

Representation in Congress: Constituents and Roll Calls in the 106th House

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This paper examines the extent to which constituency and subconstituency preferences are reflected in roll-call voting in the 106th House. Aggregating 100,814 randomly selected respondents to measure subconstituency preferences provides an unprecedented ability to measure subconstituency preferences in the House. Looking at the relationship over all votes, “key votes,” and on individual votes confirms that representatives are not completely responsive to the district mean voter, that only majority party Republicans are especially responsive to the preferences of same-party constituents, and that same-party constituency preferences cannot entirely account for systematic differences in Republican and Democratic voting behavior.

Questions regarding how constituency preferences are reflected in representative roll-call voting and whether some are more reflected than others are central to assessing representative government. Such questions assess whether institutions and incentives “favor the elevation of the few on the ruins of the many” (*Federalist 57*) in the contemporary House contrary to its intended purpose. If representatives are most responsive to the preferences of only some constituents, the representativeness of the system and the legitimacy of resulting outcomes may be lacking.

Given the importance of such an assessment, a voluminous empirical and theoretical literature exists. Two debates are particularly relevant. The first concerns the nature of representative position taking vis-à-vis constituency preferences—which constituents, if any, are “represented?” A second debate concerns the influence of political parties on roll-call voting—do parties exercise influence independent of constituency preferences or does party “influence” actually represent representative responsiveness to partisan constituents?

I examine the extent to which representatives in the 106th House (1998–2000) vote the preferences of the subconstituency consisting of constituents who self-identify with the incumbent’s party. In so doing,

I extend existing work in several important and consequential ways. First, I aggregate the responses of 100,814 randomly selected respondents to measure constituency and subconstituency preferences. Whereas previous aggregations of individual-level survey data are constrained by sample size, the smallest district sample I use is more than twice the average sample in Miller and Stokes’ (1958) seminal study. It consequently provides one of the best attempts at measuring the potential influence of subconstituency preferences in the House.

Second, whereas most work which investigates subconstituency influence focuses on the Senate (e.g., Bailey 2001; Bailey and Brady 1998; Bishin 2000; Erikson 1990; Levitt 1996; Shapiro et al. 1990; Wright and Berkman 1986) or state governments (e.g., Erikson, Wright, and McIver 1993; Snyder 1996), I assess the relationship in the House. Examining the relationship in the House is substantively consequential because it is in the House that constituency preferences were intended to be especially represented (*Federalist 52*). Finally, where possible, I account for survey-based measurement error in the measures of constituency preferences.¹

Several results obtain regardless of whether the relationship is examined across all votes, all “key votes,” or on every contested roll call. First, I confirm

¹Although some existing work accounts for measurement error (e.g., Achen 1977, 1978; Erikson 1981; Powell 1982), the practice is not universal. Given that the survey-based measures contain (known) sampling error, accounting for sampling error is important given the well-known econometric result that covariate measurement error results in inconsistent parameter estimates for every covariate correlated with the mismeasured variable.

existing findings that representatives are not completely responsive to the district as a whole (the geographic constituency) using a more direct measure of district preferences. Second, only majority party Republicans are especially responsive to the preferences of same-party constituents—minority party Democrats are most responsive to the preferences of non-Democratic constituents. Accounting for subconstituency preferences is therefore essential for understanding the relationship between roll-call behavior and constituency preferences. Third, same-party constituency preferences cannot account for systematic differences in Republican and Democratic voting behavior. Consequently, doubts regarding party influence in representative roll-call behavior arising because of the omitted influence of same-party constituency preferences are potentially overstated.

The paper's findings are established as follows. The first section outlines the accounts of representative position taking of interest. The second section uses survey data to operationalize measures relevant for the accounts of the first section and the third section presents the analytical strategy. The fourth section examines the relationship across all votes, all "key" votes, and on individual votes. Finally, I discuss the implications of the findings for both congressional representation and future work.

Accounts of Representative Position Taking

A necessary starting point for any investigation of congressional voting behavior given its conceptual simplicity and theoretical centrality is the spatial voting model. The original Downsian model of spatial electoral competition involves parties who care only about winning choosing binding policy platforms before an electorate of issue voters with Euclidean preferences. Reinterpreting parties as candidates and interpreting representatives' voting behavior as the implementation of announced platforms yields a prediction about the relationship between constituency preferences and representative voting behavior. The unique Nash equilibrium requires both candidates to locate at the spatial location associated with the preferences of the district median voter. Although the median voter theory predicts a perfect relationship between the preferences of a district's median voter and a representative's voting profile, a necessary consequence is that representatives' induced

preferences on roll calls covary with median voters' preferences.²

Empirical support for the median voter theory has been found lacking. For example, Ansolabehere, Snyder, and Stewart (2001) show that congressional candidates do not adopt identical platforms, Levitt (1996) argues that constituency preferences do not explain much of the variation in Senators' voting behavior, and Erikson and Wright (2001) establish that systematic differences exist in the voting behavior of Democrats and Republicans controlling for district preferences.

Many theories have been offered to account for nonmedian behavior (for example, see summaries by Osborne 1995 and Grofman 2004). One prominent suggestion is that the divergence represents responsiveness to subconstituency preferences (e.g., Fiorina 1974; Goff and Grier 1993; Krehbiel 1993a; Miller and Stokes 1963). The detailed observations of Fenno (1978) suggest that representatives view their district as being comprised of several nested constituencies. If representatives reflect constituency preferences according to their importance in securing reelection we would expect that representatives are not uniformly responsive to constituency preferences. Since an incumbent's reelection constituency is arguably comprised primarily of same-party voters (and Fenno's (1978) primary constituency is presumably a subset of the same-party constituency), the testable claim is whether the preferences of constituents belonging to the same party as the representative are more heavily reflected in congressional voting behavior.³

Findings that House candidates from the same district do not converge to identical locations (Ansolabehere, Snyder, and Stewart 2001) and demonstrations that same-state senators vote differ-

²Although the theory is problematic as a theory of representation because it ignores the fact that elected representatives serve in a legislature (Fiorina and Noll 1979), the theory is appropriate if the issue space represents voting decisions. Consistent with Mayhew (1974) and Arnold (1990), if constituents care about voting *profiles* (which can be implemented unilaterally) rather than policy *outcomes* then the median voter theory yields predictions in terms of roll-call voting behavior.

³Theoretical support for responsiveness to same-party constituency preferences may be found in several models. The probabilistic voting theory model of Enelow and Hinich (1989) and Erikson and Romero (1990) predicts that candidates vote according to the preferences of each subconstituency weighted by the subconstituencies' size, preference intensity, and information level. If party supporters monitor roll calls, if they are more numerous or care more intensely about roll calls, this increases the representatives' incentive to vote their preferences. Models in which constituent participation depends on candidate proximity (e.g., Aldrich 1983) may also support this prediction.

ently (e.g., Bullock and Brady 1983; Krehbiel 1993a) are necessary for the claim that representatives respond to subconstituency preferences, but they are not sufficient. These works demonstrate divergence, but they do not establish the cause.

A second question is whether party-correlated voting differences in the House indicates responsiveness to the preferences of district party supporters rather than party pressure in the legislature. Disentangling constituency and party influences using roll-call voting data is known to be difficult because “party pressure” may actually represent the influence of personal preferences (Krehbiel 1993b), the influence of local partisan supporters (Fiorina 1974; Krehbiel 1993a), and the influence of national pressures (Ansolabehere, Snyder, and Stewart 2001). Since Republican supporters are more conservative than Democratic supporters, if representatives vote in accordance with the preferences of these groups then empirical investigations may uncover a “party” effect even if no party pressure exists. As Kingdon notes, “the discovery that party is important in legislative behavior may only mask an underlying constituency influence on the legislator” (1968, 6).

A necessary condition for party influence is the inability of same-party constituency preferences to account for differences in Republican and Democratic voting behavior. Although identifying the precise nature of nonconstituency influence (e.g., intralegislative pressures and party-based lobbying by interest groups and the President may affect legislative voting) is beyond the scope of this paper, I focus on the prior question of whether such influence might exist. This question is unresolved due to the difficulty of measuring same-party constituency preferences.

A third issue involves whether the relationship between a representative and her district depends on the party of the representative (e.g., Jackson and King 1989; Powell 1982; Wright 1989). Differences may result because of Republican-Democratic differences—for example, differences in party organizations, mobilization and electoral strategies, characteristics of recruited candidates or average district composition—or because of majority-minority differences. It is possible that party members have correlated risks (a party brand-name (Cox and McCubbins 1993; Jacobson 2004)) and correlated rewards (office-holding benefits resulting from majority party status). Additionally, the set of observed votes may unite majority party interests because of agenda control (e.g., Sinclair 1983). Although a definitive conclusion is impossible on the basis of the relationship in a single Congress, it is nonetheless of interest to

begin the inquiry given the previously elusive ability to characterize subconstituency preferences.

Measuring the Relationship

To measure constituency preferences I combine individual-level data from surveys conducted in 1999 and prior to the 2000 election by Knowledge Networks (KN) and the National Annenberg Election Survey (NAES). Since KN and the NAES employ nationwide (or state-specific) RDD sampling frames, respondents closely resemble a random sample in each congressional district. A total of 100,814 responses (29,869 from KN) are used, and the average congressional district contains 232 respondents. District sample sizes range from 41 (AK at-large) to 2,099 (NH,1).⁴

Survey measures may be imperfect measures of district preferences, but it is unclear that available alternatives are superior. Presidential vote in the district is frequently used, but it depends on both the distribution of district preferences and the positions taken by presidential candidates.⁵ The relationship between district demographics (e.g., Bishin 2000; Froman 1963; Peltzman 1984) and constituency preferences is also uncertain, except in the rare instances where the set of votes being analyzed is reasonably related to the demographic characteristics that can be measured (for example, see work by Bailey (2001) and Bartels (1991) on issues of trade and defense). Simulated measures of district ideology (e.g., Ardoin and Garand 2003) are also subject to unknown errors and employ strong parametric and measurement assumptions. Even if nonsurvey measures are acceptable proxies for geographic constituency preferences, they do not measure subconstituency preferences. Since few alternatives to survey-based measures of same-party constituency preferences exist, research into the influence of subconstituency preferences in the House has been limited.⁶ When survey measures of House

⁴The 1st district of New Hampshire is the largest because of presidential primary surveys.

⁵Mathematically, if $f_i(x)$ denotes the preference distribution in district i , and P denotes the midpoint between the platforms of the presidential candidates, in a two-candidate election the presidential vote measure in terms of the liberal (low x value) candidate is calculated by: $\int_{-\infty}^P f_i(x) dx$. In contrast, the expected district ideology is given by: $\int_{-\infty}^{\infty} x f_i(x) dx$.

⁶Snyder (1996) and Lewis (2001) use voting behavior on California ballot propositions to estimate subconstituency preferences. Levitt (1996) uses the voting behavior of House members to estimate Senators' subconstituencies.

district subconstituencies have been available for use, the sample sizes are so small as to warrant considerable caution.

Both KN and ANES ask respondents a 5-point ideology question and no evidence suggests that the slight differences in question wording affect the comparability of responses.⁷ To measure the preferences of the geographic constituency I use the mean ideology of every respondent in a congressional district.⁸ Using median district ideology is uninformative because the ordinality of the ideology measure results in a nearly constant measure. Given 100,814 respondents, I measure same-party constituency preferences using the mean ideology of constituents self-identifying with the representative's party.⁹ For example, to measure the same-party constituency preference for the 23rd Congressional district of New York (represented by Sherwood Boehlert (R) in the 106th Congress) I use the average ideology of the 77 respondents living in the 23rd district who self-identify with the Republican party.¹⁰ Nonsame-party ideology is measured analogously. A benefit of using survey data to measure constituency preferences is that the measures are directly comparable; inference is more difficult using different measures (e.g., using district presidential vote and constituency demographics).

Although most empirical work in social science suffers from measurement error, we cannot account for its effects absent information about the source of the error. Since the survey measures can be thought of as random samples, sampling theory can be used to calculate the measures' sampling variance.¹¹ Prior work aggregating individual-level survey data to form state-level ideology estimates has measured the reliability—defined as the ratio of the error-laden measure

over the true value—of constituency preference measures using either sampling theory (Wright, Erikson, and McIver 1985) or calculations designed specifically for aggregated data (Jones and Norrander 1996). The two methods produce nearly identical reliability measures. The calculations presented in Jones and Norrander yield reliabilities of .85 for mean ideology, .97 for the mean same-party ideology and .89 for mean nonsame party ideology. The sampling based measure gives reliabilities of .84, .95, .85, respectively.¹²

I assess representative voting behavior using two measures. Following the arguments of Kingdon (1968), Mayhew (1974) and Arnold (1990), I employ a summary measure to account for the possibility that the complexity of interpreting multiple votes results in accountability over a string of votes rather than on individual votes. I measure aggregate voting behavior using estimates from roll-call analysis (e.g., Clinton, Jackman, and Rivers 2004 or Poole and Rosenthal 1997). Ideal points are an appropriate measure of representative voting behavior with respect to the predictions of interest because they summarize a representative's observed voting profile on the agenda.¹³ Given that all roll-call measures for contemporary Congresses are highly correlated in the first dimension, the choice of estimator is substantively inconsequential. I use the estimates of Clinton, Jackman, and Rivers (2004).¹⁴ I also examine the relationship for every vote to permit the possibility that votes are not equally salient to constituents.

As a preliminary evaluation of the claim that representatives' voting behavior covaries with constituency and subconstituency preferences, Figure 1

⁷KN asks: "There has been a lot of talk these days about liberals and conservatives. Would you say that you are: very liberal, liberal, moderate, conservative, very conservative, don't know?" The categories are defined to be {-2, -1, 0, 1, 2, NA}. The NAES asks "Generally speaking, would you describe your political views as: very conservative, conservative, moderate, liberal, or very liberal?" and an analogous coding scheme was employed. The correlation between KN and NAES same-party constituency means is .9.

⁸The correlation between the average two-party vote for Democratic presidential candidates in 1992, 1996, and 2000 and average ideology is -.74.

⁹I use the response to the initial branching question used by KN and ANES (i.e., independents are not "pushed").

¹⁰The measure correlates at .98 with a measure using "strong" party identifiers in the KN sample.

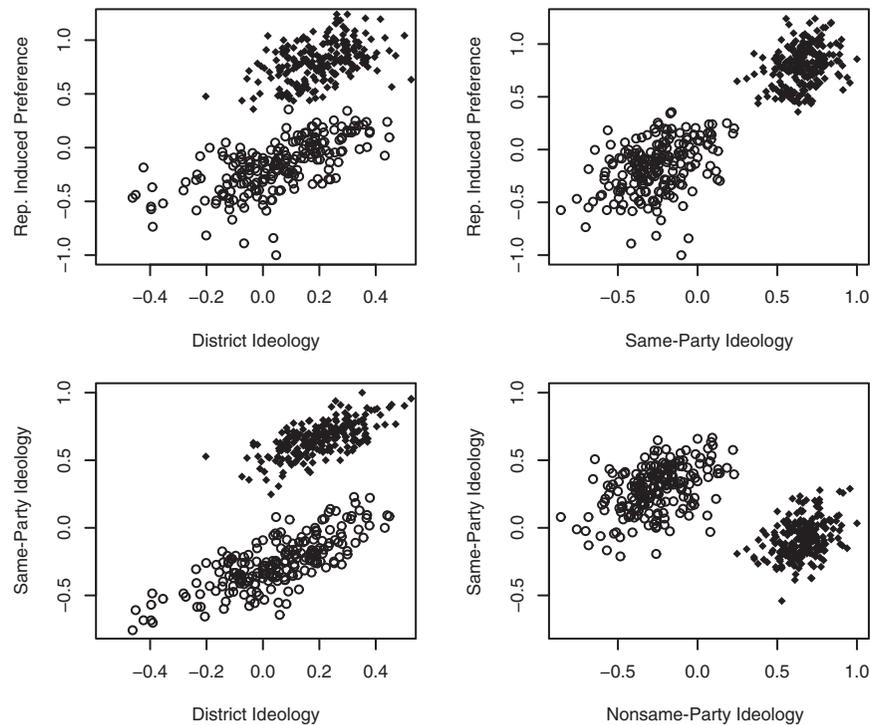
¹¹Although other sources of error exist (e.g., incorrectly identifying the congressional district of respondents), correction is impossible absent information about the source of the error.

¹²If we condition on party to calculate the reliability of same-party and nonsame party ideology the reliability falls to .32 and .63 for Republicans using sampling theory and to .7 and .64 for Democrats. The decrease is due to removing between-party variance in the ideology measures.

¹³I restrict my attention to a unidimensional issue space because the roll-call voting behavior of legislators provides little empirical evidence of a multidimensional policy space for the period under investigation (e.g., Poole and Rosenthal 1997). For theoretical clarity, I omit the party-switchers Goode (D/I, VA-5), Forbes (D/R, NY-1), and Martinez (D/R, CA-31) as well as those representatives casting few votes (i.e., Brown (D, CA-42) and Livingston (R, LA-1)).

¹⁴Instead of using separately estimated ideal points, an alternative approach would employ an item-response model with the regression equations of the next section as specifications for the prior mean of the ideal points (as Clinton, Jackman, and Rivers (2004) suggest). So doing results in substantively identical results due to the small amount of imprecision present in the ideal point estimates. To simplify exposition and interpretation I present the results from the comparatively more familiar two-step approach that takes ideal point estimates as given.

FIGURE 1 Ideal Points and Constituency Preference Measures



Notes: The relationship between ideal points in the 106th House, average constituency ideology, and average same-party constituency ideology are plotted. Solid points are Republicans and conservative preferences are positive.

presents the joint distributions of constituency preference measures and legislators' induced preferences in the 106th House (1998–2000). It was the House in session when the constituency surveys were administered.

Figure 1 reveals an unambiguous positive (and linear) relationship between the average ideology of the geographic constituency and the representatives' induced preferences within each party. That legislators in different parties with identical measures of geographic constituency preferences vote differently implies that geographic constituency preferences alone cannot explain voting behavior. Also clearly evident is the difference in Republican and Democratic districts—Democratic districts appear more heterogeneous than Republican districts.

More novel is the relationship between voting behavior and same-party preferences. Although same-party constituency preferences can better account for between party variation than geographic constituency preferences, the relationship *within* a party is unclear. Whereas it is apparent that more conservative geographic constituencies produce House Republicans who vote more conservatively (top left), it is less clear whether representatives with more conservative same-party constituencies vote more conservatively (top

right). Since the geographic constituency is partially (and in some cases, largely) constituted by members of the same-party constituency, the relationship between geographic and same-party constituency preference measures evident in Figure 1 (bottom left) is unsurprising. What is also unclear from Figure 1 is the conditional effect of the geographic constituency, the same party constituency and party-correlated influences on roll-call behavior.

Estimating the Relationship

An ideal test of representativeness given the spatial nature of the predictions involves determining the relative proximity of representative and constituency issue positions. However, unless constituency preferences and representative voting behavior are identically measured we cannot measure proximity without heroic assumptions. Consequently, I examine necessary, but not sufficient, conditions by assessing across district covariation.

Let x_i represent the preference profile (ideal point) that determines the roll-call behavior of district i 's representative. For district i , denote the true preferences of the mean voter by ζ_i and let ζ_{SPi} and ζ_{NSPi}

denote the true mean preference of same-party and nonsame-party constituents. Even though the sample sizes used to estimate constituency preferences are much larger than those of any prior examination, a known complication is that that we do not observe the latent quantities ζ , ζ_{SP} and ζ_{NSP} ; we only observe the survey estimates \bar{z} , \bar{z}_{SP} and \bar{z}_{NSP} which contain sampling variability (Achen 1977, 1978; Erikson 1981; Jackson and King 1989; Powell 1982).¹⁵ I correct for the measurement error using Fuller's (1987) method of moments estimator as implemented by *eivreg* in STATA 8 (see Warren, White, and Fuller (1974) for an application).

Geographic constituency preferences can be decomposed into the ideology of same-party constituents weighted by the percentage of constituents in district i belonging to the same-party constituency $\frac{n_i^{SP}}{n_i}$ and the ideology of nonsame-party constituents weighted by $\frac{n_i^{NSP}}{n_i}$. This decomposition,

(i.e., $\bar{z} = \left(\frac{n_i^{SP}}{n_i}\right)\bar{z}_{SP} + \left(\frac{n_i^{NSP}}{n_i}\right)\bar{z}_{NSP}$) assesses the influence of the two subconstituencies *relative to the geographic constituency preferences*.¹⁶ The weighted specification is therefore theoretically derived from the mean voter theory, and it provides the ability to assess subconstituency influence relative to a sensible baseline.

Equation (1) presents the estimated specification.

$$x_i = \beta_0 + \beta_1 \left(\frac{n_i^{SP}}{n_i} \bar{z}_{SP} \right) + \beta_2 \left(\frac{n_i^{NSP}}{n_i} \bar{z}_{NSP} \right) + \gamma I_{REP} + \varepsilon_i \quad (1)$$

The linearity assumption is unproblematic given that Figure 1 strongly suggests a linear relationship with party-specific intercepts. The error ε represents randomness in the actual and estimated relationship due to, for example, the possibility that the induced preference estimate x is based on more roll calls than the district holds the representatives accountable for and

possible uncertainty that representative may have about constituency preferences.

The parameter β measures cross-district variation in representative "representativeness" to constituency preferences; how does variation in representative voting behavior covary across districts with variation in constituency preferences? A nonzero relationship represents either a representative's conscious decision to vote constituency preferences or the possibility that representatives vote personal preferences that covary with constituency preferences for reasons of self-selection. Two investigations are of interest: (1) Are representatives more responsive to the preferences of same-party constituents than they are to those of the district as a whole?, and (2) Does responsiveness to same party constituency preferences explain the difference in voting behavior between Democrats and Republicans evident in Figure 1?

If representatives are only responsive to the geographic constituency then $\beta_1 = \beta_2$ —indicating that representatives are responsive to each subconstituency only insofar as each contributes to the preference of the geographic constituency. In contrast, if $\beta_1 > \beta_2$ then same-party constituents are more reflected in representative voting behavior than would be expected if representatives were only responsive to the mean voter. Although the analysis cannot determine whether representation is high or low because voting behavior and constituency preferences are assessed using different measures, decomposing geographic constituency preferences does permit an assessment of whether some constituents are more reflected than the mean voter.

The indicator variable for Republican incumbents (I_{REP}) controls for possible differences between the voting behavior of Republican and Democratic representatives unrelated to constituency preferences. $\gamma = 0$ if Democrats and Republicans vote identically conditional on district preferences. Although the interpretation of γ is necessarily ambiguous, it possibly, but not exhaustively, represents: intralegislative party pressure (e.g., Cox and McCubbins 1993; Groseclose and Snyder 2000 [but see McCarty, Poole, and Rosenthal 2001]); the possibility that incumbents vote personal preferences and are drawn from a common party pool (McClosky, Hoffmann, and O'Hara 1960); or party-based lobbying by the President or interest groups.¹⁷ A necessary condition for party influence is that $\gamma > 0$.

¹⁵Although the sampling errors are largest in the measures of constituency preferences, the roll-call estimates x also contain measurement error—ideologically extreme representatives are less precisely estimated than moderate representatives (Clinton, Jackman, and Rivers 2004). Although ignoring the measurement error in x understates the standard errors given the correlation between the error variance and constituency preferences, the effect is substantively inconsequential.

¹⁶An ignored complication is that the size estimate is also imperfectly measured.

¹⁷Although party may be correlated with ε , it is unclear whether good instruments exist.

The fact that systematic differences remain after controlling for geographic constituency preferences in the House is well established. What has not been conclusively demonstrated is whether the systematic difference reflects responsiveness to omitted same-party constituency preferences.

Given the pervasiveness of constituency ignorance regarding congressional activity, the relationship between constituency preferences and representative position-taking may vary across votes. Not every vote may be salient to constituents and voting behavior may depend on the likely saliency of the votes (Arnold 1990). It is plausible that either there is no difference (if, for example, representatives are risk-averse and willing to vote constituency preferences even if constituents may not hold the constituent responsible for nonsalient votes) or that the relationship is stronger on salient bills (if, for example, representatives vote constituency preferences only on those votes likely to be relevant in the upcoming election). To account for this possibility—and the results of Groseclose and Snyder (2000) and Cox and Poole (2002) suggesting member variation across roll calls—I examine the relationship between representative voting behavior and constituency preferences for every nonunanimous vote. Similar to work examining the influence of subconstituency preferences in specific issues (e.g., Bailey 2001; Bailey and Brady 1998; Bartels 1991; Jackson and King 1989), examining the relationship for each vote permits representative responsiveness to vary across votes.

For each of the 873 votes experiencing less than 97.5% agreement in the 106th House I estimate a logistic model with the following specification: $Pr(\text{Representative } i \text{ votes yea on vote } t) =$

$$\Lambda\left(\beta_0 + \beta_1\left(\frac{n_i^{SP}}{n_i}\bar{z}_{SP}\right) + \beta_2\left(\frac{n_i^{NSP}}{n_i}\bar{z}_{NSP}\right) + \gamma I_{REP}\right).$$

I quantify responsiveness using the percentage of times that representatives can be interpreted as being influenced by subconstituency preferences and count the frequency that each covariate is statistically distinguishable from zero.

The Estimated Relationship: Aggregate Level Analysis

Table 1 reveals the extent to which roll-call behavior across all votes covaries with weighted subconstituency preferences assuming that representatives behave identically conditional on constituency preferences.

The results of Table 1 are informative with respect to several questions. First, the coefficient estimates

TABLE 1 Relationship for All Representatives, All Votes

Model:	1: OLS	2: OLS	3: EIV
Constant ($\hat{\beta}_0$)	-.20	-.19	-.27
(Std. Err.)	(.01)	(.03)	(.06)
District Avg. Ideology	.79*		
	(.06)		
Wgt. Same-Party ($\hat{\beta}_1$)		.80*	.83*
Avg. Ideology		(.11)	(.22)
Wgt. Nonsame-Party ($\hat{\beta}_2$)		.77*	1.23*
Avg. Ideology		(.10)	(.22)
Republican ($\hat{\gamma}$)	.83*	.82*	.91*
Indicator	(.01)	(.06)	(.13)
N	432	432	432
R ²	.89	.89	.90

Notes: Substantively interesting coefficients statistically significant at 95% using a one-sided test for $H_A > 0$ are denoted by *. Reliabilities of .97 and .85 are used for *Wgt. Same-Party Average Ideology* and *Wgt. Nonsame-Party Average Ideology* respectively in the EIV model.

for weighted same-party and nonsame-party constituency preferences in Model 2 are almost identical and the null of no-difference cannot be rejected ($p = .84$). Consistent with the parameter estimate for the geographic constituency in Model 1, the results suggest that representatives are no more responsive to the same-party (or nonsame-party) constituency than would be expected due to their composition in the geographic constituency. Same-party constituents are no more represented than their district composition would suggest.

Second, same-party constituency preferences cannot account for the party differences evident in Figure 1. The estimated party indicator coefficient $\hat{\gamma}$ is nearly identical in Models 1 and 2—indicating that substantial party-correlated differences remain unexplained controlling for same-party constituency preferences. This suggests that nonconstituency party-correlated pressures such as party pressure in Congress, possible lobbying by interest groups, party leaders, and the president or other nonlocal factors influence representative position-taking. As the results of Model 3 indicate, accounting for measurement error in the ideology measures does not change these conclusions. Although the coefficients change slightly, the null hypothesis of no difference between the coefficients for weighted same-party and nonsame-party constituency preferences cannot be rejected ($p = .36$) and party-correlated differences persist.

TABLE 2 Within Party Influence of the Same-Party Constituency, All Votes

Model: Sample:	4: EIV Rep.	5: OLS Rep.	6: EIV Rep.	7: EIV Dem.	8: OLS Dem.	9: EIV Dem.
Constant ($\hat{\beta}_0$) (Std. Err.)	.62 (.02)	.54 (.05)	-.29 (.15)	-.21 (.01)	-.31 (.04)	-.86 (.13)
District Avg. Ideology	.82* (.11)			.99* (.07)		
Wgt. Same-Party ($\hat{\beta}_1$) Avg. Ideology		1.04* (.17)	4.10* (.53)		.46* (.14)	-1.02 (.42)
Wgt. Nonsame-Party ($\hat{\beta}_2$) Avg. Ideology		.39* (.14)	-.48 (.27)		1.22* (.14)	3.23* (.44)
N	222	222	222	210	210	210
R ²	.21	.21	.61	.51	.46	.71

Notes: Substantively interesting coefficients statistically significant at 95% using a one-sided test for $H_A > 0$ are denoted by *. Republican reliabilities of .32 and .63 are used for *Wgt. Same-Party Average Ideology* and *Wgt. Nonsame-Party Average Ideology* in the EIV model and reliabilities of .7 and .64 are used for Democrats. The reliability of *District Average Ideology* in Models 4 and 7 is .86.

In terms of the question of how representative the relationship is, a limited assessment is possible by modifying the baseline of random representation suggested by Achen (1978). If every representative were randomly selected from the set of representatives belonging to the party of the current representative, then only $\hat{\gamma}$ would be statistically distinguishable from zero.¹⁸ That the constituency preference measures are nonzero indicates that representatives reflect constituency preferences more than a randomly selected representative from the same party.

To examine the relationship in more depth I investigate the ability of constituency preferences to explain within party variation. So doing also examines whether the relationship depends on whether the representative is in the Republican/majority party.

The results of Table 2 suggest that whereas majority party Republicans can be interpreted as being more responsive to the preferences of the same-party constituency than the mean voter, Democrats appear to be more responsive to nonsame-party constituents. Regardless of whether survey-based measurement error is accounted for, we easily reject the null hypothesis that the preferences of same-party and nonsame party constituents are equally reflected in voting behavior for both Republicans and Democrats ($p < .0001$).¹⁹ Consequently, the estimates of Table 1 are

¹⁸The expected value of a randomly selected ideal point from the party is the party mean.

¹⁹See Achen (1983) for a discussion on the differences in the OLS and EIV coefficient estimates.

misleading and reflect an “averaging” of the differences evident in Table 2.

Recall that the coefficient estimates of the subconstituencies reflects both the average ideology of the subconstituency and the relative size of the subconstituency in the district. The positive coefficient for weighted same-party constituency preferences for Republicans (and nonsame-party for Democrats) indicates that changing the relative size of the subconstituency and changing the average ideology is predicted to change voting behavior. To interpret the magnitude of the implied relationship consider the case of Rep. Bill Thomas (CA-21), who, in 2000, represented Bakersfield, CA and was the third most senior Republican on the Ways and Means Committee (Barone 2000). Thomas’ estimated ideal point is .8—almost identical to the Republican average of .79. Thomas’ same-party constituency ideology is also at the Republican average (.65) and 51% of the 293 surveyed constituents in his district self-identified as a Republican.²⁰ For Rep. Thomas to vote as conservatively in 2000 as Rep. Dick Armey (TX-26) requires an ideal point change of .32 (a two-standard deviation change). According to the results of Model 6 and accounting for sampling error in the subconstituency preference measures, either increasing the size of Thomas’ same-party constituency by 12% (approximately two-standard deviations) or changing the average ideology of Thomas’s same-party constituency by .15 (approximately one-standard deviation) would be sufficient to predict identical voting

²⁰The average Republican same-party constituency size is 39%.

behavior by Thomas and Armev. A one-standard deviation shift in same-party constituency preferences is equivalent to the difference between Republicans in Santa Clara County, CA (CA-15, Rep. Tom Campbell) and Republicans in southwest Houston, TX (TX-22, Rep. Tom DeLay).

In contrast, there is no evidence that minority party Democrats are especially responsive to their same-party constituency.²¹ Instead, Democrats in the 106th House appear primarily responsive to the preferences of non-Democrats. For example, Model 9 reveals that, if the weighted nonsame-party constituency changes from the Democratic mean of .17—the same as Rep. Lynn Woolsey (CA-6) or Rep. Sam Farr (CA-17), for example—to become as conservative and as large as Rep. Martin Frost's (TX-21) district (a change of 2.3 standard deviations to .42), voting behavior is predicted to change by 3.4 standard deviations (.81). This is equivalent to the difference in voting behavior between Rep. Nancy Pelosi (CA-8) and Rep. James Traficant (OH-17).

Looking at the set of all votes reveals several conclusions. First, party-correlated differences evident in previous studies are not attributable to omitted same-party constituency preferences. We must look elsewhere to understand the cause of the party-correlated divergence. Second, although in aggregate there is no evidence that representatives are particularly responsive to the preferences of same-party constituents, this result depends on incorrectly assuming that Republicans and Democrats respond identically to district preferences. Once this assumption is relaxed, Republicans are most responsive to same-party constituency preferences and Democrats are most responsive to the preferences of nonsame-party constituents. Both subconstituencies are more reflected than the mean voter of the geographic constituency.

The Estimated Relationship: Vote Level Analysis

I conduct two investigations to examine whether the relationship depends on the nature of the roll call. One possibility is that the relationship between representative voting behavior and constituency preferences depends on the stakes of the legislation being voted upon. To examine this possibility I replicate the analysis of the previous section using a measure of representative voting behavior based on the 25 votes in the 106th House that *Congressional Quarterly* identifies as

²¹In fact, once sampling error is accounted for the relationship is estimated to be negative.

TABLE 3 Relationship on "Key Votes"

Model: Sample:	10: OLS Rep.	11: EIV Rep.	12: OLS Dem.	13: EIV Dem.
Constant ($\hat{\beta}_0$) (Std. Err.)	.46 (.12)	-.80 (.48)	-1.15 (.09)	-2.41 (.33)
Wgt. Same- Party ($\hat{\beta}_1$) Avg. Ideology	1.61* (.42)	6.26* (1.71)	.19 (.33)	-3.53 (1.08)
Wgt. Nonsame- Party ($\hat{\beta}_2$) Avg. Ideology	.70* (.36)	-.57 (.86)	2.17* (.32)	6.70* (1.12)
N	222	222	210	210
R ²	.09	.27	.26	.52

Substantively interesting coefficients statistically significant at 95% using a one-sided test for $H_A > 0$ are denoted by *. Republican reliabilities of .32 and .63 are used for *Wgt. Same-Party Average Ideology* and *Wgt. Nonsame-Party Average Ideology* in the EIV model and reliabilities of .7 and .64 are used for Democrats.

pertaining to a matter of major controversy, presidential or political power, or of potentially great impact on the nation.²² Since these arguably represent votes on salient issues for most, if not all, districts, examining this subset provides a test of the possibility that the importance of the same-party constituency depends on the nature of the legislation being voted upon. The dependent variable is the representative's ideal point calculated using only key votes.²³

Table 3 reveals no evidence that the relationships estimated in the previous section depend on the importance of the votes. Although the coefficient estimates differ due to changes in the measure of representative voting behavior, majority party Republicans are more responsive to same-party constituency preferences than would be expected were they voting geographic constituency preferences ($\hat{\beta}_1 > \hat{\beta}_2$) and minority party Democrats are more responsive to nonsame-party constituency preferences ($\hat{\beta}_1 < \hat{\beta}_2$).

To further assess potential variability in the relationship across votes I estimate the probability that every representative votes yea vote-by-vote for the 873 votes with a margin of less than 97.5%. Table 4 summarizes number of times that each covariate combination is significant in a two-sided test at $\alpha = .05$

²²The key votes for the first session of the 106th House dealt with: steel restrictions, missile defense, authorizing air strikes in Kosovo, spending on airport construction, sex and violence in the media, gun control, overhauling the regulation of financial services, education, tax cuts, campaign finance, fetal protection, managed care, and assisted suicide (*Congressional Quarterly* 2000).

²³The key vote estimates correlate with those of the previous section at .94.

TABLE 4 Frequency of Significant Covariation on Individual Roll Calls

	Pooled	Rep.	Dem.
Same-Party Only	75	145	70
Nonsame-Party Only	89	82	217
Party Indicator Only	103		
Same-Party & Party Indicator	47		
Nonsame-Party & Party Indicator	136		
Same-Party & Nonsame-Party	62	74	146
Same-Party, Nonsame-Party & Party Indicator	142		
None	219	281	233
Total	873	582	666

The numbers denote the times each covariate combination is statistically non-zero in a logistic regression predicting the probability of voting yea on a roll call for which agreement was less than 97.5%. Party cohesion results in fewer votes in the party subsamples. Survey-based measurement error is ignored.

for specifications that assume that Republicans and Democrats adopt an identical relationship and those that permit the relationship to vary by party.

Assuming that Republicans and Democrats adopt an identical relationship reveals party-correlated differences in 49% of the roll calls that cannot be accounted for by weighted subconstituency preferences. Inspecting the relationship by party confirms the aggregate findings—majority-party Republicans are most responsive to weighted same party-constituents (37% of roll calls), and Democrats are most responsive to weighted nonsame-party constituents (55%).²⁴ Although the within-party variation for a sizable number of votes in either party cannot be explained—suggesting either that agreement was widespread on these votes or the role of determinants uncorrelated with constituency preferences—the relationships evident in the aggregate behavior of all nonunanimous votes and in aggregate behavior on “key” votes are also evident in individual roll calls.

Conclusion

This paper examines the extent to which the preferences of same-party constituents can be interpreted as influencing representative voting behavior in the

²⁴Examining the predicted probabilities associated and accounting for the predicted magnitude does not change the substantive conclusion.

106th Congress. Despite a plethora of possible conditions affecting the relationship between constituency preferences and representative position-taking—Grofman (2004) lists 17—progress in theory testing has been hampered by the inability to measure concepts of interest. Measurement concerns regarding constituency and subconstituency preferences has been a large obstacle to progress on important empirical questions concerning the nature of representation. Using newly available data, this paper is able to address these measurement concerns and test accounts related to the influence of party identifiers in the district. Specifically, survey data permits more precise measurement of same-party constituency preferences for more districts than previously possible.

The results of this paper—which hold using a summary measure of voting on all votes, all key votes or on a vote-by-vote basis—extend our understanding of representation in the contemporary House in several ways. First, responsiveness to same-party constituency preferences cannot account for differences in Republican and Democratic voting behavior. Consequently, a necessary condition for legislative party pressure is satisfied—party-correlated differences in roll-call behavior persist controlling for same-party constituency preferences. Although the results do not reveal the reason for the difference—it is not possible to conclude that party matters—it is possible to conclude that party-correlated characteristics uncorrelated with geographic and same-party constituency preferences matter. This indicates the possible influence wielded by party leaders, interest groups, campaign contributors, and the president.

Second, the nature of the relationship depends on the party of the representative. Majority-party Republicans are more responsive to the preferences of the same-party constituency than responsiveness to the geographic constituency would suggest and Democrats are more responsive to the preferences of non-Democrats. The fact that who is represented depends on the party of the representative is both notable and beyond the ability of this paper to explain since I examine the relationship in a single Congress. Differences could result because of: differences in district composition, differences in turnout rates, or attention paid to representative behavior between Democratic and Republican constituents (perhaps because of the stakes involved for constituents belonging to the majority and minority party), the fact that the roll calls preceded a presidential election year and the need for majority members to protect their majority status and minority party members to increase their appeal

in the national electorate, or the possibility that Republican agenda control results in an agenda that largely reflects and discriminates between Republican constituency preferences. The finding is also somewhat consistent with work arguing that policy outcomes are more responsive to the preferences of the wealthy (e.g., Bartels 2005; Gilens 2005)—Republican and Democratic representatives are more responsive to non-Democrats.²⁵

The determination of which constituents are represented has implications for congressional policy-making regardless of whether congressional outcomes are majoritarian by chamber or majoritarian by party. If congressional policy is determined by the median member of the House (as Krehbiel (1998) suggests), and if representatives are completely responsive to same-party constituency preferences, then congressional policy would be slightly more than 1 standard deviation more conservative than if representatives are completely responsive to geographic constituency preferences.²⁶ If we instead suppose that the median majority party member determines congressional policy in the House (as Cox and McCubbins (1993) suggest), then since the median geographic constituency ideology for Republicans is .20 and the median same-party constituency ideology is .65, if representatives are perfectly responsive to same-party constituency preferences than congressional policy is roughly one standard deviation more conservative than the preferences of the most conservative geographic constituency.

The results of this paper reveal that the policies passed in the House are likely to be more extreme than the mean voter standard would suggest for two reasons. First, the systematic party-correlated difference implies that members from districts with identical preferences belonging to different parties vote differently. Although this result is well-known, what is new is the finding that this difference cannot be attributed to same-party constituency preferences. Second, allowing the relationship to vary by party reveals that when constituency preferences are reflected by the majority party Republicans, only the preferences of

those constituents who self-identify with the Republican party are represented. To the extent that the majority party in the House can control the agenda, this suggests majority party Republicans vote the preferences of their Republican constituents more than non-Republican constituents.

Some caveats regarding the normative implications of these findings are required. First, the standard for good representation is unclear. There is no necessary reason why the median voter-preferred policy is more “desirable” than that advocated by same-party constituents—especially given that political sophistication is known to be highest among partisans (Delli Carpini and Keeter 1997). Second, since we are forced to assess the extent to which covariation in roll-call behavior is related to the covariation in subconstituency preferences, the conclusions must be tempered by the observation that covariation does not indicate proximity. Since representative behavior and constituency preferences are measured differently we cannot determine whether estimated covariations are high or low. Third, even if policy in the House may, in general, be more conservative than the average constituent this does not imply that enacted legislation is more conservative because of the need for legislation to secure the approval of the Senate and President.

More than 40 years following the seminal work of Miller and Stokes (1963) we still lack a complete answer to the fundamental question—who, if anyone, is represented in Congressional voting. The results of this paper advance our understanding of the nature of congressional representation in important ways by tackling important empirical concerns and measuring same-party constituency preferences. However, several questions remain beyond the scope of available means. In addition to identifying the source of the party-correlated difference in representative voting behavior and identifying the nature of the estimated differences in the representative-constituency relationship, a third important question continues to be the relative importance of same-party constituencies. Although essential advances are made, the inability to measure subconstituency preferences and representative voting behavior on a common scale prevents a definitive answer—we cannot simply see which constituency is closer. The results of this paper suggest that accounting for subconstituency preferences both refines and complicates existing explanations. Although the “intimate sympathy” that was intended between constituency preferences and representative voting behavior in the House may not be as intimate as originally intended, the reasons and source of estimated differences remain unclear.

²⁵Using the 30,795 KN respondents who provide a valid household income and a 17 category scale, the average Republican income was 12.12 (12 being “\$50,000 to \$59,999”), the average Democrat income was 11.17 (11 being “\$40,000 to \$49,999”), and the average independent income was 10.78. The median income category for the three categories is: 12, 12 and 11 respectively.

²⁶The median same-party constituency ideology is .39 and the median geographic constituency ideology is .14 on the [-2, 2] scale (with a standard deviation of .17).

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