and negative values for Republicans. Following Hypothesis 3, this necessitates including \text{incGAP} in the model separately for each party.\textsuperscript{20} Column 1 presents the estimates for incumbents of both parties pooled together, column 2 presents the estimates when the sample is restricted to Democratic incumbents, and column 3 does so for Republican incumbents.

Overall, the estimates suggest that incorporating more specific information about individual incumbents in place of their parties’ labels does just as well, in terms of \(R^2\), at explaining electoral outcomes. In terms of the coefficients of interest, not only do heterogeneity and polarization matter, but so does the relative position of the midpoint between an incumbent’s position and the opposing party’s average member (\text{incMID}). The estimated coefficients of \text{incMID} and \text{incDHA} are positive and statistically significant, as predicted by Hypotheses 1 and 2, respectively. Again, however, we find that the estimated effect of polarization (here measured by \text{incGAP}) is inconsistent with Hypothesis 3. The estimated effect of \text{incGAP} is negative and statistically significant when \text{incDHA} is positive but is not significant when \text{incDHA} is positive.

The results provide even better support for the theory of party brand names when we estimate the model separately for incumbents of each party (columns 2 and 3). For Democratic incumbents, we find positive support for both Hypotheses 1 and 2 and also that the estimated effect of \text{incGAP} is statistically insignificant and therefore does not directly contradict Hypothesis 3. For Republican incumbents, only Hypothesis 1 is positively supported.

Thus far, the variables of interest in our statistical model have adhered closely to equation (2), and their effects are properly understood in terms of a joint effect of both an incumbent’s individual position and the challenger party’s brand image. This is true for the midpoint variable and is especially clear in the case of heterogeneity, where the variable \text{incDHA} is determined only by the degree of heterogeneity in the challenger’s party. A skeptical reader, however, may wonder if the joint effect of \text{incMID} is driven more by the incumbent’s position than by the party variables as the existing empirical studies of candidate positioning would suggest (Ansolabehere, Snyder, and Stewart 2001; Canes-Wrone, Brady, and Cogan 2002). Our findings are also at odds with contemporary theories of congressional parties, which posit that the party brand name is a public good that enhances incumbents’ reelection prospects (Cox and McCubbins 1993, 2005), but thus far, we have not tested this possibility. We therefore estimate an additional model that departs from the specification implied by equation (2) but is better suited for addressing the issue of incumbents versus parties. This specification replaces \text{incMID}, \text{incGAP}, and \text{incDHA} with individual positions and aggregate party means and variances calculated from NOMINATE scores.

The results presented in columns 4 and 5 further support the contention that party brand names have effects on election outcomes that are distinct from the positions of incumbent candidates. Not surprisingly, the effects of incumbent positions are significant and in the expected direction for incumbents of both parties. More importantly, aggregate party variables are also independent determinants of vote share.\textsuperscript{21} For Democratic incumbents, increasing the conservatism of the Republican Party has a positive and statistically significant effect (at the .01 level) on Democratic vote share. In contrast, the effect of the heterogeneity of their own party is significant at the .10 level but is also less than a third of the size in magnitude. For Republican incumbents, increasing the conservatism

\textsuperscript{19}Data for \(x_i\) are the individual-level Poole and Rosenthal DW-NOMINATE scores.

\textsuperscript{20}We omit the additional interaction terms for ease of presentation and because the fit of models with and without the interactions are nearly indistinguishable.

\textsuperscript{21}For both Democratic and Republican incumbents, we can reject a “pure” candidate model (the hypothesis that the coefficients for Democratic mean, Democratic variance, Republican mean, and Republican variance are jointly zero). The \(\chi^2\) test statistics are 26.92 and 20.31, respectively, which both exceed the .05 critical value of .71.
of the Democratic Party’s average member increases Democratic vote share, and this effect is statistically significant at the .01 level. In contrast, the location of the average Republican is significant at the .10 level and is smaller in magnitude. Interestingly, the average locations of the parties do not affect Democratic incumbents’ vote shares while heterogeneity does not affect Republican incumbents—thus revealing an interesting asymmetry. Our analysis therefore shows that while individual positioning matters, variations in party brand names have distinct electoral consequences—not for the incumbents themselves but for challengers running under the party label.

Regional Party Labels

Scholars and other observers often argue that politics in the southern states might be different from politics outside of the south (e.g., Black and Black 2002; Key 1949). This raises the possibility that voters in the south respond to parties differently than their counterparts elsewhere. Moreover, congressional scholars note the presence of three distinct groups of legislators during the mid-twentieth century: northern Democrats, southern Democrats, and Republicans (Poole and Rosenthal 1997). If the media and other contemporary observers make similar distinctions, then it is plausible that the electorate may also see congressional politics in similar terms. In the context of our model of party labels, this suggests that we should take into account regional variation in legislators’ observed positions as well as national-level variation.

Following the assumption that there are three effective parties as noted above, we compute new variables by replacing the Democratic mean and variance with the appropriate regional (southern or nonsouthern) Democratic mean and variance. (We leave the Republican party membership’s information at the national level.) We label these variables regMID, regDHA, and regGAP, and we analyze both whether voters respond to regional labels as well as whether regional voters might behave differently.

The results of our analysis replacing national-level Democratic party labels with regional labels are presented in Table 3. The first column presents the results when observations from both regions are pooled. Consistent with the results from the party-only analysis, the relative heterogeneity (regDHA) and polarization (regGAP) variables have statistically significant effects. Interestingly, variation in the distance between the parties does not have a conditional effect. Increased polarization always leads to a decreased vote share for Democratic candidates, regardless of the relative heterogeneity between parties.

In the second and third columns, we present the coefficients for each region estimated separately. The
estimates in column 2 show that the effects of relative heterogeneity and polarization are statistically significant for southern voters, which suggests they respond to changes in the brand images between southern Democrats and national Republicans. Outside of the south, however, differences between northern Democrats and Republicans do not lead to significant effects on vote share. When this finding is taken in conjunction with the results in Table 1, it suggests that outside of the south, voters respond to national labels, while in the south, voters may also respond to changes in the ideological composition of the southern Democratic congressional delegation.

Model Selection

In our analysis, we have shown that the data support three different variants of the party brand-name story. Party brand names may convey information about two national sets of candidates, about challengers or other legislators with no prior congressional record, or they may be regional in nature. To the extent that there is heterogeneity in voter information, sophistication, and political perceptions (Gomez and Wilson 2001; Krause 1997), it is not surprising that no single model dominates.

If we compare models by simply counting the number of hypotheses supported (less the number contradicted), then the model that mixes individual incumbent positions with the challenger’s party brand name provides the best support for the theory. From an econometric perspective, however, we must determine which version best fits the data rather than which version happens to best fit the theory. This methodological problem is one of model selection.

Since each model involves a different set of regressors, they are nonnested and one model cannot be written as a set of linear restrictions on another. We therefore adopt the likelihood dominance criterion (Pollack and Wales 1991) as our procedure for model selection, which is based on a comparison of estimated likelihoods, but follows usual inferential practice by establishing critical values based on significance levels and the number of model parameters. If the difference in likelihoods falls between the critical values, then model selection is indeterminate.22

We find that the model combining individual incumbent positions with challenger party brand names dominates both the simple national brand-names model and the regional brand-names model.23 The incumbent position and challenger party model has the highest log-likelihood (9,958), and it exceeds the log-likelihoods of the other models (9,797 for the national party model and 9,519 for the regional party model) by amounts sufficient for the likelihood dominance criterion to be decisive.24 When the analysis is restricted to incumbents, the mixed incumbent-challenger party model also dominates the national brand-names model and a pure incumbent-position model. The model selection analysis therefore gives us confidence that the combined incumbent plus challenger party model best fits the data as well as best supports the theory.

Conclusion

The evidence suggests that there is indeed a basis for a link between the legislative parties and electoral outcomes through party brand names, which are used by imperfectly informed voters. Party heterogeneity appears to work exactly as an expected utility model predicts it should: cohesive parties have the advantage. The formal analysis also implies that the average position of each party’s membership has two, potentially offsetting, effects (the midpoint and gap hypotheses). After refining our assumptions about the nature of party brand names, we found that in the mixed incumbent plus challenger model the midpoint hypothesis was supported but that interparty polarization has no effect. We also discovered an interesting asymmetry between the parties: voters are responsive to changes in Republican unity when the incumbent is a Democrat while they are responsive to the average Democrat’s position when the incumbent is a Republican. Our empirical findings therefore provide support for the theory, but our case is by no means a “slam dunk.”

This outcome tends to invite the question of whether the metaphorical glass is “half-full” or “half-empty.” It is both. On the one hand, we conclude that voters—concerned about how well they are represented ideologically in Congress but unsure about candidate positions—rely, in the aggregate, on the party label to make decisions. Changes in the

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22If two models have the same number of parameters, then the likelihood dominance criterion reduces to a simple comparison of estimated likelihoods.

23Details can be found in the online appendix.

24Both the national and incumbent/challenger models have the same number of parameters, so a simple comparison of log-likelihoods is sufficient. When comparing either of those models to the regional party model, the comparison is indeterminate when the difference is between 3.62 and 5.11.
information about parties, as revealed by the roll-call record, have significant electoral consequences—even if parties are undisciplined, heterogeneous coalitions of individual election-seeking members. Our findings also challenge the notion that parties in government seek to enhance their brand names in order to boost their incumbents’ electoral prospects (e.g., Cox and McCubbins 1993, 2005). Instead, we find that party labels benefit *challengers* rather than incumbents.

On the other hand, ideological reputations may not be the entire story. We have focused on ideology because of its importance in the Downesian tradition. This analysis certainly does not capture all of the possible conceptions of a party brand name. Though ideology surely must be part of any party’s reputation, nonideological reputations may be more important to a party’s electoral fortunes. For example, Petrocik (1996) has argued that parties “own” certain issues. Voters may therefore respond to parties’ reputations or perceived abilities to handle the issues most important to them, and those reputations may be the products of political competition and vary over time (Pope and Woon 2005, 2006). In a separation of powers context this reputation could even be specific to particular institutions (e.g., the Republican Party’s presidential reputation may be somewhat different from its congressional reputation). Lastly, it may be worth investigating the degree to which the party’s brand name is formed outside of political institutions, such as by the media or in the course of public debates during campaign seasons.

Regardless of how we conceive of a party’s brand name, our results suggest that the concept deserves increased attention. In 1974 Mayhew wrote that no analysis of American politics “that posits parties as analytic units will get very far” (27), and a significant body of subsequent research seems to embrace this notion (e.g., Krehbiel 1993). Others, however, have increasingly sought to challenge it, arguing that the electoral effects of a party’s record motivates the formation and maintenance of legislative party organizations (Aldrich 1995; Cox and McCubbins 1993, 2005). Our findings support the claim that the actions of legislative parties matter in congressional elections and suggest that party brand names are, at least in part, made in Congress.

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