Why do Legislators Skip Votes?

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Abstract

A state legislator's main job is to vote on legislation, yet legislators routinely miss votes. By studying absenteeism exclusively in the Congressional context, existing studies have produced useful but partial explanations. By shifting our focus to American state legislatures, we are able to assess additional dimensions of legislative absenteeism. Our analysis includes data on 3,089,089 individual votes cast by 4,667 legislators from 64 American states. Analyzing this data produces insights that build on and sometimes conflict with Congressional research. In particular, we find that state legislators tend to *avoid* participating in close or major votes, contrary to what Congressional studies have found. We also find that state-to-state variations in legislative professionalism—in particular, legislator salary—affect absenteeism, with increasing professionalism leading to less absenteeism.

An elected legislator's primary duty is to develop and vote on legislation, yet legislators routinely skip votes. In 2011, American state legislators missed an average of 5% of their floor votes; the worst tenth of legislators missed upward of 14% of their floor votes.[1] Given the critical role that floor voting plays in the legislative process, this absenteeism deserves our analytic attention.

High absenteeism certainly didn't escape anybody's attention during the 2012 elections. California Assemblyman Nathan Fletcher was accused of being "AWOL from Assembly sessions."[2] Kentucky Representative Alecia Webb-Edgington was urged to "return her salary" after missing several votes.[3] Ads complained that Utah Senator Dan Liljenquist "didn't show up to vote 227 times last year," missing "24 percent of the votes."[4] Washington State Senator Don Benton was criticized for missing 299 votes.[5] Examples are even easier to find in the better-publicized world of Congress.[6] If legislators are willing to miss votes despite the risk of being called out by an electoral opponent, we ought to understand why.

Existing research dealing with legislative absenteeism has focused on the data-rich Congressional context. This valuable Congressional literature has helped explain why absenteeism might vary from one legislator to the next within a single chamber (in this case, the U.S. House). Generally, that literature has focused on the role of individual characteristics such as ideology, seniority, leadership, and travel time from one's district to the capitol.

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[1] These statistics rely on data sources described below.
[2] See http://www.utsandiego.com/news/2012/may/10/filner-fletcher-missing-many-votes/
[3] See http://cincinnati.com/blogs/nkypolitics/2012/04/11/coast-calls-out-webb-edgington-on-missed-votes/
[4] See http://atr.rollcall.com/utah-freedom-path-ad-hits-dan-liljenquist-for-missed-votes/
[5] See http://www.columbian.com/weblogs/political-beat/2012/sep/26/examining-bentons-missed-votes-defense/
[6] A few examples from the 2012 Congressional elections: Connie Mack was asked to "explain how you don't show up to work." Bob Filner was accused of having "one of the worst attendance records in Congress." Debbie Wasserman Shultz was reportedly "more concerned with headlining fundraisers for [Obama than] … with fulfilling the responsibilities owed to her constituents." Mazie Hirono was called out for missing "127 votes in Congress." Gwen Moore was called "Wisconsin's most absent member of Congress." Ron Paul and Michele Bachmann were called out for skipping votes while campaigning for president.

We advance this literature by investigating absenteeism in American state legislatures. Shifting from Congress to state legislatures has the obvious advantage of increasing dramatically the number of legislators (4,667), bills (20,063), voting events (43,525), and individual votes (3,089,089) in our analysis. More importantly, we encounter circumstances in state legislatures that do not arise in the Congressional context, including wide variations in legislator salary, chamber size, chamber partisanship, and vote margins. Our analysis leads to two general conclusions. First, state legislators tend to skip close or controversial votes—the exact opposite of what has been found in Congressional research. Second, state-to-state variations in legislative professionalism—especially variations in legislative salary—have a meaningful impact on absenteeism. Where legislating is a career, legislators miss fewer votes; where legislating is a hobby, they miss more.

Understanding legislative absenteeism

Standard models of voter turnout draw our attention to four general considerations: The probability (p) of casting a decisive vote, the magnitude of the policy benefits (B) at stake, the transaction costs (C) of participating, and the consumption value of participating in the democratic (D) process. Using these four terms, the utility (U) to an individual voting of participating in an election is typically modeled with the following formula, the familiar "calculus of voting" (Downs 1957; Riker and Ordeshook 1968):

$$U_0 = pB - C + D$$

Although this model was developed to explain voter turnout in mass elections, it is easy to adapt it to the legislative context. A legislator's probability p of casting the decisive vote is higher on closer votes, when the majority party holds a narrower seat advantage, and when the

legislative body has fewer members. The policy consequences *B* are greater when voting on major bills, party line bills, and bills the legislator has sponsored personally. In the former two cases, the policy consequences for the nation (or for constituents) are greater; in the latter case, the policy consequences for the legislator personally may be greater. The consumption value of democratic participation *D* lacks obvious covariates. One possibility is chamber; Senators are said to exhibit more pride for their institution than Representatives (Matthews 1959), so we might expect less absenteeism in upper chambers as a result.

When have addressed *p*, *B*, and *D*, but not *C*. For *p*, *B*, and *D*, we can probably expect state legislators to behave similarly as members of Congress. Things change when we consider the costs *C* of showing up to vote. In Congress, these costs mostly reflect the difficulty of making trips back and forth between Washington and the various home districts. Existing work has found that U.S. Representatives miss more votes when they live far from the U.S. Capitol (Poole and Rosenthal 1997), especially on days that bump up against the weekends—Mondays and Fridays (Rothenberg and Sanders 1999). However, the dynamics producing these findings have little relevance to most state legislatures. Most state legislatures spend far fewer days in session than Congress does, eliminating the need to fly home on weekends for constituent meetings—state legislators can simply handle those matters outside of session. Moreover, the distance effect in Congress has been observed mainly for Representatives who live thousands of miles from the Capitol, distances that do not typically exist within individual states. Even in states with year-round sessions, the distances involved should not create meaningful travel problems for most legislators.

To model the costs *C* in state legislatures, then, we direct our attention to another matter: Legislative professionalism. A "professionalized" legislature is one with high legislative salary,

lengthier legislative sessions, and greater staff support; a citizen legislature has low salary, brief sessions, and minimal staff (Squire 1992; Squire 2007). Variations in legislative professionalism are perhaps the most meaningful and dramatic state-to-state variation in legislative structure, and states vary widely on all three dimensions of professionalism. New Hampshire legislators earn $100 per year; California legislators earn roughly $100,000.[7] Alabama legislators convene for only 30 days; legislators in eight states meet year-round.

Although the three components of professionalism are often grouped into a single variable, the so-called Squire index (Squire 1992; Squire 2007), we treat them separately as we do not expect each component to have the same relationship with professionalism. We expect legislator salary to have the greatest effect on absenteeism. When legislators receive minimal compensation, they must hold full-time jobs apart from their legislative service. Many citizen legislators hold flexible jobs that allow for lengthy leaves of absence, but even the most flexible jobs may require occasional attention during the legislative session, forcing legislators to miss votes. Meanwhile, higher paid legislators face much lower participation costs and ought to miss fewer votes.

Session length could also have an effect. In states with brief sessions, legislators may find that they cannot accomplish everything they want to do without missing a few votes. In Utah, for example, one legislator introduced 34 bills during the short seven-week session in 2011, bringing 25 of his bills to a floor vote. With so many bills, many of them consequential, it was inevitable that this legislator would leave the voting floor at times periods to discuss his bills with stakeholders, cosponsors, reporters, and other relevant groups. Had he enjoyed the luxury of a

[7] Data on salary, staff, and session length come from the 2009 *Book of the States*, published by the Council of State Governments.

year-round session, he surely could have found time to develop his bills without leaving the floor so often. On the whole, then, we expect shorter sessions to lead to increased absenteeism, especially among legislators who have other duties (such as leadership positions or large numbers of sponsored bills). We see echoes of this logic in the Congressional literature, where work has found that House leaders miss more votes than rank-and-file Representatives (Rothenberg and Sanders 1999). Perhaps their need to manage their party's legislative affairs takes them from the voting floor on occasion. We might expect this effect to be magnified if states with very short sessions.

Up to this point, we have relied heavily on the standard calculus of voting to explain legislative absenteeism. If voting in a legislature were like voting in a general election, then relying on the calculus of voting would be sufficient. Of course, voting in a legislature is *not* like voting in a general election. There are three critical differences relevant to the present discussion. First, legislative votes are public, not private, and are therefore reviewable by others, including fellow legislators. Second, legislators cast votes as representatives of their constituents, not as independent actors, and constituents have the opportunity to reward or punish their representatives on election day. Third, frequent abstention raises the risk of voter backlash on election day, as noted in the introduction, since voters expect legislators to labor actively in the interest of their constituents.

We begin with the second point. Because legislative votes are public and are subject to review by one's constituents, legislators have an incentive to skip votes that may be hard to explain at home. The most difficult votes to explain are those that pit different constituency groups against each other. Fenno (1978) wrote that legislators differentiate between their more ideological "primary" constituency (who can deliver renomination) and their more moderate

"reelection" constituency (who can deliver reelection). Controversial bills may pit these two groups against each other. If legislators were more concerned about enacting their preferred policy than about winning reelection, legislators would not worry about choosing between their primary and reelection constituencies. Of course, legislators generally rank things the other way; as Mayhew (1974) argued, legislators are more concerned with "position taking"—taking stances that won't offend core constituencies—than with policy outcomes (see also Groseclose and Milyo 2010). When it is impossible to cast a vote that will please all a legislator's key constituencies, the legislator might prefer to simply skip the vote: "Division or uncertainty in the constituency calls for waffling" (Mayhew 1974, 64).

Mayhew's "position taking" logic works against the calculus of voting. Whereas the calculus of voting predicts that absenteeism should decrease on close votes (because the legislator has a greater probability p of being decisive), the position taking logic predicts the opposite (because divisive issues call for waffling, not clear stances). This tension between decisiveness and waffling may explain some conflicting findings in the Congressional literature: Although absenteeism has been found to fall on close votes (Poole and Rosenthal 1997) and party-line votes (Rothenerg and Sanders 1999; Forgette and Sala 1999), it is higher among majority party legislators (Cohen and Noll 1991; Poole and Rosenthal 1997; Rothenberg and Sanders 1999), even though the most decisive legislator (the ideological median) is by definition within the majority party. We see evidence, then, that legislators feel some urge to participate in closer votes, perhaps due to party whipping, but nevertheless seek to avoid voting if they can. An important purpose of our analysis is to pit Downs and Mayhew against each other.

To this point, we have not differentiated between absenteeism and abstention. The first reason is practical: Many states do not report whether legislators who missed a particular vote

were out of the room or merely abstaining, so we have no real of way of treating absenteeism and abstention separately in our analysis. The second reason is conceptual: For most of the preceding theoretical discussion, it makes little difference whether a legislator avoids a particular vote by leaving the room or merely by voting "present." Either way, the legislator has avoided participating in a particular voting event. Throughout this paper, "absenteeism" should be read as referring to either behavior.

Hypotheses

The preceding theoretical discussion has identified several hypotheses about the causes of absenteeism in American state legislatures. We repeat them below for convenience, grouped by their theoretical motivations. If a particular hypothesis has been tested at the Congressional level, we have noted it in the preceding section. We are unaware of any studies investigating these hypotheses within state legislatures, as we do below.

Hypotheses relevant to the probability p that a legislator will cast a decisive vote:

- H1: Absenteeism is lower on close votes.
- H2: Absenteeism is lower when the majority party holds a narrower seat advantage.
- H3: Absenteeism is lower in smaller chambers.

Hypotheses relevant to the policy benefits B from having a vote pass or fail:

- H4: Absenteeism is lower on major bills (operationalized here as bills dealing with fiscal policy, state constitutional amendments, appropriations, and executive nominations).
- H5: Absenteeism is lower on party-line votes.
- H6: Legislators are less likely to miss votes on bills they sponsor personally.

Hypotheses relevant to the participation costs *C* involved in entering the voting chamber and casting a vote:

- H7: Absenteeism is higher in states that pay legislators less money.
- H8: Absenteeism is higher in states with short sessions, especially among legislators with competing legislative obligations (such as serving in leadership or sponsoring a large number of bills)
- H9: Absenteeism is higher among those with competing obligations (leaders and those sponsoring many bills).

Hypotheses relevant to the consumption benefits of participating in the democratic *D* process:

- H10: Absenteeism is higher in lower chambers than upper chambers.

Hypotheses based on the incentive to strategically miss votes that might be difficult to explain to constituents:

- H11: Absenteeism is higher on close votes.
- H12: Absenteeism is higher on high-profile votes.

Hypotheses H1-H10 are drawn from the calculus of voting. Hypotheses H11-H12 are drawn from Mayhew's position taking logic. There is a conflict between H11 and H1, and a broader philosophical conflict between H11 and H1-H3 collectively: Either legislators are more likely to show up when their decisiveness *p* is maximized (H1-H3), or they are more likely to avoid voting on close, controversial votes (H11). There is also a conflict between H12 and H4-H5: Either legislators are more likely to show up when the policy consequences *B* are greater

(H4-H5), or they are more likely to avoid taking a clear stance on major bills (H12). (Although H6 is also related to *B*, it has more to do with personal consequences for the legislator than with a bill's broader policy consequences, so H6 does not necessarily compete with H12.)

Data and Measurement

Our primary analysis uses roll call voting data. The data were collected by the Sunlight Foundation and made available through OpenStates.org. The Sunlight Foundation has embarked on an ambitious project to digitize floor votes for every state legislature. Although the Foundation has made substantial progress toward that goal, data are not available for all states. We rely on data from 2011, since that year has the best data availability. To ensure adequate variation within each level of analysis, we dropped voting events that attracted very few legislators,[8] legislators who cast very few votes,[9] and chambers where data was available for very few legislators or very few voting events.[10]

We are left with data covering 64 chambers from 35 states. In 29 states, we have data for both chambers; in 6 states, we have data for only one chamber. The data include 20,063 bills that were subject to at least one floor vote; 43,525 separate voting events; 4,667 legislators; and 3,089,089 separate legislator-votes coded as "aye," "nay," and "absent."[11]

The advantage of the Sunlight Foundation is that it is cross-sectional and contains an

[8] To ensure adequate variance at the "legislator" level of analysis, we dropped legislators who cast fewer than 20 votes. To omit legislators who faced outlying circumstances (typically serious illness or similar non-political issues), we dropped legislators with an absentee rate above 50%.

[9] To ensure adequate variance at the "voting event" level of analysis, we dropped any voting event with fewer than 18 legislators participating. To omit voting events that were actually committee votes miscoded as floor votes, we dropped voting events with an absentee rate above 50%.

[10] To ensure adequate variance at the "chamber" level of analysis, we dropped any chamber where sufficient information was available for fewer than 20 legislators.

[11] The Sunlight Foundation does not differentiate between "absent" and "abstain/present," so it actually presents data as "yes," "no," and "other." We treat all "other" votes as absent.

immense number of observations. What it has in breadth, however, it lacks in depth. As such, we supplement our cross-sectional analysis of Sunlight Foundation with a longitudinal analysis of legislative voting over 5 years within a single state: Utah. In the longitudinal analysis, we have the opportunity to observe legislators moving in and out of leadership, up and down in bill sponsorship activity, and even shifting from one chamber to the other. We also have the opportunity to calculate variables that are not readily available in the Sunlight Foundation data. The Utah roll call voting dataset is drawn from our own data collection efforts; we programmed an algorithm to extract roll call votes from the Legislature's official website, and we employed research assistants to collect demographic information and other variables about individual legislators. Table 1 provides a brief comparison of our two data sets. Both provide ample variance on several levels of analysis.

[Table 1]

Measurement of most of our variables is straightforward and requires minimal elaboration here. We obtained information about legislator salary, legislative staff, and session lengths from the 2009 *Book of the States*, published by the Council of State Governments; we increment and log each variable.[12] When running models, we increment and log salary, staff, and session length. We include a few brief notes about how other variables are measured:

- Bills sponsored. We include only primary sponsors, not cosponsors, in variables taking account of bill sponsorship.

[12] Regarding session length, some states have a constitutional limit on the number of calendar days in which the legislature can meet. Following standard practice, we multiply this number by 5/7 to estimate the number of weekdays. Another approach to measuring session length is to determine the number of distinct dates that appear in our roll call data. Doing so would precisely estimate the number of days when legislators convened on the voting floor. The difficulty is that legislators might convene for committee hearings on a particular day without convening on the floor, producing an underestimate of session length. In our analysis, we stick with the literature's standard measure of session length. (In our data, the two measures correlate at r=0.22, p=0.08).

- Vote margin. For each voting event, the vote margin is abs(AYES – NAYS), divided by the total chamber size. This will come to zero on a tied vote and 100 on a unanimous vote.
- Bill type. The Sunlight Foundation indicates whether a bill makes appropriations handles fiscal policy, amends the state constitution, or affects an executive nomination. We rely on the Sunlight Foundation's subject coding to generate appropriate dichotomous variables.
- Chamber's partisan margin. This is the difference in the number of seats held by the majority and minority parties, divided by the chamber size. This will come to zero for a chamber where Republicans and Democrats are tied and 100 for a chamber dominated by a single party.

Cross-sectional Analysis

Our cross-sectional analysis of the Sunlight Foundation data involves several analytical layers of analysis: The individual legislator, the bill, the voting event, the legislator-vote, the chamber, and the state. These levels are not nested hierarchically, but in a more complicated manner: Voting events are nested within bills, but voting events are also nested within chambers even though bills are not. Legislators are nested within chambers. Legislator-votes are nested within legislators but also within voting events. Chambers are nested within states. We begin by exploring absenteeism separately within each level of analysis. We then estimate a combined nested and crossed random effects model that takes account of all these levels of analysis at once to predict absenteeism.

We begin with individual legislators as the level of analysis. In Table 2, the dependent

variable is the percentage of floor votes (between 0 and 100) missed by each legislator in 2011. This variable is left-censored at 0; no matter how dedicated a legislator may be, she cannot miss fewer than 0 votes. Tobit analysis is most appropriate in this case, although I include OLS estimates for ease of interpretation. In both specifications, standard errors are cluster corrected by state.[13] The models in Table 2 assess two of our hypotheses, H9 and H10. Contrary to H9, we do not find evidence that legislators with competing obligations (leaders and active bill sponsors) miss more votes. Nor do we find evidence for H10, which predicted greater absenteeism in lower chambers—although we will find evidence for H10 in subsequent models reported below. The remaining variables in Table 2 are included merely as controls. We find that majority-party legislators miss fewer votes than minority party legislators, contrary to findings from the Congressional literature (Cohen and Noll 1991; Poole and Rosenthal 1997; Rothenberg and Sanders 1999). We also find that Republicans are less likely to miss votes than Democrats, regardless of majority status.

[Table 2]

In Table 3, the dependent variable is the percentage of legislators (between 0 and 100) who missed a particular voting event. Once again, this is left-censored at zero, so tobit is the appropriate model. Because many bills received multiple votes, standard errors are cluster-corrected by bill. These models pit H1 against H11 and H4 against H12; they also test H10. What is most striking is the effect of the vote margin on absenteeism. When a vote is close, absenteeism shoots up; when a vote is lopsided, absenteeism falls. This finding goes against H1, which was based on the calculus of voting and supported by the Congressional literature (Poole and Rosenthal 1997), but supports H11, which was based on the position taking framework.

[13] Cluster corrections by chamber, not state, produce the same pattern of statistical significance.

[Table 3]

We also find in Table 3 that absenteeism rises on votes dealing with major bills—appropriations, fiscal policy, and executive nominations—rather than falling. This finding goes against H4, which was based on the calculus of voting, but supports H12, which was based on the position taking framework. Taken together, these two findings are a departure from the Congressional literature: State legislators are more concerned with avoiding controversial issues than with casting decisive votes.

Table 3's tobit specification finds that absenteeism is higher in lower chambers than upper chambers, lending support to H10. Table 3 also contains a control variable indicating whether legislators were voting on a bill sponsored by a member of their own chamber. Given that legislators can observe one another's votes, perhaps it is unsurprising that legislators prefer not to alienate their intrachamber colleagues by skipping votes on their bills.

Table 4 considers absenteeism aggregated to the chamber level. The dependent variable is the absentee rate of each chamber's median legislator.[14] Once again, censoring at zero makes tobit the appropriate specification. Standard errors are cluster corrected by state. Table 4 contains tests of H2, H3, H7, H8, and H10. Contrary to H2 and H3, we do not find that chamber size or the partisan seat margin have meaningful effects. Contrary to H8, we do not find that shorter session lengths increase absenteeism, although the estimate is in the right direction; bear in mind, however, that H8 calls for an interaction that we cannot test in this chamber-level specification. And contrary to H10, we do not find that lower chambers have greater absenteeism, a result inconsistent with the finding from our previous table.

[14] We could also use the absentee rate during each chamber's median voting event. The two indicators correlate at $r=0.94$ ($p<0.0001$), though, so the difference is trivial.

[Table 4]

What we do find in Table 4 is clear evidence of a salary effect, as predicted in H7. Legislators who earn more money miss fewer votes. In the average chamber, the median legislator missed 2.98% of her votes in 2011. In a chamber at this average, moving from the 25th percentile for annual salary ($10,000) to the 75th ($42,589) would be expected to decrease the chamber's median absenteeism rate substantially, from 2.98% to 2.23%. Raising legislator salaries is an effective—if costly—way to reduce legislative absenteeism.

The preceding tables have treated each level of analysis separately. Simultaneously modeling all the variables discussed thus far requires attention to several levels of analysis at once. As shown in Table 1, there were 20,063 bills that came to a vote in these data, with 43,525 distinct voting events. The 4,667 legislators participating in these voting events produced 3,089,089 individual legislator-votes. These various levels are not nested hierarchically. As such, we estimate a combined nested and crossed random effects model to predict absenteeism. The level of analysis is the 3,089,089 legislator-votes—each individual "aye," "nay," or absence. The dependent variable is dichotomous, with 1 indicating a missed vote and 0 otherwise. The results appear in Table 5. In the table, we group the various coefficients by level of analysis. The variables we estimate arise at the level of the state, chamber, bill, voting event, legislator, and legislator-vote. We estimate random effects for all levels of analysis, even those that lack specific right-hand variables in the model.

[It turns out that running model 5 requires well over a week, even on our university's supercomputer server. The massive sample size, combined with the nested and crossed data structure, imposes massive computational demands. For purposes of this conference paper, we

must unfortunately leave Table 5 blank, even though it is the main model for purposes of analyzing the Sunlight Foundation data. Given how long it takes to estimate this model, we greatly appreciate feedback about the appropriate specification. We don't have the usual luxury of running the model over and over with a slightly different specification each time. We can really run it only a handful of times before losing our sanity.]

Longitudinal analysis: Utah, 2007-2011

The models presented thus far rely on the cross-sectional Sunlight Foundation data. We now turn to the longitudinal data from the Utah Legislature. Relative to the cross-sectional data, the Utah data adds some variables and removes others. The "chamber" and "state" levels of analysis disappear from the Utah-only model for an obvious reason—lack of variance. The "legislator" level of analysis is replaced with a "legislator-year" level of analysis. We add indicators for party-line votes, day of session (an integer between 1 and 45), and ideology (using the D-NOMINATE algorithm, with more liberal scores at -100 and conservative scores at +100). The model shown in Table 6 uses the same nested and crossed random effects approach as we used for the Sunlight Foundation data. This model contains tests of H1, H5, H6, H8, H9, H10, and H11.

[Table 6]

Several of the findings in Table 6 mirror those found in the Sunlight Foundation data. In particular, we see that absenteeism falls on close votes, which favors H11 over H1. We also see that legislators tend to miss party-line votes, contrary to H5 and findings from the Congressional literature. It seems that legislators are more concerned with strategically missing controversial votes (per Mayhew 1974) than with exerting a decisive influence on policy outcomes (per

Downs 1957 and Riker and Ordershook 1968).

Because Table 6 incorporates data from only a single state, we cannot directly test the effects of salary (H7) or session length (H8). As a partial test of H8, however, we test whether absenteeism rises as the brief 45-day session nears its close. We actually find the opposite—the quadratic effect of *day of session* veers sharply negative as the session advances, suggesting that legislators actually leave the floor less in the session's final days. Although there is a positive interaction between *day of session* and *number of bills sponsored*—evidence in favor of H8, which predicts that citizen legislators will be more likely to miss votes if they sponsor a large number of bills—the coefficient is substantively trivial. Active bill sponsorship does not destine a citizen legislator to miss votes—not at the beginning of the session, and not at the end of it. We do find evidence that legislative leaders miss more votes than rank-and-file legislators, consistent with H9, although we do not have an interaction (yet) of this variable with *day of session*, so we cannot comment on that aspect of H8.

Table 6 does provide evidence for H10: Representatives miss move votes than Senators. It also provides evidence for the almost-trivial H6: Legislators are far, far, far, less likely to miss votes dealing with bills they have sponsored. The model contains a few trivial control variables as well. We observe that legislators are more likely to miss a bill's first vote than its subsequent votes. We also see that legislators are more likely to miss a "concurrence vote," the Utah Legislature's term for a motion to accept amendments made to a bill by the other chamber. Likewise, conservative (i.e. majority) legislators are more likely to miss votes, contrary to the finding in Table 2 that Republican and majority-party legislators tend to miss fewer votes.

Discussion

We began by deriving hypotheses from two main theoretical traditions. Rational models of voter turnout in general elections (Downs 1957; Riker and Ordeshook 1968), as applied to legislative voting, motivated hypotheses H1 through H10. In particular, H1-H3 reflect *p*, H4-H6 reflect *B*, H7-H9 reflect *C*, and H10 reflects *D*. We derived additional hypotheses (H11 and H12) from Mayhew's (1974) position taking logic, emphasizing that legislators may have strategic decisions to miss votes that commit them to specific, controversial stances.

We noted at the outset a philosophical conflict between H11 and H1-H3, and another philosophical conflict between H12 and H4-H5. If legislators are more likely to show up when their probability *p* of casting a decisive vote is higher, we should confirm H1-H3 and reject H11; if legislators avoid taking positions on close, controversial votes, we should observe the opposite. If legislators are more likely to show up when the policy consequences *B* are greater, we should confirm H4-H5 and reject H12; if legislators avoid taking specific positions on the most important policy matters, we should observe the opposite.

As it happens, we have found no evidence for H1 (absenteeism falls on close votes), H2 (absenteeism falls when the party margin is slim), H3 (absenteeism falls in smaller chambers), or H4 (absenteeism is lower on high profile bills). We did find evidence for H5 (absenteeism is lower on party-line votes), but we tested this hypotheses only in the Utah data. Meanwhile, we found clear evidence in favor of H11 (absenteeism rises on close votes) and H12 (absenteeism rises on high profile bills). Where the calculus of voting conflicts with Mayhew's position taking logic, it appears that position taking behavior dominates.

We found evidence consistent with some of the remaining hypotheses (H6-H10), which

were derived from aspects of the rational calculus of voting that did not conflict with the position taking logic. Most notably, we found clear evidence that legislators who earn less money for their service miss fewer votes (H7). We did not find clear evidence that shorter session lengths lead to increased absenteeism (H8), although we did find borderline evidence that legislative leaders miss more votes than rank-and-file legislators (H9), but only in the Utah analysis. We also found evidence suggesting that absenteeism is higher in lower chambers (H10), although the effect's statistical significance came and went from one specification to the next.

On the whole, then, it appears that the *C* and possibly *D* terms from the rational calculus of voting are useful ways to understand legislative absenteeism. The *p* and *B* terms, on the other hand, are not; rather, the position taking logic produces exactly the opposite pattern. Perhaps the most straightforward (but costly) way to decrease legislative absence is to reduce the participation costs *C* to legislators by increasing legislators' salary.

References

Downs, Anthony. 1957. *An economic theory of democracy*. New York: Harper and Row.

Cohen, Linda R., and Roger G. Noll. 1991. How to vote, whether to vote: Strategies for voting and abstaining on Congressional roll calls. *Political Behavior* 13 (June): 97-127.

Fenno, Richard F. 1978. *Home style: House members in their districts*. Boston: Little, Brown.

Forgette, Richard, and Brian R. Sala. 1999. Conditional party government and member turnout on Senate recorded votes, 1873-1935. *Journal of Politics* 61 (May): 467-484.

Groseclose, Tim, and Jeffrey Milyo. 2010. Sincere versus sophisticated voting in Congress: Theory and evidence. *Journal of Politics* 72 (January): 60-73.

Matthews, Donald R. 1959. The folkways of the United States Senate: Conformity to group norms and legislative effectiveness. *American Political Science Association* 53 (December): 1064-1089.

Poole, Keith T., and Howard Rosenthal. 1997. *Congress: A political-economic history of roll call voting*. Oxford: Oxford University Press.

Riker, William H., and Peter C. Ordeshook. 1968. A theory of the calculus of voting. *American Political Science Review* 62 (March): 25-42.

Rothenberg, Lawrence S., and Mitchel Sanders. 1999. Rational abstention and the Congressional vote choice. *Economics and Politics* 11 (November): 311-340.

Squire, Peverill. 1992. Legislative professionalism and membership diversity in state legislatures. *Legislative Studies Quarterly* 17:69-79.

Squire, Peverill. 2007. Measuring state legislative professionalism: The Squire index revisited. *State Politics and Policy Quarterly* 7 (June): 211-227.

Wright, Gerald. 2004. Representation in America's legislature. Indiana University: National Science Foundation Grant (awards SES-0094635 and SES-0242571).

Table 1: Levels of analysis

	Utah	**National**
Source	Original data set	Sunlight Foundation
States	Utah only	35
Chambers	2	64
Years	2007-2011 (General Sessions only)	2011 only (all session types)
Bills	2,922 bills	20,063 bills
Voting events	7,473 voting events	43,525 voting events
Legislators	153 legislators (104 per year)	4,667 legislators
Legislator-years	520 legislator-years	--
Individual votes cast	361,854 votes cast	3,089,089 votes cast

Table 2: Legislator characteristics and absenteeism

	OLS	**Tobit**
In leadership?	-0.84†	-0.81
	(0.44)	(0.53)
Number of bills sponsored	-0.039	-0.041
	(0.024)	(0.030)
Republican?	-0.55	-0.96*
	(0.37)	(0.46)
Member of majority?	-0.95*	-1.25*
	(0.44)	(0.50)
In lower chamber?	0.67	0.98
	(0.86)	(1.07)
Constant	5.85**	5.15**
	(1.01)	(1.19)
N	4,667	4,667
Other statistics	R^2 0.02, adj R^2 0.02	Sigma 8.01 (0.57)

†p≤0.10, *p≤0.05, **p≤0.01 (two-tailed). The dependent variable is the percentage of floor votes missed by each legislator in 2011. In the tobit specification, 811 observations are left-censored at zero. Inserting indicators for legislator age and education (from Project VoteSmart) lowers N to 2,697; none of these indicators is statistically significant when included. Standard errors are cluster corrected by state.

Table 3: Voting events and absenteeism

	OLS	**Tobit**
Bill originated in voting chamber?	-0.34**	-0.43**
	(0.10)	(0.14)
Vote held in lower chamber?	0.13	1.60**
	(0.089)	(0.12)
Vote margin (as a percentage, 0-100)	-3.53**	-4.75**
	(0.23)	(0.30)
Bill makes appropriations?	5.47**	5.47**
	(0.52)	(0.53)
Bill handles fiscal policy?	1.01**	2.14**
	(0.14)	(0.16)
Bill amends state constitution?	0.81	0.77
	(1.52)	(1.79)
Bill is a nomination?	0.45**	2.33**
	(0.16)	(0.28)
Constant	7.80**	6.52**
	(0.28)	(0.36)
N	43,525	43,525
Other statistics	R^2 0.04	Sigma 7.95 (0.073)

†p≤0.10, *p≤0.05, **p≤0.01 (two-tailed). The dependent variable is the percentage of legislators who missed a particular voting event. In the tobit specification, 11,557 observations are left-censored at zero. Standard errors are cluster-corrected by bill: 7,559 bills had only one vote, 7,683 had two votes, and the rest had three or more votes.

Table 4: Chamber characteristics and absenteeism

	OLS	**Tobit**
Vote held in lower chamber?	-0.021 (0.77)	0.047 (0.78)
GOP has chamber majority?	-0.81 (0.87)	-0.85 (0.88)
Partisan margin (as a percentage, 0-100)	0.00035 (0.027)	0.0019 (0.027)
Number of legislators in chamber	0.00038 (0.0053)	0.0017 (0.0055)
Legislator salary (logged)	-0.52* (0.21)	-0.49* (0.23)
Number of legislative staff (logged)	0.80 (0.48)	0.75 (0.48)
Days in legislative session (logged)	-0.99 (1.07)	-1.05 (1.06)
Constant	7.89 (4.73)	7.92 (4.98)
N	64	64
Other statistics	R^2 0.21	Sigma 3.14 (0.36)

†p≤0.10, *p≤0.05, **p≤0.01 (two-tailed). The dependent variable is the absentee rate (as a percentage) of each chamber's median legislator. In the tobit specification, there are 5 observations left-censored at zero. Standard errors are cluster-corrected by state: 6 states have data for only one chamber, while 29 have data for two chambers.

Table 5: Absenteeism in the state legislatures

Variable	**Coefficient**	**Standard error**	**Probability (two-tailed)**
Level of analysis: The state (N=35)			
Legislator salary (logged)			
Number of legislative staff (logged)			
Days in legislative session (logged)			
Level of analysis: The chamber (N=64)			
Lower chamber?			
GOP has chamber majority?			
Partisan margin (as a percentage, 0-100)			
Level of analysis: The bill (N=20,063)			
Bill makes appropriations?			
Bill handles fiscal policy?			
Bill amends state constitution?			
Bill is a nomination?			
Level of analysis: The voting event (N=43,525)			
Bill originated in voting chamber?			
Vote margin (as a percentage, 0-100)			
Level of analysis: The legislator (N=4,667)			
In leadership?			
Number of bills sponsored			
Republican?			
Member of majority?			
Level of analysis: The legislator-vote (N=361,854)			
Is this vote being cast by the bill's sponsor?			
Intercept			
Random effects by group	*N*	*Std. Dev.*	
State: intercept			
Chamber: intercept			
Bill: intercept			
Voting event: intercept			
Legislator: intercept			
Legislator-vote: intercept			

Table 6: Absenteeism in the Utah legislature, 2007-2011

Variable	**Coefficient**	**Standard error**	**Probability (two-tailed)**
Level of analysis: The voting event (N=7,473)			
Did the bill originate in the chamber presently voting?	-0.25	0.031	<0.001
Is this vote being held in House?	+0.50	0.14	<0.001
Is this a party-line vote?	-0.89	0.046	<0.001
How close was this vote? (The margin, as percentage)	-0.014	0.00088	<0.001
Is this a concurrence vote?	+0.13	0.041	0.002
Day of session (first day of session = 1)	+0.017	0.0030	<0.001
Day of session squared	-0.037	0.0054	<0.001
Is this the first vote being held on this bill?	+0.17	0.03	<0.001
Level of analysis: The legislator-year (N=520)			
Is this legislator in leadership?	+0.40	0.10	<0.001
How many bills is this legislator sponsoring?	+0.0028	0.0049	0.56
How many years of experience does this legislator have?	+0.054	0.0092	<0.001
What is this legislator's NOMINATE score? (−100 to +100)	+0.0048	0.00098	<0.001
Level of analysis: The legislator-vote (N=361,854)			
Is this vote being cast by the bill's sponsor?	-3.95	0.22	<0.001
Interaction: Day of session × number of bills sponsored	+0.00013	0.000044	0.004
Intercept	-3.00	0.17	<0.001
Random effects by group	*N*	*Std. Dev.*	
Voting event: intercept	7,473	0.42	
Bill: intercept	2,922	0.078	
Bill: party-line vote	2,922	0.40	
Legislator: intercept	153	0.66	
Legislator-year: intercept	520	0.49	