Appendix: Details on the Two Research Designs

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Research Design One: Interest Group Coalition Formation

(drawn from Holyoke 2009)

The literature emphasizes the necessity of studying lobbyist decision making in the context of issues, so the first step is issue selection. It holds that environmental features exogenous to the model may vary from issue to issue, and policy domain to domain, so the hypotheses are tested with data on six issues drawn from three domains. Lowi (1972) argues that distributive policy domains, where benefits are targeted but costs are diffuse, are likely to be marked by long-standing norms of cooperation that may constrain the decisions of the actors working there. Agriculture, long seen as the archetype of distributive policy (Browne 2001), is thus selected. The other two domains are environmental conservation and banking because they have characteristics of the more conflict prone re-distributive and regulatory policies.

Most of the data used in the analysis was collected through interviews with lobbyists from 1999 to 2002. I identified specific issues by collecting articles published in *Congressional Quarterly Weekly Report (CQWR)* on agriculture, environmental conservation, and banking during this time period. Then I randomly selected two issues from each domain for a total of six: oil drilling in the Arctic Wildlife Refuge and using off-shore oil royalties for state conservation projects from environmental conservation; bankruptcy reform and money laundering from banking; and government support of bio-engineered foods and reforming price supports for fresh milk for agriculture.

I also used the *CQWR* articles to identify interest groups, but because it may be harder for groups with fewer resources to frequently make the news, every article from these publications starting in 1990 was gathered. Reading these led to the identification of 102 organizations, each of which I contacted for an interview with the principle lobbyist working on the issue requested. Eighty-three agreed for an 81% response rate. It turns out that 34% were professional / trade associations, labors unions were 5%, intergovernmental groups were 6%, and public interest / citizen groups was 45%. Most of the data is from closed and open-ended questions asked in these interviews.

In the theoretical model I argue that competition is overcome and coalitions form when two or more lobbyists choose to support the same position on an issue, but identifying different positions on the same issue is very difficult. I propose this solution. If substantially different bills represent different ideological positions on an issue, then they can be assigned positions on a continuum. If a pair of lobbyists working on the same issue chose to support the same bill, then they can be assumed to be supporting the same position in a coalition. For each issue, four bills representing significantly different policy solutions to the issue problem that every lobbyist had to decide to support or oppose were identified. In the interviews every lobbyist was asked whether they supported each bill, with a dummy variable for each was coded 1 if they did and 0 if they did not.

The model estimates one lobbyist's choice as partially dependent on the competitor, so the data matrix was structured as a series of dyads representing pairs of lobbyists i and j. Every lobbyist was paired with every other advocating on the same issue so that the second observation in the matrix contains the same lobbyist i as in the first but now paired with a different competitor j.[1] This process was repeated until every lobbyist had been paired once with every

other for the same bill addressing the same issue. The dependent variable, *First lobbyist's choice*, is the dummy variable indicating whether lobbyist i supported or opposed the bill with as a function of i's belief as to what j will choose based on the independent variables influencing j's decision that are included in the same observation row of the data matrix.

Because differences in group member and legislator positions on issue dimensions is crucial to the operationalization of the variables, the four bills per issue discussed above were sorted by whether one was more "liberal" than another in that it would result in greater government regulation or spending than another to create a four-point ordinal scale for each issue. The most liberal bill was given a position code of 1 and the most conservative 4.[2] Each lobbyist interviewed was asked which bill best represented the interests of his or her group members or clients, with the position on the scale represented by this bill then designated as the group member / client ideal for that lobbyist.

Each lobbyist was also asked to rate on a scale of 1 to 3 how intensely they believed their members were committed to this position, 3 being the most intense, thus capturing the intensity of member preferences. The variable *Constraint from members* capturing the member pressure lobbyists were under as the ideological distance from each group's ideal position increased was created by multiplying the member intensity score by the squared difference between the lobbyist's ideal position and the position of the bill in the observation. The multiplicative term should positively influence a lobbyist's choice to support the group position the bill as the intensity or the spatial difference increases.

Operationalizing legislator support used only those members of Congress actively interested in the issue. For each issue all legislators sponsoring or co-sponsoring each of the four bills used as components of that scale were identified and pooled together to create a set of

legislators concerned specifically with that issue. Sponsorship may reflect a legislator's choice of positions *after* being lobbied, so I used the Poole and Rosenthal Common Space Scores for the 106th and 107th Congresses as the initial positions of these legislators on each issue.[3] The distribution of each set of legislators' scores was divided into quartiles and super-imposed on the corresponding issue scale so that the pre-lobbying positions of legislators were roughly associated with the four policy alternative positions on that scale. The actual values of the *Pressure from legislators* variable is the percentage of all legislators involved with an issue whose Common Space Scores fall in each quartile. Larger percentages supporting a position means lobbyists would need to advocate less to gain their support if they chose to support it as well. This, in turn, makes it more likely to actually observe lobbyists choosing that position.

The resources a lobbyist can wield are also a little difficult to capture. Organization budgets could not be directly used because they support many operations other than lobbying. I therefore asked lobbyists whether the level of resources their organization committed to advocacy on the relevant issue was greater than, equivalent to, or less than resources used to lobby other issues. The term "resources" was defined not only as money, but organizational personnel as well. Responses were coded 3 for "less than," 2 for "same as," and 1 for "greater than." The *Group resources* variable is formed by dividing the organization's budget.

For controls, a dummy for the *Distributive policy domain* variable coded is 1 if the issue was from the agriculture policy domain. Whether a lobbyist makes contributions as a means of gaining influence, the *PAC contributions* variable, is captured by simply obtaining each group's contributions for the time period under consideration from the Center for Responsive Politics. Older groups may have better reputations as brokers and thus have stronger connections in

Congress so *Age of the interest group* was calculated by subtracting its founding date from 2002.[4]

Research Design Two: Charter School Venue Shopping

(drawn from Holyoke, Brown, and Henig 2012)

We test our venue shopping hypotheses with data on issue advocacy at the state and local government levels by charter schools. Charter schools suffice for three reasons. First, like most interest groups, they have well defined populations on whose behalf they often advocate. Unlike traditional public education, where students are assigned to schools on the basis of geography, parents *choose* charter schools for their children, giving them a vested interest in the school's survival and ability to provide an education. Because school choice policies have aroused fierce opposition from traditional public education interests, such as teachers' unions and school board associations, charter school survival has become a political issue. Charters have engaged in nearly continuous advocacy since the early 1990s to survive.

Second, while laws creating charter schools are proposed and enacted by state governors and legislatures, implementation responsibility is often imposed on sometimes unwilling local school districts, mayors, and city councils. Not only must charter schools lobby to survive, but there are many involved venues to which they can make their case. So state charter school policy is well suited for the study of strategic venue shopping. Finally, Salisbury (1984) finds that lobbying communities are disproportionately populated by organizations that are not, strictly speaking, interest groups. Nonprofits lobby government for grants, service contracts, and policy change (Salamon 1995; Berry and Arons 2003), just as businesses seek regulatory exemptions

and tax breaks (Vogel 1989). Charter schools also seek these things and have more of a well-defined constituency than most other things that lobby.

The analysis presented here uses data drawn from a survey we conducted of charter schools in Arizona, Michigan, Pennsylvania, and the District of Columbia. We selected these jurisdictions using three criteria. First, these states had charter school policies in place for several years, which means we have a large sample of schools that have had time to form firm decision-making processes. The four selected states had their laws in place by 1997 and schools operating by 1999. Second, we are interested in how schools with close ties to for-profit firms might differ from more community-oriented charter schools with nonprofit backgrounds, so we limited our focus to states with school districts in which at least one of the major for-profit charter management firms had a presence. Third, among those states that met the preceding criteria, we wanted to maximize variation in political ideology and racial diversity, as operationalized by Erikson et al. (1993) and Hero (1998), respectively. Arizona and the District of Columbia, compared to Pennsylvania and Michigan, score relatively high on Hero's index of culture and diversity; Arizona is much more conservative than the others on the Erickson, Wright, and McIver index.

We sent a survey to the principal or director of every charter school in these states in January 2002. We included only schools that were open as of the 1999–2000 school year and verified that schools opened before 1999–2000 were still in operation whenever possible. We received a total of 270 surveys for a response rate of 35 percent. This is not as robust a response rate as we had hoped for, but it is relatively good when measured against the track record of other efforts to get information on charter schools, which are often quite small, often quite overwhelmed, and sometimes quite suspicious of outsiders. To gauge how representative our

sample is, we compared our responses to those of the 1999–2000 Schools and Staffing Survey (SASS) conducted by the U.S. Department of Education. In our survey the responding schools had a mean enrollment of 276 students, comparable to the mean enrollment of 220 in the SASS data set for the same jurisdictions; 62 percent of the schools responding to our survey reported offering a theme, while 56 percent of the SASS charter schools reported that they offered ''programs with special instructional approaches.'' The fact that our sample comprises somewhat larger schools is likely accounted for by the fact that our survey was conducted two years after the SASS effort; as one would expect, and as our data show, charter schools have been generally getting larger as the schools and movement mature. We also conducted semi-structured personal interviews with school operators in two cities of each state, interest group advocates both for and against charter schools, and multiple policy-makers in state and local venues to get a better sense of the issue context in each state.

The District of Columbia has a unique relationship with the federal government, so venue shopping there by advocates cannot be meaningfully compared to Arizona, Michigan, and Pennsylvania so we do not use it, leaving us with 247 school surveys. These three states have comparable venues, so our first task was identifying which ones took, or were required to take an interest, an interest in charter school policy. We asked the surveyed school leaders about the frequency of *initiating* contact with state legislators representing the school's legislative district, and another about contacting legislators from other districts, with no distinction made between upper and lower chambers or on what committees these legislators served (school officials we interviewed often did not understand these distinctions), and pooled the responses to create a single per-school observation of contact with "the state legislature." We also asked about the

level of contact with the elected council of the city / town the school was located in, but we found that few school leaders indicated having contacted there so this venue was dropped.

In addition to the state legislature, our venues included the governor's office, the state education agency, local school district boards (which implements policy in all three states), and district superintendents who often have oversight responsibilities for charter school curricula. Henig and Rich (2004) argue that mayors often play important roles in local education, from dispensing vacant buildings to charter schools for their physical location to taking over whole school systems, and so they were also included. Thus we have six venues, three at the state level and three at the local level. Members of four are elected (governor, legislature, school board, and mayor) and two appointed (superintendent and state agency, except in Arizona where the education secretary is elected); three are generalist, multi-issue venues (governor, legislature, and mayor) and three specialist (state agency, school board, and superintendent).

Our dependent variable is a binary indicator formed from the coded answers to closed-ended survey questions asking how frequently charter school leaders "actively initiate" contact with officials in each venue. It is coded 0 if they reported no contact or contact only "a few times a year," and 1 for "about once a month" or "about once a week." On average charter schools in these states made advocacy contact in 1.2 venues with a standard deviation of 1.39. Some were wary of politics, with 42% lobbying in no venues and 31% in only one. Others were quite active, 12% lobbying in two venues and 15% lobbying in more than two, although only 2% targeted all six. Elected legislatures were the "hottest" venue, especially state legislatures where the policies were originally made, with elected local school boards turning also turning out to be venues of choice.

The biggest challenge was constructing a policy preference measure comparable across all six venues allowing us to determine whether policymakers there were collectively supportive or opposed to charter schooling. We tackled the problem by falling back on a classic measure that we felt is apt here – political party affiliation. Rarely used because many issues do not break along party lines (Poole and Rosenthal 1997, p. 6), and nor does school choice policy in many states, but in our field interviews we found that support and opposition *does* divide sharply by party in these states. At the time of the study, Republican governors and legislators pushed it while it was resisted by Democrats in state legislatures and school boards.

The difficulty was identifying the way each venue leaned in terms of partisan affiliation. For local school boards we used geographic information system technology to obtain maps of each school district containing one of our responding schools and superimposed over it the election precincts. For precincts largely contained within a school district (frequently the case) we found the percentage of voters selecting George Bush, an avid proponent of school choice, in the 2004 election and assumed that these same voters were also shaping the make-up of officially non-partisan elected school boards.[5] Superintendents were harder because while these states elect *county* superintendents, our question regarded *district* superintendents appointed by local school boards. Given the high rates of contact schools had with superintendents, we did not want to drop them from the analysis, so we assumed that their actions towards charter schools would reflect those of the appointing school board and assigned them the board's ideology score.

Governors were coded 1 if they were Republican, and in Pennsylvania the head of the state education agency was coded 1 because he was appointed by Governor Tom Ridge (R) while Michigan's head was appointed by a Democrat-controlled state education board. Arizona elected a Republican education secretary. For state legislatures we obtained data on the

percentage of Republicans in each lower and upper house in 2002 and averaged them. Republicans controlled both chambers in Michigan and Pennsylvania, controlled the Arizona House and were tied with Democrats in the Senate, effectively dominating in all three states.

Finally, mayors in Pennsylvania are elected in partisan elections and were coded 1 for Republican and 0 for Democrat. Rather than go back to votes in the 2004 election as a source of data for non-partisan mayors in Arizona and Michigan, risking a multi-collinearity problem with our school board and superintendent ideology measures, we investigated the histories of each mayor along with newspaper accounts to code them as Republican (coded 1) or Democrat.[6] Since many of these codes are already binary, we convert the state legislature ideology codes to binary indicators as well, a legislature coded 1 when Republicans are the majority. The final variable has a mean of 0.66 and standard deviation of 0.48.[7] Unfortunately, this coding strategy still left many venues, all local, un-codable. Rather than drop these school-venue observations, we used a multiple imputation statistical technique to replace these missing ideology values, as well as missing observations on charter school revenue and expenses.[8] This became our "ideological alignment of venue" variable.

Whether venue officials actively worked on charter school policy came from open-ended questions in our interviews asking respondents which policymakers they believed were currently seeking to amend the state's law. In Arizona and Pennsylvania respondents without exception indicated the state legislature, so we coded a dummy operationalizing our "venue is actively working on charter school policy" variable as 1 for the legislative venue in those states and 0 otherwise. In Michigan the only venue identified as actively working on charter school policy was a temporary body called the McPherson Commission. Everybody else stopped working until it decided whether to increase the number of charter schools operating in the state. The

commission is not in our data set, so all Michigan venues were coded 0 (measure has a mean of 0.12 and standard deviation of 0.32).

The "venue is constrained by another, pro-charter school venue" required three steps to operationalize. First, we had to identify which of the six types of venues had implementing authority in each state. The law in Arizona gives the state education agency and local school districts, including both school boards and local superintendents, authority to open charters and oversee their operations. In Michigan authority is given to school districts and state universities (although we have no data on the latter), and in Pennsylvania only local school boards are implementers, so these venues were coded 1.

Second, we had to determine whether the governor or legislature would *want* to constrain the authority of officials in these specialist implementing venues, which we assumed was true if there was an ideological difference. State legislative venues in all three states have ideology codes of 1 (Republican), so if the ideology score for an implementing venue was 0, a new ideology dummy representing a desire to constrain was coded 1.[9] Third, we had to determine whether the implementing venue *could* be constrained. Assuming that a state venue would have a harder time controlling a local venue than one on its own level (Teske and Kuljiev 2000), an ordinal variable was coded 0 for no constraint if the implementer was local *and* if the governor was of a different party than the legislature (true in Pennsylvania) because the research finds that agencies have greater discretion during divided government (Shipan 2004). We coded it 1 if only one of these two conditions was true, and 2 if neither were true so that higher values indicate *greater* constraint over the implementer. Finally, we multiplied the want-to-constrain variable by the can-constrain variable and expect the product to exhibit a positive effect because

schools want officials in an implementing venue with an ideology code of 0 to be constrained. Only then would they choose to lobby there (mean 0.14 and standard deviation 0.35).

Our "charter school's annual budget" variable required data on disposable financial resources, those beyond what a school needs for operation. Charters are required by law in every state to register as nonprofits and report their income and expenditures to the Internal Revenue Service. We obtained records on nearly all of our schools from the GuideStar nonprofit database, found the total annual revenue and total expenditure, and then subtracted one from the other for disposable resources. [10] For 67% of schools this turned out to be debt. We also decided to try for a sharper test of this hypothesis by testing for the opposite effect, that when a school is in debt resources will matter less and ideological congruence more. To do this we reversed the revenue variable (higher values mean more debt) and multiplied it by the ideology dummy so that the *more* a school is in debt, the *more* ideology matters and we will see a positive estimate.

For our "charter school recruits students broadly" variable on the geographic breadth of membership, in this case the parents of the school's student body, we asked a question regarding the number of students in each school and multiplied it by data from a question regarding the area of student recruitment. Schools recruiting students only from their neighborhood were coded 0, recruiting district-wide coded 1, and from many districts coded 2. This, in turn, was multiplied by a dummy coded 1 if the venue's membership is constituted by election rather than appointment (mean of 185.56 and standard deviation of 234.49 for the final variable) as this variable should have no influence on appointed officials. Thus schools with larger, more geographically diverse student bodies should be more likely to target elected venues at either level than appointed.

We also created two control variables. Schools may lobby more if they employed somebody on staff to monitor government for political developments or grant opportunities, so in our survey we asked whether such a staff member was employed and coded a dummy 1 if there was. Schools may also be more or less likely to lobby if they are members of an advocacy organization (which existed in all three states), so we asked and coded a dummy variable 1 if they were.

As the main article does not show the estimates of the random-intercept and random-coefficient models, it is provided here.

Estimates of multi-level venue shopping

Explanatory variable	Random-intercept model	Random-coefficient model
Ideological alignment of venue	0.86***	0.85***
	(0.20)	(0.20)
Venue is active working on charter school policy	17.73	17.54
	(731.88)	(668.49)
Venue is constrained by another, pro-charter school venue	1.37***	1.36***
	(0.27)	(0.28)
School recruits students locally X venue lawmakers are elected	0.01	0.01
	(0.01)	(0.01)
Charter school's annual budget	0.03	0.03
	(0.03)	(0.03)
Annual budget X ideological alignment	−0.02	−0.02
	(0.04)	(0.04)
Lawmakers in the venue are elected	−0.49**	−0.48**
	(0.18)	(0.18)
Charter school has a government affairs staff member	0.30	0.30
	(0.19)	(0.19)
Charter school recruits students broadly	0.29	0.29
	(0.56)	(0.56)
Charter school is a member of an advocacy association	0.34*	0.33
	(0.17)	(0.17)
Constant	−0.42	−0.12
	(0.59)	(0.57)
Standard deviation of state intercepts	0.15	0.60
Standard deviation of level intercepts	0.29	0.17
Wald Chi-Square of model fit	49.97***	48.36***
Likelihood-ratio test	17.11***	18.06**
Standard deviation of group density	−	0.03

*p < 0.05   ** p < 0.01   *** p < 0.005

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[1] For example, on the first bankruptcy reform bill the American Bankers Association, and its lobbyist's choice of support or opposition, was entered in one observation paired with Consumers Union and then with the AFL-CIO in the next observation.

[2] A code checker was employed to re-sort and re-code these bills. Our scores correlated at 0.92 suggesting that the measure, though rough, is valid.

[3] I use the common space scores rather than the more traditional DW-NOMINATE because these are comparable across both the House and the Senate (see Poole 1998).

[4] The founding date came either from the group's entry in the 2002 edition of *Washington Representatives* or was acquired during the interview.

[5] We feel that this is a logical approach given that the 2004 election represented a fairly clear-cut choice between conservative candidate George Bush and liberal John Kerry. Voting percentages were obtained either through secretaries of state or from county departments of elections.

[6] In a large majority of cases the mayor either had a history in a party, such as serving on a central committee, or went on to higher office in a partisan election. In the remaining cases we coded their affiliation based on party affiliation mentioned in their local newspapers.

[7] To get a sense of our measure's validity we used data from our field interviews with school leaders and public officials. In every interview we asked questions regarding whether he or she believed officials in each venue were supportive of, or opposed to, charter schools, with "yes," "no," or "don't know" response categories. We did do interviews outside of the cities of Phoenix, Tucson, Grand Rapids, Detroit, Philadelphia, and Pittsburgh, so this only yielded data regarding the perceived "friendliness" of the mayors, school boards, and superintendents overseeing 49% of schools in our data set. Still, with this smaller data set we calculated the percentage of times subjects indicated that officials in a venue were supportive of charter schooling. We then correlated this with our ideology measure for a somewhat re-assuring $r = 0.60$.

[8] In STATA we used the "mi" command structure. Because we are replacing three variables, and there is no relationship between missing ideology values and financial values, the multivariate normal regression method was used ("mvn" command) to estimate 10 iterations of the missing values with our dependent variable, all independent variables, and other school-level information variables in our data set, as is normal in such operations. Results are available on request.

[9] This new ideology dummy correlates with the original at $r = 0.80$ and was so excluded from the statistical models reported below due to serious multi-collinearity problems.

[10] So the estimate would not be a remotely small number, the amounts were divided by 100,000.