Online Appendix For: Does Lobbying Affect Bill Advancement? Evidence from Three State Legislatures

Daniel M. Butler University of California San Diego

> David R. Miller Vanderbilt University

Supplemental Information

This supplemental information contains additional details about the lobbying reporting requirements in the states we examine—Colorado, Nebraska, and Wisconsin—, how we coded our lobbying activity and legislative history data, and how we constructed our control variables, as well as additional descriptive information about our data and alternative specifications of the models we present in the main paper.

List of Tables with Description of Results

- **Table SI.1** presents the descriptive statistics of our outcome and explanatory variables used in our "enactment" analyses (Tables 2 and 3 in the main paper and related analyses in the Supplemental Information). (Page SI.11)
- **Table SI.2** reports the descriptive statistics for the bills introduced and enacted, as well as the lobbying patterns experienced by those bills, in each session of the Colorado, Nebraska, and Wisconsin state legislatures used our main analyses (Tables 2 and 3). (Page SI.13)
- **Table SI.3** provides the cross-tabulation of respondents' answers to our survey concerning whether they lobbied on a given bill because of the stakes of the bill for client or because of their perceptions of the likelihood of the bill outcome (Figure 3) and their degree of certainty concerning whether the bill would succeed (Figure 4). (Page SI.15))
- **Table SI.4** corresponds to the models presented in Table 2 of the paper that include covariates. In the main body of the paper, we omit the coefficients for our control variables. In Table SI.4, we present the coefficients for our key explanatory variables and control variables from these models. (Page SI.16)

- **Table SI.5** corresponds to the results presented in Table 2 of the paper. In the main body of the paper, we use an OLS model and thus present linear probability models. In Table SI.5, we estimate logistic regression models using the same sets of covariates. The results confirm what is presented in Table 2. (Page SI.17)
- **Table SI.6** corresponds to the results presented in Table 2 of the paper. In the main body of the paper, we use an OLS model with fixed effects for states and legislative sessions. In Table SI.6, we estimate models without covariates using an OLS multi-level model regression with levels for states and legislative sessions. The results confirm what is presented in Table 2. (Page SI.18)
- **Table SI.7** corresponds to the results presented in Table 2 of the paper. In the main body of the paper, we use an OLS model with fixed effects for states and legislative sessions. In Table SI.6, we estimate models with covariates using an OLS multi-level model regression with levels for states and legislative sessions. The results confirm what is presented in Table 2. (Page SI.19)
- **Table SI.8** corresponds to the results presented in Table 2 of the paper. In the main body of the paper, we code interests who do take an ambiguous position on their lobbying report as if they did not lobby on the issue and we code the explanatory variables accordingly. In Table SI.8, we code these reports as occurrences of "other" positions having been taken and include explanatory variables corresponding with each possible lobbying pattern in the models. The results confirm what is presented in Table 2. (Page SI.20)
- **Table SI.9** corresponds to the models presented in Table 3 of the paper that include covariates. In the main body of the paper, we omit the coefficients for our control variables. In Table SI.9, we present the coefficients for our key explanatory variables and control variables from these models. (Page SI.21)
- **Table SI.10** corresponds to the results presented in Table 3 of the paper. In the main body of the paper, we use an OLS model and thus present linear probability models. In Table SI.10, we estimate logistic regression models using the same sets of covariates. The results confirm what is presented in Table 3. (Page SI.22)
- **Table SI.11** corresponds to the results presented in Table 3 of the paper. In the main body of the paper, we use an OLS model with fixed effects for states and legislative sessions. In Table SI.11, we estimate models without covariates using an OLS multi-level model regression with levels for states and legislative sessions. The results confirm what is presented in Table 3. (Page SI.23)
- **Table SI.12** corresponds to the results presented in Table 3 of the paper. In the main body of the paper, we use an OLS model with fixed effects for states and legislative sessions. In Table SI.12, we estimate models with covariates using an OLS multi-level model regression with levels for states and legislative sessions. The results confirm what is presented in Table 3. (Page SI.24)

- **Table SI.13** corresponds to the results presented in Table 3 of the paper. In the main body of the paper, we code interests who do take an ambiguous position on their lobbying report as if they did not lobby on the issue and do not account for them in our count variables. In Table SI.8, we code these reports as occurrences of "other" positions having been taken and include a count of these "other" positions taken on each bill. The results confirm what is presented in Table 3. (Page SI.25)
- **Table SI.14** corresponds to the results presented in Table 3 of the paper. In the main body of the paper, we include a count of the number of groups lobbying for the bill and a count of the number of groups lobbying against the bill. In Table SI.14 we instead use the difference between these counts and include the number of groups lobbying on the topic as a separate regressor. The results confirm what is presented in Table 3. (Page SI.26)
- **Table SI.15** corresponds to the results presented in Table 3 of the paper. In the main body of the paper, we model the independent effects of the number of groups lobbying for and against the bill, but do not consider whether the balance of groups lobbying for and against the bill predict its passage. In Table SI.15 we include variables for the "balance" of groups lobbying for and against the bill, the total number of groups lobbying for and against the bill, and the multiplicative effect of these two variables. The results confirm what is presented in Table 3. (Page SI.27)
- **Table SI.16** corresponds to the results presented in Table 4 of the paper. In the main body of the paper, we omit the coefficients for our control variables. In Table SI.16, we present the coefficients for our key explanatory variables and control variables from these models. (Page SI.28)
- **Table SI.17** corresponds to the results presented in Table 4 of the paper. In the main body of the paper, we use an OLS model and thus present linear probability models. In Table SI.17 we run models with the same variables but instead use a logistic regression. The results confirm what is presented in Table 4. (Page SI.29)
- **Table SI.18** corresponds to the results presented in Table 5 of the paper. In the main body of the paper, we omit the coefficients for our control variables. In Table SI.17, we present the coefficients for our key explanatory variables and control variables from these models. (Page SI.30)
- **Table SI.19** corresponds to the results presented in Table 5 of the paper. In the main body of the paper, we use an OLS model and thus present linear probability models. In Table SI.19 we run models with the same variables but instead use a logistic regression. The results confirm what is presented in Table 5. (Page SI.31)
- **Table SI.20** corresponds to the results presented in Table 6 of the paper. In the main body of the paper, we use an OLS model and thus present linear probability models. In Table SI9 we run models with the same variables but instead use an OLS multi-level model regression. The results confirm what is presented in Table 6. (Page SI.32)

SI.A State Lobbying Regulations and Variable Coding Information

State Lobbying Regulations

Each of the three states in our analyses—Colorado, Nebraska, and Wisconsin—require organized interests lobbying on bills in the state legislature to file regular reports indicating the specific bills on which they lobby and the positions they take on those bills. As is common with state-level regulations, each state's reporting requirements are unique in some respects:

- Colorado—Under Colorado's Sunshine law (C.R.S. 24.6), lobbyists are required to disclose all positions they take on bills in a given month by the 15th of the following month.

 This data is provided by the Secretary of State and is available in bulk download on the following site: https://data.colorado.gov/Legislative/Bill-Information-and-Position-with-Income-of-Lobby/gxnn-wthy
- Nebraska—Nebraska's lobbying reporting requirements are found in Neb. Rev. Stat. Ann. § 49-1480. Under this law, lobbyists are required to disclose all positions they take on bills in a given legislative session following the session's conclusion. The data drawn from the reports is available from the Nebraska legislature's website: https://nebraskalegislature.gov/lobbyist/view.php
- Wisconsin—Under Wis. Stat. §13.67 and Wis. Stat. §13.69, lobbying principals are required to report contacts with legislators on specific bills within 15 days of the contact, and failure to do so can result in fines (\$25 for the first offense, \$100 for the second offense, <\$5,000 thereafter). Wisconsin's Eye on Lobbying website, which is maintained by the Wisconsin Ethics Commission, provides this information in a searchable database: https://lobbying.wi.gov/Home/Welcome

Lobbying Activity Coding

We code organized interests' lobbying activity with the reports obtained from the state sources listed above. For each bill listed on the report of each organized interest, we coded that interest as lobbying on that bill in the direction they listed on the report (for or against). In all three states, organized interests may choose to indicate an ambiguous position on a bill on which they report lobbying rather than express support for or opposition to the bill. For example, in Colorado, interests can report that they are "monitoring" a bill rather than lobbying for or against it. Of the 242,521 positions taken by interests on bills in our data, interests indicated support for or opposition to the bill in 44.2% of the cases. In our analyses in the main paper, we do not account for interests' ambiguous lobbying activity. To ensure that incorporating these ambiguous positions does not alter our substantive results, we estimate alternative specifications which include separate explanatory variables to account for lobbying activity conducted by groups taking these ambiguous "other positions" (see Tables SI.8 and SI.13). Across these alternative specifications, our substantive results persist.

In our agenda control analysis, we included interests' lobbying activity only if we could determine with certainty that interests began lobbying on a bill with a specified position before the date the bill moved past the specified intermediate step. Given that Wisconsin requires interests to report new lobbying activity and the positions associated with that lobbying activity within 15 days, we only utilized only lobbying activity that was reported at least 15 days prior to the bill's achievement of the intermediate step according to its legislative history. When the timing of an

_

¹ In the few cases where organized interests changed their positions on a given bill within the same legislative session, we used their most recent report to determine their position on the bill.

initial lobbying report made it ambiguous as to whether lobbying started before or after a legislative milestone for a bill (e.g., if an organized interest first reports lobbying on a bill fewer than 15 days before the bill reaches the floor), we exclude that lobbying activity from our coding of the lobbying activity that the bill experienced before reaching the milestone.

In our vote buying analysis, we invoked similar coding rules concerning whether to include lobbying activity reported by organized interests in determining what types of lobbying the bill experienced prior to the committee vote and between the committee and floor votes. Specifically, in coding the pattern of lobbying the bill experienced prior to the committee vote, we included only lobbying activity reported at least 15 days prior to the committee vote, and in coding the pattern of lobbying the bill experienced after the committee vote but before the floor vote, we included only lobbying activity reported at least 15 days after the committee vote and at least 15 days before the floor vote.²

Legislative History Coding

We limit our analyses to bills considered during regular legislative sessions. This excludes other types of proposals considered before these state legislatures, such as resolutions and constitutional amendments, as well as bills considered during special sessions. We do because other types of proposals often follow different legislative procedures and have different impacts on policy; for example, resolutions only require the assent of their chamber of origin and have no legal consequences.

_

² Because we cannot discern whether lobbying activity that was first reported within 15 days of the committee vote occurred before or after the vote, we omit such ambiguously-timed activity from our coding considerations.

In our main analyses, we code bills as having been enacted if they become law through the governor's signature or through a legislative veto override. In our agenda control analysis using only data from the state of Wisconsin, we identified key events in bills' legislative histories that correspond to passing committee, reaching the floor, and passing the chamber of origin. We deem bills to pass committee if they are scheduled for a second reading on the floor; this event signifies that the bill has successfully emerged from the committee process. We opt for this coding rule rather than a bill merely receiving a majority vote in a committee because the bill might fail to emerge from the committee process if the rules committee or another committee with jurisdiction over the bill does not grant its approval. We deem bills to reach the floor if they receive a third reading, at which time the full bill is debated by the entire chamber membership before proceeding to a final vote and no further amendments can be made. Finally, we deem bills to pass their chamber of origin if they receive an affirmative majority vote in their chamber of origin.

Control Variables

We estimate our main and agenda control analyses with and without a battery of control variables which capture oft-cited sources of confounding of the relationship between lobbying and policy outcomes.³ Additionally, in our multilevel model specifications in the Supplemental Information, we also include additional session-level covariates.

-

³ We do not include control variables in our vote buying analysis because each legislator-bill observation holds constant the types of bill-level characteristics our control variables describe. Further, because the analysis includes only one state, we do not include the legislature-level control variables which are fairly invariant over time.

- Majority Party Sponsor—Binary indicator for whether one (or more) of the bill's sponsors is a member of the chamber's majority party (coded by authors using legislative histories)
- Minority Party Sponsor—Binary indicator for whether one (or more) of the bill's sponsors is a member of the chamber's minority party (coded by authors using legislative histories)
- Majority Leader Sponsor—Binary indicator for whether one (or more) of the bill's sponsors holds a leadership role in the chamber's majority party (coded by authors using legislative histories). For Colorado and Wisconsin, legislators are considered majority party leaders if they are the chamber's presiding officer (Speaker or President, elected by the full chamber membership) or if they are the majority leader or whip. In Nebraska's non-partisan legislature, only the Speaker is coded as a majority leader.
- Minority Leader Sponsor—Binary indicator for whether one (or more) of the bill's sponsors holds a leadership role in the chamber's minority party (coded by authors using legislative histories). For Colorado and Wisconsin, legislators are considered majority party leaders if they are the minority leader or whip. In Nebraska's non-partisan legislature, no one is coded as a minority leader

- Key Vote—Binary indicator for whether the floor vote on the bill was deemed a
 "key vote" by Project Vote Smart.⁴ Project Vote Smart deems votes as "key" if
 they meet the following criteria:
 - The vote should be helpful in portraying how a member stands on a particular issue
 - The vote should be clear for any person to understand
 - The vote has received media attention
 - The vote was passed or defeated by a very close margin
 - Occasionally, if a specific bill is consistently inquired about on the Voter's
 Research Hotline, the vote will be added

This control variable is intended to capture "bill salience," a concept identified in several of the criteria. However, this control variable is measured post-treatment (Montgomery, Nyhan, and Torres 2018), as bills may become salient because of lobbying activity and only bills that make it to a floor vote have the opportunity to be deemed "key." Our analyses which include control variables include this indicator for salience, but conducting the same analyses without this variable yield substantively similar results, suggesting that the effects of lobbying we identify in our models which include controls are not a consequence of post-treatment bias.

• Duplicate Bill—Binary indicator for whether the bill was introduced in a previous session (coded by authors by identifying identical bill titles across sessions).

9

⁴ See https://justfacts.votesmart.org/bills.

- Chamber Polarization—Continuous measure of ideological polarization in the bill's chamber of origin (drawn from Shor and McCarty 2011 and updates from authors). This measure is calculated as the difference in the ideology of the Democratic and Republican party medians in the chamber. For biennial sessions (i.e., sessions in Nebraska and Wisconsin), the chamber polarization for the first year of the session is used for the full session.
- Legislative Professionalization—Continuous measure of the legislature's professionalization (drawn from Squire 2017 and previous indices published by the author). This measure is an index consisting of legislators' salary and benefits, the time demands of legislative service, and legislative staff resources. We use the scores Squire has calculated for 2003, 2007, and 2015; for each session in our data, we use the most recent measure.

SI.B Descriptive Statistics
Table SI.1: Descriptive Statistics for Enactment Analyses

	1			•	
Variable	State(s)	Min. Value	Mean	Median	Max. Value
Enactment	All	0.00	0.34	0.00	1.00
	Colorado	0.00	0.65	1.00	1.00
	Nebraska	0.00	0.32	0.00	1.00
	Wisconsin	0.00	0.21	0.00	1.00
Lobbying For and Against	All	0.00	0.29	0.00	1.00
	Colorado	0.00	0.36	0.00	1.00
	Nebraska	0.00	0.38	0.00	1.00
	Wisconsin	0.00	0.23	0.00	1.00
Only Lobbying Against	All	0.00	0.07	0.00	1.00
	Colorado	0.00	0.08	0.00	1.00
	Nebraska	0.00	0.07	0.00	1.00
	Wisconsin	0.00	0.07	0.00	1.00
Only Lobbying For	All	0.00	0.44	0.00	1.00
	Colorado	0.00	0.45	0.00	1.00
	Nebraska	0.00	0.45	0.00	1.00
	Wisconsin	0.00	0.43	0.00	1.00
Number Lobbying For	All	0.00	3.48	2.00	77.00
	Colorado	0.00	4.67	3.00	77.00
	Nebraska	0.00	4.29	3.00	55.00
	Wisconsin	0.00	2.57	1.00	43.00
Number Lobbying Against	All	0.00	1.72	0.00	76.00
	Colorado	0.00	2.63	0.00	76.00
	Nebraska	0.00	2.07	0.00	75.00
	Wisconsin	0.00	1.16	0.00	46.00
Maj. Party Sponsor	All	0.00	0.39	0.00	1.00
	Colorado	0.00	0.43	0.00	1.00
	Nebraska	0.00	0.57	1.00	1.00
		I			

	Wisconsin	0.00	0.29	0.00	1.00
Min. Party Sponsor	All	0.00	0.23	0.00	1.00
	Colorado	0.00	0.21	0.00	1.00
	Nebraska	0.00	0.37	0.00	1.00
	Wisconsin	0.00	0.17	0.00	1.00
Maj. Leader Sponsor	All	0.00	0.06	0.00	1.00
	Colorado	0.00	0.04	0.00	1.00
	Nebraska	0.00	0.02	0.00	1.00
	Wisconsin	0.00	0.09	0.00	1.00
Min. Leader Sponsor	All	0.00	0.04	0.00	1.00
	Colorado	0.00	0.02	0.00	1.00
	Nebraska	0.00	0.00	0.00	0.00
	Wisconsin	0.00	0.06	0.00	1.00
PVS Key Vote	All	0.00	0.01	0.00	1.00
	Colorado	0.00	0.03	0.00	1.00
	Nebraska	0.00	0.01	0.00	1.00
	Wisconsin	0.00	0.01	0.00	1.00
Duplicate Bill	All	0.00	0.10	0.00	1.00
	Colorado	0.00	0.03	0.00	1.00
	Nebraska	0.00	0.05	0.00	1.00
	Wisconsin	0.00	0.15	0.00	1.00
Chamber Polarization	All	0.54	1.75	1.87	2.86
	Colorado	2.17	2.45	2.41	2.86
	Nebraska	0.54	0.82	0.81	1.19
	Wisconsin	1.78	1.92	1.88	2.06
Leg. Professionalization	All	0.16	0.25	0.20	0.44
	Colorado	0.20	0.21	0.20	0.27
	Nebraska	0.16	0.19	0.17	0.23
	Wisconsin	0.20	0.31	0.24	0.44

Table SI.2: Summary of Bill Introductions/Enactments and Lobbying Patterns by State and Session

					Lobbyin	g Patterns				TOTAL	
		No	<u>ne</u>	Only	For	Only A	<u>gainst</u>	For and	<u>Against</u>		
State	Session	Introduced	Enacted	Introduced	Enacted	Introduced	Enacted	Introduced	Enacted	Introduced	Enacted
СО	2007	93	77	303	275	42	3	203	109	641	464
	2008	93	81	311	277	50	8	207	105	661	471
	2009	102	83	290	259	59	17	214	103	665	462
	2010	84	72	278	243	58	18	228	119	648	452
	2011	47	29	240	208	52	8	257	87	596	332
	2012	70	56	216	173	47	5	209	67	542	301
	2013	68	58	290	272	42	7	212	103	612	440
	2014	66	59	303	273	28	1	223	85	620	418
	2015	68	58	301	227	48	1	264	73	681	359
NE	2007-08	131	39	541	207	77	4	426	86	1175	336
	2009-10	100	48	472	222	84	9	454	107	1110	386
	2011-12	130	66	500	264	108	17	434	116	1172	463
	2013-14	107	35	528	232	73	5	407	69	1115	341
	2015-16	99	52	571	251	72	7	367	80	1109	390
	2017-18	99	38	473	178	86	3	478	77	1136	296

WI	2003-04	445	69	586	180	136	7	400	70	1567	326
	2005-06	500	125	765	265	172	13	528	86	1965	489
	2007-08	434	88	645	130	126	3	369	18	1574	239
	2009-10	381	89	816	233	99	6	424	78	1720	406
	2011-12	368	46	534	148	100	11	323	62	1325	267
	2013-14	480	96	731	215	104	7	312	55	1627	373
	2015-16	557	66	810	244	126	5	337	77	1830	392
	2017-18	510	44	948	241	95	4	407	60	1960	349
	TOTAL	5032	1474	11452	5217	1884	169	7683	1892	26051	8752

This table reports the number of bills introduced and enacted and the patterns of lobbying on those bills (as explained in the main text) in each session of the Colorado, Nebraska, and Wisconsin legislatures used in our main analyses (Tables 2 and 3, as well as corresponding Supplemental Information tables).

Table SI.3: Lobbyists Motivations and Perceptions about Bills they Lobbying On

	Lobbyists' Certainty that Bill Becomes Law							
Main Reason for Lobbying on Bill	Very Certain Pass	Somewhat Certain Pass	Uncertain	Somewhat Certain Fail	Very Certain Fail			
Stakes	2.3%	12.9%	29.3%	6.6%	1.7%			
Likelihood of Outcome	0.9%	1.4%	0.9%	0%	0%			
Both Factors	2.9%	9.5%	13.2%	2.9%	0.3%			
Other	1.2%	4.3%	7.8%	1.7%	0.3%			

Note: N = 348. This data is the same data used in Figures 3 and 4. The cells give the percentage of respondents for each combination of responses.

SI.C Alternative Specifications

Table SI.4: Lobbying Patterns and Probability of Enactment (OLS with Covariates)

	All	Colorado	Nebraska	Wisconsin
Lobbying For and Against	-0.15*	-0.39*	-0.17*	-0.06*
	(0.01)	(0.02)	(0.02)	(0.01)
Only Lobbying Against	-0.26*	-0.57*	-0.31*	-0.13*
	(0.01)	(0.02)	(0.03)	(0.01)
Only Lobbying For	0.08^*	0.03	0.06^*	0.07^{*}
	(0.01)	(0.02)	(0.02)	(0.01)
Maj. Party Sponsor	-0.06*	-0.08*	-0.23*	-0.01
	(0.01)	(0.01)	(0.02)	(0.01)
Min. Party Sponsor	-0.24*	-0.28*	-0.34*	-0.22*
	(0.01)	(0.01)	(0.02)	(0.01)
Maj. Leader Sponsor	0.08^*	-0.01	0.23^{*}	0.06^*
	(0.01)	(0.03)	(0.04)	(0.01)
Min. Leader Sponsor	-0.06*	-0.06	-	-0.04*
	(0.01)	(0.04)	-	(0.01)
PVS Key Vote	0.25^{*}	0.13*	0.38^{*}	0.47^{*}
	(0.02)	(0.03)	(0.06)	(0.04)
Duplicate Bill	-0.04*	-0.01	-0.04	-0.05*
	(0.01)	(0.03)	(0.02)	(0.01)
Number observations	26051	5666	6817	13568

Models are estimated with ordinary least squares regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal is enacted into law. The explanatory variables are coded as dichotomous indicators for whether organized interests officially take positions only in support of a proposal, only against a proposal, or both for and against a proposal. Proposals in the omitted category are those proposals on which no organized interest takes an official position for or against the proposal. The model in the leftmost column pools legislative proposals from Colorado, Nebraska, and Wisconsin, while the remaining three models use only data from the state indicated. Because Nebraska's unicameral legislature only recognizes one official leader on the floor (the Speaker), we use that leader in coding the majority leader sponsor variable and do not include the minority leader variable in the model.

Table SI.5: Lobbying Patterns and Probability of Enactment (Logit)

	All		Colo	rado	Nebi	raska	Wisconsin	
Lobbying For and Against	-0.78*	0.91*	-1.88*	-1.95*	-1.00*	-0.85*	-0.06	-0.42*
	(0.05)	(0.05)	(0.11)	(0.12)	(0.09)	(0.10)	(0.07)	(0.07)
Only Lobbying Against	-2.06*	-1.98*	-3.28*	-2.98*	-2.01*	-1.97*	-1.21*	-1.43*
	(0.09)	(0.09)	(0.17)	(0.17)	(0.18)	(0.18)	(0.14)	(0.15)
Only Lobbying For	0.52^{*}	0.42^{*}	0.37^{*}	0.30^{*}	0.10	0.31^{*}	0.67^{*}	0.41^{*}
	(0.04)	(0.04)	(0.12)	(0.12)	(0.09)	(0.09)	(0.05)	(0.06)
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

Models are estimated with logistic regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal is enacted into law. The explanatory variables are coded as dichotomous indicators for whether organized interests officially take positions only in support of a proposal, only against a proposal, or both for and against a proposal. Proposals in the omitted category are those proposals on which no organized interest takes an official position for or against the proposal. The model in the leftmost column pools legislative proposals from Colorado, Nebraska, and Wisconsin, while the remaining three models use only data from the state indicated.

Table SI.6: Lobbying Patterns and Probability of Enactment (MLM)

	All	Colorado	Nebraska	Wisconsin
Lobbying for and Against	-0.13*	-0.40*	-0.21*	-0.01
	(0.01)	(0.02)	(0.02)	(0.01)
Only Lobbying Against	-0.26*	-0.66*	-0.33*	-0.11*
	(0.01)	(0.02)	(0.03)	(0.01)
Only Lobbying For	0.11^{*}	0.05^{*}	0.02	0.11^{*}
	(0.01)	(0.02)	(0.02)	(0.01)
Number observations	26051	5666	6817	13568
Number State-Sessions	23	9	6	8
Number States	3			
Var(State-Sessions)	0.00	0.00	0.00	0.00
Var(States)	0.06			
Var(Residual)	0.18	0.16	0.20	0.16

Models are estimated with multilevel ordinary least squares regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal is enacted into law. The explanatory variables are coded as dichotomous indicators for whether organized interests officially take positions only in support of a proposal, only against a proposal, or both for and against a proposal. Proposals in the omitted category are those proposals on which no organized interest takes an official position for or against the proposal. The model in the leftmost column pools legislative proposals from Colorado, Nebraska, and Wisconsin, while the remaining three models use only data from the state indicated. The first model includes varying intercepts for each legislative session and for each state (with legislative sessions nested in states). The remaining models include varying intercepts for each legislative session.

Table SI.7: Lobbying Patterns and Probability of Enactment (MLM w/ Covariates)

	All	Colorado	Nebraska	Wisconsin
Lobbying For and Against	-0.15*	-0.39*	-0.17*	-0.06*
	(0.01)	(0.02)	(0.02)	(0.01)
Only Lobbying Against	-0.26*	-0.57*	-0.31*	-0.13*
	(0.01)	(0.02)	(0.03)	(0.01)
Only Lobbying For	0.08^{*}	0.03	0.06^{*}	0.07*
	(0.01)	(0.02)	(0.02)	(0.01)
Maj. Party Sponsor	-0.06*	-0.08*	-0.23*	-0.01
	(0.01)	(0.01)	(0.02)	(0.01)
Min. Party Sponsor	-0.24*	-0.28*	-0.34*	-0.22*
	(0.01)	(0.01)	(0.02)	(0.01)
Maj. Leader Sponsor	0.08^{*}	-0.01	0.22*	0.06*
	(0.01)	(0.03)	(0.04)	(0.01)
Min. Leader Sponsor	-0.06*	-0.06	-	-0.04*
	(0.01)	(0.04)	-	(0.01)
PVS Key Vote	0.25^{*}	0.13^{*}	0.38^{*}	0.46^{*}
	(0.02)	(0.03)	(0.06)	(0.04)
Duplicate Bill	-0.04*	-0.01	-0.04	-0.04*
	(0.01)	(0.03)	(0.02)	(0.01)
Chamber Polarization	-0.07	0.18^{*}	0.10	-1.59*
	(0.05)	(0.08)	(0.18)	(0.20)
Leg. Professionalization	-0.24	-2.92*	-0.76	-1.26*
	(0.16)	(1.07)	(1.14)	(0.34)
Number observations	26051	5666	6817	13568
Number State-Sessions	23	9	6	8
Number States	3			
Var(State-Sessions)	0.00	0.00	0.00	0.00
Var(States)	0.07			
Var(Residual)	0.17	0.15	0.19	0.15

Models are estimated with multilevel ordinary least squares regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal is enacted into law. The explanatory variables are coded as dichotomous indicators for whether organized interests officially take positions only in support of a proposal, only against a proposal, or both for and against a proposal. Proposals in the omitted category are those proposals on which no organized interest takes an official position for or against the proposal. The model in the leftmost column pools legislative proposals from Colorado, Nebraska, and Wisconsin, while the remaining three models use only data from the state indicated. The first model includes varying intercepts for each legislative session and for each state (with legislative sessions nested in states). The remaining models include varying intercepts for each legislative session. Because Nebraska's unicameral legislature only recognizes one official leader on the floor (the Speaker), we use that leader in coding the majority leader sponsor variable and do not include the minority leader variable in the model.

Table SI.8: Lobbying Patterns and Probability of Enactment (OLS w/ Other)

	All	Colorado	Nebraska	Wisconsin
Lobbying For, Against, and Other	-0.27*	-0.77*	-0.29*	-0.11*
	(0.01)	(0.04)	(0.04)	(0.02)
Only Lobbying Against	-0.10*	-0.50*	-0.16*	0.01
	(0.01)	(0.03)	(0.03)	(0.01)
Only Lobbying Against and Other	-0.13*	-0.53*	-0.26*	-0.04*
	(0.01)	(0.10)	(0.03)	(0.02)
Only Lobbying For	0.15^{*}	-0.06	0.04	0.13^{*}
	(0.01)	(0.03)	(0.03)	(0.01)
Only Lobbying For and Against	-0.19*	-0.51*	-0.35*	-0.11*
	(0.02)	(0.14)	(0.04)	(0.02)
Only Lobbying For and Other	0.09^{*}	-0.00	0.02	0.11^{*}
	(0.01)	(0.05)	(0.03)	(0.01)
Only Lobbying Other	0.05^{*}	-0.14*	0.02	0.02
	(0.01)	(0.03)	(0.04)	(0.01)
Number observations	26051	5666	6817	13568

Models are estimated with ordinary least squares regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal is enacted into law. The explanatory variables are dichotomous indicators of the lobbying patterns for each bill, including lobbying for or against the bill, as well as those who take positions neither for nor against the proposal. The model in the leftmost column pools legislative proposals from Colorado, Nebraska, and Wisconsin, while the remaining three models use only data from the state indicated.

Table SI.9: Number of Groups Lobbying and Probability of Enactment (OLS with Covariates)

	All	Colorado	Nebraska	Wisconsin
Number Lobbying For	0.01*	0.01*	0.01*	0.01*
	(0.00)	(0.00)	(0.00)	(0.00)
Number Lobbying Against	-0.02*	-0.03*	-0.02*	-0.02*
	(0.00)	(0.00)	(0.00)	(0.00)
Maj. Party Sponsor	-0.06*	-0.08*	-0.24*	-0.01
	(0.01)	(0.01)	(0.02)	(0.01)
Min. Party Sponsor	-0.25*	-0.36*	-0.35*	-0.23*
	(0.01)	(0.02)	(0.02)	(0.01)
Maj. Leader Sponsor	0.07^{*}	0.01	0.20^{*}	0.05^*
	(0.01)	(0.03)	(0.04)	(0.01)
Min. Leader Sponsor	-0.05*	-0.10*	-	-0.04*
	(0.01)	(0.04)	-	(0.01)
PVS Key Vote	0.23^{*}	0.07^{*}	0.30^{*}	0.48^*
	(0.02)	(0.03)	(0.06)	(0.04)
Duplicate Bill	-0.05*	-0.05	-0.04	-0.04*
	(0.01)	(0.03)	(0.03)	(0.01)
Number observations	26051	5666	6817	13568

Models are estimated with ordinary least squares regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal is enacted into law. The explanatory variables are coded as dichotomous indicators for whether organized interests officially take positions only in support of a proposal, only against a proposal, or both for and against a proposal. Proposals in the omitted category are those proposals on which no organized interest takes an official position for or against the proposal. The model in the leftmost column pools legislative proposals from Colorado, Nebraska, and Wisconsin, while the remaining three models use only data from the state indicated. Because Nebraska's unicameral legislature only recognizes one official leader on the floor (the Speaker), we use that leader in coding the majority leader sponsor variable and do not include the minority leader variable in the model.

Table SI.10: Number of Groups Lobbying and Probability of Enactment (Logit)

	A	.ll	Colorado		Nebraska		Wisconsin	
Number Lobbying	0.08^{*}	0.07^{*}	0.08*	0.06*	0.06*	0.06*	0.09*	0.07^{*}
For	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Number Lobbying	-0.23*	-0.23*	-0.26*	-0.25*	-0.25*	-0.27*	-0.15*	-0.18*
Against	(0.01)	(0.01)	(0.01)	(0.01)	(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

Models are estimated with logistic regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal is enacted into law. The explanatory variables are counts of the number of organized interests who take positions in support and in opposition to a proposal. The model in the leftmost column pools legislative proposals from Colorado, Nebraska, and Wisconsin, while the remaining three models use only data from the state indicated.

Table SI.11: Number of Groups Lobbying and Probability of Enactment (MLM)

	All	Colorado	Nebraska	Wisconsin
Number Lobbying For	0.01*	0.01*	0.01*	0.02*
	(0.00)	(0.00)	(0.00)	(0.00)
Number Lobbying Against	-0.02*	-0.03*	-0.02*	-0.02*
	(0.00)	(0.00)	(0.00)	(0.00)
Number observations	26051	5666	6817	13568
Number State-Sessions	23	9	6	8
Number States	3			
Var(State-Sessions)	0.00	0.00	0.00	0.00
Var(States)	0.05			
Var(Residual)	0.18	0.19	0.21	0.16

Models are estimated with multilevel ordinary least squares regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal is enacted into law. The explanatory variables are counts of the number of organized interests who take positions in support and in opposition to a proposal. The model in the leftmost column pools legislative proposals from Colorado, Nebraska, and Wisconsin, while the remaining three models use only data from the state indicated. The first model includes varying intercepts for each legislative session and for each state (with legislative sessions nested in states). The remaining models include varying intercepts for each legislative session.

Table SI.12: Number of Groups Lobbying and Probability of Enactment (MLM w/ Covariates)

	All	Colorado	Nebraska	Wisconsin
Number Lobbying For	0.01*	0.01*	0.01*	0.01*
	(0.00)	(0.00)	(0.00)	(0.00)
Number Lobbying Against	-0.02*	-0.03*	-0.02*	-0.02*
	(0.00)	(0.00)	(0.00)	(0.00)
Maj. Party Sponsor	-0.06*	-0.08*	-0.24*	-0.01
	(0.01)	(0.01)	(0.02)	(0.01)
Min. Party Sponsor	-0.25*	-0.36*	-0.35*	-0.23*
	(0.01)	(0.02)	(0.02)	(0.01)
Maj. Leader Sponsor	0.07^{*}	0.01	0.20^*	0.05^*
	(0.01)	(0.03)	(0.04)	(0.01)
Min. Leader Sponsor	-0.05*	-0.10*		-0.04*
	(0.01)	(0.04)		(0.01)
PVS Key Vote	0.23^{*}	0.07^*	0.30^{*}	0.48^*
	(0.02)	(0.03)	(0.06)	(0.04)
Duplicate Bill	-0.05*	-0.05	-0.04	-0.04*
	(0.01)	(0.03)	(0.03)	(0.01)
Chamber Polarization	-0.06	0.16	0.09	-1.61*
	(0.05)	(0.08)	(0.17)	(0.20)
Leg. Professionalization	-0.29	-2.77*	-0.58	-1.29*
	(0.16)	(1.03)	(1.07)	(0.35)
Number observations	26051	5666	6817	13568
Number State-Sessions	23	9	6	8
Number States	3			
Var(State-Sessions)	0.00	0.00	0.00	0.00
Var(States)	0.05			
Var(Residual)	0.17	0.17	0.20	0.15

Models are estimated with multilevel ordinary least squares regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal is enacted into law. The explanatory variables are counts of the number of organized interests who take positions in support and in opposition to a proposal. The model in the leftmost column pools legislative proposals from Colorado, Nebraska, and Wisconsin, while the remaining three models use only data from the state indicated. The first model includes varying intercepts for each legislative session and for each state (with legislative sessions nested in states). The remaining models include varying intercepts for each legislative session.

Table SI.13: Number of Groups Lobbying and Probability of Enactment (OLS w/ Other)

		,		
	All	Colorado	Nebraska	Wisconsin
Number Lobbying For	0.01*	0.01*	0.01*	0.02*
	(0.00)	(0.00)	(0.00)	(0.00)
Number Lobbying Against	-0.02*	-0.03*	-0.02*	-0.02*
	(0.00)	(0.00)	(0.00)	(0.00)
Number Lobbying Other	-0.00*	-0.00*	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Number observations	26051	5666	6817	13568

Models are estimated with ordinary least squares regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal is enacted into law. The explanatory variables are counts of the number of organized interests who take positions in support and in opposition to a proposal, as well as those who take positions neither for nor against the proposal. The model in the leftmost column pools legislative proposals from Colorado, Nebraska, and Wisconsin, while the remaining three models use only data from the state indicated.

Table SI.14: Balance of Group Lobbying and Probability of Enactment (OLS)

	All	Colorado	Nebraska	Wisconsin
# Groups For - # Groups Against	0.02*	0.02*	0.02*	0.02*
	(0.00)	(0.00)	(0.00)	(0.00)
Total # Groups for and Against	-0.01*	-0.01*	-0.00*	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
Number observations	26051	5666	6817	13568

Models are estimated with ordinary least squares regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal is enacted into law. The explanatory variables are the balance of the number of organized interests who take positions in support and in opposition to a proposal and the sum of organized interests taking positions in support of or in opposition to a proposal. The model in the leftmost column pools legislative proposals from Colorado, Nebraska, and Wisconsin, while the remaining three models use only data from the state indicated.

Table SI.15: Balance of Group Lobbying and Probability of Enactment (OLS w/Interaction)

		,		
	All	Colorado	Nebraska	Wisconsin
# Groups For - # Groups Against	0.03*	0.04*	0.03*	0.03*
	(0.00)	(0.00)	(0.00)	(0.00)
Total # Groups for and Against	-0.01*	-0.01*	-0.01*	0.00
	(0.00)	(0.00)	(0.00)	(0.00)
# Groups For - # Groups Against* Total # Groups for and Against	-0.00*	-0.00*	-0.00*	-0.00*
	(0.00)	(0.00)	(0.00)	(0.00)
Number observations	26051	5666	6817	13568

Models are estimated with ordinary least squares regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal is enacted into law. The explanatory variables are the balance of the number of organized interests who take positions in support and in opposition to a proposal and the sum of organized interests taking positions in support of or in opposition to a proposal. The model in the leftmost column pools legislative proposals from Colorado, Nebraska, and Wisconsin, while the remaining three models use only data from the state indicated.

Table SI.16: Lobbying Patterns and Probability of Legislative Advancement (OLS w/ Covariates)

	Passed Committee	Reached Floor	Passed Chamber
Lobbying For and Against	-0.08*	-0.08*	-0.07*
	(0.01)	(0.01)	(0.01)
Only Lobbying Against	-0.17*	-0.17*	-0.17*
	(0.02)	(0.02)	(0.02)
Only Lobbying For	0.06^*	0.05^{*}	0.05^*
	(0.01)	(0.01)	(0.01)
Maj. Party Sponsor	0.01	0.00	0.00
	(0.01)	(0.01)	(0.01)
Min. Party Sponsor	-0.31*	-0.30*	-0.30*
	(0.01)	(0.01)	(0.01)
Maj. Leader Sponsor	0.14^*	0.12*	0.12^{*}
	(0.01)	(0.01)	(0.01)
Min. Leader Sponsor	-0.06*	-0.06*	-0.06*
	(0.02)	(0.02)	(0.02)
PVS Key Vote	0.61*	0.62*	0.62*
	(0.05)	(0.04)	(0.04)
Duplicate Bill	-0.04*	-0.03*	-0.03*
	(0.01)	(0.01)	(0.01)
Number observations	13568	13568	13568

Models are estimated with logistic regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal reached the stage of the legislative process indicated by the column heading. The explanatory variables are coded as dichotomous indicators for whether organized interests officially take positions only in support of a proposal, only against a proposal, or both for and against a proposal. Proposals in the omitted category are those proposals on which no organized interest takes an official position for or against the proposal. The models include only legislative proposals from Wisconsin.

Table SI.17: Lobbying Patterns and Probability of Legislative Advancement (Logit)

	Passed Committee		Passed Con		Reache	ed Floor	Passed (Chamber
Lobbying For and Against	-0.03	-0.41*	-0.05	-0.43*	-0.02	-0.40*		
	(0.05)	(0.06)	(0.06)	(0.06)	(0.06)	(0.06)		
Only Lobbying Against	-0.90*	-1.13*	-0.93*	-1.17*	-0.92*	-1.16*		
	(0.10)	(0.10)	(0.10)	(0.11)	(0.10)	(0.11)		
Only Lobbying For	0.51^{*}	0.26*	0.47^{*}	0.21*	0.49^{*}	0.24*		
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)		
Includes Controls?	No	Yes	No	Yes	No	Yes		
Number Observations	13568	13568	13568	13568	13568	13568		

Models are estimated with logistic regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal reached the stage of the legislative process indicated by the column heading. The explanatory variables are coded as dichotomous indicators for whether organized interests officially take positions only in support of a proposal, only against a proposal, or both for and against a proposal. Proposals in the omitted category are those proposals on which no organized interest takes an official position for or against the proposal. The models include only legislative proposals from Wisconsin.

Table SI.18: Number of Groups Lobbying and Probability of Legislative Advancement (OLS w/ Covariates)

	Passed Committee	Reached Floor	Passed Chamber
Number Lobbying For	0.01*	0.01*	0.01*
	(0.00)	(0.00)	(0.00)
Number Lobbying Against	-0.02*	-0.02*	-0.02*
	(0.00)	(0.00)	(0.00)
Maj. Party Sponsor	0.00	0.00	0.00
	(0.01)	(0.01)	(0.01)
Min. Party Sponsor	-0.32*	-0.31*	-0.30*
	(0.01)	(0.01)	(0.01)
Maj. Leader Sponsor	0.13*	0.12*	0.11*
	(0.01)	(0.01)	(0.01)
Min. Leader Sponsor	-0.06*	-0.06*	-0.06*
	(0.02)	(0.02)	(0.02)
PVS Key Vote	0.60^*	0.62^{*}	0.62*
	(0.05)	(0.05)	(0.05)
Duplicate Bill	-0.04*	-0.03*	-0.03*
	(0.01)	(0.01)	(0.01)
Number observations	13568	13568	13568

Models are estimated with logistic regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal reached the stage of the legislative process indicated by the column heading. The explanatory variables are counts of the number of organized interests who take positions in support and in opposition to a proposal. The models include only legislative proposals from Wisconsin.

Table SI.19: Number of Groups Lobbying and Probability of Legislative Advancement (Logit)

	Passed C	Passed Committee		Reached Floor		Chamber
Number Lobbying For	0.08*	0.04*	0.07*	0.04*	0.08*	0.05*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Number Lobbying Against	-0.08*	-0.11*	-0.08*	-0.11*	-0.07*	-0.11*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Includes Controls?	No	Yes	No	Yes	No	Yes
Number observations	13568	13568	13568	13568	13568	13568

Models are estimated with logistic regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislative proposal reached the stage of the legislative process indicated by the column heading. The explanatory variables are counts of the number of organized interests who take positions in support and in opposition to a proposal. The models include only legislative proposals from Wisconsin.

Table SI.20: Lobbying Patterns and Vote Switching (MLM OLS)

	Model 1
Committee Vote-Yes	0.41*
	(0.01)
Pre-Against, Post-For	-0.14*
	(0.03)
Pre-Against, Post-None	-0.03
	(0.01)
Pre-Both, Post-None	-0.00
	(0.01)
Pre-For, Post-Against	0.01
	(0.02)
Pre-For, Post-None	0.00
	(0.00)
Pre-None, Post-Against	0.00
	(0.06)
Pre-None, Post-For	-0.00
	(0.01)
Number observations	6230
Number Bills	856
Number Legislators	250
Number Sessions	8
Var(Legislators)	0.00
Var(Bills)	0.00
Var(Sessions)	0.00
Var(Residual)	0.01

Models are estimated with multilevel ordinary least squares regression. * denotes statistical significance at the p<0.05 level. The dependent variable is a dichotomous indicator for whether a legislator voted for a given legislative proposal on the floor. The explanatory variables include a dichotomous indicator for whether a legislator voted for a given legislative proposal in committee and a series of dichotomous indicators specifying the timing and directionality of lobbying activity on the proposal. The model includes varying intercepts for each legislator, each bill, and each legislative session.