

Smoke Signals: The Strategic Use of Ambiguity in Political Campaigns*

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Abstract

Because candidate ideologies are latent characteristics, voters use candidate issue positions to place candidates in ideological space. Candidate ideologies are more ambiguous when their issue positions span a wide range of the policy space. This paper argues that candidates strategically choose the distribution of their issue positions, and ties the variance of the distribution to the ambiguity with which voters perceive candidate ideology. This paper tests the hypothesis that candidates win larger vote shares when there is more ambiguity about candidate ideology, all else equal. Existing methods for testing theories of candidate platform selection are unable to identify the effects of candidate strategies in spatial competition because losing candidates do not compile roll call voting records. This paper overcomes these limitations by estimating ideal points for both major party candidates in over 550 U.S. House races from 1996-2006 and compares the variance of candidate ideal point estimates with election results. Multilevel regression analysis shows a strong positive relationship between candidate ambiguity and vote share. The paper concludes by discussing the implications of this finding for contemporary theories of candidate platform selection and voter decision-making.

Keywords: spatial model, voting under uncertainty, ideal point estimation, candidate platforms, ideological ambiguity

1 Introduction

Political candidates are often criticized for their reluctance to take clear positions on the dominant issues of the day. For instance, on the campaign trail in 1976, Republican President Gerald R. Ford bemoaned Democratic candidate Jimmy Carter’s “wavers, wiggles, wanders, and waffles” on the election’s most important issues,¹ while a *Wall Street Journal* columnist complained about Carter’s “willingness to substitute symbolism for substance.”² More recently, George W. Bush’s platform of “compassionate conservatism” convinced many voters in the 2000 campaign that he might follow in his father’s moderate footsteps.³

While Enelow and Hinich (1984) and Alvarez (1998) provide evidence that voters are less likely to support a candidate whose issue positions are vague, scholars have paid much less attention to the ways in which the distribution of a candidate’s issue positions affects voter support. Voters use policy positions to infer candidate ideologies, but this task is made more difficult when a candidate’s issue positions span a wide range of ideological territory. Voters could reach different voting decisions based on the extent to which they believe a candidate is, for instance, a “reliable conservative.”⁴

This distribution of issue positions over the ideological space characterizes the ideological ambiguity that candidates project to voters. For instance, there is much less ambiguity about a candidate’s ideology when she takes consistently conservative issue positions than when she expresses *very* conservative positions on some issues and moderate positions on others. The effects of ideological ambiguity on election outcomes remain unclear. Given two

¹*Newsweek*, October 25, 1976.

²Al Hunt, “The Vagueness Behind the Smile”, p. 8, May 13, 1976.

³Michael Powell, *New York Times*, June 27, 2008.

⁴John McCain, the 2008 Republican presidential nominee, illustrates the general idea especially well. He consistently described himself as a “maverick” and eagerly pointed out that he had often clashed with members of his own party on matters of policy, and it was widely reported that prominent members of the religious right were lukewarm to his candidacy. As the campaign wore on, he took increasingly conservative positions on major issues such as immigration reform and tax cuts. Voters could not be blamed for wondering whether McCain should be classified as “far-right”, “right-of-center”, or “middle-of-the-road” based on the information they received about his policy positions.

candidates who are both located equally far (or close) to a voter, does more ambiguity about one candidate’s position enhance or diminish the prospects that the voter will support that candidate? This paper argues that candidates strategically choose *two* moments about the distribution of their issue positions: an ideological “central tendency” and a set of issues positions that broadcast it with some noise.

Most previous tests of the effects of candidate ambiguity are unable to separate the effects of ambiguous platforms from other sources of voter uncertainty about candidate positions. While recent work by Tomz and Van Houweling (2009) uses an innovative experimental design to overcome many of these limitations, the empirical tests are not well-connected to theoretical notions of voter decision-making and the results are not generalizable to electoral outcomes.

Furthermore, many empirical tests that rely upon spatial models of elections are unable to identify the effects of candidate platform selection due to lack of data about the losing candidate (who does not compile a legislative voting record). This paper avoids these problems by examining 563 pairs of U.S. House candidates from 1996-2006. I use data collected by Project Vote Smart on a comprehensive set of policy issues to produce estimates of candidates’ electorally-induced ideologies.⁵ This data source is preferable to roll-call data because it avoids potential sources of bias attributable to agenda control and other institutional features of Congress. More importantly, it allows me to estimate ideology scores for persons who did not serve in Congress, providing for direct comparison between candidates within districts. The Clinton, Jackman, and Rivers (2004) Bayesian estimation procedure recovers estimates of latent ideology and the uncertainty associated with these estimates. Multilevel regression analysis provides strong support for the hypothesis that candidates win larger vote shares when they put forth more ambiguous platforms.

The rest of the paper proceeds as follows. First, I introduce and develop the core the-

⁵By this I simply mean the ideologies candidates present to their target constituencies.

oretical claim: candidates strategically choose a particular distribution of issue positions, where a wider distribution indicates greater ambiguity. Then, I describe the data and the estimation procedure used to obtain the ideological positions and the associated uncertainty for Congressional candidates. Next, I present results showing that the hypothesis is strongly supported by the data. Finally, I discuss the implications of this finding and provide suggestions for further research.

2 Ambiguity and Campaigns

The basic spatial model of politics (Black 1958; Downs 1957) provides the foundation upon which most scholars have studied the dynamics of candidate platform selection. Candidates select points in the policy space and voters support the candidate whose point is located closest to their own. However, voters are exposed to a wealth of information over the course of a political campaign, and the information voters receive about candidates' issue positions is important to the extent that it allows voters to make inferences about the ideologies of the candidates (Downs 1957, p. 98).

Voters use candidate ideologies to predict what a candidate is likely to do if elected to office. The mapping of candidate choice to likely policy outcomes is much less precise as two related forms of uncertainty increase. The first is related to what Enelow and Hinich (1984) term *perceptual* uncertainty, which has been well-studied in political science (e.g. Alvarez 1998; Bartels 1986) and varies by voter, due to factors such as political sophistication and exposure to information. A second way in which the link between candidates and policy outcomes is obfuscated results from ambiguity about candidate ideology. Enelow and Hinich describe ambiguity as purposive behavior on the part of candidates, and this paper explores the effects of this latter form of uncertainty.

The aggregation of many policy positions to infer candidate ideology suggests some level

of ambiguity about the ideology of *any* candidate. As Enelow and Hinich argue, “voter uncertainty about the ideological positions of the candidates is endemic to the process whereby voters attempt to reduce a wealth of information to some shorthand guide useful for predicting each candidate’s future behavior” (1981, p. 489). As issue positions are distributed over a wider range of the policy space, the variance increases, which indicates more ambiguity about the candidate’s underlying ideological position.

This account fits in nicely with Shepsle’s formalization of probabilistic voting (1972) in which candidates choose probability distributions over the ideological dimension, such that “candidates are perceived by voters as *lottery tickets* over policy alternatives, and voters (like gamblers) must choose between uncertain prospects” (p. 559, emphasis in original). In statistical parlance, candidates choose two moments about the distribution of their issue positions, a mean and the variance associated with it.⁶

Downs argues that rational candidates have strong incentives to “becloud their policies in a fog of ambiguity” (1957, p. 132) because it increases the number of voters to whom they can appeal. A variety of theoretical models have identified other conditions under which candidates have incentives to be ambiguous about their underlying ideology. Ambiguity results from uncertainty about the median voter’s preferences (Glazer 1990) and enhances re-election prospects by providing an elected candidate with greater freedom to implement policy without sacrificing credibility (Alesina and Cukierman 1990; Aragonés and Neeman 2000). Candidates might also put forth ambiguous platforms in order to maximize their ability to solicit contributions from a wide range of interest groups (Morton and Myerson 1992) or to manage the tradeoffs in appealing both to the median voter and extreme lobby groups (Alesina and Holden 2008).

⁶Enelow and Hinich (1981) further emphasize the relationship between this probabilistic model and candidate ambiguity, stating that voters perceive candidates as random variables on the ideological dimension, and posit “a fundamental relationship between what is perceived as the mean value of a candidate on the underlying left/right dimension and the perceived degree of certainty with this mean value as a guide for predicting the future behavior of the candidate in office” (p. 483).

3 Theoretical Model

To formalize the theoretical claims introduced above, suppose two candidates A and B compete in a one-dimensional policy space $P \subset \mathbb{R}$. Candidates simultaneously choose ideal points $p_k \in P$ and level of ambiguity σ_k , where $p = (p_A, p_B)$ and $\sigma = (\sigma_A, \sigma_B)$, and both p and σ are perfectly perceived by all voters. Candidates also have some non-policy attribute c_k that factors into the voter's decision, where $c = (c_A, c_B)$. A voter i has ideal point x_i and tolerance for risk ξ_i , where high values of ξ_i indicate risk-acceptance and small values indicate risk-averseness. A voter's utility U_i for candidate k is defined

$$E(U_{ik}) = (x_i, p_k, \sigma_k, c_k | \xi_i), \quad (1)$$

where voters calculate the expected utility from candidates A and B and vote for the candidate who provides the greater utility. All else equal, the expectation is that higher levels of ambiguity increase a voter's utility for candidate k . In other words, given two candidates whose ideal points are located symmetrically around a voter's ideal point, the voter is more likely to support the candidate whose ideal point is surrounded by more ambiguity. This is because higher levels of ambiguity lead a voter to conclude that the candidate's point in ideological space may actually be closer than the voter perceived.

In the analysis that follows, it is assumed that c_k is constant for all candidates and ξ_i is constant across all voters.⁷ It is further assumed that voters behave identically and fully rationally. Identical behavior suggests that all voters process the information presented by candidates in similar ways, while the fully rational behavior assumption implies that all

⁷Scholars disagree about whether voters are properly considered risk-averse or risk-acceptant. Shepsle (1972) shows that ambiguity can be a dominant strategy when at least some portion of the electorate is risk-acceptant, but subsequent empirical work (e.g. Alvarez 1998; Alvarez and Franklin 1991; Bartels 1986) finds evidence of a risk-averse electorate. Nevertheless, the claim made here makes no particular assumptions about the risk-acceptance of the electorate, and only claims that the degree of risk-acceptance is constant across voters.

voters follow the utility calculation and decision rule expressed above. The next section describes the empirical tests used to assess the hypothesis that *ceteris parabis*, candidates benefit from higher levels of ambiguity.

4 Empirical Test

Tomz and Van Houweling (2009) identify a number of methodological problems with earlier research on the effects of candidate ambiguity (p. 85-6), but their empirical tests are not well-aligned with the underlying theoretical conception of ambiguity and its electoral implications. They aptly describe ambiguity as a set of “vague statements that leave voters uncertain about the policies they intend to pursue” (p. 83), but the empirical tests of the effects of ambiguity are confined to a single issue (health care). On the basis of this single issue, study participants are asked to indicate which candidate they would support. While their study design is vastly superior to previous tests of the effects of ambiguity, it does not properly take account of the ways in which ambiguity affects voting decisions. Candidates broadcast information over a wide range of issues, and it is unlikely that ambiguity about any one issue area is likely to significantly alter a voter’s decision calculus. Instead, because issue positions are important to the extent that they allow voters to make inferences about candidate ideologies, ambiguity in the context of an electoral campaign results from candidates taking issue positions that span a wide range of the policy space. Thus, while Tomz and Van Houweling are able to make inferences about the effects of ambiguity on candidate evaluation over a particular issue domain, they cannot make claims about the electoral implications of candidate ambiguity.

In contrast, this paper tests the theoretical model described above by examining U.S. House candidates and election outcomes from 1996-2006. Because the logic is premised on the spatial model, the analysis must include *both* candidates competing for election from

the same district. I used survey data collected by Project Vote Smart to estimate the ideal points for both major party candidates in contested races, where the ideal points reflect the ideological positions of the candidates inferred by aggregating a wide range of policy positions. The standard deviation associated with the ideal point estimates represents the ambiguity with which these positions are broadcast by the candidates.⁸ I estimate the position of the median voter in the districts by transforming the district's vote in the most recent presidential election such that the position lies in the same space as the candidate ideal points.⁹ If both candidates adopt symmetric positions around the median voter and the same level of ambiguity, each candidate would receive 50% of the the vote. On the other hand, if the hypothesis here is right and one candidate adopts a greater level of ambiguity than the other candidate, the candidate with the larger amount of ambiguity should receive a proportion of the vote that exceeds 50%, where the specific vote share is a function of the difference in ambiguity between the candidates. Specifically, then, I hypothesize that ambiguity increases the proportion of the vote the winning candidate receives, all else equal.¹⁰

To test the theoretical predictions discussed above, I regress electoral outcomes on the uncertainty about candidates' ideological positions, controlling for the candidates' positions and assuming identical distributions of voters across districts. Next I describe the data and methodological approach used to provide the test.

⁸For instance, a candidate who chooses consistently conservative positions will have a smaller standard deviation than a candidate who chooses some conservative positions and some moderate positions.

⁹In this way, the election results can be seen as an expression of the median voter's utility.

¹⁰Studies have consistently shown that small fractions of the electorate can recall (e.g. Popkin and Dimock 1999) or recognize the name of their Congressional representative (e.g. Zaller 1992). Voters have weak priors about incumbent representatives, suggesting that they are even less familiar with challengers. This lack of familiarity with the candidates suggests that voters do not have knowledge of the full range of candidate issue positions from which ideal points are estimated, so the present analysis constitutes a tough test of the effect of ambiguity on election outcomes.

5 Data and Methods

Recent advances in ideal point estimation have enabled social scientists to recover latent variables; that is, quantities of interest that cannot be directly observed. These estimates have been widely used to test theories of judicial and legislative behavior and organization. The central idea is that the ideologies of justices and legislators can be inferred from examining the ways in which these political actors voted on bills or ruled in a case. Because spatial models of elections are specifically intended to portray politics in two-candidate races under spatial competition, it is impossible to provide a direct test of the predictions generated from the theory with data on only the winning candidate. In contrast, I estimate measures of ideology using positions on a comprehensive range of issues for winning *and* losing candidates for the U.S. House of Representatives from 1996-2006. This enables direct comparison between competing candidates' positions and the ambiguity associated with the ideological estimates.

I estimate candidates' electorally-induced ideology using data collected by Project Vote Smart.¹¹ Project Vote Smart is a not-for-profit, non-partisan organization that collects information about candidates for distribution to voters and the media. During each federal and state election they distribute questionnaires to candidates for president, the U.S. House and Senate, governor, and state legislatures. These questionnaires are completed prior to each state's filing deadline.

The questionnaires for U.S. House candidates contain approximately 200 questions on a wide range of policy areas.¹² The questions are policy-oriented in nature and bear a close

¹¹These positions are likely to reflect a complex blend of personal ideology, party and lobby influence, and strategic decisions on the part of the candidate.

¹²The Project Vote Smart website describes the content of the questionnaires thusly: "The issues included in the Political Courage Test are only those that are both consistently the top concerns of the American people and also likely to come up in the next legislative session. They are determined by intense examination of national polls over the last three years, the majority, minority and third party platforms, State of the Union and Response speeches, State of the State and Response speeches, legislative agendas, and by consulting with prominent national political journalists, political scientists and the entire Project Vote Smart founding board

resemblance to roll-call votes, as the format of most questions asks candidates to indicate whether they would support or oppose a particular policy proposal.¹³ Here I use Project Vote Smart data collected for House candidates from 1996-2006. There is considerable continuity in the content of the surveys.¹⁴ Thus, these survey responses are a reasonable way to assess the electorally-induced ideologies expressed by U.S. House candidates on the issues of the day.

To answer the present research question requires a comparison between estimates and uncertainty between pairs of candidates. Consequently, the appropriate unit of analysis is the congressional district, which means survey data are retained only when both major-party candidates in a district complete the survey. Table 1 lists the number of such pairs included in the analysis by year and the percentage these numbers represent of all contested House races.¹⁵

Table 1 goes here.

Using the Vote Smart data, I constructed matrices for each year (1996-2006) in which Vote Smart surveys were administered to U.S. House candidates. The columns represent each of the questions appearing on the survey in that year and rows contain responses for each of the candidates retained for the analysis. Table 1 above describes the number of

to ensure that it is non-partisan and unbiased.” See <http://www.vote-smart.org> for further information.

¹³Most, but not all, questions follow this format. I dropped the questions that asked respondents to indicate answers other than “yes” or “no”. Table 1 lists the number of questions retained from each year’s survey.

¹⁴Over these six elections, 392 unique questions appeared on the surveys. About one-fifth of the content of the surveys was constant across all years; that is, 32 questions appeared on each survey over this time. 28 questions appeared in five of the six years, 37 in four of the six years, and 36 in three of the six years. The remaining questions appeared in only one or two of the six election years, and are mainly questions that deal with more short-term concerns, usually dealing with foreign policy matters such as the U.S. presence in Kosovo during the late 1990s.

¹⁵While it appears that the sample of candidates included in this analysis is not representative of all major-party candidates running for office, this poses no *a priori* problems for testing the theoretical claims discussed earlier. In fact, it is precisely these candidates about whom voters are likely to have less well-formed opinions, if they have any at all, which supports the use of an earlier assumption about the kinds of information voters have at their disposal when making voting decisions.

survey questions and observations for each election cycle.

I estimate the following one-dimensional Bayesian item-response model (described more fully in Clinton, Jackman and Rivers (2004)) to produce estimates of candidate ideology:

$$Pr(y_{ij} = 1) = \Phi(\beta'_j \mathbf{x}_i - \alpha_j), \quad (2)$$

which models the probability candidate i expresses agreement with the policy in survey question j and $\Phi(\cdot)$ is the standard normal function, β_j is the item-discrimination parameter that indicates how well question j distinguishes between liberals and conservatives, α_j is the location of the survey question in ideological space, and \mathbf{x}_i is the ideal point for candidate i . The joint density of latent ideology and all model parameters β_j , α_j , and \mathbf{x}_i are estimated from the data.

Repeated iterations of the Markov chain Monte Carlo (MCMC) algorithm generate random samples from the joint posterior density of the latent traits, which characterizes the full distribution of each of the model parameters. To identify the model, I normalize the ideal points such that they have a mean of 0 and variance of 1 and constrain the estimates so that negative ideal points reflect more liberal candidates and positive ideal points reflect more conservative candidates.¹⁶

The ideology scores and the associated uncertainty obtained via the estimation procedure are used to calculate several independent variables. For each candidate I include an *ideology* measure, which is the mean of the posterior distribution. I operationalize *ambiguity* as the standard deviation of the posterior mean. Larger standard deviations are associated with greater ambiguity.

¹⁶I fit a one-dimensional item-response model, running 300,000 iterations after discarding the first 5,000, and thinning by 1,000. To aid in identification, I normalized the estimates to have mean 0 and variance 1 for each election cycle, and candidates expressing more liberal positions have lower scores while candidates expressing more conservative positions have higher scores. Adding additional dimensions did not markedly improve the fit; at most the percentage of correctly predicted survey responses increased by about three percentage points.

Figure 1 illustrates the main points of this discussion. The x-axis is the ideological space over which ideal points are estimated in this analysis. The density curves represent the posterior distributions of the ideal point estimates for the 2002 House candidates from North Carolina's 12th Congressional district. Because these distributions are obtained via the data and the estimation procedure described above, for substantive interpretation we can take these to represent the distribution of the candidates' issue positions over a common ideological space.

The dashed curve on the left is for Mel Watt, the Democratic incumbent, who won 65% of the vote. His ideal point (the mean of the posterior distribution) is -1.39, with a standard deviation of 0.22. The solid curve on the right is for Republican challenger Jeff Kish, who won 33% of the vote and has ideal point 1.37 and standard deviation 0.17. Though the candidates' ideals are located virtually symmetrically around the middle of the ideological space, the figure clearly shows that there is a great deal more ambiguity associated with Watt's underlying ideology than with Kish's. That is, Watt has taken a greater range of positions on the issues contained in the Vote Smart survey. While all of them are on the liberal side of the policy space, on the basis of these issue positions voters can be less certain about Watt's *true* ideology than they can for Kish, whose issue positions are more tightly constrained around his ideal point.

Figure 1 goes here.

While ideology estimates using roll-call votes are now part of many scholars' repertoires, the use of ideal point estimation procedures is much less common when using alternative data sources. Before presenting the results of the estimation, a few reminders about interpretation are in order. First, for computational efficiency scores were estimated for each election year from 1996 to 2006. This precludes any direct comparison of scores between years because scores are functions both of the particular characteristics of the sample of candidates and

the set of questions included in the survey.¹⁷ In some instances ideal points were estimated several times for the same candidate if she completed the survey in multiple years, in which case estimates should not be interpreted as evidence of one's changing ideology over the course of a short period of time.

Virtually all Republican candidates had ideal point estimates greater (in value) than Democratic candidates, providing *prima facie* evidence for the trustworthiness of these estimates. While the estimates cannot be directly compared between years, or between estimation procedures, we *can* use them to assess the ideological positions of candidates relative to one another. Generally speaking, the range of scores is -2 to 2, with liberal candidates denoted by negative numbers and conservative candidates by positive numbers. While some may be skeptical of the scores generated here based on survey responses, these scores meet the basic test of face validity. Tables 3 and 4 compare scores generated here with the widely-used DW-NOMINATE scores. Specifically, I have ordered some of the more prominent members of Congress based on their NPAT scores and DW-NOMINATE scores, with the legislators ranked from most liberal to most conservative. In most cases, these legislators are ordered almost identically by both measures. This is to say, DW-NOMINATE scores suggest that Newt Gingrich (R-GA) is more conservative than fellow Republicans Henry Hyde (R-IL) and Jim Talent (R-MO), but less conservative than John Boehner (R-OH) and John Shadegg (R-AZ). The NPAT estimates confirm these relationships, as the tables illustrate.

The dependent variable is the percentage of the vote won by the Democratic House candidate. The ideal point estimates obtained using the above procedure enable the calculation of several key independent variables. First, *Democratic Ambiguity* and *Republican Ambiguity* are the 95% Bayesian credible intervals associated with the ideal point estimates for

¹⁷For instance, a moderate Republican candidate in one year might look more like an extremist in another year if in the second year all of other candidates were extremely liberal and/or the survey questions changed to reflect a liberal set of policies.

the Democratic and Republican candidates, respectively.¹⁸ These variables are standardized for each of interpretation, such that a one-unit increase corresponds to an increase of one standard deviation.

The expected utility model presented earlier suggests that utility is a decreasing function of the spatial distance between a candidate and the voter. Consequently, district preferences must be placed in the same ideological space as the candidates. Following Gerber and Morton (1998), I use the percentage of the district’s presidential vote cast for the Republican candidate in the current (if 1996, 2000 or 2004) or previous (if 1998, 2002 or 2006) presidential election as an estimate of the median voter’s ideal point. The mean value is 44.5%, ranging from 10.8% to 76.1%.¹⁹ These values are mapped into the same ideological space as the ideal point estimates using an affine transformation, such that the percent Republican presidential vote has mean 0 and standard deviation 1. This results in a range of median voter “ideal points” from -2.36²⁰ to 2.21²¹. For the purposes of this analysis I refer to this transformed variable as the district’s median voter ideal point.²²

For each district I obtain the spatial distance between each of the candidates and the median vote using the absolute value of the difference between the candidates’ positions

¹⁸*Ceteris parabis*, there is greater variance associated with the ideal points for extreme candidates than moderate candidates because the survey responses become less informative (though this is less of a problem with the Bayesian procedure than with DW-NOMINATE and related techniques). For instance, the data show that Jesse Jackson, Jr. (D-IL) is among the most liberal candidates in this sample, though we cannot know precisely how liberal he is due to truncation. However, voters may discount the extremity of the estimate, deducing instead that policy outcomes result from compromise between a variety of politically interested groups (Enelow and Hinich 1984).

¹⁹Over the same time period, 48.6% of all ballots were cast for Democratic presidential candidates (Clinton in 1996, Gore in 2000, and Kerry in 2004) and 46.8% for Republican candidates (Dole in 1996 and George W. Bush in 2000 and 2004) which indicates that over the three presidential elections the districts in this sample are slightly more Democratic than the nation as a whole.

²⁰NY-17 in 1996, for which only 10.8% of voters supported Bob Dole in the 1996 presidential race

²¹TX-7 in 2000, in which 76.1% of voters supported George W. Bush in the 2000 presidential election

²²The intuition behind the use of the median voter measure described above is that Democratic candidates are likely advantaged in more liberal districts, for which presidential vote percentage serves as a proxy. Negative values of the median voter measure indicate a larger Democratic advantage, while positive values indicate a larger Republican advantage. Another way to interpret the meaning of the dependent variable in this framework is as a latent expression of the median voter’s utility from the Democratic candidate.

and the median voter position (resulting in *Democratic Distance* and *Republican Distance*). Distance between the Democratic candidate and the median voter should be negatively associated with Democratic vote share, while distance between the Republican candidate and the median voter should be positively associated with Democratic vote share.

Several additional control variables are included. Controls for incumbency (*Democratic Incumbent* and *Republican Incumbent*) are included, as the well-documented incumbency advantage is likely to affect vote totals apart from the other explanatory variables included in the model. Failing to include such controls would likely violate the earlier assumption that c_k is constant across all candidates. *Redistricting* takes on a value of 1 if the district lines were redrawn since the previous election was held, and 0 otherwise. Redistricting changes the district boundaries, so candidates may be more uncertain about the distribution of voters and thus adopt more ambiguity platforms (e.g. Glazer 1990) or there could be more ambiguity about candidates running in newly redrawn districts. Third, *Open seat* indicates whether at least one incumbent was running for re-election (0) or was an open seat due to retirement, redistricting, or death (1).

5.1 Statistical Model

The dependent variable is the share of the vote (expressed as a decimal) for the Democratic candidate in each congressional race.²³ I regress this outcome on the predictors using the varying-intercept multilevel model

$$y_i = \alpha_{i[t]} + \beta \mathbf{X}_i + \varepsilon_i$$

²³The use of a bounded dependent variable can produce biased estimates with linear regression; however, in this case there are no data points near either bound and the distribution of the margin of victory is symmetric around the mean, which renders linear regression an appropriate model for this analysis. Further, because the dependent variable is a percentage, it is usually advised to use a log-transformation; however, virtually all of the data fall between 0.2 and 0.8 (the nearly-linear portion of the logistic curve), thus linear regression is an acceptable choice.

$$\alpha_t = \alpha + u_t$$

$$u_t \sim N(0, \tau_\alpha)$$

where observations are indexed by i and election years are indexed by t . Here, β is a vector of coefficients that remains constant across years and X is a vector of regressors discussed above. The $\alpha_{i[t]}$ parameter is the intercept for observation i at time t .

Modeling in this way is preferable to other techniques that make more restrictive assumptions about the relationship between the estimated coefficients and the election year. For instance, macro-economic factors and other sources of partisan tides may have uneven influence on Democratic vote shares across the years included in this study.²⁴ As the variance in a year-specific intercept (τ_α) increases, the year-specific intercept (α_t). This model allows for year-specific variation in the intercept, which captures sources of “error” that might affect the coefficient estimates on the independent variables.

6 Results

The hypothesis is that ambiguity about candidate ideological positions increases vote shares. Figure 2 plots Democratic vote share against standardized values of the Democratic candidate’s ambiguity. The black line plots the fitted regression line for the bivariate relationship, and the dashed lines indicate the 95% confidence intervals around the fitted line. This figure reveals a clearly positive relationship between ambiguity and vote share; more ideologically ambiguous candidates provide greater utility to the median voter and win by larger margins. This provides initial strong support for the hypothesis.

²⁴Estimating a complete-pooling model ignores any variation in the average Democratic vote share received in each election year, while estimating separate regressions for each year overstates the variation. The partial-pooling model presented here treats year-specific intercepts as related and models them as random variables from the same hyper-distribution shown above.

Figure 2 goes here.

Table 2 displays the results of the multi-level regression model. A cursory look at the results confirms some general expectations. First, the constant term indicates that, on average, the winning candidate receives about 46% of the vote when the values of all the independent variables are 0. Second, the ideological distance terms are strongly related to the winning candidate's vote share in the way we would expect. All else equal, as the distance between the median voter and the Democratic candidate decreases, Democratic vote share increases. Increased distance between the median voter and the Republican candidate also results in increased Democratic vote shares.

Next, incumbency is worth an additional 17 points for a Democratic candidate. As expected, the results reveal no systematic relationships between vote shares and redistricting or open seat contests.

Table 2 goes here.

The hypothesis tested in this regression model is that Democratic candidates win larger vote shares with higher levels of ambiguity. The data strongly support this hypothesis. Holding constant all other independent variables, the Democratic candidate receives about two extra percentage points for each standard deviation increase in ambiguity. When the Republican candidate is more ambiguous, the Democratic candidate's vote share is reduced.

Referring back to figure 1, the results of the regression model suggest that challenger David Kish would have needed to increase the standard deviation of his ideal point (by taking issue positions that span a wider range of the ideological space) in addition to moderating his ideological position, holding constant all other independent variables, in order to win a roughly equal vote share as Representative Watt. The ideal point of the median voter in this district is fairly liberal, which suggests conservative candidates can win election from liberal

districts without altering significantly their projected ideology, but by communicating that ideology with a high level of noise by strategically taking issue positions that span a wide range of the ideological space.

7 Conclusion

This paper argues that candidates strategically choose a platform on which to run and a particular level of noise with which they communicate the platform to voters. Voters use the information they receive about a candidate's issue positions to ascribe a particular ideological position to the candidate. Candidates affect voter perceptions of their latent ideology by presenting more or less ambiguous clues about their ideological position. For instance, there is more ambiguity about the ideology of a candidate who takes moderate positions on some issues and extremely conservative positions on others than for a candidate who takes consistently conservative positions across a wide range of issues.

The electoral consequences of ambiguity are not well-understood and have not been tested in an empirical setting. Given two candidates who take symmetric positions around a voter, does the voter prefer the candidate whose position is more ambiguous, or the candidate whose position is known with greater certainty? While earlier scholars argue that candidates have incentives to present ambiguous platforms (Downs 1957), and Shepsle's theoretical model suggests that increased ambiguity benefits candidates (1972), this is the first paper to bring empirical evidence to bear on the question. The results find strong support for the hypothesis that candidates win large vote shares when they present more ambiguous platforms to voters.

A key innovation of this paper is the use of large-scale survey data to estimate ideal points for both winning and losing U.S. House candidates from 1996-2006. The ideal points correspond well with those obtained through the DW-NOMINATE procedure, but the use

of survey data allows for unsuccessful candidates to be placed in the same ideological space as those who went on to serve in Congress. This is a crucial step that must accompany tests of the spatial model, which makes predictions about candidate and voter behavior under conditions of competition.

While political scientists have overlooked the role ambiguity plays in electoral outcomes, there is a fair amount of research that considers the role of uncertainty in voter evaluations. Scholars have presented findings indicating that uncertainty reduces a voter's support for a candidate (e.g. Alvarez 1998; Bartels 1986; Enelow and Hinich 1984), but the present analysis demonstrates that ambiguity *increases* the aggregate level of support for candidate. While any particular voter's level of support for a candidate might decrease as a function of increased ambiguity, it is clear that candidates appeal to larger numbers of people by presenting their platforms with some level of ambiguity. This conclusion squares perfectly with Downs' theoretical prediction (1957).

Further, political scientists, psychologists and economists have long been interested in the dynamics of individual decision-making under uncertainty. While the literature on this subject is too extensive to review here, this study provides some evidence that voters are willing to assume some risk for supporting a candidate who appears to most closely match the voters' preferences. In any event, it is clear that further research is needed to assess the extent to which ambiguity and uncertainty affect individual-level *and* aggregate outcomes.

The Vote Smart surveys used here included approximately 150 survey questions. Of course, voters probably do not have the opportunity to hear a candidate articulate 150 distinct policy positions over the course of a campaign, so the ideal points estimated here are likely more nuanced than the ideological estimates voters derive from candidates' statements on the campaign stump. This suggests that this analysis constitutes a tough test of the effects of uncertainty because in the event that voters are exposed to only a small fraction of candidate issue positions included in this analysis, it is unlikely that ambiguity would register

any perceptible effects. On the contrary, regression analysis demonstrates that ambiguity is a highly statistically significant component of voter support for candidates.

Of course, policy positions are imperfectly perceived by voters, and these perceptions are likely to covary in significant ways with personal characteristics of the voters. Furthermore, there may be between-district variation in the extent to which candidate statements are transmitted to voters due to the variation in interpersonal information networks and because media coverage is not evenly distributed across all parts of the country.

This study helps answer some lingering questions about why politicians do not like to take explicit stands on issues. Not only might such positions hamstring their efforts to make progress while in office, but they also are ineffective means for boosting their share of the vote. On the one hand, this may mean that voters are unlikely to be able to make sound decisions on the basis of the issues candidates discuss with voters. Faced with ideologically ambiguous candidates, voters may also rely increasingly on other cues, such as partisanship.

This study examined the extent to which issue positions affect the voting decision. While it is probably not the case that these are the sole criteria by which voters make decisions, this analysis provides strong evidence that the distribution of candidate issue positions has strong implications for electoral outcomes. Future research should more explicitly incorporate voter perceptions of candidate ideologies based on the positions candidates take. In addition, further work should explore the ways in which information interacts with candidates' ambiguity to affect electoral outcomes.

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9 Tables and Figures

	1996	1998	2000	2002	2004	2006
Number of Pairs	141	118	99	68	82	55
Contested Races	408	375	400	354	364	358
Number of Survey Items	145	143	176	145	156	138
Percent Correctly Predicted	78.9	78.7	78.6	79.5	79.8	81.1
District Conservatism	41.5 (40.7)	39.5 (40.7)	48.3 (47.9)	46.3 (47.9)	48.1 (50.7)	48.6 (50.7)
Seats Won by Republicans	55.3 (52.4)	51.7 (51.3)	55.6 (50.9)	52.9 (52.6)	50.0 (53.6)	49.1 (46.4)

Table 1: Sample Characteristics

Number of Pairs indicates the number of Congressional districts included in the sample. A pair consists of the Democratic and Republican U.S. House candidates for a particular district. *Contested Races* describes how many U.S. House races were contested in each election year. Dividing the number of pairs by the number of contested races can be interpreted as a proper “response rate.” *Number of survey items* reflects the number of Vote Smart survey questions used to estimate candidate ideal points. *Percent Correctly Predicted* indicates the percentage of survey responses correctly predicted by the candidates’ ideal points. *District Conservatism* reflects the average percentage of the districts’ presidential vote won by the Republican candidate in the most recent presidential election. Figures for all districts are listed in parentheses. Finally, *Seats Won by Republicans* indicates the percentage of the districts in the sample that were won by the Republican candidate. The figures for the percentages of all seats won by Republicans are listed in parentheses.

Detecting Ambiguity in Candidate Ideologies

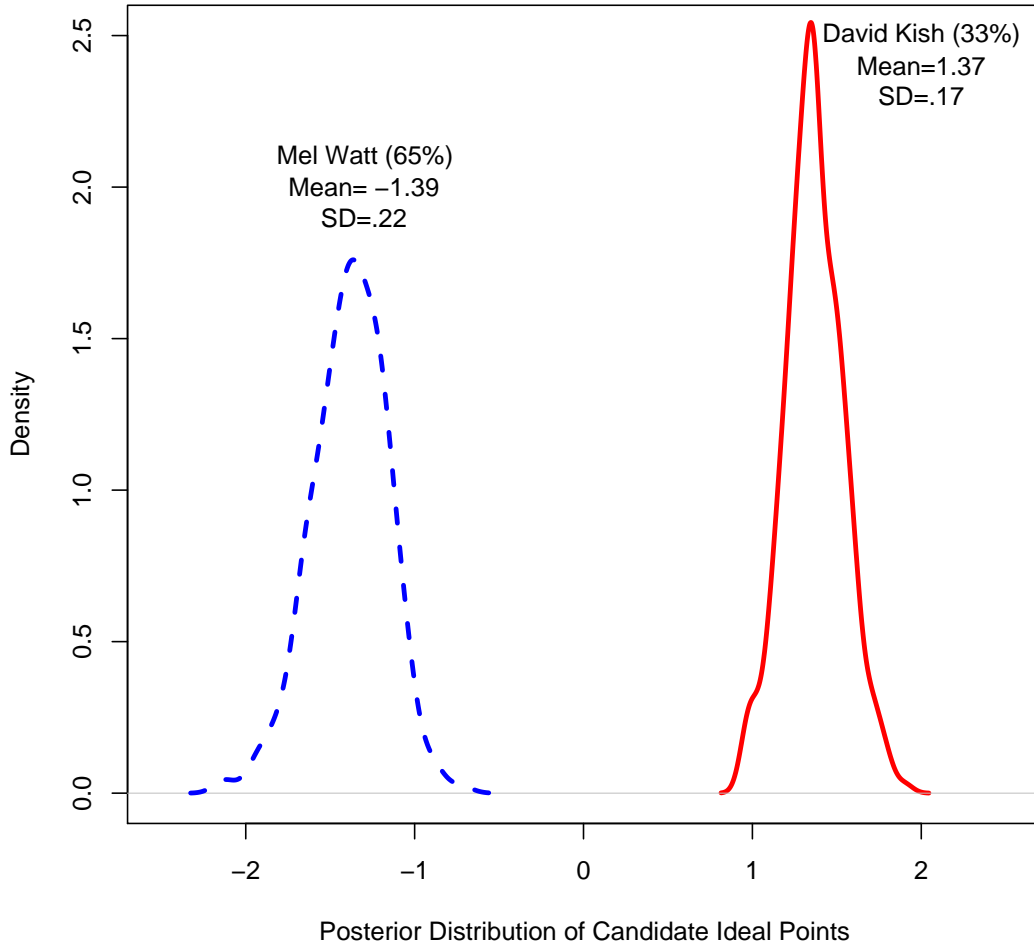


Figure 1: Comparing Candidate Ambiguity in North Carolina’s 12th Congressional District, 2002. The density curves describe the posterior distribution of each candidate’s ideal point, as estimated from the issue positions Democrat Mel Watt, left, and Republican Jeff Kish, right, took over the course of the campaign. Watt won the election with 65% of the vote, and the density curves indicate that Watt expressed support for a wider range of issue positions over ideological space than Kish, whose issue positions were much more tightly constrained around his latent ideology.

The Effect of Ambiguity on Vote Share

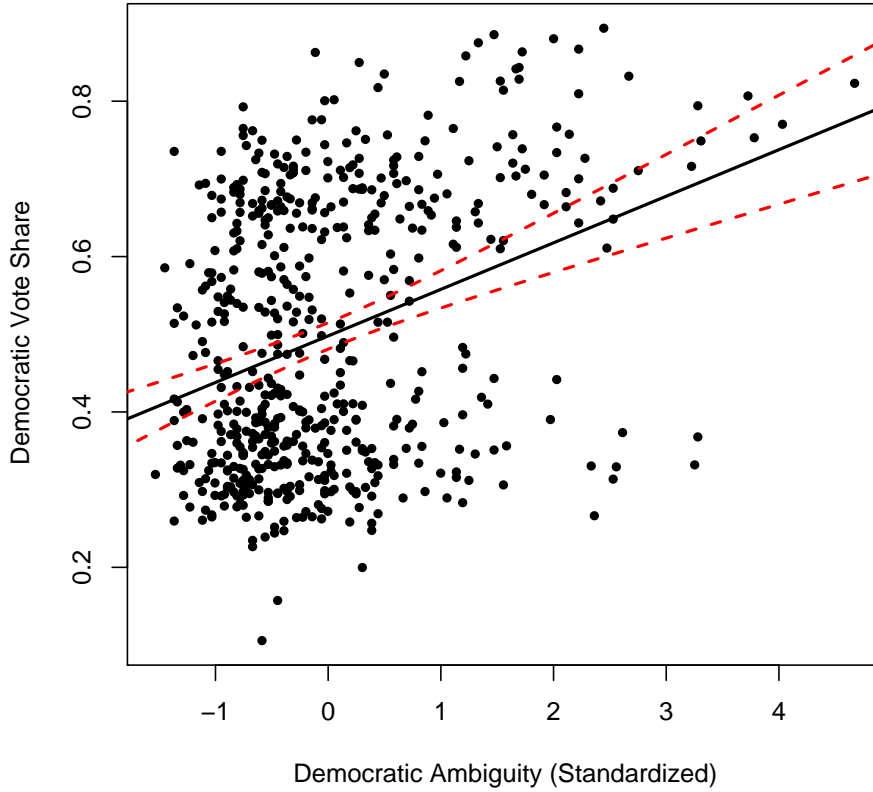


Figure 2: The Effect of Ambiguity on Democratic Vote Share. Increasing values on the x-axis indicate more ambiguity about the Democratic candidate's ideological position. The y-axis represents the Democratic candidate's vote share. The solid line is the regression line of vote share on relative ambiguity, and the dashed lines represent the 95% confidence intervals of the effect of ambiguity on vote share.

	Coefficient	95% Credible Interval
Democratic Ambiguity	0.02	[0.02, 0.03]
Republican Ambiguity	-0.01	[-0.02, -0.01]
Democratic Distance	-0.02	[-0.03, -0.02]
Republican Distance	0.02	[0.01, 0.02]
Democratic Incumbent	0.17	[0.04, 0.30]
Republican Incumbent	-0.06	[-0.20, 0.07]
Redistricting	0.00	[-0.02, 0.03]
Open Seat	0.01	[-0.12, 0.15]
(Intercept)	0.46	[0.33, 0.60]
N	562	
DIC	-1514.20	

Table 2: Regression results for the effects of relative ambiguity on vote share

Entries are linear regression coefficients and 95% Bayesian credible intervals. The dependent variable is the Democratic percentage of the vote.

Legislators	DW-NOMINATE Score	Ranking	NPAT Score	Ranking	Year
Barney Frank (D-MA)	-0.55	1	-1.10	2	1996
Nancy Pelosi (D-CA)	-0.53	2	-2.03	1	1996
John Dingell (D-MI)	-0.43	3	-0.65	4	1996
Ted Strickland (D-OH)	-0.36	4	-1.08	3	1996
Bill Richardson (D-NM)	-0.31	5	-0.39	5	1996
Henry Hyde (R-IL)	0.32	6	0.54	6	1996
Jim Talent (R-MO)	0.38	7	0.89	7	1996
Newt Gingrich (R-GA)	0.38	7	1.04	8	1996
John Boehner (R-OH)	0.51	9	1.44	11	1996
J.D. Hayworth (R-AZ)	0.57	10	1.23	9	1996
John Shadegg (R-AZ)	0.75	11	1.37	10	1996
Nancy Pelosi (D-CA)	-0.53	1	-1.66	2	1998
Henry Waxman (D-CA)	-0.51	2	-2.02	1	1998
John Dingell (D-MI)	-0.43	3	-0.58	3	1998
John Murtha (D-PA)	-0.23	4	-0.26	4	1998
Dennis Hastert (R-IL)	0.45	5	1.03	5	1998
John Boehner (R-OH)	0.51	6	1.79	9	1998
J.D. Hayworth (R-AZ)	0.57	7	1.45	7	1998
John Shadegg (R-AZ)	0.75	8	1.72	8	1998
Tom Coburn (R-OK)	0.81	9	1.05	6	1998
Henry Waxman (D-CA)	-0.51	1	-1.59	1	2000
Ben Cardin (D-MD)	-0.33	2	-1.17	2	2000
Mark Udall (D-CO)	-0.40	3	-0.98	3	2000
Ray LaHood (R-IL)	0.27	4	0.54	5	2000
Henry Hyde (R-IL)	0.32	5	0.41	4	2000
David Vitter (R-LA)	0.47	6	1.61	7	2000
John Sununu (R-NH)	0.51	7	1.11	6	2000

Table 3: NPAT and DW-NOMINATE Comparisons: 1996-2000

Legislators	DW-NOMINATE Score	Ranking	NPAT Score	Ranking	Year
Barbara Lee (D-CA)	-0.74	1	-1.63	3	2002
Peter Stark (D-CA)	-0.68	2	-1.87	2	2002
Jesse Jackson, Jr. (D-IL)	-0.60	3	-2.31	1	2002
Henry Waxman (R-CA)	-0.51	4	-1.57	4	2002
Henry Hyde (R-IL)	0.32	5	0.50	5	2002
John Boehner (R-OH)	0.51	6	1.04	6	2002
J.D. Hayworth (R-AZ)	0.57	7	1.56	8	2002
Dan Burton (R-IN)	0.59	8	1.29	7	2002
John Shadegg (R-AZ)	0.75	9	2.04	9	2002
Peter Stark (D-CA)	-0.68	1	-1.91	1	2004
Jan Schakowsky (D-IL)	-0.64	2	-1.73	2	2004
Henry Waxman (D-CA)	-0.51	3	-1.63	3	2004
Tom Udall (D-NM)	-0.46	4	-0.38	5	2004
Sherrod Brown (D-OH)	-0.46	5	-0.84	4	2004
Ray LaHood (R-IL)	0.27	6	0.68	7	2004
Henry Hyde (R-IL)	0.32	7	0.65	6	2004
Duke Cunningham (R-OK)	0.42	8	0.95	8	2004
J.D. Hayworth (R-AZ)	0.57	9	1.56	9	2004
Barbara Lee (D-CA)	-0.74	1	-1.54	3	2006
Peter Stark (D-CA)	-0.68	2	-1.93	1	2006
Dennis Kucinich (D-OH)	-0.58	3	-1.65	2	2006
Henry Waxman (D-CA)	-0.51	4	-1.08	4	2006
John Murtha (D-PA)	-0.23	5	-0.25	5	2006
Ray LaHood (R-IL)	0.27	6	0.48	6	2006
John Boehner (R-OH)	0.51	7	1.16	7	2006
John Shadegg (R-AZ)	0.75	8	2.47	8	2006

Table 4: NPAT and DW-NOMINATE Comparisons: 2002-2006

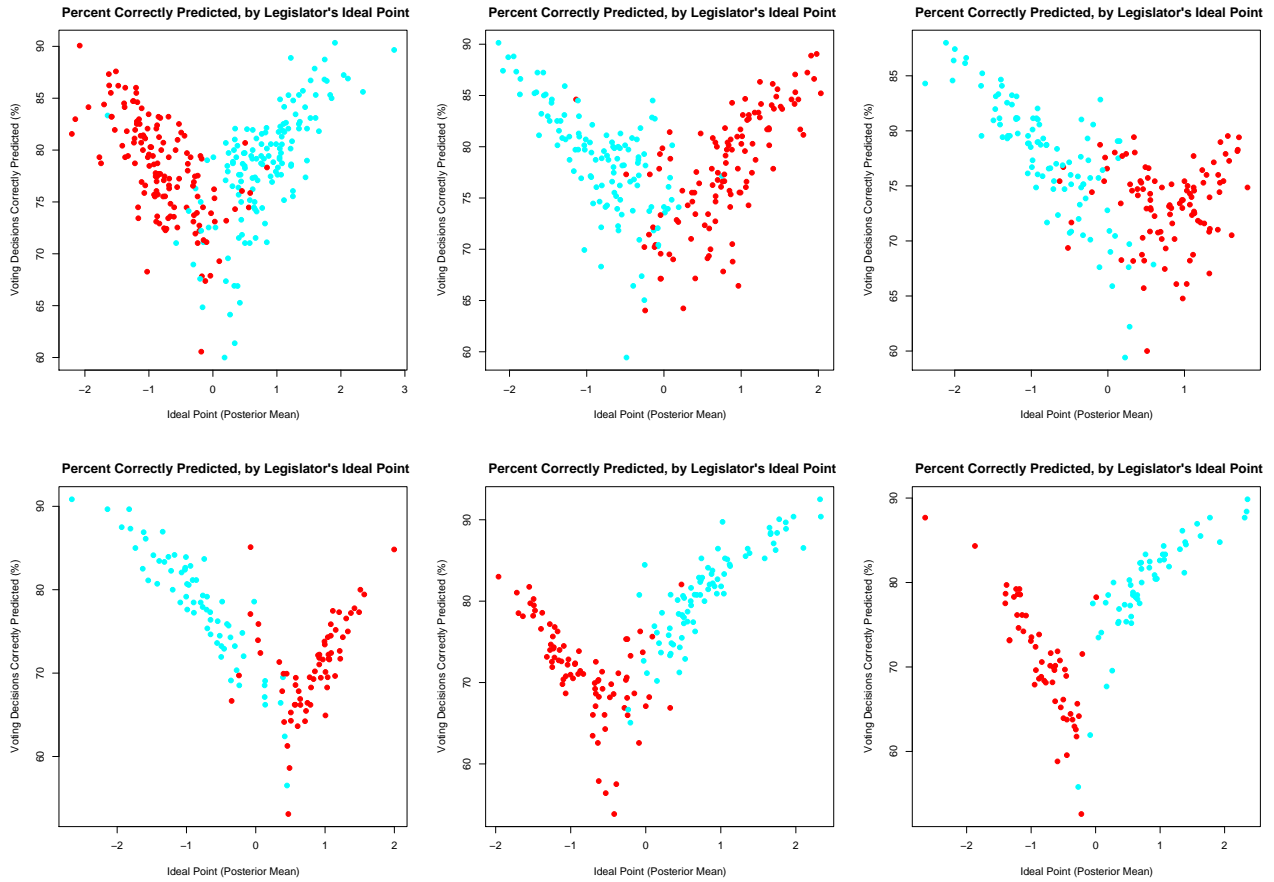


Figure 3: Survey Responses Correctly Predicted, 1996-2006

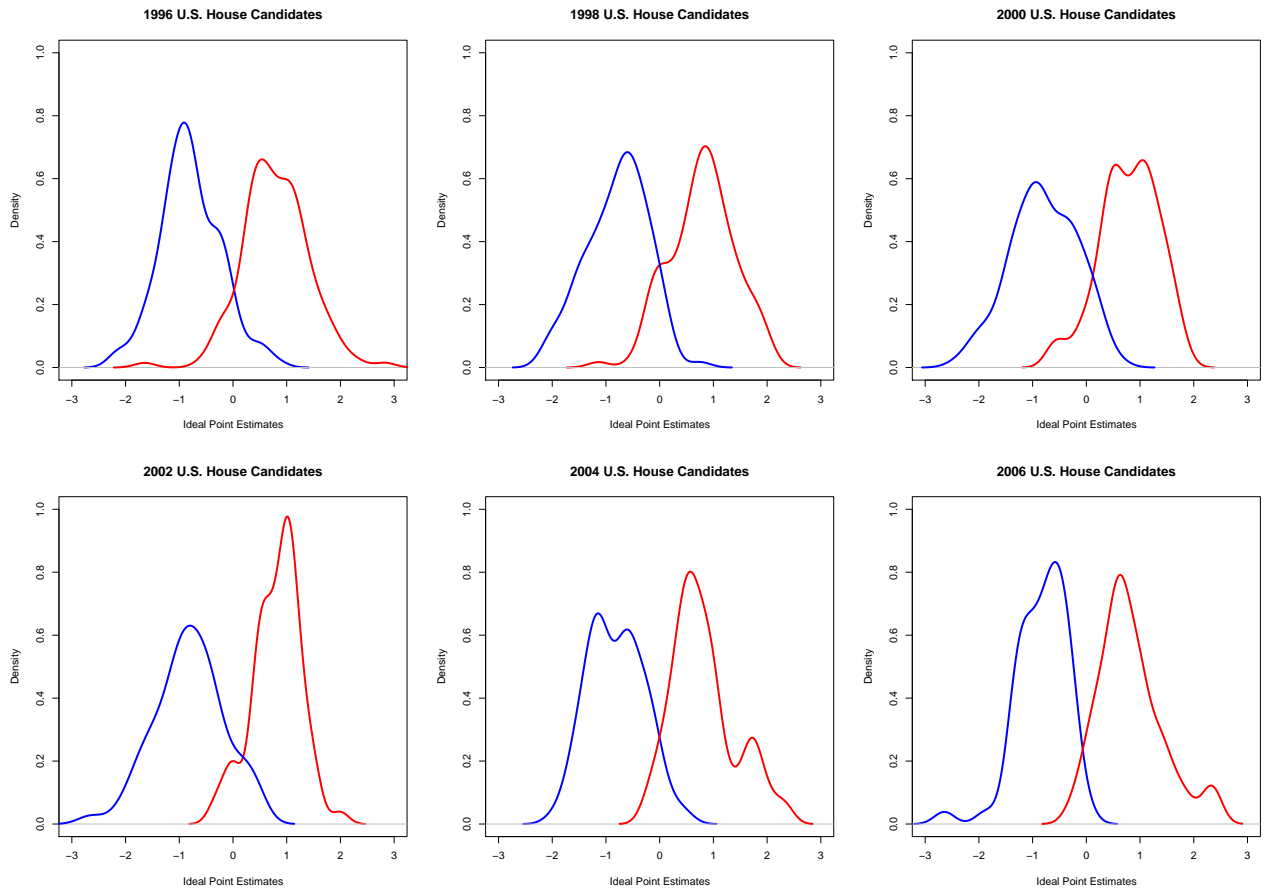


Figure 4: Distribution of Candidate Ideal Points, 1996-2006