

Does Lobbying Affect Bill Advancement? Evidence from Three State Legislaturesⁱ

Daniel M. Butler
University of California San Diego
daniel.butler@gmail.com

David R. Miller
Vanderbilt University
david.r.miller@vanderbilt.edu

Abstract

Many studies consider the effect of lobbying on the behavior of individual legislators, but few studies demonstrate a relationship between lobbying and the ultimate dispositions of bills by the legislature. One challenge to establishing this latter relationship is data scarcity, as few legislatures systematically collect and publish information on organized interests' lobbying activities on each bill. We provide new insights on lobbying by using data from Colorado, Nebraska, and Wisconsin that records the positions organized interests take on proposals in those states' legislatures. We find that organized interests' lobbying predicts outcomes, especially when lobbying is directed against a proposal. We also use our data to test whether lobbying succeeds by building support among legislators (i.e., vote buying) or by affecting a proposal's advancement through the legislative process (i.e., agenda control). We find that lobbying does not buy the votes of legislators on the committees of jurisdiction for each bill, but lobbying does strongly predict what bills make it onto the agenda. Our findings contribute to ongoing discussions about money and politics, bias in representation, and legislator behavior.

Word Count: 9,948

Keywords: Lobbying; Agenda Control; State Legislatures; Vote Buying

Whether organized interests' lobbying efforts affect policy outcomes is a contested issue.ⁱⁱ Some studies of lobbying and policymaking provide evidence that lobbying influences political actors' behavior (Bergan 2009; Hall and Miler 2008) and final policy outcomes (Anzia and Moe 2015; Grasse and Heidbreder 2011; Grossmann and Pyle 2013). Because some constituencies in the population, such as businesses and the upper-class, are better represented by organized interests, some scholars conclude that lobbying leads to outcomes that favor those privileged constituencies (Gilens and Page 2014; Schlozman, Verba, Brady 2012). Further, because lobbying is thought to reinforce the status quo in public policy, (Baumgartner et al. 2009), the efficacy of lobbying may empower the privileged to block policy changes favored by the public at large (Gray et al. 2010; Gerber 1999). However, other studies suggest that lobbying has a limited effect on political officials' actions (Wawro 2001) and government outputs (Baumgartner et al. 2009; Lewis 2013), thus tempering the normative concerns expressed about lobbying's pernicious effects (Bashir 2015; Enns 2015). Given these conflicting conclusions concerning the effectiveness of lobbying, it is difficult for scholars and practitioners to substantiate claims about its normative consequences and offer reform proposals that improve the responsiveness of government to the polity at large.

One challenge to understanding whether and how lobbying influences policy outcomes is data scarcity about the positions that organized interests take on bills (Leech 2010; Anzia 2019). While scholars can sometimes compile this information for a subset of bills, they rarely analyze the full set of bills considered before a legislature. Consequently, scholars "often focus only on issues that reach the end stages of the policy process or that are well published" because data is more accessible for these issues, making it difficult to draw generalizations because these issues "simply are not representative of what typically occurs" (Baumgartner et al. 2009: 2).

We offer new insights into the relationship between lobbying and policymaking by using lobbying disclosure data from three US states that provide information not available for commonly studied institutions, such as Congress (Anzia 2019). Specifically, Colorado, Nebraska, and Wisconsin require organized interests to report the bills on which they lobby and the positions they take on those bills, allowing us to examine the relationship between lobbying and outcomes for the full universe of legislative proposals.

We find that lobbying is related to legislative outcomes. Of the over 26,000 bills in our data, half experience one-sided lobbying, where all lobbying is either in support of or in opposition to the bill, and this lobbying strongly predicts bill outcomes. Consistent with work on niche lobbying (Baumgartner and Leech 2001), we find that one-sided lobbying for (against) a bill is associated with an 11 percentage point increase (26 percentage point decrease) in the probability of enactment. We also find that bills are less likely to be enacted when they experience two-sided lobbying. Consistent with previous work, our findings suggest a status quo bias in lobbying (Baumgartner et al. 2009).

We also consider whether lobbying affects these outcomes by influencing the agenda (agenda control) or legislators' votes (vote buying). While previous studies have explored whether lobbying affects votes (Wawro 2001), few assess whether organized interests influence outcomes through influencing the agenda (but see Lorenz 2020)—a striking disparity given the importance of agenda-setting in legislative politics (Cox and McCubbins 2005; Anzia and Jackman 2013) and because organized interests are expected to have more influence at less visible stages of the legislative process (Hall and Wayman 1990). We study the effects of lobbying on agenda control by assessing the relationship between lobbying and bills' progress through intermediate steps in the legislative process, such as being voted out of committee. We

also investigate interests' ability to buy votes by studying how legislators serving on a bill's committee of jurisdiction vote once that bill reaches the floor when new lobbying occurs between their committee and floor votes.

We use data from Wisconsin to investigate these mechanisms by which lobbying influences legislative outcomes because the state's reporting requirements allows us to identify when, in a bill's progress through the legislative process, interests lobbied on it. Our analyses do not provide evidence that lobbying buys committee members' final passage votes, but they do suggest that organized interests use lobbying to control the agenda. While previous work has emphasized the importance of agenda control for understanding legislative politics, it has largely focused on party leaders. We show that lobbying appears to influence outcomes in a similar way. Lobbyists are not changing votes on the floor but are instead shaping outcomes by affecting the agenda.

How Lobbying Can Influence Outcomes

Organized interests lobby for a variety of reasons including securing grants and other selective benefits, advancing or blocking policies to alter or maintain the status quo, and performing institutional maintenance such as recruiting members and soliciting donations (Lowery 2007). However, each of these motivations drive organized interests to concentrate on a common pursuit—affecting public policy. Of the many venues in which organized interests can seek to influence policy, legislatures are often their venue of choice (Baumgartner et al. 2009; Schlozman and Tierney, 1986), and, consequently, studies of lobbying tend to focus on interests' efforts to influence legislation. These studies typically assume that lobbying affects legislative outcomes through one or both of two mechanisms. First, lobbying may leverage legislative procedure to exert agenda control, facilitating or blocking a proposal's advancement

by lowering or raising institutional roadblocks (Anzia and Jackman 2013; Garlick 2016; Powell and Grimmer 2016). Second, lobbying may promote or inhibit a proposal's success through vote buying, or by securing the votes of enough legislators to pass or defeat the proposal (Schnakenberg 2017; You n.d.).

Despite scholars' ultimate interest in the relationship between aggregate lobbying activity and legislative outcomes, most studies focus on the strategies and tactics organized interests direct towards individual legislators, such as making campaign contributions (Fournaies 2018; Fournaies and Hall 2018; Powell and Grimmer 2016), directly contacting legislators and their staffs (Miller 2021, Wiener 2020.; You n.d.), mobilizing constituents (Bergen 2009), subsidizing legislative effort (Hall and Deardorff 2006; Hall and Miler 2008), and leveraging network connections (Blanes i Vidal et al. 2012; McCrain 2018). This focus on the effect of lobbying at the legislator-level, rather than the legislature-level, stems in part from two research design challenges. First, because legislatures are collective institutions, it is difficult for researchers to design empirical tests that identify the effect of lobbying strategies and tactics directed at individual legislators on aggregate policy outcomes. For example, though it is feasible to trace organized interests' campaign contributions to individual legislators and compare the levels of contributions made to those who gain or lose an agenda setting position to other legislators (Fournaies 2018), it is difficult to test the relationship between organized interests' campaign contributions to individual legislators and the legislature's ultimate disposition of a given bill. Second, researchers often lack the requisite data to evaluate the relationship between the lobbying activity on and final dispositions of those proposals. For example, in Congress, where most studies of lobbying and policymaking focus, organized interests infrequently indicate on

their Lobbying Disclosure Act (LDA) reports the bills on which they lobby, and they seldom provide their positions on the bills they list.ⁱⁱⁱ

In recent years, a few studies have found innovative ways to overcome these data scarcity challenges and examine the relationship between aggregate-level lobbying activity and legislative outcomes. However, these studies offer contrasting conclusions as to whether lobbying influences outcomes. At the federal level, Baumgartner et al. (2009) draws on interviews with lobbyists and government officials to track lobbying activity and policy change in 98 issue areas over the course of four years. While the authors find modest evidence that lobbying activity affects the likelihood of policy change, they conclude that policy change is rare because activists often mobilize on both sides of an issue to cancel out each other's efforts and leave the status quo intact. Differently, McKay (2012), using a federal lobbyist survey from the early 1980s in which lobbyists reported their positions on up to five policy issues, concludes that organized interest lobbying in opposition to, but not in favor of, congressional or bureaucratic policies helps bring policy closer to interests' preferences. Additionally, drawing on LDA reports, Grossmann and Pyle (2013) conclude that the volume of lobbying activity directed towards a bill, as measured by the number of times it is mentioned in reports, increases its likelihood of advancement through the legislative process.

Grasse and Heidbreder (2011) and Lewis (2013) draw on lobbying disclosure filings from Wisconsin from the 2005-06 and 2007-08 legislative sessions, respectively, and also arrive at conflicting conclusions concerning the relationship between lobbying and outcomes. Whereas Grasse and Heidbreder (2011) argue that the balance of lobbying activity on a bill is related to its disposition, Lewis (2013) finds weak evidence for a relationship between lobbying and

outcomes, instead suggesting that the balance of campaign contributions made by interests taking positions on a given bill are predictive of its success.^{iv}

Our research design, which we outline in the next section, builds on these studies in several ways by drawing on lobbying disclosures and legislative histories from 24 sessions in the legislatures of three states—Colorado, Nebraska, and Wisconsin. First, we build on Baumgartner et al. (2009) and McKay (2012) by using a design that enables us to consider both proposals on which lobbying occurred and those on which it did not, thus limiting concerns about post-treatment bias (Montgomery, Nyhan, and Torres 2018). Second, rather than using random samples of bills or policy areas, we incorporate the full population of bills for the states and legislative sessions in our study. Third, our study incorporates a long time series across three distinct legislative institutions. In contrast to the “one-shot, cross-sectional” approach common in the study of organized interests, which Baumgartner and Leech suggest “seems a perfect strategy for producing unexplained variation between studies” and “is a recipe for the creation of a contradictory and noncumulative literature” (1998: 176), the scope of our study enhances the generalizability of our findings.

Our main expectation is that if lobbying affects legislative outcomes, then a bill that experiences only favorable (unfavorable) lobbying is more (less) likely to become law relative to a bill that experiences no lobbying. We refer to situations where bills experience only lobbying that is favorable or unfavorable to them as instances of “one-sided lobbying” for or against the bills, respectively. Further, when bills experience both favorable and unfavorable lobbying, or “two-sided lobbying” for and against them, previous work suggesting a status quo bias in lobbying (Baumgartner et al. 2009) and the greater efficacy of unfavorable as opposed to

favorable lobbying (McKay 2012) leads us to expect that these bills will be less likely to pass than bills that experience no lobbying.

We also offer and empirically test expectations concerning two of the mechanisms by which lobbying is thought to influence legislative outcomes: agenda control and vote buying. First, if lobbying enables organized interests to affect outcomes by influencing whether bills get on the legislative agenda, we expect bills that experience one-sided lobbying for them (one-sided lobbying against them or two-sided lobbying) to be more (less) likely to advance through intermediate steps of the legislative process where agenda control is exercised. We evaluate this mechanism by examining the relationship between lobbying activity and bills' achievement of three intermediate steps: receiving approval from its committee; reaching the floor in its chamber of origin; and passing a final vote in its chamber of origin. Second, if lobbying exerts influence on outcomes by affecting how legislators vote, we expect one-sided lobbying for a bill (one-sided lobbying against a bill or two-sided lobbying) to make legislators more likely to vote for (against) the bill. We assess this mechanism by exploring whether members of the bill's committee of jurisdiction vote differently on final passage if new lobbying has taken place between the committee and floor votes.

Data on Lobbying and Legislation

We examine the relationship between lobbying and legislative outcomes with data drawn from three states where organized interests are required by law to submit detailed reports on their lobbying activity—Colorado, Nebraska, and Wisconsin.^v Interests lobbying the legislature in these states must report the specific bills for which they make any lobbying communications with legislators or staff members, as well as the positions they take on those bills. Grasse and Heidbreder (2011) and Lewis (2013) draw on this data from Wisconsin, but they do so for single

legislative sessions. Our data encompasses 24 legislative sessions across these three states (Colorado from 2007-2015, Nebraska from 2007-2018, and Wisconsin from 2003-2018).^{vi}

We use data from two different sources. First, we collect information on which bills each organized interest lobbied and the positions they took on those bills. While Colorado provides this information in a downloadable format, we needed to scrape this data from the state government websites of Nebraska and Wisconsin. Second, to ascertain bills' outcomes, we scraped the legislative histories of each bill introduced for the legislative sessions in our analysis from each of the state legislatures' websites. In total, our data set contains 26,051 unique bills, 80.7% of which were lobbied on by at least one organized interest.

The Importance of Context

Utilizing data from state legislatures presents advantages and limitations. Substantial variation in the three states we examine provides opportunities to consider whether lobbying's influence on legislative outcomes is consistent across legislative institutions (Anzia 2019). For instance, the three states differ in their partisan leanings; while Colorado and Wisconsin leaned Democratic in most presidential elections that took place during the period we study, Republican presidential candidates won Nebraska by wide margins. The three state legislatures also vary with respect to key institutional contours. For example, whereas Colorado's legislative professionalization score ranks in the top quartile of state legislatures (12th), the scores of Nebraska and Wisconsin fall near the median (21st and 26th, respectively; see Squire 2017). Again, while the level of polarization in both of Colorado and Wisconsin's chambers falls in the top quartile among all state legislative chambers for the most recent year in our analysis (2015), the degree of polarization in Nebraska's single chamber was the fourth lowest (96th out of 99; see Shor and McCarty 2011). Further, the structure of Nebraska's nominally non-partisan,

unicameral legislature fundamentally differs from the structure of the legislatures in the remaining 49 states. These and other differences among the states in our analysis enable us to assess the generalizability of our findings across contexts.

One key limitation of our study is that we cannot explicitly speak to the relationship between lobbying and outcomes in Congress, which is where this dynamic is most commonly studied. Consulting stylized facts about Congress and state legislatures can contextualize how our findings might translate to the federal level. The effects of lobbying on outcomes might be larger at the state level for at least two reasons. First, because lobbyists are better able to influence outcomes when they receive less attention (Baumgartner and Leech 2001), the relatively low salience of state legislative activity may provide more fertile ground to exercise influence. Second, because state legislators generally have lower policy capacity than members of Congress, they are more likely to rely on organized interests during the legislative process (Hertel-Fernandez 2014). However, the variation that exists across our three states can also help us infer how the effects we identify compare to those at the congressional level. For instance, given that Colorado's legislature is more professionalized than those in Nebraska and Wisconsin, the similarity of our results between Colorado and the other two states can inform the degree to which professionalization or its related concept, policy capacity, may condition the effect of lobbying on outcomes.

Testing the Relationship Between Lobbying and Legislative Outcomes

Because organized interests' policy goals are achieved only with the final success or failure of a bill and because the normative debates about lobbying often center on whether lobbying affects outcomes our primary analysis investigates whether a bill becomes law. Of the 26,051 proposals in our data, 8,752 (33.6%) became law.

We measure organized interests' lobbying on bills in two ways. First, we use a series of binary indicators which describe the patterns of favorable and unfavorable lobbying bills experience.^{vii} Specifically, we construct four indicators to describe the pattern of lobbying on each bill: whether the bill experiences no lobbying activity (“no lobbying”), only favorable lobbying (“only lobbying for”) only unfavorable lobbying (“only lobbying against”), or both favorable and unfavorable lobbying (“lobbying for and against”). Table 1 presents the number of proposals falling into each of these lobbying patterns. The modal bill experiences one-sided lobbying; 44.0% of the bills experience only favorable lobbying, and in another 7.2% of the bills experience only unfavorable lobbying.

INSERT TABLE 1 HERE

To measure lobbying activity with greater granularity, we also utilize a measure constructed from the counts of interests lobbying for and against each bill. With this measure, we are able to assess whether the breadth of the lobbying “sides” affect bill enactment differently than the mere presence or absence of at least one interest lobbying for and/or against the bill.^{viii} As reported in Table SI.1, the median numbers of interests lobbying for and against a bill are 2 and 0, respectively.

For ease of interpretability, we estimate the relationship between lobbying activity and bill enactment with a linear probability model.^{ix} To account for potential confounders that might influence both organized interests' decisions to take positions on bills and bill outcomes, we control for the majority/minority party status of the bills' sponsors, the leadership status of the bills' sponsors, whether the bill was introduced in a previous session, and the bill's salience.^x Finally, to account for fluctuations in the baseline rate of passage across legislative sessions and states, our models include fixed-effects for each legislative session in each state.^{xi}

Testing Agenda Control and Vote Buying Mechanisms

We also test two mechanisms posited to underlie lobbying's influence. We explain these empirical tests in greater detail below but introduce our general approaches here. First, to explore the agenda control mechanism, we model the relationship between lobbying on each bill and whether that bill moves through three intermediate steps of the legislative process: receiving committee approval, reaching the floor, and passing a final vote in the chamber of origin. Second, to investigate the vote buying mechanism, we probe whether new lobbying that takes place between a bill's committee and final passage votes influences committee members to vote differently. This vote-switching analysis allows us to hold constant all bill-level characteristics and discern whether lobbying induces committee members to change their votes.

Both analyses use only data from Wisconsin. We focus on Wisconsin because of differences in the states' reporting frequency. In Nebraska, organized interests are not required to indicate the dates of their initial lobbying efforts on specific bills. While Colorado requires interests to report the month in which they first took a position and lobbied on a bill, many bills move between stages of the legislative process within the same month, such that we often cannot determine when positions were taken with respect to landmarks in a bill's advancement. In contrast, Wisconsin requires interests to file reports within 15 days of their initial lobbying efforts, offering us the most granular temporal measure of position-taking timing among the three states.^{xii}

Evidence that Lobbying Influences Outcomes

We consider the effect of lobbying on legislative outcomes using both our dichotomous indicators describing the type of lobbying bills experienced and our counts of the number of interests lobbying for or against the bills. Our analysis using dichotomous indicators is presented

in Table 2. The first two columns present our results when pooling observations from all three states with and without our control variables. The remaining three pairs of columns present the same analyses for each state. Given the similarity of our results across specifications, we focus our exposition primarily on the first column, which pools across all three states and omits covariates.

INSERT TABLE 2 HERE

The results suggest that lobbying is related to legislative outcomes. When lobbying is one-sided, the outcome is more likely to align with the preferences of the interests lobbying on it. When interests only lobby for a bill, the probability of enactment increases by 11 percentage points. When interests only lobby against a bill, its probability of enactment decreases by 26 percentage points. When lobbyists are unopposed, they appear to get their way, though the effect of lobbying to protect the status quo is significantly larger than is the effect of lobbying to change the status quo, indicative of the status quo bias described by Baumgartner et al. (2009).^{xiii} Further, the relative magnitudes of the effects of one-sided for and one-sided against lobbying are similar to those in previous studies. For instance, whereas McKay (2012) finds that the effect of lobbying against a federal proposal is 3.5 times stronger than that of lobbying for a proposal, we find that the effect of unfavorable lobbying in our state context is roughly 2.5 times larger than that of favorable lobbying (see also Baumgartner et al. 2009).

INSERT TABLE 3 HERE

Further, when two-sided lobbying occurs, these contrasting lobbying positions do not appear to cancel out; rather, those interests lobbying against the bill's passage are more likely to get their way. Compared to bills on which no interests lobby, bills experiencing two-sided lobbying are 13 percentage points less likely to be enacted. In other words, when groups lobby

to support something that others oppose, they dampen the negative impact of the opposition's efforts.^{xiv} Lobbyists are thus able to counteract at least some of each other's influence (Austen-Smith and Wright 1994). At the same time, the proposals that receive two-sided lobbying are significantly less likely to be enacted than proposals receiving no lobbying. This is consistent with evidence that it is easier to defend than change the status quo (Baumgartner et al. 2009) and that policymakers weigh opposition to policy change more heavily than support for it (McKay 2012).

In Table 3, we repeat our analysis measuring lobbying activity using counts of the number of groups lobbying for and against a bill's passage instead of indicators of the patterns of lobbying activity on each bill. The results from these models are substantively similar to those presented in Table 2; when the number of groups lobbying for (against) a bill increases, that bill's likelihood of passage increases (decreases). Further, the magnitude of the coefficient estimates for the number of groups lobbying against a bill are significantly larger than that for the number of groups lobbying for a bill, providing further evidence of a status quo bias (Baumgartner et al. 2009) and the stronger effects of unfavorable lobbying (McKay 2012). Thus, whether looking at the general pattern of lobbying activity or the scope of interests lobbying on each side of a given bill, we find that lobbying is related to legislative outcomes.

Finally, we note that our substantive results are strikingly similar across states, and the coefficients are nearly always statistically distinguishable at the 95% level.^{xv} This consistency indicates that the relationships we identify between lobbying and legislative outcomes exist across states despite substantial variation in their political and institutional contexts.

Evaluating whether Endogeneity is a Major Concern in Lobbying

Our main analysis provides evidence for a relationship between lobbying and legislative outcomes both in the absence and presence of common confounding variables, but it does not establish a causal relationship. For example, one endogeneity concern is that reverse causality might be at play if the decision to lobby is driven by lobbyists' perceptions of a bill's likelihood of success (Grossmann and Pyle 2013: 97). While we cannot definitively rule out this or other forms of endogeneity, we investigate their plausibility by drawing on contextual knowledge gathered through a survey of lobbyists in these three states.

Between December 2018 and February 2019, we distributed a survey to 4,304 current and former registered lobbyists from Colorado, Nebraska, and Wisconsin asking them about their lobbying experiences.^{xvi} About 350 lobbyists completed our survey for a response rate of 8 percent, which is a typical response rate for elite-level surveys in the United States (e.g., Butler and Powell 2014; Miller 2021).^{xvii} In the survey, we asked respondents the three questions shown in Figure 1.^{xviii}

INSERT FIGURE 1 HERE

We might be concerned about endogeneity, and specifically reverse causality, if a few things are occurring. First, if lobbyists are deciding which bills to lobby on by themselves, they may be more likely to lobby on bills on which they can “win” rather than on bills that reflect their clients' preferences (Drutman 2015). Lobbyists have an interest in faithfully representing their clients, but they are also motivated to justify their employ, and one of the ways they can serve this motivation is to achieve concrete goals that can be construed as fulfilling their clients' wishes. Thus, lobbyists placing self-interest over clients' preferences may be more likely to take positions on bills that are more likely to succeed or fail in accordance with their clients' preferences, as these bills provide opportunities for them to claim credit for an outcome which

they did not influence. On this front, the survey results are reassuring. Figure 2 shows that in the majority of cases, lobbyists report that principals make the decision to take a position on a bill either on their own or jointly with the input of their lobbyists. Lobbyists reported making the decision to take a position on a bill in just under 16% of cases.

INSERT FIGURE 2 HERE

Second, endogeneity may be a concern if clients' and lobbyists' decisions about lobbying are motivated by their expectation of the bills' outcomes rather than the clients' stakes concerning the bill. It would be troubling if people are lobbying because they think they are likely to succeed rather than expressing their true preferences. Figure 3 provides the histogram for our question probing this concern and shows that in more than half of the cases, the primary driver of the decision to lobby was the principal's interests. In only 3 percent of the cases was the likelihood of the outcome the primary driver on the decision to lobby, allaying concerns that the decision to lobby on a bill is endogenous to its expected outcome.

INSERT FIGURE 3 HERE

Finally, we might worry about endogeneity if lobbyists express certainty about the bill before deciding to lobby on it. In order for lobbyists to selectively take positions on bills given their expected outcomes, they must have a good sense of whether those bills will succeed or fail prior to taking a position. However, Figure 4 shows that lobbyists indicated uncertainty about the outcome in more than half of the cases and reported high levels of certainty in fewer than 10% of the cases.^{xix}

INSERT FIGURE 4 HERE

Collectively, these results suggest that the forms of endogeneity we probed are not driving the observed relationship between lobbying and legislative outcomes. Lobbyists reported

that clients were playing a major role in lobbying decisions and that they were uncertain of the outcome in the majority of cases. Further, the primary motivation for lobbying was the client's stakes, not the bill's expected outcome. While our survey results are not definitively dispositive of endogeneity, they strengthen the case that the relationships we observe are evidence that lobbying affects legislative outcomes.

Lobbying Affects the Agenda, Not Votes

We now investigate whether two mechanisms by which lobbying is thought to influence outcomes can explain the relationships we observe above. First, we consider whether lobbying helps organized interests alter the agenda by leveraging procedural tools to affect a bill's progress by evaluating the relationship between lobbying and intermediate legislative outcomes. Second, we explore if lobbying enables organized interests to "buy" legislators' votes by testing whether lobbying predicts how committee members vote on final passage controlling for their vote on the same bill in committee. These analyses use only our data for Wisconsin because the high frequency with which interests must report lobbying activity allows us to detect changes in the composition of interests lobbying on each side of each bill between intermediate steps of the legislative process.

Agenda Control

We first probe whether lobbying influences legislative outcomes by affecting bills' progress through the legislative agenda. While a bill's ultimate disposition is the primary object of interest for organized interests, as it determines whether interests achieve their policy goals, the path to its ultimate disposition consists of a series of intermediate steps, such as making it out of committee. The ability for legislators, and particularly legislative leaders, to use legislative procedures to advance or stymie a bill's movement through these steps is referred to as agenda

control (Anzia and Jackman 2013; Cox and McCubbins 2005), and organized interests' position-taking on bills can influence final outcomes by encouraging legislators to exercise agenda control in accordance with their wishes (Lorenz 2020).

To determine whether lobbying activity affects legislators' use of agenda control, we perform a series of analyses analogous to those in our main analysis (see Tables 2 and 3) that use bills' progress through three intermediate steps of the legislative process as our outcomes of interest. Specifically, we model the relationships between the pattern of lobbying a bill experiences (Table 4) and the numbers of interests lobbying on each side of a bill (Table 5) and whether it makes it out of the committee process, reaches the floor, and passes in its chamber of origin. For each of these steps, we minimize post-treatment bias by coding lobbying activity using only positions reported by groups prior to the bill's advancement through the relevant stage of the process (Montgomery, Nyhan, and Torres 2018).

INSERT TABLE 4 HERE

Focusing first on Table 4, which measures lobbying activity with indicators for the patterns of lobbying each bill experienced, we find a significant relationship between these patterns and bills' likelihood of achieving each intermediate step. Notably, the coefficients associated with each pattern are roughly similar for each of the three steps. This is because the first step in the process is a necessary condition for the later stages. Looking at the first column, which models the probability of a bill making it out of committee while omitting covariates, we find that bills that experience only negative lobbying are 15 percentage points less likely to achieve that step. Alternatively, when a bill receives only supportive lobbying activity, it is 11 percentage points more likely to make it out of committee. Turning to Table 5, we observe substantively similar results concerning the number of groups lobbying for and against a bill and

its advancement through the legislative process; as the number of groups lobbying for (against) a bill increases, its probability of reaching each intermediate stage increases (decreases). The similarities between the magnitudes of our coefficients in Tables 4 and 5 and those of their corresponding coefficients in Tables 2 and 3, respectively, suggests that lobbying affects outcomes because it influences what bills progress through earlier stages of the process.

INSERT TABLE 5 HERE

Previous work shows that the agenda control is significant in influencing outcomes (Anzia and Jackman 2013; Cox and McCubbins 2005). Our results indicate that lobbying matters because it also affects what bills get on the agenda (Garlick 2016), which helps explain why campaign donations and direct contact efforts focus on legislators with agenda-setting power (Fournaies 2018; Fournaies and Hall 2018; Miller 2021).

Vote Buying

We next scrutinize whether lobbying affects how legislators vote by analyzing how lobbying after the committee vote and before the floor vote affects how legislators on the committee of jurisdiction vote on final passage. In other words, we are looking at cases where there is *new* lobbying effort after the committee vote (i.e., there was no lobbying in that direction before the committee vote). The committee stage vote gives us their preference on the bill without this new lobbying and then we test whether the new lobbying moves the legislators above and beyond that revealed preference.^{xx}

The outcome for the analysis is a binary indicator of the legislator's vote on the floor for final passage of the bill. In the model, we include a binary indicator of the legislator's vote on the bill in committee, which should strongly correlate with the final passage vote because the two votes concern the same bill content. The main covariates of interest in the model are binary

indicators that describe the pattern of lobbying on the bill. The omitted category is bills on which no lobbying occurred. The coefficients on the included variables thus indicate the effect of each pattern of lobbying on the final passage vote relative to the situation where no lobbying occurred. By holding constant the bill content, we are able to see whether lobbying induces committee members to change their votes. If lobbying has an impact, the variables that capture new lobbying before the final passage vote should have statistically distinguishable effects.

Table 6 shows how these indicator variables capture the timing of and the type of lobbying on a bill.^{xxi} The labels indicate the following information:

Pre = Lobbying that occurred before the committee vote

Post = Lobbying that occurred after the committee vote.

For = Lobbying at that stage was one-sided, with lobbyists advocating for passage

Against = Lobbying at that stage was one-sided, with lobbyists advocating against passage

Both = Lobbying at that stage was two-sided

None = There was no lobbying at that stage

As an example, *Pre-For*, *Post-None* indicates cases where favorable lobbying occurred before the committee vote and no new unfavorable lobbying occurred between the committee vote and the floor vote.

INSERT TABLE 6 HERE

We are interested in the four indicators that capture new lobbying that occurs after the committee vote but before the floor vote. If lobbying is influencing legislators' votes, we would expect negative coefficients for *Pre-None*, *Post-Against* and *Pre-For*, *Post-Against* because in those cases the new lobbying opposes, which would lead committee members who voted for the bill in committee to vote against it on the floor. We would also expect to see positive coefficients for *Pre-None*, *Post-For* and *Pre-Against*, *Post-For* if lobbying influences legislators because the new lobbying is intended to help pass the bill by getting committee members who voted against the bill in committee to vote for it on the floor.

Our final data set consists of 6,230 bill-legislator dyads, consisting of 856 bills and 250 legislators, where each observation includes information about a legislator's vote on a bill at the committee and floor stages. As in our main analyses, we use a linear probability model to estimate the relationship between lobbying and legislators' votes.^{xxii}

INSERT TABLE 7 HERE

Table 7 shows that, as expected, legislators' committee votes are strong predictors of their floor votes. However, the coefficients for most of the lobbying pattern indicators are substantively small and indistinguishable from zero. The only lobbying pattern indicator which is significantly different from zero—*Pre-Against, Post-For*—is in the opposite direction of what was expected, as the negative coefficient suggests that new favorable lobbying between the committee and floor votes makes committee members less likely to support it on the floor. These results indicate that lobbying does not buy the votes of legislators on the bill's committee of jurisdiction.

It is important to note the scope conditions of this result. We focused on legislators serving on the committee of jurisdiction for the legislation because their committee vote indicates the legislator's preference in the absence of new lobbying taking place between the committee and floor votes. This allows us to control for the legislators' revealed preferences on the issue and the unique characteristics of each bill. However, this approach limits the sample to the very legislators who might be least susceptible to lobbying. These legislators likely self-selected onto these committees in part because they care about these issues (Frisch and Kelly 2006). Further, their committee work cultivates expertise in the policy area and provides information about the bills their committee considers (Curry 2019). It may be that legislators who do not sit on the committee of jurisdiction may be affected by lobbying. Thus, as with all

failures to reject a null hypothesis, our vote buying analysis should be interpreted as failing to find evidence of vote buying rather than evidence that vote buying does not manifest in the real world, and we encourage further research on vote buying in contexts where it might be more likely to occur.

Discussion

Lobbying, at least at the US state level, is influential. We find that when groups lobby for a proposal, it is more likely to become law, and when organized interests lobby against a proposal, it is less likely to become law. In Colorado, Nebraska, and Wisconsin, half of the proposals only received lobbying from one side of the issue, greatly influencing what laws are enacted. We also find that two-sided lobbying does not completely cancel out. Consistent with previous findings of a status quo bias in lobbying and the asymmetric effects of favorable and unfavorable lobbying, interests lobbying against change were more likely to get their way than interests lobbying for change (Baumgartner et al. 2009; McKay 2012). While we cannot extrapolate our results to the federal level with certainty, the remarkable consistency of our results across three contextually diverse states suggests that lobbying may very well manifest similar effects in Congress; however, such a linkage should remain tentative until researchers establish a linkage between lobbying and congressional outcomes. Additionally, while we are able to observe how many interests lobby in support or opposition to bills, the data does not allow us to examine how the intensity of interests' lobbying efforts (e.g., amount of resources expended) conditions success. Should data on lobbying intensity emerge, future research should extend our work to see whether lobbying intensity for and against bills influences their advancement.

We also explored how lobbying affects legislative outcomes. Significantly, we do not find that lobbying changes how committee members vote on final passage for bills they report to the floor. When we control for how legislators voted in committee, new lobbying after the committee vote does not affect their floor votes. Rather, we find that lobbying influences outcomes by shaping the agenda. This pair of findings not only highlights the importance of lobbying, but also reiterates the importance of elections and representation relationships. Elected officials have to fulfill their constituents' wishes in order to get reelected. If officials stray too far from constituents' wishes, they risk losing office. Given these incentives, it is not surprising that lobbyists are not changing legislators' votes. Rather, we find that lobbying influences outcomes in ways similar to how party leaders operate (Anzia and Jackman 2013; Cox and McCubbins 2005). Party leaders typically do not change legislators' votes, but instead influence outcomes by determining which alternatives come up for votes on the floor. Lobbyists are also shaping outcomes by influencing the agenda, as their activity is related to bills' advancement through the legislative process. Taken together, our findings with respect to agenda control and vote buying help clarify some inconsistencies in the conclusions of previous studies of lobbying and policymaking. Because lobbying influences outcomes through agenda control, rather than through vote buying, null relationships found in analyses of lobbying and policymaking which focus on individual legislators' votes may result from looking for the effects of lobbying in the wrong places in the legislative process.

Our results also highlight why it is important to be explicit about the level at which an action occurs when exploring the influence of lobbying. The results do not show that lobbying affects how individual legislators vote because legislators are not changing their votes in response to lobbying activity. However, influence over the agenda, which Schattschneider

describes as the “prime instrument of power” (1960: 73) and has shaped major policies throughout American history (Wawro and Schickler 2006), provides interests with substantial leverage to affect outcomes. Thus, in testing theories concerning organized interests, scholars should consider whether their research designs center on the legislator- or legislature-level.

Alongside previous research, our findings highlight that lobbying likely induces bias in the policymaking process. This is not to say that the act of lobbying itself is necessarily normatively undesirable; extant research suggests that lobbying often helps legislators with limited information and resources make better policy choices, and that ethically and legally questionable quid pro quo lobbying is rare (Fowler, Garro, and Spenkuch, 2020; Hall and Deardorff 2006; Schnakenberg 2017). Indeed, we find no evidence that lobbying leads legislators to change their votes. Nonetheless, if lobbying is effective in influencing legislative activity, then it will lead to biased outcomes because the population of interests is not representative of the population at large. Because collective action is costly, latent interests in society that wield more resources are more likely to organize (Olson 1965), and, because resources are distributed unevenly in society, interests with higher concentrations of resources, such as businesses and the upper-class, manifest more often than do interests associated with the general public (Schlozman, Verba, and Brady 2012; Gilens and Page 2014). Previous research has found that business interests are more effective at stopping proposals than in passing proposals (e.g., Gerber 1999; Gray et al. 2010), which, given the overrepresentation of business interests in lobbying, may explain why we find that unfavorable lobbying has a larger impact on the outcome than favorable lobbying. Future research should investigate whether interests representing businesses and the upper-class are uniquely skilled at lobbying to maintain the status quo relative to other interests or whether their policy preferences typically lead them to

embrace unfavorable lobbying, which is naturally more effective than the favorable lobbying exercised by other types of interests (Gerber 1999; McKay 2012). However, irrespective of the precise findings of this research, our evidence of lobbying's effect on the agenda implies that policy outcomes better reflect the interests who populate the organized interest universe.

References

- Anzia, Sarah F. 2019. "Looking for Influence in All the Wrong Places: How Studying Subnational Policy Can Revive Research on Interest Groups." *Journal of Politics* 81(1): 343-351.
- Anzia, Sarah F., and Molly C. Jackman. 2013. "Legislative Organization and the Second Face of Power: Evidence from U.S. State Legislatures." *Journal of Politics* 75 (1): 210-224.
- Anzia, Sarah F., and Terry M. Moe. 2015. "Public Sector Unions and the Costs of Government." *Journal of Politics* 77(1): 114-127.
- Austen-Smith, D. and Wright, John R. 1994. "Counteractive Lobbying." *American Journal of Political Science* 38(1): 25-44.
- Bashir, Omar S. 2015. "Testing Inferences about American Politics: A Review of the 'Oligarchy' Result." *Research & Politics* 2(4): 1-7.
- Baumgartner, Frank R., Jeffrey M. Berry, Marie Hojnacki, David C. Kimball, and Beth L. Leech. 2009. *Lobbying and Policy Change: Who Wins, Who Loses, and Why*. Chicago: University of Chicago Press.
- Baumgartner, Frank R., and Leech, Beth L. 1998. *Basic Interests: The Importance of Groups in Politics and in Political Science*. Princeton University Press.

Baumgartner, Frank R., and Beth Leech. 2001. "Issue Niches and Policy Bandwagons: Patterns of Interest Group Involvement in National Politics" *Journal of Politics* 63: 1191-1213.

Bergan, Daniel E. 2009. "Does Grassroots Lobbying Work? A Field Experiment Measuring the Effects of an E-mail Lobbying Campaign on Legislative Behavior." *American Politics Research* 37(2): 327-352.

Blanes i Vidal, Jordi, Draca, Mirko, & Fons-Rosen, Christian. 2012. "Revolving Door Lobbyists." *American Economic Review* 102(7): 3731-3748.

Butler, Daniel M., and Powell, Eleanor Neff. 2014. "Understanding the Party Brand: Experimental Evidence on the Role of Valence." *Journal of Politics* 76(2): 492-505.

Cox, Gary W., and Mathew D. McCubbins. 2005. *Setting the Agenda: Responsible Party Government in the US House of Representatives*. Cambridge University Press.

Curry, James M. 2019. "Knowledge, Expertise, and Committee Power in the Contemporary Congress." *Legislative Studies Quarterly* 44(2): 203-237.

Drutman, Lee. 2015. *The Business of America is Lobbying: How Corporations Became Politicized and Politics Became More Corporate*. Oxford University Press.

Enns, Peter K. 2015. "Relative Policy Support and Coincidental Representation." *Perspectives on Politics* 13(4): 1053-1064.

Fournaies, Alexander. 2018. "When are Agenda Setters Valuable?." *American Journal of Political Science* 62(1): 176-191.

Fournaies, Alexander, and Andrew B. Hall. 2018. "How Do Interest Groups Seek Access to Committees?." *American Journal of Political Science* 62(1): 132-147.

Fowler, Anthony, Haritz Garro, and Jörg L. Spenkuch. 2020. "Quid Pro Quo? Corporate Returns to Campaign Contributions." *Journal of Politics* 82(3): 844-858.

Frisch, Scott A., and Sean Q. Kelly. 2006. *Committee Assignment Politics in the US House of Representatives*. University of Oklahoma Press.

Garlick, Alexander Russell. 2016. "Interest Groups, Lobbying and Polarization in the United States." *Publicly Accessible Penn Dissertations*. 2298.

Gerber, Elisabeth R. 1999. *The Populist Paradox: Interest Group Influence and the Promise of Direct Legislation*. Princeton, NJ: Princeton, University Press.

Gilens, Martin, and Benjamin I. Page. 2014. "Testing Theories of American Politics: Elites, Interest Groups, and Average Citizens." *Perspectives on Politics* 12(3): 564-581.

Grasse, Nathan, and Brianne Heidbreder. 2011. "The Influence of Lobbying Activity in State Legislatures: Evidence from Wisconsin." *Legislative Studies Quarterly*, 36(4), 567-589.

Gray, Virginia, David Lowery, James Monogan, and Erik K. Godwin. 2010. "Incrementing Toward Nowhere: Universal Health Care Coverage in the States." *Publius: The Journal of Federalism* 40 (1): 82-113.

Grossmann, Matt, and Kurt Pyle. 2013. "Lobbying and Congressional Bill Advancement." *Interest Groups & Advocacy* 2(1): 91-111.

Hall, Richard L. and Alan V. Deardorff. 2006. "Lobbying as Legislative Subsidy." *American Political Science Review*, 100(1), 69-84.

Hall, Richard L., and Kristina C. Miler. 2008. "What Happens After the Alarm? Interest Group Subsidies to Legislative Overseers." *Journal of Politics* 70(4): 990-1005.

Hall, Richard L. and Frank W. Wayman. 1990. "Buying Time: Moneyed Interests and the Mobilization of Bias in Congressional Committees." *American Political Science Review* 84(3): 797-820.

Hertel-Fernandez, Alexander. 2014. "Who Passes Business's 'Model Bills'? Policy Capacity and Corporate Influence in U.S. State Politics." *Perspectives on Politics* 12(3): 582-602.

Leech, Beth L. 2010. "Lobbying and Influence." In L. Sandy Maisel and Jeffrey M. Berry, eds., *The Oxford Handbook of American Political Parties and Interest Groups*. New York: Oxford University Press, 553–86.

Lewis, Daniel C. 2013. "Advocacy and Influence: Lobbying and Legislative Outcomes in Wisconsin." *Interest Groups & Advocacy* 2(2): 206-226.

Lorenz, Geoffrey M. 2020. "Prioritized Interests: Diverse Lobbying Coalitions and Congressional Committee Agenda Setting." *Journal of Politics* 82(1): 225-240.

Lorenz, Geoffrey M., Furnas, Alexander C., and Crosson, Jesse M. 2020. "Large-N Bill Positions Data from MapLight.org: What Can We Learn From Interest Groups' Publicly Observable Legislative Positions?" *Interest Groups & Advocacy* 9: 342-360.

Lowery, David. "Why Do Organized Interests Lobby? A Multi-Goal, Multi-Context Theory of Lobbying." *Polity* 39(1): 29-54.

McCrain, Joshua. 2018. "Revolving Door Lobbyists and the Value of Congressional Staff Connections." *Journal of Politics* 80(4): 1369-1383.

McKay, Amy. 2012. "Negative Lobbying and Policy Outcomes." *American Politics Research* 40 (1): 116-146.

Miller, David R. 2021. "On Whose Door to Knock? Lobbyists' Strategic Pursuit of Access to Members of Congress." *Legislative Studies Quarterly*. doi: 10.1111/lsq.12328

Montgomery, Jacob M., Nyhan, Brendan and Torres, Michelle 2018. "How Conditioning on Posttreatment Variables Can Ruin Your Experiment and What to Do about It." *American Journal of Political Science* 62(3): 760-775.

Olson, Mancur. 1965. *The Logic of Collective Action*. Harvard University Press.

Powell, Eleanor Neff and Grimmer, Justin. 2016. "Money in Exile: Campaign Contributions and Committee Access." *The Journal of Politics* 78(4): 974-988.

Schattschneider, E.E. 1960. *The Semisovereign People: A Realist's View of Democracy in America*. New York: Holt, Reinhart, and Winston.

Schlozman, Kay Lehman, and John T. Tierney. 1986. *Organized Interests and American Democracy*. Harper & Row.

Schlozman, Kay Lehman, Verba, Sidney, and Brady, Henry E. 2012. *The Unheavenly Chorus: Unequal Political Voice and the Broken Promise of American Democracy*. Princeton University Press.

Schnakenberg, Keith E. 2017. "Informational Lobbying and Legislative Voting." *American Journal of Political Science* 61(1): 129-145.

Shor, Boris, and Nolan McCarty. 2011. "The Ideological Mapping of American Legislatures." *American Political Science Review* 105(3): 530-551.

Squire, Peverill. 2017. "A Squire Index Update." *State Politics & Policy Quarterly* 17(4): 361-371.

Strickland, James. 2019. "American's Crowded Statehouses: Measuring and Explaining Lobbying in the US States." *State Politics & Policy Quarterly* 19(3): 351-374.

Wawro, Gregory. 2001. "A Panel Probit Analysis of Campaign Contributions and Roll-Call Votes." *American Journal of Political Science*, 45(3): 563-579.

Wawro, Gregory J. and Eric Schikler. 2006. *Filibuster: Obstruction and Lawmaking in the U.S. Senate*. Princeton: Princeton University Press.

Wiener, Elizabeth. 2020. "Getting a High Heel in the Door: An Experiment Examining State Legislator Responsiveness to Varying Women's Organized Advocacy Tactics." *Political Research Quarterly*. doi:[10.1177/1065912920939186](https://doi.org/10.1177/1065912920939186)

You, Hye Young. n.d. "Dynamic Lobbying: Evidence from Foreign Lobbying in the US Congress."

Author Bios:

Daniel M. Butler is a Professor of Political Science at the University of California San Diego. His research uses experiments to understand representation. He is author of *Representing the Advantaged* (2014, Cambridge University Press) and coauthor of *Rejecting Compromise: Legislators' Fear of Primary Voters* (2020, Cambridge University Press). He received his PhD from Stanford in 2007.

David R. Miller is a Postdoctoral Research Scholar at Vanderbilt University. His research centers on American political institutions with a focus on the presidency, organized interests, and legislatures. His work has also appeared in *Journal of Public Policy*, *Legislative Studies Quarterly*, *Presidential Studies Quarterly*. He received his PhD in Political Science from Washington University in St. Louis in 2020.

Table 1: Lobbying Patterns on Legislative Proposals

Lobbying Patterns	Number of Proposals	Percent of Sample
No lobbying	5,032	19.3%
Only lobbying for	11,452	44.0%
Only lobbying against	1,884	7.2%
Lobbying for and against	7,683	29.5%

Table 2: Lobbying Patterns and Probability of Enactment (OLS)

	All		Colorado		Nebraska		Wisconsin	
Lobbying For and Against	-0.13*	-0.15*	-0.40*	-0.39*	-0.21*	-0.17*	-0.01	-0.06*
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)
Only Lobbying Against	-0.26*	-0.26*	-0.66*	-0.57*	-0.33*	-0.31*	-0.11*	-0.13*
	(0.01)	(0.01)	(0.02)	(0.02)	(0.03)	(0.03)	(0.01)	(0.01)
Only Lobbying For	0.11*	0.08*	0.05*	0.03	0.02	0.06*	0.11*	0.07*
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)
Includes Controls?	No	Yes	No	Yes	No	Yes	No	Yes
Include States FEs?	Yes	Yes	n/a	n/a	n/a	n/a	n/a	n/a
Includes Session FEs?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number observations	26051	26051	5666	5666	6817	6817	13568	13568

* Denotes statistical significance at the p<0.05 level.

Table 3: Number of Groups Lobbying and Probability of Enactment (OLS)

	All		Colorado		Nebraska		Wisconsin	
Number Lobbying For	0.01*	0.01*	0.01*	0.01*	0.01*	0.01*	0.02*	0.01*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Number Lobbying Against	-0.02*	-0.02*	-0.03*	-0.03*	-0.02*	-0.02*	-0.02*	-0.02*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Includes Controls?	No	Yes	No	Yes	No	Yes	No	Yes
Include States FEs?	Yes	Yes	n/a	n/a	n/a	n/a	n/a	n/a
Includes Session FEs?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number observations	26051	26051	5666	5666	6817	6817	13568	13568

* Denotes statistical significance at the p<0.05 level.

Table 4: Lobbying Patterns and Probability of Legislative Advancement (OLS)

	Passed Committee		Reached Floor		Passed Chamber	
Lobbying For and Against	-0.01 (0.01)	-0.08* (0.01)	-0.01 (0.01)	-0.08* (0.01)	-0.00 (0.01)	-0.07* (0.01)
Only Lobbying Against	-0.15* (0.02)	-0.17* (0.02)	-0.15* (0.02)	-0.17* (0.02)	-0.14* (0.02)	-0.17* (0.02)
Only Lobbying For	0.11* (0.01)	0.06* (0.01)	0.10* (0.01)	0.05* (0.01)	0.11* (0.01)	0.05* (0.01)
Includes Controls?	No	Yes	No	Yes	No	Yes
Includes Session FEs?	Yes	Yes	Yes	Yes	Yes	Yes
Number observations	13568	13568	13568	13568	13568	13568

* Denotes statistical significance at the $p < 0.05$ level.

Table 5: Number of Groups Lobbying and Probability of Legislative Advancement (OLS)

	Passed Committee		Reached Floor		Passed Chamber	
Number Lobbying For	0.02*	0.01*	0.02*	0.01*	0.02*	0.01*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Number Lobbying Against	-0.01*	-0.02*	-0.01*	-0.02*	-0.01*	-0.02*
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Includes Controls?	No	Yes	No	Yes	No	Yes
Includes Session FEs?	Yes	Yes	Yes	Yes	Yes	Yes
Number observations	13568	13568	13568	13568	13568	13568

* Denotes statistical significance at the $p < 0.05$ level.

Table 6: Lobbying Pattern Coding for Vote Buying Analysis

	Before Committee Vote		After Committee Vote	
Lobbying Patterns (Timing in Reference to Committee Vote)	For Bill	Against Bill	For Bill	Against Bill
Pre-For, Post-None	Yes	No	No	No
Pre-Against, Post-None	No	Yes	No	No
Pre-Both, Post-None	Yes	Yes	No	No
Pre-None, Post-For	No	No	Yes	No
Pre-Against, Post-For	No	Yes	Yes	No
Pre-None, Post-Against	No	No	No	Yes
Pre-For, Post-Against	Yes	No	No	Yes
No Lobbying	No	No	No	No

Table 7: Lobbying Patterns and Vote Switching (OLS)

	Model 1
Committee Vote-Yes	0.42*
	(0.04)
Pre-Against, Post-None	-0.03
	(0.03)
Pre-Both, Post-None	-0.00
	(0.02)
Pre-For, Post-None	0.00
	(0.00)
Pre-For, Post-Against	0.01
	(0.02)
Pre-None, Post-Against	-0.01
	(0.01)
Pre-Against, Post-For	-0.14*
	(0.04)
Pre-None, Post-For	0.00
	(0.01)
Includes Session FEs?	Yes
Number observations	6,230

* Denotes statistical significance at the $p < 0.05$ level.

Figure 1: Survey Question Wording

In answering the following questions, think about the **last bill you worked on**.

Who decided whether to take a position on this bill?

It was my decision

It was a decision of the principal

It was a joint decision between me and the principal

What was the **most** important determinant in deciding whether to lobby on the bill?

The strength of my client's interest/stake in the proposal

How likely the proposal was to become law

These two factors were equally important

Neither of these two factors were important (other factors drive the decision to lobby).

Please elaborate in the provided space. _____

When you took the position on the bill, how certain were you that the bill would be enacted into law?

Very certain that it would be enacted into law

Somewhat certain that it would be enacted into law

Uncertain of the outcome

Somewhat certain that it would not be enacted into law

Very certain that it would not be enacted into law

Figure 2: Lobbyists are not acting unilaterally

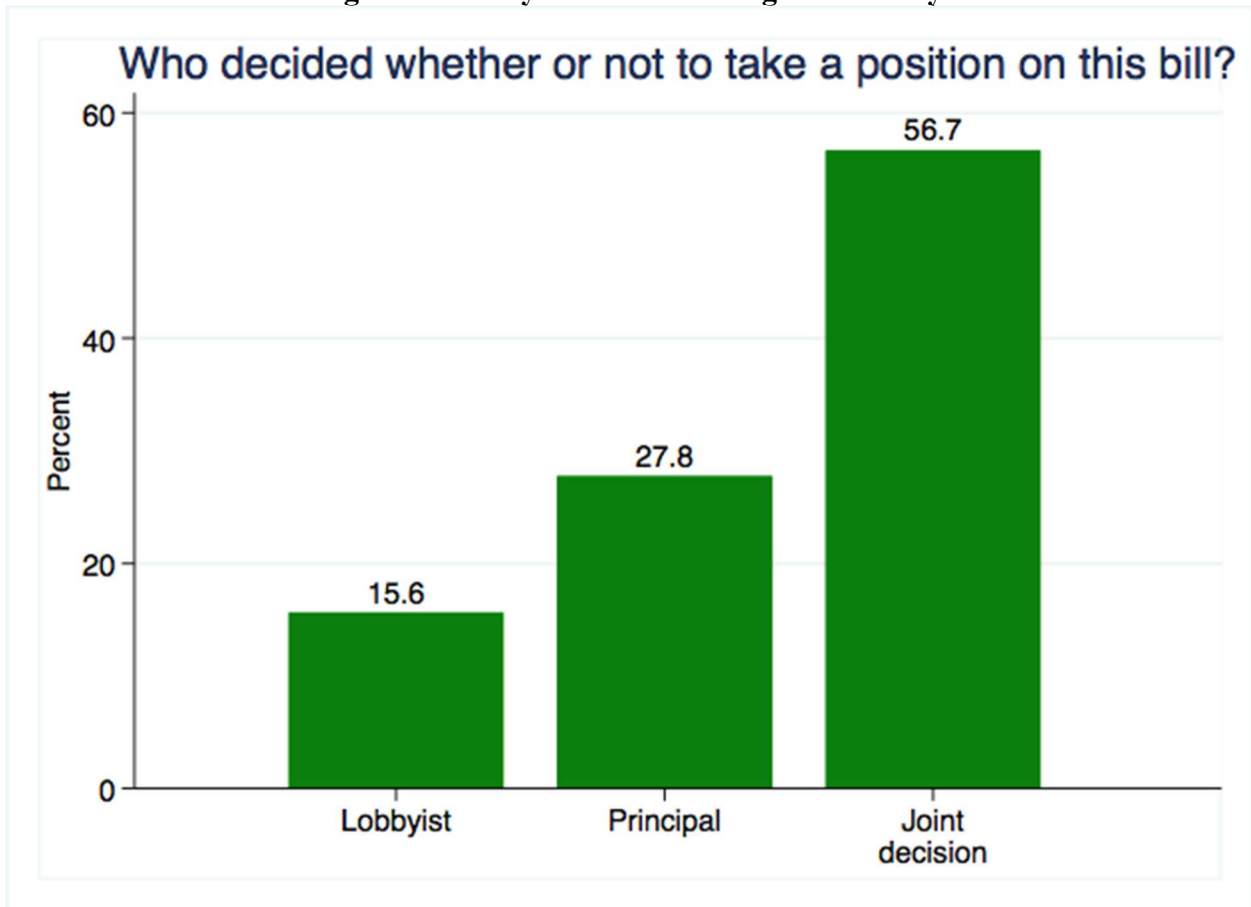


Figure 3: Likelihood of the outcome is not the primary driver of lobbying

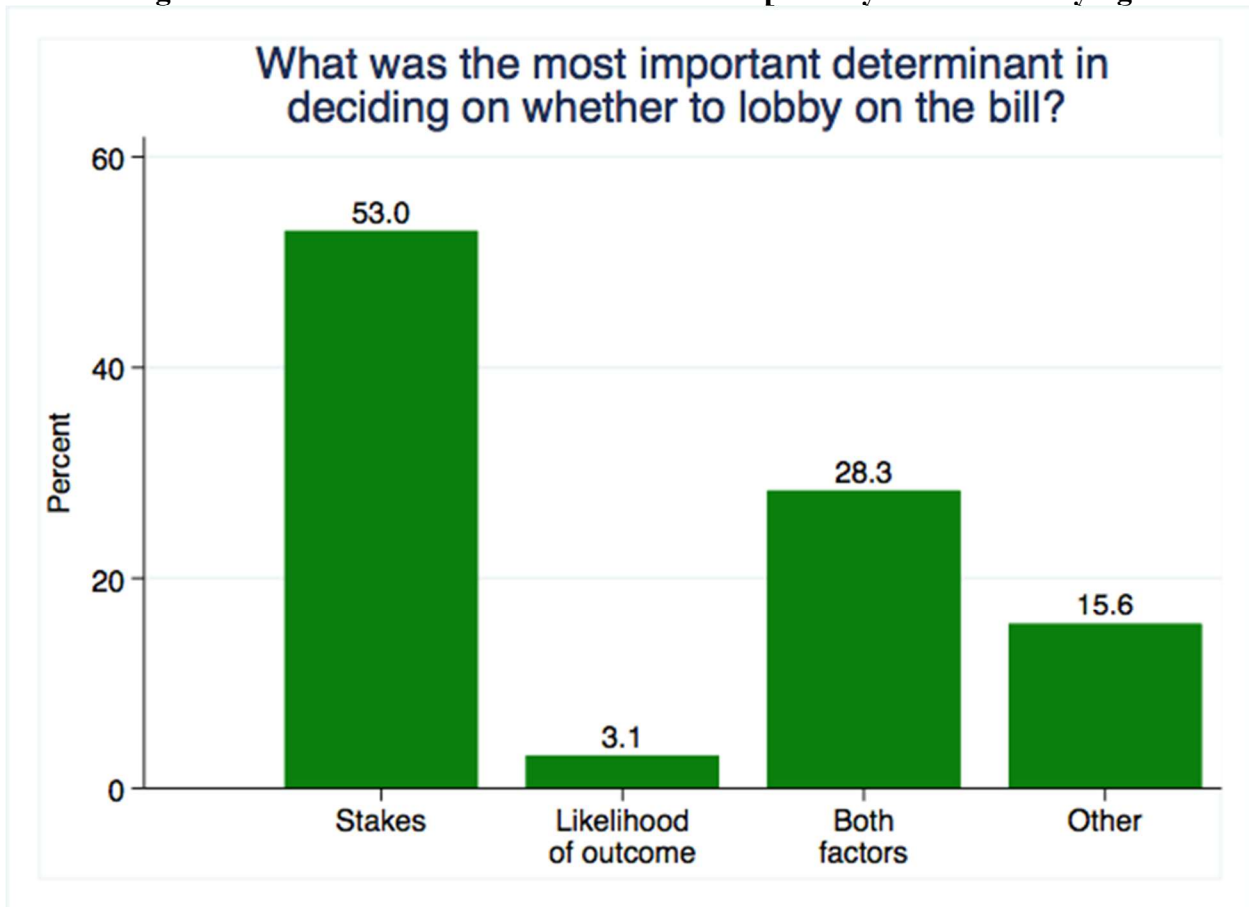
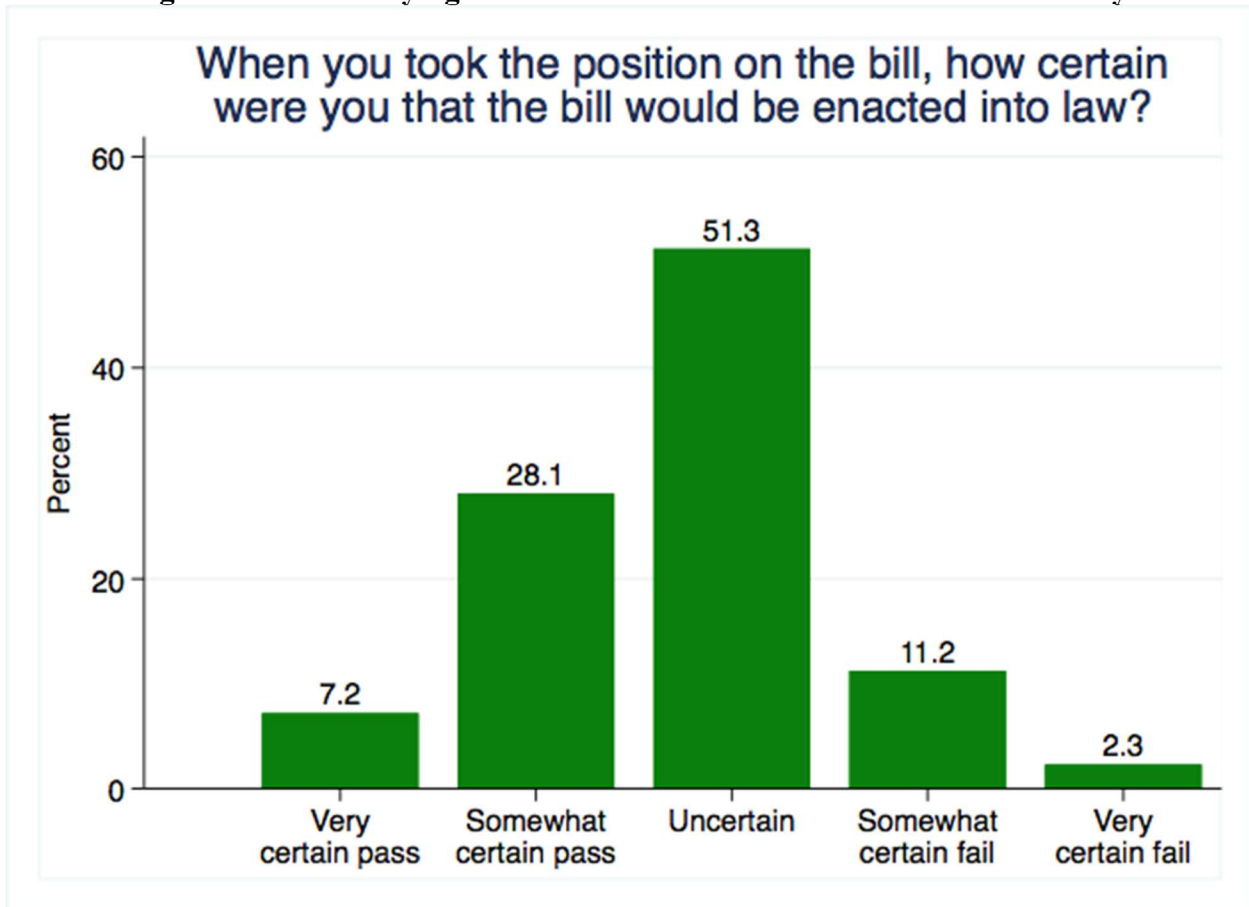


Figure 4: Most lobbying occurs on issues where there is some uncertainty



ⁱ We thank the editors and the reviewers at PRQ for great feedback and advice. The replication data for this paper can be found on the Harvard Dataverse at:

<https://doi.org/10.7910/DVN/CFLCTU>.

ⁱⁱ We use the phrase “organized interests,” rather than the more common “interest groups,” to make our terminology inclusive. Whereas “interest groups” implies that all entities are membership-based groups, “organized interests” accounts for other entities that lack members but pursue collective goals through political action, such as corporations and non-profits (see Schlozman and Tierney 1986: 9-10).

ⁱⁱⁱ Grossmann and Pyle report that only 29.7% of LDA reports filed in the 106th and 107th Congresses contained bill numbers, and “almost uniformly lack information on whether the lobbyist has taken a position on a bill or whether that position is in favor or against” (2013; 98). Some recent studies have drawn on Maplight (<https://maplight.org/>), which uses public records to identify organized interests’ positions on congressional bills (e.g., Lorenz 2020). However, as it notes, Maplight “gather[s] this data for newsworthy bills: bills that move forward in Congress or that are mentioned in the news or blogs. We do not research support/opposition for ceremonial bills (such as naming post offices). Every bill is published on our site, even ceremonial ones, but not all bills include our original research on support/opposition” (<http://classic.maplight.org/us-congress/guide/data/support-opposition>). Thus, Maplight’s information is both incomplete and subject to non-random missingness that may bias inferences gleaned from it (see Lorenz et al. 2020). For example, if lobbying is more effective for low-salience bills that do not attract public attention (Grasse and Heidbreder 2011), then an analysis using Maplight’s data of interest

position-taking on high-salience bills may underestimate the effect of lobbying on the full population of bills.

^{iv} Because Grasse and Heidbreder (2011) and Lewis (2013) differ in many ways with respect to political context and research design, it is difficult to ascertain why they reach contrasting conclusions. For instance, because the Wisconsin state legislature changed from unified Republican control to divided party control between the 2005-06 and 2007-08 sessions, it is possible that lobbying became less effective once lobbyists needed to construct bipartisan coalitions across chambers. Alternatively, because Grasse and Heidbreder (2011) use a dichotomous measure for bill enactment and Lewis (2013) uses an ordinal measure to indicate the bill's progress through the legislature, their divergent findings may emerge from differences in their outcome measures.

^v See the Supplemental Information for more detail about the states' reporting requirements and how we use the lobbying reports and legislative histories to code our variables.

^{vi} While Nebraska and Wisconsin's legislatures hold biennial sessions, Colorado's legislature holds annual sessions. Thus, our data includes 10 legislative sessions from Colorado, 6 legislative sessions from Nebraska, and 8 legislative sessions from Wisconsin.

^{vii} This measure is modeled on Baumgartner et al. (2009)'s emphasis on one-sided versus two-sided lobbying. In our regression models, we include binary indicators for "only lobbying for," "only lobbying against," and "lobbying for and against," such that bills experiencing "no lobbying" constitute the reference category.

^{viii} This measure of lobbying activity also moves closer to capturing lobbying intensity, as it accounts for how many interests lobby on a bill. However, as Strickland (2019) notes, the number of interests lobbying is an inaccurate measure of intensity because it assumes that each

interest puts forth equal effort. Unfortunately, information about the amount of effort interests put forth on individual bills is not available for all three states in our analysis, so we are unable to discern a granular measure of lobbying intensity. Thus, we interpret our counts of interests' taking positions on each side of a bill to measure the scope of the "sides" on each bill as opposed to the intensity of lobbying on each bill.

^{ix} In the Supplemental Information we refit our models using logistic regression and obtain results substantively similar to those presented in the main paper (see Tables SI.5 and SI.10).

^x Please see the Supplemental Information for details on our control variables.

^{xi} We also re-estimate our main models using a multilevel framework, thus enabling pooling across states and legislative sessions when estimating coefficients and measures of uncertainty. In estimating these models with control variables, we also add measures of polarization in the chamber of origin (Shor and McCarty 2011) and legislative professionalism (Squire 2017) for each state and session (see Tables SI.6, SI.7, SI.11, and SI.12).

^{xii} Please see the Supplemental Information for more information about differences in reporting requirements among states.

^{xiii} We draw this conclusion by conducting a hypothesis test using the absolute values of the coefficients and standard errors for the number of groups lobbying for and against a given bill. In the model pooling data from all three states and the models for Colorado and Nebraska, the absolute values of these coefficients are distinguishable at the 95% confidence level; however, in the model for Wisconsin, the absolute values of these coefficients are not distinguishable.

^{xiv} The coefficients for one-sided lobbying against and two-sided lobbying on a bill are distinguishable at the 95% level for all four models.

^{xv} The magnitude of the coefficients for one-sided lobbying against (Table 2) and for the number of groups lobbying against a bill (Table 3) is distinguishably larger than their favorable lobbying counterparts at the 95% level for all models except the Wisconsin model with control variables omitted (both Tables 2 and 3); in both models, the magnitude of the coefficients associated with favorable lobbying are slightly larger than those associated with unfavorable lobbying, but this difference is substantively small and statistically indistinguishable.

^{xvi} We obtained the names and email addresses of these lobbyists by scraping lobbying reports published on each state's websites.

^{xvii} For instance, Miller (2021) reports that the mean and median response rates to elite level-surveys containing experiments published in the past decade in the *American Journal of Political Science*, *American Political Science Review*, and *Journal of Politics* are 13.4% and 11.8%, respectively.

^{xviii} By asking respondents to answer our questions by thinking about the last bill they lobbied on, we lessen concerns that respondents answer our questions with their experiences in lobbying on salient pieces of legislation, which may not be representative of the full population of bills. Thus, asking lobbyists to think about the last bill they lobbied on constructs a sample of bills which is, in expectation, random (see Baumgartner et al. 2009: 7-12).

^{xix} In Table SI.3, we examine the relationship between the responses to the questions in Figure 3 and Figure 4.

^{xx} To ensure that legislators are voting on the same content at both stages, we limit the sample to bills where no amendments passed between the two votes. While this is a narrow subset of the types of votes that legislators take, this approach allows us to observe a legislators' votes on the

same bill at different points in time, thus limiting the confounders that could influence changes in legislators' votes.

^{xxi} Table 6 only describes cases which exist in our data t; if there is a scenario that is not given in Table 5 it is because that scenario does not exist in our data.

^{xxii} Because the variable of interest—lobbying—varies at the bill level, we account for non-independence across observations by clustering standard errors on bills. In Table SI.20, we alternatively account for non-independence with a multilevel model that accounts for repeated observations of each legislator, bill, and session.