# Electoral Accountability for State Legislative Roll-Calls and Ideological Representation

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#### Abstract

Theories of electoral accountability predict that legislators will receive fewer votes if they fail to represent their districts. To determine whether this prediction applies to state legislators, I conduct two analyses that evaluate the extent to which voters sanction legislators who cast unpopular roll-call votes or provide poor ideological representation. Neither analysis, however, produces compelling evidence that elections hold most state legislators accountable. I discover that legislators do not face meaningful electoral consequences for their ideological representation, particularly in areas where legislators receive less media attention, have larger staffs, and represent more partisan districts. In a study of individual roll-call votes across 11 states, I furthermore find a weak relationship between legislators' roll-call positions and election outcomes with voters rewarding or punishing legislators for only 4 of 30 examined roll-calls. Thus, while state legislators wield considerable policy-making power, elections do not appear to hold many legislators accountable for their lawmaking.

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Every two years voters go to the polls and elect individuals to represent them in American legislatures. Once elected, little constrains officeholders' behavior, but if these representatives govern irresponsibly, they can be replaced. By providing voters opportunities to hold those in power accountable, American elections establish a fundamental connection between citizens and elites that can motivate elected officials to act in the interests of those they represent (Federalist 52).

The electoral connection underlies canonical explanations of legislative behavior, particularly in Congress (e.g. Fenno 1978; Mayhew 1974a; Cox and McCubbins 1993). Studies of American elections and accountability in turn focus on the electoral implications of congressional representation (e.g. Canes-Wrone et al. 2001; Carson et al. 2010; Jacobson 1993). Most American lawmaking, however, does not occur in Washington, DC. For every law that Congress passes, state legislatures pass over a hundred (Justice 2015). States regulate the economy, provide health care, and even shape immigration policy. Theoretically, electoral competition should pressure both national and state legislators to produce representative policies (Downs 1957; Ferejohn 1986; Erikson, Wright, and McIver 1994), but Congress and state legislatures differ along many confounding dimensions, limiting the extent to which Congressional findings necessarily translate to subnational legislative bodies.

Despite state legislatures' policymaking powers, political scientists know surprisingly little regarding the electoral consequences of state legislative representation. The most extensive analyses of a state legislator's dyadic representation only study a single election year (Birkhead 2015) or two elections in less than a third of states (Hogan 2004; 2008). Each of these studies exclusively uses summary measures of legislative behavior (e.g. interest group scores), and I am unaware of existing research that investigates the electoral implications of individual roll-call votes taken in the state legislature.

<sup>&</sup>lt;sup>1</sup>Serra and Pinney (2004) examine the relationship between legislator casework and election outcomes.

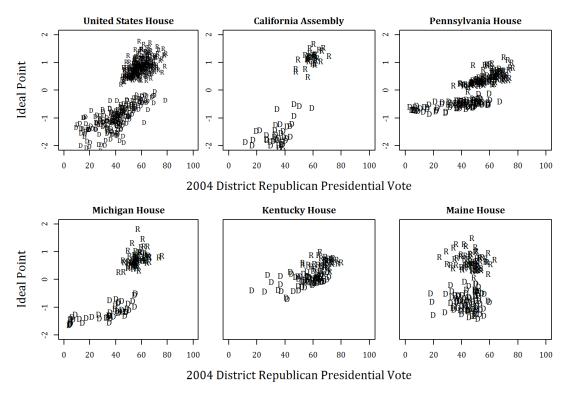
To provide a more comprehensive account of accountability in American legislatures, I assemble the largest collection of district-level measures of public opinion and legislator ideology to evaluate the electoral consequences of state legislators' ideological representation along with their individual roll-call votes. I find that some legislators have electoral incentives to represent their districts, and conditions surrounding elections, such as increased media coverage and competitive political environments, can promote levels of accountability. My findings, however, suggest state legislative incumbents pay a smaller electoral price for ideologically extreme representation than their Congressional counterparts. Focusing on the implications of individual roll-call votes, I find that on average and in most cases there is little relationship between voters' opinions of legislators' roll-call positions and vote-share. While I provide evidence of accountability for some legislators under some conditions, the weak electoral connections I find between voter and legislator behavior bring into question whether key assumptions that underlie predominant theories of legislative and electoral behavior meaningfully apply to the "laboratories of democracy." More importantly, my findings raise normative concerns about the levels of accountability in American legislatures.

## Holding Legislators Accountable

American legislatures pose a dilemma common to many representative bodies. Once in office, little constrains state legislators' behavior, introducing the risk of undesirable policymaking. Theories of elections suggest that the ballot box offers a potential solution to this moral hazard problem. The threat of being thrown out of office can create incentives for legislators to represent their constituents (Ferejohn 1986, see also Fearon 1999), and Downsian logic suggests that legislators who exhibit ideological moderation or cater to the median voter will receive higher vote shares, all else equal.

In addition to electoral pressures, party obligations, interest groups, and personal policy preferences also weigh upon legislators' decision-making (Fenno 1978; Kingdon 1989; Hall and

Figure 1: U.S. and State House Representation



U.S. and state house member ideal points plotted against 2004 Republican presidential vote. Both at the federal and state levels, legislators often provide substantially different types of ideological representation despite coming from constituencies with comparable political preferences. Ideal points across state legislatures made comparable using NPAT estimates of legislator ideology (Shor and McCarty 2011).

Wayman 1990). These cross pressures are partly responsible for the findings that legislators shirk or do not always appear to represent the median voter (see Bender and Lott 1996 for a review). The top left panel of Figure 1 illustrates an example of ideological incongruence between voters and their representatives in the U.S. House. Using ideal point estimates from 2004, this panel shows that conservative members of Congress generally represent districts that supported Bush, but many ideologically dissimilar members represent constituencies with similar political opinions, implying that at least some federal legislators are out of step with their districts.

Political scientists often find that members of Congress face electoral ramifications for unrepresentative behavior. There is evidence that voters sanction their representatives for unpopular roll-call votes concerning the budget, congressional salaries, or health care (Jacobson 1993; Clark 1996; Nyhan et al. 2012) and that ideologically extreme members receive lower vote shares (Canes-Wrone, Brady, and Cogan 2002; Carson et al. 2010; Ladewig 2010). While members of Congress are not punished for all votes (e.g. Bovitz and Carson 2006) and finding evidence of accountability is more likely under certain political conditions (e.g. Ansolabehere, Snyder, and Stewart 2001), studies of Congress generally support the proposition that some degree of district-level accountability exists at the federal level.

Similar to the patterns illustrated by the top left panel of Figure 1, the other panels of this figure suggest that many state legislators are out of step with their districts. For nearly every Republican state legislator in Maine, Michigan, and Kentucky, there is a Democrat from a district that is comparably supportive of Bush. Given findings from U.S. House elections, one may expect state legislators to face electoral consequences for poor representation. There, however, are key differences in the informational and political contexts surrounding state and federal elections that can make it relatively more difficult for some voters to identify and remove unrepresentative state legislators from office.

The media, for example, can be a critical player in promoting electoral accountability (Arnold 2006), but state legislators get little attention from the fourth estate. State legislators receive less than a fourth of the amount of local television news coverage of Congressional elections (Kaplan, Goldstein, and Hale 2003; see also Gierzynski and Breaux 1996), and according to the American Journalism Review and Pew Research Center, the number of full-time newspaper reporters devoted to state government has declined by over a third since 2003 (Enda, Matsa, and Boyles 2014). Many legislators are aware that few pay them much attention. Nicholas Carnes and coauthors asked over 1,000 state legislators if they agreed with certain statements regarding the media and voters. Only 51 percent agreed

with the statement that the news media generally pay close attention to elected officials" (Broockman et al. 2012). Lack of media attention is partly responsible for voters' limited knowledge concerning state government (Songer 1984; Patterson, Ripley, and Quinlan 1992; Delli Carpini, Keeter, and Kennamer 1994).

Voters additionally are more likely to be informed and respond to campaign stimuli in competitive political settings (Lipsitz 2011; Fraga 2011; Gimpel, Kaufmann, and Pearson-Merkowitz 2007). Lyons, Jaeger, and Wolak (2013), for example, show that voters are more informed about their governor in electorally competitive states. Many state legislative districts, however, are not competitive. Bush or Kerry, for example, received at least 60 percent of the vote in over half of districts in 2004. In some states, such as Wyoming or Alabama, over 85 percent of legislators represented these types of safe districts. Partisan districts provide an electoral cushion for incumbents and are partly responsible for approximately 40 percent of incumbents avoiding major party challengers (Squire 2000; Rogers 2015). Challengers are not only necessary to provide voters an opportunity to replace their incumbent but can also bring unrepresentative legislative behavior to voters' attention (Arnold 1992).

Little media attention and uncompetitive political environments in addition to the institutional advantages of incumbency create unfavorable conditions for accountability in many states (Carey, Niemi, and Powell 2000). It, however, remains unclear the extent to which these conditions influence the relationship between representation and election outcomes. Birkhead (2015) and Hogan (2008) tell us the most that we know about the electoral implications of state legislative representation but examine relatively limited sets of elections and fail to account for how certain institutions surrounding elections, such as the media, affect levels of accountability. I additionally know of no prior research that examines the electoral ramifications of specific roll-call votes, leaving political scientists with a relatively incomplete characterization of accountability in state legislatures as compared to Congress.

To provide a fuller understanding of accountability in American legislatures, I conduct two analyses that focus on legislators' overall representation and individual roll-call votes. I first employ new data on state legislator and voter ideology from nearly every state from 2001 - 2010 to assess whether legislators who are ideologically distant from their districts receive lower vote shares. This extensive collection of district-level measures of legislator behavior and public opinion allows me to investigate how varying legislative institutions and information environments relate to levels of accountability. To examine voters' responses to legislators' behavior on specific issues, I use referendum election results to generate district-level measures of public opinion on 30 bills adopted by legislatures and assess whether incumbents receive greater vote-shares as their district becomes more favorable to their roll-call positions. Both of these analyses test the proposition a legislator will receive fewer votes if she fails to represent her district's preferences, and together offer the most empirically thorough investigation of district-level accountability in American legislatures.

#### Accountability for Ideological Representation

Spatial theories of electoral competition predict that legislators will receive lower vote shares if they do not represent their districts on a broad ideological dimension (e.g. Downs 1957). However, when studying state legislatures, a dearth of measures that capture legislators' and their districts' ideologies has limited political scientists' ability to thoroughly test this prediction. Recent advances in the estimation of public opinion (Tausanovitch and Warshaw 2013) along with newly collected data on legislator behavior (Shor and McCarty 2011) now provide the necessary measures to better understand the extent to which elections serve as an accountability mechanism in state legislatures.

To test spatial theories' predictions, I evaluate the relationship between election outcomes and representation where my primary independent variable of interest is the estimated ideological distance between a state legislator and her district. To measure legislator ideology, I use legislators' ideal points developed by Shor and McCarty (2011). Within these data, survey responses of state legislators who responded to Project Vote Smart's National Political Awareness Tests bridge state specific ideal points to put ideological estimates into a common space, permitting cross-state comparisons of ideology. To capture voters' ideology, I employ legislative district ideal points developed by Tausanovitch and Warshaw (2013). Tausanovitch and Warshaw use over 275,000 individuals' responses to the Cooperative Congressional Election Studies and the Annenberg National Election Surveys along with multilevel regression and poststratification to estimate district-level measures of ideology for most state legislative districts across the country.

Together, Shor, McCarty, Tausanovitch, and Warshaw provide unprecedented data on legislator and district ideology, but their ideological measures are on different scales and therefore are not directly comparable. A measure of representation in the tradition of the delegate model, however, requires a comparison of the preferences of legislators and voters. To create comparable ideological measures, I impute new district ideal points under the general assumption that Democrat and Republican legislators on average represent their districts. Specifically, I regress Shor and McCarty's legislator ideal points on Tausanovitch and Warshaw's measure of constituent ideology and a party dummy using Equation 1. The party dummy accounts for the intradistrict divergence of Democrat and Republican legislators providing different representation to the same district, captured by  $\phi_2$  in Equation 1 (McCarty, Poole, and Rosenthal 2009). I predict a district ideal point using estimates from Equation 1 and Equation 2 where the final term assumes that Republicans and Democrats equally misrepresent the same district by setting  $\lambda$  to 0.5.2 With this new measure of district ideology, I estimate the ideological distance between a legislator and her district by taking the

<sup>&</sup>lt;sup>2</sup>Despite being estimated independently of Bush-Kerry vote, the correlation between my imputed district ideal points and presidential vote is 0.83, providing confidence in the construct validity of the district ideal points and thereby the distance metric. In a sensitivity analysis, I set  $\lambda$  to different values between 0 and 1. The largest and smallest vote change associated with a standard deviation increase in the Ideological distance measure is -0.76 when  $\lambda$  is .76 and -0.20 when  $\lambda$  is .01.

absolute value of the difference between a legislator's ideal point and her district's imputed ideal point (Equation 3).<sup>3</sup>

Shor & McCarty Leg. Ideal Point = 
$$\phi_0 + \phi_1[Tausanovitch \& Warshaw Dist. Ideal Point] + \phi_2[RepublicanPartyDummy] + \epsilon$$
 (1)

$$EstimatedDistrictIdealPoint = \phi_0 + \phi_1[Taus an ovitch \& Warshaw \ Dist. \ Ideal \ Point] + \lambda \phi_2 \qquad (2)$$

$$Ideological\ Distance = |Shor\ \&\ McCarty\ Leg.\ Ideal\ Point - EstimatedDistrictIdealPoint| \qquad (3)$$

My measure of state legislative representation aims to capture the ideological distance between a representative and her constituents and resembles those used to study representation in Congress (e.g. Rabinowitz and McDonald 1989). When interpreting results, it is important readers be cognizant that my *Ideological Distance* metric fails to consider the position of an incumbent's challenger and requires strong assumptions to put voters and legislators in a common ideological space (Achen 1978; Ansolabehere, Snyder, and Stewart 2001; Matsusaka 2001). Tausanovitch and Warshaw's district ideal points are also measured with error, which likely attenuates the estimated strength of the relationship between representation and vote share.<sup>4</sup> However, main results are similar when substituting variables

<sup>&</sup>lt;sup>3</sup>The congruence approach I employ most resembles that used by Hogan (2008). Prior work on Congressional and state legislative elections often measures the relationship between legislative behavior and election outcomes by regressing incumbent vote share on the absolute value of a legislator's ideal point or party vote share on a legislator's ideal point (e.g. Canes-Wrone et al. 2002; Carson et al. 2010; Birkhead 2015). The absolute value approach presumes an ideal point of zero to be moderate across all districts and potentially overlooks ideologically similar legislators representing dissimilar districts. The latter responsiveness approach similarly does not consider a legislator's ideological position relative to her district but instead focuses on the direct relationship between legislator ideology and vote share. The Online Appendix details theoretical and empirical differences between these approaches with statistical analyses comparable to those in Tables 1 and 2. Under any considered approach, a standard deviation change in legislator ideology does not result in more than a 1 percent change in predicted vote share.

<sup>&</sup>lt;sup>4</sup>By comparison to an analysis of Congress, the residual standard error for estimations of Equation 1 is .2059 for U.S. House districts and .3677 for state house districts. The Online Appendix provides a sensitivity analysis that estimates the relationship between election outcomes and representation conditional on the uncertainty of the Tausanovitch and Warshaw district ideal points and suggests that attenuation of results due to this uncertainty does not exceed 0.1 percent in vote share.

measured with less error, such as district-level demographics or presidential vote, for Tausanovitch and Warshaw's district ideal points in Equations 1 and 2 (see Online Appendix).

For my study of electoral accountability for ideological representation, I examine state legislative elections from 2001 - 2010 in 47 states.<sup>5</sup> My main independent variable of interest is the *Ideological Distance* measure for legislators who represent single-member districts. Using this measure, I assess the extent to which increases in the ideological distance between a legislator and her district affect election outcomes. To account for nonlinear relationships, vote-share analyses include a squared measure of the *Ideological Distance* variable. Following studies of congressional elections, I control for district-level presidential vote (averaged over the 2004 and 2008 elections), incumbent previous vote share, difference in logged incumbent and challenger campaign contributions (FollowtheMoney.org), the incumbent's party, affiliation with the president's party, the state economy, freshman status, district population, and whether an election took place in the midterm.<sup>6</sup> Summary statistics of variables used in this and subsequent analyses are available in the online appendix.

My analyses also consider institutional and political conditions that vary across states. Prior work provides evidence that incumbents are more likely to be reelected from profession-alized legislatures (e.g. Carey, Niemi, and Powell 2000). When studying the 2000 elections, Birkhead finds that ideologically extreme legislators face less electoral punishment in professional legislatures, as measured by Squire's professionalism index (Squire 2007). This index measure accounts for legislative staff, salary, and length of legislative session, but it is unclear which aspect of legislative professionalism is responsible for Birkhead's finding concerning legislator ideology and election outcomes. Representatives with increased staff may be able

<sup>&</sup>lt;sup>5</sup>I exclude chambers that have multi-member elections. Excluded lower chambers are AZ, ID, MD, ND, NH, NJ, SD, WA, WV, VT, and sometimes NC. I also exclude the VT Senate due to multi-member districts; LA due to its run-off system; and NE because it is non-partisan.

<sup>&</sup>lt;sup>6</sup>Substantive results are similar when including interactions with the second order polynomial, including a third order polynomial, dropping any control except district-level presidential vote (Table A-12), excluding any individual state (Table A-12) or examining state senate elections and controlling for quality challengers, as indicated by whether the challenger previously held elected office in the state legislature (Table A-11).

to better monitor constituency opinion and identify issue areas where they can take extreme positions. Legislators with higher salaries, meanwhile, spend more time on election related activities, such as explaining positions to constituents (Carey, Niemi, and Powell 2000: Table 3). Similarly, representatives who serve in legislatures with shorter legislative sessions likely have more time to spend in their districts. To better understand which aspect of legislative professionalism is responsible for shielding extreme legislators from electoral punishment, I break down Squire's professionalism measure into its three separate components: staff per member (Weberg 2016), legislator salary, and length of session (Bowen and Greene 2014) and interact each with my *Ideological Distance* measure.

Prior work offers speculation that the media influences the levels of accountability in state legislatures (Hogan 2008: 859-861, Birkhead 2015: 60-61) but does not test this hypothesis. To remedy this shortcoming, my analyses uniquely account for the number of full-time newspaper reporters devoted to each state government, as documented by the American Journalism Review (Layton and Dorroh 2002; Dorroh 2009). To estimate the conditional effect the media has on accountability, I interact my *Ideological Distance* measure with a logged measure of the number of full time reporters. To address the influences of competitive campaigns, I revisit Hogan's (2008) finding that increased incumbent spending advantages decrease the likelihood a legislator receives fewer votes for unresponsive behavior by creating an interaction term between an incumbent's *Ideological Distance* from her district and her fundraising advantage in the given election.

To assess the levels of electoral accountability for ideological representation in state legislatures, I use a linear cross-sectional estimation with fixed effects for years and random effects for states where the dependent variable is the incumbent's vote share in an election contested by the two major parties (Klarner et al. 2013). To study races without challengers, I also estimate the relationship between my *Ideological Distance* measure and whether an incumbent won reelection in a probit model that includes random effects for states. To

Table 1: Relationship between State Legislators' Representation and Vote Share

	All Districts	All Districts	All Districts	Marginal Districts	Safe Districts
Ideological Distance	-1.967*	-3.483*	-2.253*	-0.820	-2.887*
	(0.193)	(0.462)	(0.781)	(0.988)	(1.269)
Ideological Distance Squared		0.963*	0.725*	0.284	1.119*
		(0.267)	(0.284)	(0.368)	(0.449)
Distance x Staff		, ,	0.209*	0.300*	-0.123
			(0.063)	(0.076)	(0.105)
Distance x Salary			-0.008	-0.007	-0.009
v			(0.005)	(0.006)	(0.008)
Distance x Session Length			0.007*	$0.004^{'}$	$0.004^{'}$
<u> </u>			(0.002)	(0.003)	(0.004)
Distance x Reporters			-0.997*	-1.330*	0.717
•			(0.348)	(0.415)	(0.581)
Distance x Inc. Contr. Adv.			-0.448*	-0.347*	-0.430*
			(0.096)	(0.130)	(0.138)
Incumbent Party Pres Vote	0.378*	0.380*	0.379*	0.229*	0.563*
	(0.006)	(0.006)	(0.006)	(0.011)	(0.014)
Incumbent Previous Vote Share	0.285*	0.284*	0.284*	0.252*	0.263*
	(0.008)	(0.008)	(0.008)	(0.010)	(0.012)
Incumbent Previously Contested	8.810*	8.787*	8.753*	8.735*	6.630*
,	(0.312)	(0.311)	(0.311)	(0.450)	(0.422)
Incumbent Contribution Advantage	1.385*	1.384*	1.679*	1.872*	1.310*
	(0.037)	(0.037)	(0.073)	(0.091)	(0.113)
Member of the President's Party	-5.447*	-5.454*	-5.467*	-5.930*	-4.653*
	(0.147)	(0.147)	(0.147)	(0.177)	(0.231)
Member of the Democratic Party	-2.023*	-2.007*	-2.074*	-3.000*	-2.307*
	(0.151)	(0.151)	(0.152)	(0.188)	(0.277)
Freshman Incumbent	0.376*	0.371*	0.382*	0.144	0.707*
	(0.136)	(0.136)	(0.135)	(0.164)	(0.212)
State Senate Race	0.174	0.189	0.206	0.146	0.594
	(0.322)	(0.321)	(0.323)	(0.352)	(0.424)
Change Annual Log Q4 State Personal Inc.	-1.949	-1.921	-1.912	-0.537	-5.487
8	(3.887)	(3.884)	(3.879)	(4.700)	(5.841)
Midterm Election	0.571	0.572	0.610	-0.149	1.690
materia zneedon	(1.272)	(1.267)	(1.276)	(1.413)	(1.718)
District Size (Logged)	-0.691*	-0.712*	-0.720*	-0.943*	-0.650
= (= -88)	(0.298)	(0.297)	(0.300)	(0.319)	(0.376)
Legislative Staff per Member	-0.094	-0.100	-0.250*	-0.281*	0.007
Dogistative Stan per Member	(0.065)	(0.064)	(0.079)	(0.083)	(0.108)
Legislator Salary (in 1000s of 2010 dollars)	0.020*	0.020*	0.027*	0.025*	0.038*
Degistator Salary (III 10005 of 2010 domais)	(0.005)	(0.005)	(0.006)	(0.006)	(0.009)
Session Length	-0.001	-0.001	-0.006*	-0.002	-0.004
Session Bengun	(0.001)	(0.001)	(0.002)	(0.002)	(0.004)
Full Time State Capital Reporters (Logged)	0.244	0.259	0.905*	0.995*	-0.362
Line State Capital Reporters (Logged)	(0.298)	(0.297)	(0.366)	(0.409)	(0.557)
Constant	21.971*	22.627*	22.186*	33.966*	12.323*
	(3.135)	(3.125)	(3.197)	(3.513)	(4.061)
N	10926	10926	10926	6791	4135
Log-Likelihood	-34982.0	-34975.5	-34952.4	-21422.4	-13036.4
208 Elikelihood	-04002.0	-0-2010.0	-04702.4	-21722.4	-10000.4

<sup>\*</sup> p  $\leq$  0.05. Standard errors in parentheses.

Relationship between state legislators' ideological distance from their district and reelection vote share for contested incumbents who sought reelection from 2001 - 2010. Estimations include fixed effects for years and random effects for states.

further account for differences in district-level competition, I conduct separate analyses on all districts, marginal districts, and safe districts (Ansolabehere, Snyder, and Stewart 2001).

Focusing on the relationship between representation and vote share, Table 1 provides evidence that median voter theories apply to state legislative elections. Holding other independent variables at their mean values, statistical analyses in the first column suggest that a standard deviation increase in a legislator's *Ideological Distance* from their district results in approximately a 0.7 percent decrease in predicted vote share. Estimates in the second column of this table suggest that representation's relationship with vote share is nonlinear. When accounting for nonlinearity, a standard deviation increase in the *Ideological Distance* measure again results in approximately a 0.7 percent decrease in vote share, and a three standard deviation increase in the *Ideological Distance* metric translates into a 1.3 percent decrease.

To compare representation's influence on election outcomes to that of other variables known to influence state legislative elections, a 0.7 percent shift in incumbent vote share is less than that associated with a \$25,000 increase in legislator salary. A more substantial three standard deviation change in representation's electoral impact (1.3 percent) is less than that attributable to a 4 percent change in district partisanship, and at the extremes, a change approximately equivalent to the full range of the *Ideological Distance* metric results in a 4.6 percent predicted decrease in vote share, which is less than that associated with a legislator being a member of the president's party. Representation then matters for state legislators' electoral fates, but its impact appears to be relatively small.

To situate state legislative findings within a broader American politics context, I conduct a comparable analysis of U.S. House elections from 2002 - 2010. To make ideological comparisons between Congress and state legislatures, I put U.S. House members' ideal points in the same ideological space as state legislative ideal points, following a projection procedure similar to that employed by Shor and McCarty, where I assume that individuals' ideal

points remain constant between serving in federal and state legislatures.<sup>7</sup> I then conduct statistical analyses comparable to those above but only with controls common to Congress and state legislatures (e.g. district-level presidential vote but not state legislative professionalism measures, see Table A-14 for estimates).<sup>8</sup> When holding other variables at their observed values, I find that a standard deviation increase in the *Ideological Distance* measure associates with approximately a 1.1 percent decrease in vote share for members of the U.S. House. The severity of electoral punishments, however, appears to be less at the state-level. The same change in ideological representation results in only a 0.7 percent decrease in vote share for state legislators, approximately a third less than that found in Congress.

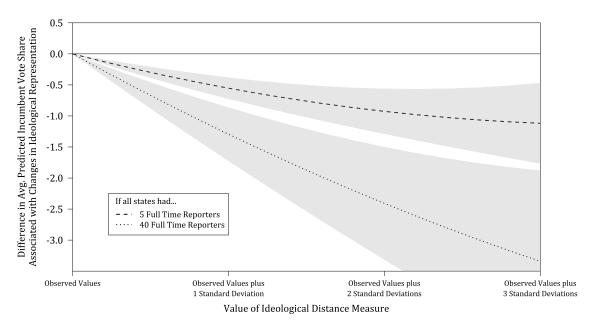
The lower average effects found in state legislative elections may concern those who believe elections need to be strong mechanisms of accountability. To strengthen electoral connections, it is necessary to better understand how political conditions inhibit electoral accountability. To help provide this understanding, analyses in the third column of Table 1 include interactions between the *Ideological Distance* variable and measures of state legislative professionalism and media coverage.

In regard to professionalism, I find that incumbents with higher salaries are more likely to be reelected similar to Carey, Niemi, and Powell (2000). Legislators from professionalized legislatures with higher salaries, however, appear to receive no less electoral punishment for poor representation. Instead, legislators with larger staffs are less likely to be held accountable. For example if every state had New Hampshire's legislator to staff ratio (approximately 2:1), a standard deviation increase in the *Ideological Distance* measure results in a predicted 1.1 percent loss in incumbent vote share (t-statistic 7.81), but if every state had California's

<sup>&</sup>lt;sup>7</sup>When focusing on the individuals who served at both the state and federal level at some point from 2001 – 2010, the correlation between ideal points is .91. I regress these individuals' state legislative ideal points on their U.S. House ideal points and a party dummy (Table A-13) and use the coefficients from this regression to project all U.S. House members into an "NPAT" common space.

<sup>&</sup>lt;sup>8</sup>Since there does not appear to be a nonlinear relationship between representation and U.S. House election outcomes, I exclude the squared distance term. Table A-14 provides analyses that include the squared term.

Figure 2: Impact of Representation on Vote Share under different levels of Media Coverage



Lines plot the average predicted vote loss for incumbents if they were to increase their ideological distance from their districts. Grey regions represent 95% bootstrapped confidence intervals. The difference between the dashed and dotted lines suggests that legislators who serve in states with more reporters devoted to covering state government are more likely to be electorally punished for poor representation.

legislator to staff ratio (approximately 1:17), a similar change in representation results in a 0.2 percent increase in vote share (t-statistic 0.52). Prior findings regarding professionalism protecting unrepresentative incumbents' electoral margins then appear to be partly rooted in the levels of staff afforded to state legislators.

While unrepresentative California legislators seem to electorally benefit from their increased staff, the media appears to help voters hold legislators accountable in this state. In 2003, California was both the most professional legislature (Squire 2007) and had 40 full-time newspaper reporters devoted to covering state government, more than any other state. To illustrate the estimated impact the media could have if all states had this many reporters, the dotted line in Figure 2 plots the predicted vote loss for legislators if they became more ideologically distant from their district. Under these media conditions, a standard deviation

increase in the *Ideological Distance* measure results in a 1.3 percent decrease in predicted vote share, suggesting the fourth estate can help voters hold their legislators accountable (Figure 2: dotted line). Recent changes to the press corps at state capitals, however, tempers optimism in this regard. From 2003 to 2009, there were a third fewer full time reporters devoted to state government across the country, and by 2009, half of states had five or fewer full time reporters. When there are only five reporters in every state, the comparable vote loss falls to 0.6 percent (Figure 2: dashed line). The difference between the dotted and dashed lines in Figure 2 suggests the declining media coverage of state government is detrimental to the levels of accountability in American legislatures.

Research on congressional elections shows that incumbents entering more competitive races need to be the most attentive to their constituents' ideological preferences (Mayhew 1974b, Ansolabehere, Snyder and Stewart 2001: 138). To examine if state legislators in competitive races similarly need to be more concerned with their representation, the final two columns of Table 1 focus on "marginal" and "safe" districts, as defined by whether the incumbent's party received less than or greater than 60 percent of the presidential vote.

Figure 3 summarizes the average effects of representation across marginal and safe districts and plots the predicted vote loss for incumbents under different increases in the *Ideological Distance* measure. Recall that across all districts, a three standard deviation increase in the *Ideological Distance* metric resulted in a 1.3 percent change in vote share. When separating analyses into marginal and safe districts, this change in representation is associated with a 1.7 vote share decrease in marginal districts (Figure 3: dashed line) but only a 0.2 percent change in safe districts (Figure 3: dotted line). Comparisons of the final two columns of Table 1 furthermore suggest the impact of the media and legislative staff is concentrated in more marginal districts.

The differences illustrated by Figure 3 suggest legislators in safe districts need be less worried about how their ideological representation might affect their reelection chances, and

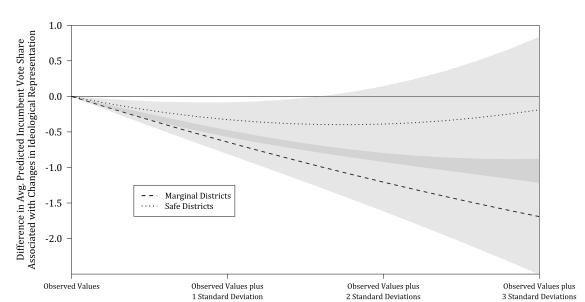


Figure 3: Impact of Representation on Vote Share in Marginal & Safe Districts

Lines plot the average predicted vote loss for incumbents if they were to increase their ideological distance from their districts. Grey regions represent 95% bootstrapped confidence intervals. Difference in lines suggests that incumbents representing marginal districts – those where the incumbent's party received 60 percent or less of the presidential vote – pay a larger electoral price for poor ideological representation.

Value of Ideological Distance Measure

legislators in marginal districts have stronger motivation to run scared. All incumbents are likely concerned with their margin of victory to some degree, but the threat of being thrown out of office ultimately underlies elections' ability to solve the moral hazard problem posed by representative government. To investigate how ideological representation relates to whether an incumbent wins or loses, Table 2 presents results from probit analysis where the dependent variable is whether an incumbent won reelection.

Analyses focusing on incumbent reelection provide further evidence that incumbents have electoral incentives to represent their districts, but these incentives again appear to be small. A standard deviation increase in the *Ideological Distance* metric reduces the probability an incumbent wins reelection by .008. By comparison, this change in reelection chances is less than that associated with a 5 percent change in district partisanship, the

Table 2: Relationship between State Legislators' Representation & Incumbent Reelection

	All Districts	All Districts	Marginal Districts	Safe Districts
Ideological Distance	-0.325*	0.201	0.207	-0.158
	(0.063)	(0.187)	(0.205)	(0.568)
Distance x Staff		0.016	0.023	-0.110
		(0.020)	(0.021)	(0.069)
Distance x Salary		0.003	0.003	0.006
		(0.002)	(0.002)	(0.006)
Distance x Session Length		-0.001	-0.001	-0.001
		(0.001)	(0.001)	(0.003)
Distance x Reporters		-0.325*	-0.378*	0.294
•		(0.106)	(0.115)	(0.341)
Incumbent Party Pres Vote	0.046*	0.045*	0.045*	0.033*
·	(0.002)	(0.002)	(0.003)	(0.011)
Incumbent Previous Vote Share	0.068*	0.068*	0.069*	0.054*
	(0.004)	(0.004)	(0.004)	(0.010)
Incumbent Previously Contested	2.335*	2.343*	2.407*	1.722*
, and the same of	(0.171)	(0.171)	(0.192)	(0.407)
Member of the President's Party	-1.126*	-1.131*	-1.231*	-0.505*
	(0.056)	(0.056)	(0.061)	(0.148)
Member of the Democratic Party	-0.694*	-0.701*	-0.831*	0.042
	(0.053)	(0.053)	(0.059)	(0.162)
Freshman Incumbent	0.164*	0.166*	0.137*	0.355*
	(0.046)	(0.046)	(0.050)	(0.142)
State Senate Race	-0.202*	-0.208*	-0.160	-0.376*
State Seliate Hace	(0.075)	(0.074)	(0.084)	(0.180)
Change Annual Log Q4 State Personal Inc.	-0.752	-0.621	-0.781	0.391
	(0.871)	(0.872)	(0.943)	(2.528)
Midterm Election	-0.089*	-0.090*	-0.013	-0.521*
material Breeden	(0.045)	(0.045)	(0.049)	(0.134)
District Size (Logged)	0.100	0.106	0.043	0.345*
(	(0.062)	(0.061)	(0.070)	(0.131)
Legislative Staff per Member	0.010	-0.001	-0.008	0.093
Dogistative Stati per interniber	(0.012)	(0.018)	(0.020)	(0.059)
Legislator Salary (in 1000s of 2010 dollars)	0.001	-0.001	-0.001	-0.003
8	(0.001)	(0.001)	(0.002)	(0.005)
Session Length	-0.000	0.001	0.001	-0.000
	(0.000)	(0.001)	(0.001)	(0.002)
Full Time State Capital Reporters (Logged)	-0.095	0.098	0.191*	-0.479
1 and 1 and 5 date Cupital Reporters (1088cd)	(0.063)	(0.089)	(0.097)	(0.281)
Constant	-6.825*	-7.219*	-6.613*	-7.323*
Companie	(0.684)	(0.696)	(0.793)	(1.737)
N	19741	19741	10087	9654
Log-Likelihood	-2477.9	-2471.3	-2164.9	-263.2
nog-niveiiiiood	-2411.9	-2411.0	-2104.9	-200.2

<sup>\*</sup> p  $\leq$  0.05. Standard errors in parentheses.

Relationship between state legislators' ideological distance from their district and likelihood of reelection for incumbents who sought reelection from 2001 - 2010. Probit estimations include random effects for states.

"sophomore surge" (Holbrook and Tidmarch 1991), or a legislator being a co-partisan of the president. More promising for accountability, analyses in the second column of Table 2 reaffirm that the media can have a positive role in the accountability process. Within the context of the example presented in Figure 2, if all states had 5 full-time reporters at the state house, a standard deviation increase in the *Ideological Distance* metric associates with a .005 decrease in the probability of reelection, but if all states had 40 reporters, the predicted decrease would be .032 (Table 2: Column 3). These are extreme changes in media coverage, but these findings suggest that voters are better equipped to hold their representatives accountable when the fourth estate pays attention to state legislators.

State legislators in more competitive seats additionally appear to have increased electoral incentive to represent their districts. When focusing on marginal districts, a standard deviation change in representation results in approximately a .018 decrease in the probability of reelection, and the media's influence again appears concentrated in these districts (Table 2: Column 3). Legislators in marginal districts then have more reason to run scared, but there is little evidence that this is the case for legislators in safe districts. Estimates from the final column of Table 2 suggest the small vote share changes evidenced by the final column of Table 1 are not enough to meaningfully threaten the reelection hopes of half of state legislative incumbents.

# Accountability for Individual Roll-Call Votes

The prior analyses suggest many state legislators face limited electoral consequences for providing poor representation. This study of district-level accountability is the most thorough to date in terms of states and elections considered but employs summary measures of ideological representation and relies on assumptions to put the ideology of voters and legislators in a common space. Instead of evaluating how their representatives act on a broad ideological spectrum, voters may care about their representatives' votes on key issues.

As characterized by a U.S. House representative: "When you are voting right, you build up points on a cumulative basis. You can lose them on a geometric basis; you can lose all your points on one vote" (Matthews and Stimson 1975: 30; qtd in Canes-Wrone et al. 2002). Studies of Congress repeatedly provide evidence of U.S. House members incurring electoral punishment for individual roll-call votes (e.g. Jacobson 1996; Ferejohn 1998; Ansolabehere and Jones 2010), but it remains unclear the extent to which voters similarly punish state legislators.

The lack of issue-specific public opinion measures at the state legislative district-level makes it difficult for political scientists to investigate whether roll-call decisions made by legislators are unpopular with their constituents. Some states, however, have veto-referendum elections where voters can veto legislation adopted by the legislature before it becomes law. The results of these elections provide measures of public opinion on state legislation - and thereby legislators' roll-call positions - on the *exact* bill adopted by the state legislature. Results from referenda and initiative elections have shed light on whether state legislators vote consistently with their constituents' preferences (e.g. Gerber 1996b; Snyder 1996; Lewis and Gerber 2004), but I am unaware of research that utilizes referenda to determine whether voters reward or punish state legislators for their positions on particular pieces of legislation.

Tables 3 and 4 provide brief descriptions of 30 bills that faced veto-referendum in the last two decades and report their levels of support in the state legislature and statewide electorate. Voters vetoed 13 of 30 considered bills, and in doing so overturned legislatures' decisions to legalize gay marriage, expand health care, and create charter schools. The considered referenda range in prominence and attention received. The Chamber of Commerce, for example, alone spent more money supporting emergency manager reform in Michigan than was spent overall on an earlier Michigan referendum regarding hunting rights. Overall, interest groups spent at least \$4 million campaigning for or against most of the considered

 Table 3: Descriptions of Veto-Referendum

	Measure 6	•	DIII	Senate $V_{c+cc}$	$\operatorname{Support}_{\mathcal{E}^{\mathbf{f}}}$	Referendum	Signatures
		Restrict Land and Shoot Hunting of Wolves	SB 267	H:27-11 S:14-5	54%		19,242
	Measure 1	Tax Cuts for Oil Companies to create incentives for drilling	SB 21	H:27-12 S:12-8	53%	\$15,306,427	30,169
	Prop 300	Federal Oversight of Medical Marijuana	$\overline{\mathrm{HB}}$ 2518	H:32-24 S:17-13	36%		98,174
	Prop 301	Eligible for Probation with 1st or 2nd Marijuana Crime	SB 1373	H:51-7 S:28-0	54%		98,174
	Prop $72$	Require medium to large business to provide health care coverage	SB2	H:46-32 S:25-15	49%	\$31,075,168	354,817
	Prop $94$	Permits 5500 additional slot machines at certain Native American Casinos	SB 903	H:61-9 S:23-8	26%	\$172,698,243	411,345
	${\rm Prop}\ 95$	Permits 5500 additional slot machines at certain Native American Casinos	SB 174	H:50-13 S:23-10	26%	\$172,698,243	411,345
	Prop $96$	Permits 3000 additional slot machines at certain Native American Casinos	SB 175	H:61-9 S:22-10	26%	\$172,698,243	411,345
	Prop $97$	Permits 3000 additional slot machines at certain Native American Casinos	SB 957	H:52-11 S:23-9	26%	\$172,698,243	411,345
	Prop 48	Allow North Fork Tribe to build a casino in Central Valley	AB 277	H:41-12 S:22-11	39%	\$613,840	50,4760
	Prop 1	Limits agreements btwn. teachers and school boards and ends issuing renewable contracts	S1108	H:48-22 S:20-15	43%	\$5,317,137	47,432
	Prop $2$	Establishes teacher pay for performance based on test scores	S1110	H:44-26 S:20-15	42%	\$5,317,137	47,432
ID $11/6/12$	Prop 3	Increase technology spending in schools, with ability to offset costs using teacher salaries	S1184	H:44-26 S:20-15	33%	\$5,317,137	47,432
$\mathrm{MD}  11/7/06$	Question 4	State and Local Electoral Reform	HB 1368	H:94-43 S:32-15	71%		51,137
MD $11/6/12$	Question 4	Dream Act - Allowing undocumented immigrants to pay in-state tuition	SB 167	H:74-65 S:27-19	29%	\$1,973,562	55,736
MD 11/6/12	Question 6	Gay Marriage	HB 438	H:72-67 S:25-22	52%	\$10,053,683	55,736

 Table 4: Descriptions of Veto-Referendum

State	Date	Referendum	Issue Description	Bill	House & Senate Votes	Statewide Support of Bill	Spending on Referendum	Min. Signatures Required
ME	11/8/05	Question 1	Prevent discrimination in employment, housing, educationbased on their sexual orientation	LS 1196	H:91-58 S:25-10	55%	\$1,554,715	49,458
ME	11/4/08	Question 1	Soda Tax to pay for Health Care Program	LD 2247	H:82-62 S:18-17	35%	\$4,612,389	55,087
ME	11/3/09	Question 1	Gay Marriage	LD 1020	H:89-57 S:20-15	47%	\$10,495,539	55,087
MI	11/5/02	$\operatorname{Prop} 1$	Eliminates Straight Party Ticket	PA 269	H:56-47 S:21-13	40%		151,328
MI	11/6/06	Prop 3	Authorizes Dove Hunting Season	PA 160	H:65-40 S:22-15	31%	\$3,003,704	159,000
MI	11/6/12	Prop 1	Authorizes Governor to establish city manager upon state finding financial emergency	PA 4	H:62-48 S:26-12	47%	\$9,165,638	161,304
MT	11/6/12	IR-124	Enact a Medical Marijuana Program	SB 423	H:78-17 S:35-15	27%	\$38,071	24,337
ND	6/12/12	Measure 4	Discontinue University of North Dakota Fighting Sioux nickname and logo	SB 2370	H:63-31 S:39-7	%29	\$19,499	13,452
НО	11/4/08	Issue 5	Limit interest rates on short term loans to 28%	HB 545	H:68-27 S:29-4	64%	\$21,416,231	241,365
НО	11/8/11	Issue 2	Limit collective bargaining for state employees	SB 5	H:53-44 S:17-16	39%	\$54,156,134	234,149
WA	11/2/04	Ref. 55	Authorizes creation of Charter Schools	ESSHB $2295$	H:51-46 S:27-22	42%	\$9,228,262	96,881
WA	11/6/07	Ref. 67	Allows consumers to collect trip damages from their insurance company	SB 5726	H:59-38 S:31-18	57%	\$19,216,157	109,864
WA	11/3/09	Ref. 71	Grants domestic partners all rights, responsibilities, and obligations granted to married couples	SB 5688	H:62-35 S:30-18	53%	\$4,849,167	120,115
WA	11/6/12	Ref. 74	Gay Marriage	SB 6239	H:55-43 S:28-21	54%	\$17,707,967	120,577

referenda, increasing the likelihood of voter awareness of these bills compared to other pieces of legislation.

Veto-referenda provide an excellent opportunity to evaluate whether legislators face electoral punishment for unpopular roll-call decisions, but there are limitations to using these elections to study accountability. 10 of 30 referendum elections did not occur during the November general election, and the types of voters who turnout in these elections may not reflect a district's typical voting population. I additionally aim to include the universe of veto-referendum from the last two decades but only examine the 11 states that make precinct-level referendum election returns readily available. Other states with veto referendum during this time period - Oregon, Massachusetts, South Dakota, and Utah - only provide county or town-level referendum election returns, which I cannot aggregate to the state legislative district level.

Bills facing veto-referendum are also not representative of all bills considered by the legislature. The increased prominence of veto-referendum bills makes finding evidence of accountability more likely, but this prominence also limits the external validity of this study. For example, supporting the notion that voters are "educated by the initiative" (Smith and Tolbert 2004), over \$100 million spent by California interest groups on referenda regarding slot machines in Native American casinos helped increase voter awareness of the issue by 43 percent in the course of a month (Field Poll: Jan 2008), which is atypical for most state legislation. Veto-referenda also frequently address controversial issues. 3 of the 30 considered bills, for example, concern gay marriage, but 10 percent of all state legislation likely does not attract the same attention of voters as same-sex marriage.

Veto referendum elections are also only held for adopted pieces of legislation. I therefore do not consider legislators' roll-calls on failed legislation. Legislators in veto-referendum states may strategically alter their roll-call decisions knowing voters can ultimately veto legislation they pass or may decide not to pursue reelection if they realize they took an unpopular roll-call position (Gerber 1996a). However, incumbents who represented districts where less than 40 percent, 40-60 percent, and more than 60 percent of voters supported their roll-call position respectively sought reelection 73 percent, 69 percent, and 72 percent of the time, suggesting unpopular roll-call positions did not lead to more retirements. Probit analyses examining the likelihood incumbents seek reelection provide similar findings (see Online Appendix).

Across the legislation considered here, approximately 37 percent of roll-calls cast by all legislators and those seeking reelection did not represent their district's majority opinion. To evaluate whether unpopular roll-call votes have electoral consequences, I estimate the relationship between the level of district support for each roll-call and a contested incumbent's vote-share. Since voters' opinions of roll-calls and their behavior in state legislative elections may differ across issue areas, I estimate a multilevel model that allows slopes and intercepts to vary by bill in addition to a separate Ordinary Least Square regression for each bill. A positive relationship between district support for a legislator's position and vote share suggests legislators have an electoral incentive to cast popular roll-call votes. Analyses include controls similar to those used in the above ideological representation study. To account for multi-member districts, I control for the number of candidates in the current and previous elections as well as conduct separate analyses that focus on states that only have single member districts.

When examining legislation that faced veto-referendum, findings in Table 5 suggest that there is little relationship between voters' opinions of their representatives' roll-call positions and election outcomes. Results in the first column of this table suggest that a standard deviation change in district opinion (approximately 13 percent) associates with a 0.3 percent change in vote share, but this change is statistically indistinguishable from zero.

<sup>&</sup>lt;sup>9</sup>Substantive results are similar when using a dummy variable that captures whether a legislator voted with the majority opinion of their district (Table A-17).

**Table 5:** Relationship between District-Level Support of Legislator's Roll Calls & Incumbent Vote Share

	All Districts	All Districts	$\mathrm{SMDs}$	Marginal Districts	Safe Districts
District Support for Legislator's Position	0.021	0.028	0.058*	0.061*	0.011
	(0.019)	(0.018)	(0.020)	(0.017)	(0.017)
Incumbent Party Pres Vote	0.257*	0.247*	0.277*	0.169*	0.366*
	(0.014)	(0.014)	(0.017)	(0.028)	(0.028)
Incumbent Previous Vote Share	0.361*	0.353*	0.352*	0.319*	0.309*
	(0.019)	(0.019)	(0.022)	(0.029)	(0.026)
Incumbent Previously Contested	10.240*	9.834*	10.396*	9.083*	8.958*
	(0.804)	(0.805)	(0.880)	(1.396)	(0.998)
Incumbent Contribution Advantage	1.497*	1.496*	1.423*	1.551*	1.274*
	(0.079)	(0.079)	(0.085)	(0.104)	(0.116)
State Senate Race	-0.909*	-1.640*	0.022	0.172	-2.584*
	(0.319)	(0.820)	(0.956)	(0.902)	(0.854)
Member of the Democratic Party	1.193*	1.301*	1.732*	0.454	0.642
	(0.302)	(0.300)	(0.324)	(0.366)	(0.589)
Current Three Candidates	-22.146*	-22.739*	, ,	-22.586*	-23.981*
	(0.996)	(0.998)		(1.466)	(1.429)
Current Four Candidates	-20.569*	-20.764*		-16.824*	-23.105*
	(1.170)	(1.169)		(1.956)	(1.485)
Previous Three Candidates	-0.274	-0.313		$1.372^{'}$	-2.198*
	(0.705)	(0.699)		(1.220)	(0.883)
Previous Four Candidates	$1.723^{'}$	2.081*		4.450*	-1.952
	(0.970)	(0.966)		(1.324)	(1.523)
Member of the President's Party	,	-1.843*	-1.428*	-2.056*	-2.046*
v		(0.291)	(0.310)	(0.365)	(0.499)
Freshman Incumbent		0.103	0.134	-0.166	$0.253^{'}$
		(0.289)	(0.318)	(0.374)	(0.434)
District Size (Logged)		0.951	-0.811	-0.715	1.700*
, ,		(0.787)	(0.931)	(0.796)	(0.741)
Legislative Staff per Member		-0.028	-0.139	$0.145^{'}$	-0.188
•		(0.294)	(0.299)	(0.213)	(0.120)
Legislator Salary (in 1000s of 2010 dollars)		-0.010	$0.022^{'}$	-0.001	0.003
,		(0.025)	(0.029)	(0.019)	(0.013)
Session Length		-0.016	-0.011	-0.014	-0.017*
Ü		(0.012)	(0.012)	(0.010)	(0.006)
Full Time State Capital Reporters (Logged)		1.191	1.156	0.923	-0.398
(88)		(1.135)	(1.112)	(1.043)	(0.812)
Constant	10.105*	3.833	15.252	24.932*	-3.632
	(1.888)	(7.506)	(8.827)	(7.712)	(6.965)
N	2181	2181	1697	1231	950
Log-Likelihood	-7026.8	-7005.3	-5389.0	-3906.8	-3033.6

<sup>\*</sup> p  $\leq$  0.05. Standard errors in parentheses.

Relationship between district-level support for incumbent's roll-call vote and incumbent vote share in contested races. Analyses in the third column only include states that exclusively have single-member district elections. Analyses in the fourth and fifth columns divide races into marginal districts and safe districts. Estimations allow slopes and intercepts to vary by bill.

Findings are similar when controlling for factors such state legislative professionalism or if the incumbent was a freshman (Table 5: Column 2). When limiting analyses to states that only have single member districts, a standard deviation change in public opinion results in a 0.7 percent change in incumbent vote share (Table 5: Column 3). The existence of a relationship between roll-call positions and election outcomes is encouraging for the prospects for accountably. This change in vote share, however, is again less than that associated with a 4 percent change in district partisanship or a legislator being a member of the president's party within the states considered here.

The small changes in vote share associated with unpopular roll-call positions furthermore appear to have few implications for most legislators' reelection prospects. If every single-member district experienced a standard deviation shift in public opinion, the predicted probability an incumbent is reelected increases by .01 (Table A-16: Column 3), and only 1 percent of considered election outcomes would likely change. In comparison to the average effects Congressional roll-call votes have on election outcomes, Ansolabehere and Jones' examination of individual voters' opinions of 10 different roll-calls finds that a standard deviation increase in a voter's perceived agreement with their U.S. House member's position associates with a .15 increase in the linear probability of voting for the incumbent (Ansolabehere and Jones 2010: 592).<sup>10</sup>

Similar to findings concerning ideological representation, analyses in Table 5 provide evidence that state legislative representation matters more for legislators' electoral fates in marginal districts. A marginal district becoming 13 percent more favorable towards an

<sup>&</sup>lt;sup>10</sup>When estimating a linear probability instead of a probit model, I find a standard deviation increase in a district's support for a state legislative bill associates with a .010 and .011 increase in the linear probability of incumbent reelection in all districts and single-member districts.

Ansolabehere and Jones code agreement by if a respondent to the 2006 CCES "favors the bill and believes the Representative voted for the bill" and construct an Average Perceived Policy Agreement measure across the 10 considered bills (Ansolabehere and Jones: 588). The relationship between actual agreement and voter behavior is not reported, but findings are similar when using actual roll-call votes as an instrument for perceived agreement (Ansolabehere and Jones: Table 5). I am unaware of other published work that provides the average effect voters' opinions of individual-roll calls have on voting behavior.

incumbent's roll-call position results in an incumbent's predicted vote share and probability of reelection respectively increase by 0.8 percent (Table 5: Column 4) and .018 (Table A-16: Column 4). In single-member, marginal districts, these changes are 1.0 percent and .019. Legislators in more vulnerable seats then have an electoral incentive to represent their districts, but statistical analyses from the final column of Table 5 reaffirm that legislators in more partisan districts appear to have less reason to run scared.<sup>11</sup>

As it is critical to consider differences across districts, it is also important to recognize that some roll-calls may be more important to voters than others. Even among more prominent legislation in Congress, evidence electoral connections exists concerning some but not all roll-calls (Bovitz and Carson 2006: Table 1). For example in the 2006 election, members of Congress faced ramifications for their vote on the Patriot Act but not on CAFTA (Ansolabehere and Jones 2010), and in 2010, voters rewarded their representatives for their positions on health care reform but not the stimulus package (Nyhan et al. 2012). At the state legislative level, voters may similarly be more concerned with gay rights than a soda tax. To investigate the relationship between public opinion and vote share on individual bills, I estimate separate OLS regressions for each bill and report the coefficient on District Support for Legislator's Position in the fourth column of Table 6 (full estimates available in the Online Appendix).

Analyses of individual bills provide stronger evidence of accountability in Maine, Washington, California, and Michigan. The Maine state legislature in 2009, for example, voted to legalize gay marriage, and perhaps reflecting that state legislators frequently misperceive their constituents' positions on this issue (Broockman and Skovron 2013), most legislators

<sup>&</sup>lt;sup>11</sup>The relationship between representation and incumbent vote share does not appear to be conditional on the the number of reporters devoted to state government nor the levels of legislative staff (Table A-18).

<sup>&</sup>lt;sup>12</sup>Focusing on elections from the 1990s, Ferejohn (1998: Table 2-2) provides evidence that Democrat incumbents endured electoral punishment for their positions on the budget, health care, and crime legislation but not the Hyde amendment in the 1994 U.S. House elections. Jacobson (1996: Table 4) similarly finds Democrats were punished for their roll-calls on the budget and NAFTA but not on crime legislation.

Table 6: Relationships between District-Level Support of Legislator's Roll-Calls and Incumbent Vote Share

State	Year of Referendum	Issue Area	Coef. on District Support of Roll Call	N	R-Squared	Chi-Square
AK	2000	Hunting	0.148 (0.215)	24	0.74	0.703
AK	2014	Oil Tax Cuts	-0.011 (0.183)	37	0.66	0.005
AZ	1998	Medical Marijuana	-0.002 (0.117)	32	0.95	0.000
AZ	1998	Marijuana Sentencing	-0.110 (0.224)	32	0.95	0.366
CA	2004	Health Care	0.291*(0.140)	70	0.81	4.697*
CA	2008	Slot Machines	$0.036 \ (0.106)$	51	0.86	0.135
CA	2008	Slot Machines	$0.011 \ (0.102)$	54	0.87	0.014
CA	2008	Slot Machines	$0.010 \; (0.101)$	55	0.87	0.013
CA	2008	Slot Machines	0.020 (0.10)	51	0.86	0.047
CA	2014	Native American Casino	$0.069 \ (0.115)$	41	0.49	0.447
ID	2012	Collective Bargaining	$0.140 \ (0.170)$	44	0.73	0.823
ID	2012	Teacher Pay	$0.130 \ (0.131)$	44	0.74	1.196
ID	2012	Education Spending	-0.017 (0.073)	44	0.73	0.066
MD	2006	Local Election Law	$0.038 \; (0.091)$	123	0.85	0.191
MD	2012	Gay Marriage	-0.018 (0.085)	102	0.92	0.051
MD	2012	Dream Act	-0.009 (0.070)	101	0.92	0.020
ME	2005	Gay Rights	$0.092 \ (0.057)$	134	0.42	2.746
ME	2008	Soda Tax	$0.039 \ (0.062)$	117	0.60	0.424
ME	2009	Gay Marriage	0.117*(0.052)	128	0.60	5.418*
MI	2002	Straight Party Ticket	0.146 (0.190)	60	0.69	0.678
MI	2006	Dove Hunting	0.091*(0.037)	94	0.84	6.211*
MI	2012	Emergency Managers	-0.069 (0.049)	103	0.74	2.153
MT	2012	Medical Marijuana	$0.057 \ (0.134)$	63	0.56	0.203
ND	2012	Native American Mascot	$0.011 \ (0.025)$	94	0.94	0.227
OH	2008	Payday Loans	-0.077 (0.062)	56	0.88	1.791
OH	2012	Collective Bargaining	-0.035 (0.069)	75	0.63	0.290
WA	2004	Charter Schools	$0.031 \ (0.047)$	94	0.89	0.469
WA	2008	Insurance Claims	-0.090 (0.101)	94	0.79	0.863
WA	2009	Gay Rights	$-0.070 \ (0.054)$	86	0.82	1.820
WA	2012	Gay Marriage	0.191* (0.094)	78	0.76	4.523*

\* $p \leq .05$ ; Standard Errors in Parentheses

Relationship between district-level support for incumbent's roll-call vote and incumbent vote share. Positive coefficients for "Coef. District Support of Roll-Call" indicate that voters reward or punish legislators for their roll-call position, which appears to be the case for 4 of 30 bills examined. Final column reports the Chi-Square statistic from likelihood ratio tests comparing models that include and exclude the "District Support" variable. Full estimates available in the Online Appendix.

voted against the majority opinion of their districts in this state. Findings in Table 6 suggest these incumbents paid an electoral price for this lack of dyadic representation. A 10 percent increase in district-support for a Maine legislator's roll-call on gay marriage results in a predicted 1.2 percent increase in reelection vote share. In Washington, a similar change in favorability towards gay marriage is associated with a more substantial 1.9 percent increase in incumbent vote share. There is also evidence that California and Michigan voters respectively held their legislators accountable for their positions on health care and hunting rights legislation, which is encouraging for the prospect that legislators are held accountable in some states for their positions on some issues.

Despite these instances of accountability, analyses of the other 26 of 30 bills produce no statistically significant relationship between voters' and legislators' behavior, including on legislation concerning the same issues of gay rights, health care, and hunting in other states. Even on the issue of gay marriage in Maine and Washington, the vote share loss associated with a standard deviation change in public opinion is less than the punishment endured by Democrats in the 2010 elections for supporting either the Affordable Care Act or Cap and Trade legislation (Nyhan et al. 2012: Table 3; see also Brady, Fiorina, Wilkens 2010; Jacobson 2011). The findings in Table 6 suggest that while accountability for roll-call voting is not absent in state legislatures, there is little evidence of associations between a district's support for a legislator's roll-call positions and that legislator's vote share for the majority of legislation considered here. Taken together with the weak average relationships presented in Table 5, the typical state legislator appears to face few electoral ramifications for his individual roll-call positions.

#### Discussion

The above studies test fundamental theories of electoral accountability. I find that state legislators who provide poor ideological representation of their districts receive lower vote shares, and legislators in some states face electoral punishment for unpopular roll-calls on some issues, such as gay marriage. However, representation seems to have less impact in state legislative elections than in Congressional elections and also matters less than a variety of other political variables known to influence election outcomes. Evidence of accountability is particularly lacking amongst state legislators who represent safe districts, and there seems to be little association between unpopular roll-call decisions and election outcomes on most legislation considered here.

While electoral connections are seemingly weak, my findings provide some evidence that state legislators have electoral incentives to represent their districts. Given how little attention the media and voters seem to pay to their state legislators, these results may surprise some. Any relationship between representation and election outcomes is almost always more encouraging for the health of democracy than no relationship, but it is important to avoid setting too low of a bar for levels of accountability based on low expectations. State legislators are responsible for important policymaking, appropriating over \$800 billion in tax revenue each year and making decisions on issues ranging from the environment to the death penalty. Without sufficient incentives for representation, state legislators may be more likely to succumb to pressures from interest groups, party leadership, or follow their own personal interests rather than represent their constituents' interests.

My analyses of state legislative elections raise important questions concerning accountability, but my study does not completely characterize the relationship between elections and representation in state legislatures. I employ the most extensive existing collection of district-level measures of legislator ideology and public opinion, but my investigation of the electoral implications of ideological representation requires strong assumptions to put voters and legislators in a common ideological space. While my analyses of whether voters punish legislators for unpopular roll-calls examine public opinion on the exact bills considered by their legislators, I only study a subset of states on a limited number of issues.

From a theoretical perspective, I focus on elections as a solution to a moral hazard problem (Ferejohn 1986) instead of an adverse selection problem (Fearon 1999). Carefully selected legislators may still produce representative policies. Legislators furthermore do not always know which roll-calls are important to voters, leading incumbents to "run scared." However in Carnes' survey of state legislators, only 40 percent of legislators agreed with the statement that "moderate candidates and politicians win significantly more votes" and even fewer (15 percent) thought "voters know who in government to blame for policies they do not like," suggesting legislators are partly aware there may be few ramifications for being out of step.

Many legislators may believe voters do not know who to blame for policymaking. Reality is that some voters do know who to hold accountable, and certain conditions surrounding elections improve the information environment for voters. Findings presented in Figure 2, for example, suggest that increased media attention to state government strengthens electoral connections, and the above analyses repeatedly provide evidence that legislators in marginal districts are more likely to be held accountable. While my studies illustrate that accountability state legislatures is sometimes scarce, it also shows the conditions under which electoral connections are most likely to be found, which I hope guides future research to determine how greater incentives for representation can be achieved in American legislatures.

Future researchers should also carefully consider how my results relate to assumptions critical to theories of American politics. Legislators' reelection goals are often central to theories of legislative organization (e.g. Cox & McCubbins 2005; Mayhew 1974a; Rhode 1991), which have already been repeatedly tested in states (Anzia and Jackman 2013; Cox, Kousser, and McCubbins 2010; Aldrich and Battista 2002). The above findings imply how many state legislators achieve their reelection goals should somewhat differ from their federal counterparts. Theories of legislative behavior developed and tested in Congress then may not cleanly translate to state legislatures. While state governments offer attractive institutional

variation for studies of how legislators and legislatures operate, the differences between the federal and state levels suggest that even within the subfield of American politics "American exceptionalism" perhaps applies to studying the federal government (Lipset 1997).

My findings have important implications for how scholars study politics, but their central message concerns accountability in state legislatures. State legislators have considerable authority over American lives. They determine who has the opportunity to vote, go to college, and even get married, and elections are the primary instrument by which citizens can exert control over those who govern them. This electoral connection can emerge through almost any state legislative contest, but electoral accountability will only meaningfully exist if there is a relationship between voters' and legislators' behavior, which does not appear to be the case in many state legislative elections.

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