K Street on main: legislative turnover and multi-client lobbying

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Abstract

This study explores the consequences of legislative turnover for the hiring of lobbyists and influence of interest groups. We argue that lobbyists develop durable relationships with lawmakers in assemblies with low turnover. Such relationships allow lobbyists to attract clients. We use a new, state-level measure of multi-client lobbying to show that legislative turnover and multi-client lobbying are inversely related: decreases in turnover are correlated with more multi-client lobbying. In a second set of analyses, we find that legislative term limits are associated with less multi-client lobbying. Since multi-client lobbying poses risks to the representation of individual interests and magnifies the effects of resource differences between interests, our results suggest that turnover may help more diverse interests to achieve political influence.

Scholars, policymakers, and pundits have long debated the advantages and disadvantages of legislative turnover. On one hand, legislator turnover lies at the heart of a functioning representative democracy: an assembly's responsiveness to changes in constituent opinion requires at least some amount of incumbent replacement with new representatives. On the other hand, high levels of turnover imply a loss of accrued policy expertise, institutional memory, and general political knowledge. Indeed, as Madison aptly summarizes in *Federalist* papers 52 and 53, legislators "should have an immediate dependence on, and an intimate sympathy with the people" (Madison 1789, 273). Yet, "no man can be a competent legislator who does not add to an upright intention and a sound judgment a certain degree of knowledge of the subjects on which he is to legislate" (278).

These concerns have been extended to modern scholarship on American legislatures, where research has explored the negative consequences of legislator entrenchment at the federal level, arguing that representatives evade serious electoral challenges by generating opportunities for constituency service and developing a "personal vote" (e.g., Fiorina, 1977; Arnold, 1979). That is, instead of campaigning on the sorts of policy positions that allow voters to remove out-of-step representatives, legislators use casework and pork to generate a positive impression of their offices' work, insulating them from serious electoral challenges (Parker, 1980; Johannes, 1984; Cain et al., 1987). In response to such concerns, some reformers suggested legislative term limits as a means for removing entrenched legislators. Such limits were adopted in more than one-fifth of state legislatures. After the implementation of term limits, however, studies uncovered a wide variety of drawbacks. These included a lack of policy making effort by legislators (Titiunik and Feher, 2018), power imbalances between legislators and executives (Kousser, 2005), greater polarization (Olson and Rogowski, 2020), and a lack of democratic responsiveness (Lax and Phillips, 2012).

Despite the centrality of turnover and related reforms to debates over representation, electoral politics, and institutional design, comparatively little research has examined how legislative turnover affects actors located outside of legislatures. A classic study examining the effects of term limits on the balance of power between legislators and governors notwithstanding (e.g., Kousser, 2005), studies of turnover generally focus on repercussions for accountability, representation, intra-institutional advancement, and legislative effectiveness. In this study, we contribute to the ongoing debate over the vices and virtues of legislative turnover (and term limits) by examining its impact on one set of important outside actors: lobbyists. We investigate the extent to which legislative turnover has hastened or hampered the development of state-level "K Streets" full of professional, multi-client lobbyists.

We propose that turnover alters the structure of a state's lobbying community: more specifically, that turnover discourages the centralization of lobby contracts (clients) into the hands of well-networked lobbyists. Turnover affects lobbyists' abilities to attract clients by disrupting established relationships between legislators and lobbyists. When legislators serve in office for short periods of time, lobbyists have reduced abilities to build relationships and attract clients by advertising access. With low turnover, however, lobbyists with relationships attract clients more ably, enabling such lobbyists to act as *de facto* gatekeepers to their legislator allies. To test our claims, we examine an original data set of lobby contracts and legislative turnover across all American states and 28 years. We find support for our expectations. In a supplementary set of analyses, we find that one institutional means for encouraging turnover, term limits, is itself associated with less multi-client lobbying.

These findings contribute to existing scholarship by complicating conclusions about the effects of legislative turnover on lobbyist influence. Previous work has typically focused on how turnover (induced by term limits) empowers lobbyists via informational asymmetries (e.g., Moncrief and Thompson, 2001; Powell, 2012). But while information may help a lobbyist gain access, we point to lobbyists' relationship-building as a key factor in the granting of access (cf., Hall and Wayman, 1990). Although legislators in high-turnover assemblies may be less knowledgeable, such turnover, whether induced by term limits or otherwise, disrupts the relationships that some lobbyists leverage to influence legislative processes. Given historical decline in turnover in the states, our findings partly explain the rise of local "K Streets."

Multi-client lobbying and representation

Multi-client lobbying occurs when an individual lobbyist is authorized to represent two or more distinct interests during a single legislative session. Over the past 30 years, multi-client lobbyists have become more prevalent at both the federal (Drutman, 2015) and state (Strickland, 2020a) levels. These agents seem to have benefited especially from the political mobilization of corporations and private entities. Lobbying on behalf of multiple clients is quite common for members of lobby firms (teams of lobbyists who coordinate their lobbying efforts and share revenue), but individual lobbyists may also represent scores of clients. Most lobbyists with multiple clients likely work on a contract or retainer basis for each client (Drutman, 2015, 164–6).

The popularity of multi-client lobbyists raises at least two concerns over the representation of organized interests. First, at the individual level, multi-client lobbying may affect the true representation of clients' interests. Multi-client lobbyists behave as common agents shared among multiple principals (Bernheim and Whinston, 1986). Since clients do not coordinate with each other and cannot observe their lobbyists working, multi-client lobbying may give rise to common-agency problems. Examples include lobbyists charging multiple clients redundantly for the same hours of labor (which gives lobbyists incentives to attract clients with overlapping interests) or clients attempting to outbid each other for services. With multi-client lobbying, there is also more potential for traditional principal-agent problems. While even single-client lobbyists may not lobby as contracted, multi-client lobbyists may shirk for some clients

while providing services for others (see Lowery and Marchetti, 2012). Such selective shirking may occur especially if a lobbyist represents clients with conflicting interests. As an example, Goldstein and Bearman (1996) found that, in the American states, there were 220 lobbyists registered to represent both tobacco and healthcare interests simultaneously. Interestingly, *all* tobacco lobbyists were multi-client advocates (including one who represented 42 clients). Previous scholarship has underscored other kinds of conflicts of interest (e.g., Yanamadala et al., 2012), and have suggested that multi-client lobbying invites deliberate dissembling since "in a single conversation with a legislator, a lobbyist may deal with different issues, and on behalf of different clients" (Rosenthal, 1993, 39).

Second, at an aggregated level, multi-client lobbying magnifies inequities in representation between monetarily rich and poor interests (as in Gerber, 1999). Contract lobbyists, especially those representing large numbers of clients, charge fees that exceed those of single-client lobbyists (Strickland, 2020a). The very reason behind these exorbitant fees—the universal, cross-issue appeal of lobbyists' personal connections to powerful politicians—constitutes a problematic disadvantage for poorer interests. Indeed, as previous research has found, multi-client lobbyists do not necessarily amass their large, diverse clienteles because of their superior policy knowledge. Rather, such lobbyists in both the Congress and state legislatures advertise their *relationships* and *access* in order to attract clients (Gray and Lowery, 1996; Drutman, 2015, 158), which are of universal appeal to many types of interests, and which allow for high fees (LaPira and Thomas, 2017). Consequently, business firms hire multi-client lobbyists more often than do resource-poor groups, reflecting other resource advantages enjoyed by these interests (Schlozman et al., 2012; Strickland, 2020a; Crosson et al., 2020). According to a long-time observer of state legislatures, "[i]n lobbying, reputations grow over time, and certain lobbyists become known for their client lists, contacts, and clout... as in other domains of life, the rich get richer and the poor have trouble breaking in" (Rosenthal, 1993, 27).

Turnover, access, and multi-client lobbying

Given the importance of multi-client lobbying to representation, we investigate why some institutional contexts appear to allow for more multi-client lobbying—and why such lobbying has (as we show) grown over time. We propose an explanation for why *turnover*—and institutions designed to encourage it—impedes the emergence of multi-client lobbying. In Congress, scholars have pointed to political access as a key resource for lobbyists. However, turnover among lawmakers affects access negatively. Turnover makes it more difficult for lobbyists to form long-lasting, profitable relationships with legislators. As incumbent lawmakers retire or transition out of office, lobbyists must build new relationships and familiarity with incoming lawmakers. For example, Meyer and Levine. (2018) document lobbyists' scramble to build new relationships with the more than 100 freshmen members entering Congress following the 2018 mid-term elections. Even highly connected lobbyists sometimes lose many clients in the wake of turnover, as did Tony Podesta (see Mullins and Bykowicz, 2018). In the states, veteran lobbyists in term-limited states express frustration over having to maintain relationships with and educate new lawmakers continuously (Mooney, 2007, 126–7). These challenges are compounded by the fact that freshmen legislators are often hesitant to meet with lobbyists because they view them as corrupt (see Gross, 2018 for an example).

Turnover among legislators and staffers has been shown to affect revolving-door lobbyists in particular. Former members of Congress and staffers are among Washington's best-paid and most popular lobbyists because of their relationships (LaPira and Thomas, 2017). In fact, departures of former colleagues from government decrease the value of those personal connections: when senators depart the Senate, their former staffers lose an average of more than $ 180, 000 in lobby contract revenue (Vidal et al., 2012). Similarly, McCrain (2018) finds that former staffers make higher (lower) revenues as lobbyists whenever they know more (fewer) current staffers, even

after holding constant other factors such as years of work experience on the Hill. At the state level, Strickland (2020b) finds that proportionally fewer legislators become lobbyists in states with higher legislative turnover.

Building on these studies, we expect turnover to be a negative predictor of how much access-oriented multi-client lobbying occurs within a political system. With turnover, new lawmakers replace former incumbents. With fewer relationships, or with relationships of shorter value, lobbyists lose some ability to claim that they enjoy exclusive relationships with particular incumbents. In turn, turnover reduces lobbyists' abilities to attract clients who seek agents with relationships and access. Legislative turnover therefore disrupts the structure of a state's lobbying community by undermining the value of relationships and reducing the incidence of multi-client lobbying.

To be clear, these expectations rely upon the assumption that multi-client lobbyists rely more heavily on relationships, on average, than do their single-client counterparts. We believe this to be a reasonable assumption, based on previous research, and expect to find an inverse relationship between legislative turnover and multi-client lobbying. Certainly, it is possible that lobbyists may advertise skills or expertise other than relationships with incumbent officials, in order to attract clients. Indeed, they may develop expertise regarding the details of public policy, or even procedural knowledge of how legislatures operate (de Figueiredo and Richter, 2014; LaPira and Thomas, 2014). Still, compared to other assets that lobbyists may acquire, personal relationships are more universally valuable to clients across issue areas—particularly compared to policy knowledge (Bertrand et al., 2014). After all, lobbyists do not need to be personally acquainted with incumbents in order to develop policy expertise or procedural knowledge, but they do need access to *convey* such expertise.[1] Unsurprisingly, then, as we outline above, much of the research on the revolving door emphasizes how *access* (as opposed to information) enables legislators-turned-lobbyists to amass especially large clienteles. And, when those relationships are lost or sour, such lobbyists lose significant revenue. As a result, we are confident in the assumption that multi-client lobbyists rely upon relationships and access-granting to a greater degree than other advocates, on average.

Even still, it is worth noting that possible hiring of lobbyists for their informational skills (rather than relational assets) likely simply biases our findings away from the hypothesized correlation. That is, because *only* personal relationships lose value in response to legislative turnover, a violation of our assumption could push the relationship between turnover and multi-client lobbying in the opposite direction.

Carey (1996), Carey et al. (2000, 83), Moncrief and Thompson (2001), Sarbaugh-Thompson et al. (2004), and Powell (2012) all argue or find empirically that members of high-turnover assemblies have less policy expertise or procedural knowledge, on average, than members of low-turnover assemblies. As a result, Mooney (2007) argues that lobbyists are more valuable sources of *information* in legislatures with high turnover or term limits. Hence, if information-starved legislators grant more access to lobbyists who have more expertise, and if lobbyists attract clients primarily because of their expertise (and not relationships), then we would expect multi-client lobbying to be correlated *positively* with turnover. As our empirical results will indicate, however, our evidence is not consistent with such a pattern.

Here, it is also worth noting that, under conditions of changing turnover, some clients may remain loyal to their lobbyists in the short run. Clients cannot observe the lobbying efforts of their representatives directly (Drutman, 2015), so reductions in political connections may not result

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[1]While we do not doubt that legislators value information, we instead link turnover and lobbying based on access being a *precursor* to informational subsidies. Some scholarly accounts have lent partial credence to this account, claiming that term limits decrease the probability of legislator "capture" (Struble and Jahre, 1991; Daniel and Lott 1997; Gordon and Unmack, 2003). Capell (1996) argues that term limits decrease predictability for groups by increasing turnover among legislative leadership, thereby making it more difficult for groups to strategize and achieve influence. We do not dispute any claims for or against information- and access-driven accounts of legislative turnover and lobbying. Rather, one may bridge the accounts by suggesting that turnover disrupts specific relationships but increases the information-based influence of lobbyists generally.

in immediate reductions in multi-client lobbyists for all clients. Instead, some may prefer to maintain their familiar lobbyists instead of seeking out and training new ones. Here again, such a phenomenon would bias against our finding the hypothesized inverse relationship. Nevertheless, we still expect to find that changes in legislative turnover are correlated inversely with changes in multi-client lobbying, particularly given the growth of interest populations over time.

Using a networks-based measurement method, we show that multi-client lobbying has increased in most states over time, in tandem with decreases in turnover. In other words, lobbyists with multiple clients increasingly came to dominate interest representation in the states—changes which have consistently covaried with changes in legislative turnover. We believe these findings help to explain the historic rise of state-level K Streets.

Measuring multi-client lobbying

To test our expectations, we develop a state-level measure of multi-client lobbying that focuses on the extent to which lobby contracts (clients) are concentrated among lobbyists. We begin by compiling lists of lobbyist–client pairings described by Strickland (2019). These lists indicate which lobbyists are authorized or registered to represent which clients in a given state and year. Using the lists, we generate networks in which nodes represent clients and connections (also known as "edges") represent their shared lobbyists. In such networks, larger numbers of connections generate higher density scores and signify more multi-client lobbying.

As an illustration, Figure 1 shows the first 20 lobbyist–client pairings from the list of registered lobbyists for the state of Alaska in 2000. The list shows the presence of three multi-client lobbyists (e.g., Pat Clasby, Mitchell D. Gravo, Joe L. Hayes).[2] Using this abbreviated list of pairings, we generate the network graph depicted in Figure 2. In the network, there are 20 nodes (squares) that each represents one of the client organizations that are registered to lobby. Nodes are connected to each other by edges (lines) only if the corresponding clients shared at least one lobbyist. In the small network, three pairs of clients are connected to each other because they hired a common lobbyist with another organization.

To measure our dependent variable of interest, overall state-year multi-client lobbying, we use networks of registered lobbyist–client pairings as follows. First, we uploaded cleaned lists of lobbyist–client pairings into **R** as edgelists. These lists were then converted to networks in which clients (nodes) are connected via shared lobbyists (ties), like the network depicted in Figure 2.[3] The density score for each network is captured by how many ties there are in the network, compared to the total number of all *possible* ties (Wasserman and Faust., 1994, 101–3,). In any given network, there might be g total nodes (clients). Given a network of g total nodes, the greatest possible number of edges within such a network is given by:

$$\binom{g}{2} = g(g-1)/2$$

The corresponding density (Δ) of the graph equals the proportion of existing edges (E) to the maximum possible number of edges:

$$\Delta = \frac{E}{g(g-1)/2} = \frac{2E}{g(g-1)}$$

In words, density is the number of edges divided by the total possible edges that would appear when all clients are represented by one massive multi-client lobbyist. For example, there are

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[2]For all analyses, we treat lobbyist–client relations as non-directional.
[3]**R** code used to execute this transformation is included in the online Appendix.

Lobbyist	Client
Mark S. Hickey	3M Alaska Branch
Jan MacClarence	Abused Women's Aid in Crisis, Inc.
Sam Kito, Jr.	Alaska Community Colleges' Federation of Teachers
Reed R. Stoops	Aetna
John L. George	Aflac
Pat Clasby	AgeNet
Lisa M. Parker	Agrium
Jan Bouch	Alaska Action Trust
Kimberly S. Rose	Alaska Air Carriers Association
Kim Hutchinson	Alaska Airlines
J. M. Walsh	Alaska Association Independent Insurance Agents
Pat Clasby	Alaska Association of Homes for Children
Joe L. Hayes	Alaska Association of Realtors, Inc.
Mitchell D. Gravo	Alaska Association Private Career Educators
Joe L. Hayes	Alaska Auto Dealers Association
Thyes J. Shaub	Alaska Bankers Association
Mark M. Higgins	Alaska Bingo Supply, Inc.
Randy Virgin	Alaska Center for the Environment
Mitchell D. Gravo	Alaska Chiropractic Society
Caren Robinson	Alaska Civil Liberties Union

Figure 1. Alaska registered lobbyists and clients, 2000 (excerpt).

Figure 2. Partial network of Alaska lobby clients, 2000.

20 unique clients in the network in Figure 2. If all of them were represented by one lobbyist, then there would be exactly 190 edges in the network. There are actually three edges in the network, so the corresponding density score is 3/190 = 0.016. Compare the network in Figure 2 with the one presented in Figure 3, which is constructed using the first 20 lobbyist–client pairings registered in Alaska for 2020. From the network in Figure 3, there are 18 unique clients. If all of them were to be represented by one lobbyist, then there would be 153 edges. The 11 edges in the network

Figure 3. Partial network of Alaska lobby clients, 2020.

produce a density score of approximately 0.072. This indicates that there is more multi-client lobbying (as measured by edges) in the second network than in the first, relative to the maximum potential amount.[4]

Our method of measuring the prevalence of multi-client lobbying constitutes a notable improvement over an existing method. Our method assigns a specific score to every network (list) of registered lobbyist–client pairings that is independent of the number of clients within each network. Networks of varying sizes can all have roughly equal density measures given equal incidences of multi-client lobbying. For example, networks of 50, 100, and 200 clients each are assigned the density score of 0.0369 if they contain 45, 182, and 733 ties, respectively. This approach is therefore an improvement over Strickland (2019) attempt to measure multi-client lobbying. He predicted the number of unique lobbyist–client pairings within each state while holding constant totals of lobbyists and clients. His approach does not assign specific values to states. The approach is problematic to the extent that it relies on large numbers of state observations and cannot be used to compare small numbers of states to each other. By assigning specific values to networks of state lobbyists, we overcome both these limitations.[5]

Data

Our network density measures come from lists of registered lobbyist–client pairings produced within the American states dating from 1986 to 2013. These data match or exceed the extensiveness of any previous data set on state-level lobbying in terms of both cross-sectional and over-time variation. We draw these lists from three sources. First, we collected lists published

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[4]Within the networks we produce, clients may be connected to each other by more than one edge. This occurs whenever a set of clients are all represented by two or more lobbyists (who may be members of firms). Under such circumstances, our density measure has no upper bound since an infinite number of multi-client lobbyists could presumably represent all of the clients simultaneously. In reality, however, our measures for density rarely exceed 0.2. For network-level density statistics to capture the amount of multi-client lobbying within a network of registered clients accurately, one other adjustment is made: loops or self-connecting edges are not factored into a network's density measure. Such loops appear within the main diagonal of the adjacency matrices of our one-mode networks (i.e. networks with one kind of node) whenever interest groups hire *any* number of lobbyists (whether multi- or single-client) to represent them (i.e., the main diagonal provides the total number of lobbyists hired by each individual client).

[5]Despite these strengths, we note a shortcoming of using lists of registered lobbyists: the lists tell us little about the actual nature of individual lobbyist–client pairings. For example, the lists do not report payments or salaries, precluding us from measuring directly whether a client was represented by a firm or an in-house advocate, or from measuring the value of lobbyists to clients directly. Nevertheless, we maintain that lists of registered lobbyists are useful tools for measuring the incidence of multi-client lobbying since the lists clearly indicate which lobbyists were authorized to represent which clients.

by secretaries of state and ethics agencies, available online or—most commonly—in state libraries, archives, and document depositories. This meant traveling to various states over several years. Second, we included lists published by Wilson (1989). Finally, we turned to lists provided by the non-partisan National Institute on Money in State Politics. Lists from the Institute were cleaned of duplicate lobbyist–client pairings. Institute lists have been used elsewhere in research, on a smaller scale (e.g., Lowery et al., 2012; Gray et al., 2015).

In the states, multi-client lobbying is notably more prevalent today than several decades ago. In 1989 ($N = 48$), the average density score among states was 0.017 ($\sigma = 0.014$). In contrast, the average state in 2011 ($N = 47$) exhibited a density score of 0.032 ($\sigma = 0.030$).[6] To put this increase into perspective, in two networks each consisting of 100 different interest groups, a network with a density score of 0.017 would have approximately 84 total ties linking clients. A network with a score of 0.032 would have approximately 158 ties.[7]

Test 1: Legislative turnover and multi-client lobbying

With two separate tests, we use density scores to test our expectations regarding turnover and multi-client lobbying. In the first ("Test 1"), we regress network density directly on a measure of legislative turnover, discussed at greater length below. In the second ("Test 2"), we adopt a difference-in-differences style approach to examine how one institutional inducement of turnover—the implementation of legislative term limits—appears to influence lobby network density. In both cases, we find support for our argument: greater turnover is associated with less dense lobby networks or less multi-client lobbying.

Explanatory variables

Before examining term limits in Test 2, we first examine how legislative turnover in general covaries with lobby network density. In addition to detailing how we measure turnover, we also control for several additional variables that may influence observed lobby network density. Our measurements of these explanatory variables are detailed as follows.

Legislative turnover. Turnover in a legislature occurs when new legislators replace incumbent legislators who lost reëlection, were term-limited out of office, retired, or even died while in office. We measure turnover, our primary independent variable of interest, using data compiled by Moncrief et al. (2004).[8] Since house and senate assemblies often exhibit different turnover rates, and because our lists of registered lobbyists include those who targeted either representatives or senators (or both), we generated single state-level turnover rates by weighting lower- and upper-chamber rates by their respective membership sizes. If a state's lower chamber contained twice as many members as the state's upper chamber, for example, then the lower chamber's turnover rate was weighted twice as heavily as the turnover rate for the upper chamber.[9] This variable therefore captures the percentage of new members in state assemblies. Turnover rates were typically available biennially, so biennial observations were repeated for years that occurred between elections. Since elections typically occurred during even-numbered years, and because legislators typically were sworn into office during the subsequent odd-numbered years, this variable is accordingly shifted to reflect the percentage of new members

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[6]These figures are calculated using only states in which lobbyists and clients have to re-register during each legislative session. Observations are therefore excluded from Michigan and New Jersey.

[7]Additional descriptive information regarding lobby network density and legislative turnover can be found in the online Appendix.

[8]We thank the authors for kindly providing turnover measurements that span our entire data set.

[9]For Nebraska's Unicameral, we employed the senate's turnover rate, although regressions with one-party dominance exclude observations from this state.

for each session. Moreover, since repeating turnover observations might artificially reduce the size of our standard errors, we also estimate models in which only turnover observations from inaugural years are used. This effectively reduces our sample size by one half, but does not alter our substantive results.[10]

Control variables. Given that we expect rates of multi-client lobbying to vary in response to the value of personal relationships with legislators, we also expect to see a variety of other correlations appear within our data set. We first control for each legislature's membership size. McCormick and Tollison (1981) argue that individual legislators have more proportional influence over policy outcomes in small legislature than in large ones. This implies that relationships are more valuable in small assemblies, although this effect might also be due to members of smaller assemblies representing larger districts (see Powell, 2012, 42).

We also control for each legislature's staff resources. Kattelman (2015) found that more interest groups are active in professionalized legislatures than in citizen or amateur legislatures. This implies that additional staff persons in a legislature might allow for more access for interest groups, thereby reducing their need for groups to hire (gatekeeping) lobbyists who have exclusive relationships with legislators. Staff persons might also experience lower turnover than legislators (particularly in term-limited assemblies), thereby further reducing the need for lobbyists who personally know legislators. We include in our analyses Bowen and Greene (2014) measure of staff spending across state legislatures. We expect that states with higher staff expenditures will exhibit lower levels of lobby network density or multi-client lobbying.

Additionally, one-party dominance may suppress multi-client lobbying by reducing the number of lobby firms with partisan ties in a state. Lobby firms often develop ties with members of single parties, and represent clients whose interests are more closely aligned with the ideologies of those parties (cf., Furnas et al., 2019). In states with more partisan competition, at least two partisan camps of lobby firms might exist in order to facilitate access to legislators in different parties. When legislatures are dominated by single parties, however, there might be fewer lobby firms. We include a folded six-year (Ranney, 1976) index in our models with the expectation that this measure (which captures the level of one-party domination) is negatively associated with multi-client lobbying.

We control for whether a state has direct democracy. Boehmke (2002) finds that interest populations are about 17 percent greater in states with direct democracy than in states without it, and that most of the additional groups consist of citizens' interests. It is possible that citizens' interest groups behave differently from other interests, particularly in their propensity to hire multi-client lobbyists (see Strickland, 2020a). We include a dichotomous indicator in our models for direct-democracy states.

We also control for whether a state's legislature did not convene during a year when lobbyists were nevertheless required to register. Biennial sessions used to be much more common among the states prior to the 1960s, and only four legislatures currently meet once every two years (see Squire, 2012). In some of these states, including North Dakota and Texas, lobbyists are required to register every year, even when the legislature does not convene. Hence, density measures are likely affected by the biennial absence of legislators.

Finally, we control for a variety of lobby regulations that might affect which lobbyists register. Newmark (2005) proposes a measure of lobby laws that consist of three components: lobbyist registration criteria, activities that lobbyists are prohibited from engaging in, and reporting requirements for lobbyists. Strickland (2019) presents evidence that registration criteria increase numbers

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[10]We expect to find evidence for our expectations despite legislatures with higher turnover producing more former legislators. Former members of Congress have been found to be among Washington's most popular lobbyists (LaPira and Thomas, 2017). In state legislatures with high turnover, we should expect there to be more former legislators looking for work, but with declining marginal increases (Strickland, 2020b). Moreover, Powell (2012, 193–8) finds that legislators who serve for shorter periods of time are more likely to perceive themselves becoming lobbyists after serving in the legislature. If such patterns are present in the states, then finding evidence for our expectations would be more difficult since former legislators who become lobbyists usually represent multiple clients.

of multi-client lobbyists, but that prohibitions and more reporting requirements have counteracting effects. We include his measures of these laws in our models, including the interactive effects between them. We also control for whether states allow lobbyists to register as members of firms. California, New Jersey, New York, and Pennsylvania allow lobbyists or clients to register as members of firms, which artificially magnifies the number of lobbyist–client pairings or ties in their networks. We include a dummy indicator for these states. We also include a dummy indicator for whether lobbyist or client registrations do not expire from one year to the next. Michigan's lobbyist law, adopted in the early 1980s, does not require lobbyists to re-register during each session. In New Jersey, the Election Law Enforcement Commission does not maintain termination dates for individual clients, thereby allowing the names of clients to accumulate under the names of individual lobbyists over time. In both states, density measures are likely inflated due to the over-time accumulation of clients under lobbyist names. Finally, we control for whether a state's lobby law required employees of lobbyists to register even if they did not lobby lawmakers. Only Arizona has such a requirement, and the law may lead to artificially high-density measures in that state.

Design and specification

In our first test, we estimate straightforward, linear regressions of lobby network density and legislative turnover at the state-year and state-session levels. Our dependent variable of interest is lobby network density, a quotient that can assume values between zero and infinity (although observations >0.2 are rare). In our first set of models (Models 1 and 2), we leverage both within- and across-state variation to test our hypotheses, while the second set leverages only within-state variation—holding unobserved cross-state variation constant.

Since observations are repeated for multiple years within states, state-specific confounders other than control variables may affect our observations. We address this issue in two ways. First, to address heteroskedasticity by state, we estimate models with standard errors clustered by state but without state and year fixed effects (Primo et al., 2007). Second, as prefaced above, we generate models with both state and year fixed effects:

$$Density_{it} = \beta Turnover_{it} + \phi \mathbf{X}_{it} + \alpha_i + \tau_t + \epsilon_{it} \tag{1}$$

In this specification, α is a state fixed effect and τ is a fixed effect for year. State-level effects capture state-level means in density. Year-level effects capture national trends. As a result, the coefficient estimates that these models produce are based only on within-state changes in density that occur over time and in response to turnover changes (Mummolo and Peterson, 2018). Nevertheless, as we underscore below, our empirical tests provide strong and consistent support for the hypothesized relationships in the data. In all models, we introduce a vector of the control variables, $\mathbf{X}_{it}$, described above.

Models 1 and 3 of Table 1 were estimated using our full set of turnover observations, while Models 2 and 4 were estimated using observations only from inaugural years (usually odd-numbered years) in which new legislators were installed. Since Nebraska's unicameral legislature is officially non-partisan, observations from that state are missing from all the models. Nevertheless, including those observations does not alter our results in any meaningful way. Our dependent variable (lobby network density) has been multiplied by 100 for easier reporting of coefficients.

Results

The results presented in Table 1 provide support for our expectations regarding turnover. Across all model specifications, legislative turnover is a discernible, negative predictor of lobby network density. Beyond statistical significance, this relationship represents a notable substantive association. According to Model 4, if a legislature experienced an increase in turnover by one standard

Table 1. Legislative turnover and multi-client lobbying

	Dependent variable:			
	Lobby network density x 100			
	Model 1	Model 2	Model 3	Model 4
Legislative turnover	− 0.041*	− 0.047*	− 0.040***	− 0.045**
	(0.018)	(0.021)	(0.011)	(0.017)
Legislature size	0.002	0.002	− 0.062**	− 0.069*
	(0.002)	(0.002)	(0.021)	(0.032)
Staff spending (in millions)	− 2.038**	− 2.040***	− 4.395***	− 4.293***
	(0.682)	(0.594)	(0.646)	(0.866)
One-party dominance	− 1.409	− 0.494	− 2.032	− 1.479
	(1.611)	(1.747)	(1.245)	(1.931)
Direct democracy	− 0.360	− 0.350	− 0.240	− 0.575
	(0.391)	(0.398)	(1.068)	(2.376)
Not in session	1.999*	− 1.409***	1.241*	− 1.805
	(0.963)	(0.370)	(0.526)	(2.442)
Lobbyist definitions	0.233	0.227	0.386	0.326
	(0.331)	(0.350)	(0.205)	(0.288)
Lobbyist prohibitions	0.645	0.775	− 0.0289	0.217
	(0.390)	(0.450)	(0.467)	(0.680)
Lobbyist reporting	0.165	0.172	0.399*	0.455
	(0.149)	(0.153)	(0.172)	(0.240)
Definitions x prohibitions	− 0.044	− 0.040	0.094	0.096
	(0.104)	(0.121)	(0.101)	(0.149)
Definitions x reporting	− 0.013	− 0.014	− 0.091*	− 0.095
	(0.062)	(0.065)	(0.045)	(0.065)
Firms register	13.511***	13.595***	8.410***	11.895***
	(3.432)	(2.919)	(0.928)	(1.279)
Non-expiring registrations	9.448***	10.019***	19.420***	14.391***
	(2.516)	(1.139)	(1.483)	(2.428)
Lobby employees register	1.048*	1.552**	− 0.370	0.303
	(0.472)	(0.485)	(1.718)	(3.302)
Constant	2.538**	2.399**	10.750***	11.014*
	(0.843)	(0.792)	(3.042)	(4.767)
Fixed effects?			✓	✓
Observations	684	352	684	352
No. of states	49	49	49	49
R^2	0.611	0.656	0.787	0.792
Adjusted R^2	–	–	0.756	0.738

Note: *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$ on two-tailed tests.

deviation (i.e., around 10.24 percent more members leaving) from one session to the next, then the corresponding state's lobby density score would decrease by approximately 0.0046 (or 12.45 percent of one standard deviation in density). For perspective, in a state with 100 clients and a density score of 0.05 or 248 ties, such an increase in turnover would reduce the number of ties to roughly 225, or (in other words) result in about 23 contracts with multi-client lobbyists being dissolved. A larger increase in turnover from one session to the next, from 10 to 40 percent or about three standard deviations, would decrease density by about 0.01344 units, on average. Such an increase in turnover, which is a realistic but extreme change given our data, would reduce the network's number of ties to roughly 181.[11] These trends do not account for numbers of lobbyists, clients (nodes), or pairings within each lobby network, but as we show in the online Appendix, the association between turnover and multi-client lobbying remains statistically and substantively significant when controlling for those totals.

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[11]We provide descriptive information regarding legislative turnover in the online Appendix. The biggest shifts in turnover within our data set include a shift from 61.7 to 21.7 percent in Alaska between 1993 and 1995, and a shift from 19.6 to 59.6 percent in Michigan between 2001 and 2003.

Other variables provide mixed or limited insight into rates of multi-client lobbying. In models with clustered standard errors, there is weak evidence of more multi-client lobbying in states with larger assemblies. This evidence is reversed when one estimates models with state and year fixed effects. Since models with effects estimate coefficient sizes based only on within-state changes, we believe that these findings are artifacts of a lack of variation: our sample includes only four legislature membership size changes, in three states. With regard to staff spending, our results suggest that increases in spending are associated with decreases in multi-client lobbying. One-party dominance and direct democracy status are not good predictors of multi-client lobbying in any of the models we present. While session status is a significant predictor of lobbying in some models, this result differs between models (since Models 2 and 4 largely exclude observations from years during which legislatures did not meet). Our results also show that lobby laws measured by Newmark (2005) have little effect on multi-client lobbying but that idiosyncratic registration procedures (e.g., allowing firms to register, having non-expiring registrations, or requiring lobbyist employees to register) do matter, at least in terms of how lobbyist lists are structured. In general, legislative turnover is the most consistent predictor.

Test 2: term limits and multi-client lobbying

In our turnover analyses, we found evidence that legislative turnover erodes the value of relationships with incumbents and thereby reduces multi-client lobbying. In a second set of tests, we examine whether the implementation of legislative term limits is also negatively correlated with multi-client lobbying. We make use of three different estimation strategies in order to demonstrate the robust negative relationship between term limits and lobby network density apparent in our data.

First, we estimate models with two-way fixed effects (TWFE) and the same vector of control variables and from Test 1, simply replacing our $Turnover_{it}$ variable with an indicator for whether term limits were in effect within a state and year:

$$Density_{it} = \beta Term\_Limits_{it} + \phi \mathbf{X}_{it} + \alpha_i + \tau_t + \epsilon_{it} \qquad (2)$$

While this specification has some advantages, term limits went into effect in states at different points in time. Goodman-Bacon (2018) argues that, in models with fixed effects, these differences in treatment year affect coefficient estimates. Thus, to test the robustness of our findings, we next treat the adoption of term limits as a staggered difference-in-differences design and rerun our models in two ways. In the first set of models (one nested, the other with the $\mathbf{X}_{it}$ variables), we add linear time trends for each state instead of traditional fixed effects. The results of these tests are found in Models 7 and 8 of Table 2.

In the second set of models, we adopt the aggregation approach suggested by Bertrand et al. (2014). This approach attempts to control for baseline differences between treated and control units, albeit quite aggressively. The approach first estimates the full model in (2), absent the treatment variable of interest. Using this model, one then generates predicted $\widehat{Y}_{it}$ and resulting residuals $R_{it} = Y_{it} - \widehat{Y}_{it}$. The residuals from *only* the treated units are then binned into just two panels: one pre-treatment (p = 0), and one post-treatment (p = 1). R_{ip} are then regressed onto the treatment variable:

$$R_{ip} = \beta Term\_Limits_{ip} + \epsilon_{ip} \qquad (3)$$

This approach is thought to be particularly conservative in that it severely reduces statistical power in several regards. Nevertheless, it provides an additional robustness check on the results presented in Table 1.

Finally, before presenting results from these analyses, it is important to note that our data exhibit pre-treatment trends consistent with the parallel trends assumption underlying these

Table 2. Term limits and multi-client lobbying

	Dependent variable:				Density residuals
	Lobby network density x 100				
	Model 5	Model 6	Model 7	Model 8	Model 9
Term limits in effect	− 1.408***	− 1.346***	− 0.594	− 0.700*	− 0.873*
	(0.395)	(0.401)	(0.312)	(0.336)	(0.348)
Legislature size		− 0.057**		− 0.050	
		(0.021)		(0.033)	
Staff spending (in millions)		− 0.004***		− 0.002	
		(0.001)		(0.001)	
One-party dominance		−1.452		0.093	
		(1.249)		(1.265)	
Direct democracy		0.042		0.110	
		(1.061)		(0.365)	
Not in session	0.792	1.196*	1.321*	1.369*	
	(0.539)	(0.526)	(0.611)	(0.593)	
Lobbyist definitions		0.409*		0.501	
		(0.206)		(0.466)	
Lobbyist prohibitions		0.083		− 0.217	
		(0.468)		(0.188)	
Lobbyist reporting		0.357*		0.340*	
		(0.172)		(0.169)	
Definitions x prohibitions		0.074		0.014	
		(0.102)		(0.042)	
Definitions x reporting		− 0.082		− 0.078	
		(0.045)		(0.079)	
Firms register	5.258***	7.854***	7.551	7.938	
	(0.884)	(0.939)	(6.716)	(6.698)	
Lobby employees register	1.297	0.492	319.474***	302.572***	
	(0.941)	(1.795)	(51.243)	(75.320)	
Non-expiring registrations	21.734***	20.119***	− 1, 815.967*	− 1, 678.001*	
	(1.231)	(1.488)	(813.763)	(832.587)	
Constant	1.026	8.299**	− 65.505*	− 75.202	0.646*
	(0.807)	(3.094)	(28.636)	(63.423)	(0.299)
Model	TWFE	TWFE	Lin. Trends	Lin. Trends	Residuals
Observations	694	684	685	675	165
R^2	0.764	0.786			0.037
Adjusted R^2	0.734	0.755			0.031

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.

models. We present a visualization of these trends and examine pre-treatment leads in the online Appendix.

Results

We summarize the results of our term limits analyses in Table 2. Across all specifications, we find support for the claim that the implementation of term limits is associated with drops in lobby network density. While the statistical significance of these findings is consistent among all specifications, the substantive significance of the result is also noteworthy. Holding all other variables at their means or optimal values, term-limited states exhibit densities that are approximately 0.0053 units lower than similar non-term-limited states, on average. These differences are notably large in comparison to the average lobby network density of 0.00307, even after averaging over all time periods.[12]

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[12]These figures are generated from Model 6. The predicted densities are divided by 100 since our dependent variable had been multiplied by 100 for the regression tables.
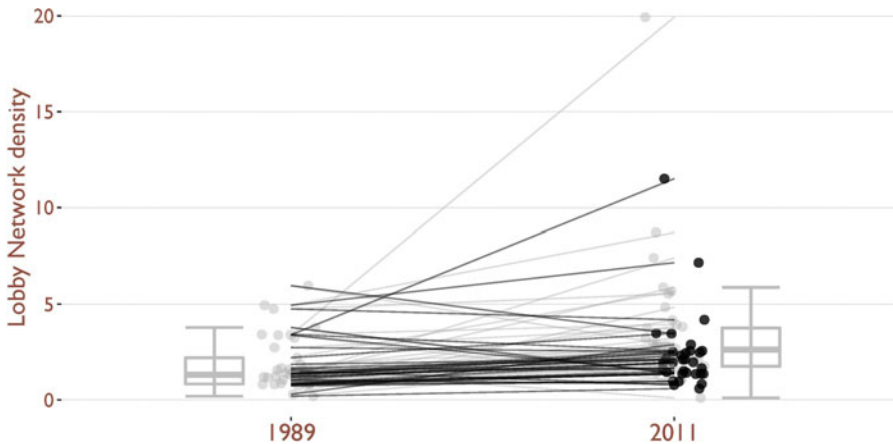
Figure 4. Counterfactual densities for non-term-limited states. Observed lobby densities for non-term-limited states in 1989 and 2011 (gray), compared to projected densities, where each state to have introduced term limits after 1989 (black). Densities are logged to aid in visualization. Box and whisker plots refer to the entire distribution of densities in 1989 among both term-limited and non-term-limited states.

Figure 4 further underscores the magnitude of these results.[13] In the graph, gray dots and lines represent the actual observed densities in 1989 and 2011, for states that never adopted term limits.[14] As noted earlier, nearly all of the states in the data experienced a noticeable growth in lobby network density over the 20-year period between these sets of observations. In black, we depict a counterfactual for the non-term-limited states: the *predicted* density in 2011 for each non-term-limited state (on the basis of the above regression with the smallest effect), where each state to have introduced term limits between 1989 and 2011. As the graph plainly depicts, the introduction of term limits could have significantly attenuated the observed growth in lobby network density observed in non-term-limited states. For added perspective on the magnitude of this relationship, we add box and whisker plots for all lobby network densities (in both term-limited and non-term-limited states) next to the 1989 and 2011 scatter plots.

Taken together, these results suggest that term limits achieve one type of intended objective: the disruption of relationships between legislators and lobbyists. This does not prove that term limits were, on the whole, a positive democratic reform in the states. Rather, the results point to a separate set of considerations in the assessment of term limits that merits additional scholarly examination. Moreover, they provide additional evidence consistent with our assertion that turnover alters the value of individual relationships and affects the representation of organized interests.

Discussion and conclusion

In this study, we found that increases in legislative turnover in the American states disrupt lobby networks and serve as negative predictors of multi-client lobbying. These findings are consistent with a growing literature pointing to the consequences of turnover for legislators and staff persons. Strickland (2020b) finds that there are fewer former legislators (proportional to all former legislators) registered to lobby in states with higher turnover. Similarly, McCrain (2018) finds that former congressional staffers enjoy more access as lobbyists, but that their access fades as their former colleagues leave Congress. We add to this body of research by showing how higher turnover affects not just lobbyists with prior government experience but alters entire lobby communities in states.

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[13]Additional robustness tests, interrogation of assumptions, and other tests can be found in the Appendix.

[14]We select 1989 and 2011 for the purposes of this illustration because they are among the most complete panels in the data set and are entirely pre- and post-term-limit.

More broadly, our findings speak to long-standing debates about the representational advantages and disadvantages of turnover. Traditionally, such debates have centralized around key institutional features, such as the frequency of elections and term length, since at least the framing of the US Constitution (Madison, 1787). We believe that our results—the clustering of clients in the hands of small numbers of lobbyists or firms, as a result of low turnover—should also raise normative concerns over both the quality and equality of political influence and representation. Lobbyists with multiple clients have more opportunities to shirk than those with one client each. Such opportunities grant lobbyists more personal discretion over which interests are represented faithfully and which ones are neglected. Moreover, if some lobbyists have gatekeeping relationships and dominate the attention of legislators, then they are able to extract exorbitant fees for their services. Scholars of interest representation have long underscored that groups active in legislatures tend to reflect the wealthier and professional classes of American society (see Schlozman et al., 2012); but, it stands to reason that the effects of resource differences are magnified by expensive, exclusive lobbyist–legislator relationships. This logic reflects similar concerns over revolving-door lobbying. As previous scholarship has shown, former members of Congress tend to attract many clients and are the best-paid lobbyists in Washington (see LaPira and Thomas, 2014, 89). They enjoy exclusive relationships with former colleagues who grant them access and influence (Makse, 2017). These assets allow revolving-door advocates to collect high fees for their labor: premiums that are more easily afforded by monetarily rich business or occupational groups than by public interest groups (Berry, 1977; Baumgartner et al., 2009, 199; Strickland, 2020a). Given historically low turnover in Congress, it should come as no surprise that former members are among the best paid and most popular lobbyists in Washington.

Future studies may build upon our findings by exploring additional relationships between legislative turnover and lobbyist value. While the value of lobbyists' relationships and familiarity with incumbents decreases with turnover, we measure this value indirectly by treating the incidence of multi-client lobbying as a proxy for the gatekeeping ability of lobbyists. A more direct measure for gatekeeping value requires examining the salaries that multi-client lobbyists receive, similar to others' measures of the salaries of revolving-door lobbyists (i.e., Vidal et al., 2012; LaPira and Thomas, 2017). For now, though, we have provided consistent evidence that increased turnover influences the representation of organized interests, and we reserve additional research questions for future studies.

Supplementary material. The supplementary material for this article can be found at https://doi.org/10.1017/psrm.2022.7. To obtain replication material for this article, please visit https://doi.org/10.7910/DVN/84FBLB

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