Social Processes in Lobbyist Agenda Development:
A Longitudinal Network Analysis of Interest Groups and Legislation

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How are lobbying agendas formed? While individual interest matters, a social process may also affect why lobbyists choose legislation on which to lobby. In a crowded environment, looking at what credible others do may help lobbyists lower their search and information costs with regard to an issue. Using longitudinal network data on lobbyists’ legislative choices, I analyze the choices of organizations using an actor-based dynamic model of network change that conditions agenda changes on the choices made by other organizations. The results suggest both a “bandwagon” process in which organizations converge on “popular” bills and an influence process in which lobbying organizations influence each other when their lobbying agendas overlap. In support of the quantitative findings, interviews with lobbyists show that the policy domain is a social community that consists of ongoing relationships, trust, and information sharing.

KEY WORDS: lobbying, policy networks, retirement policy, policy agendas, social network analysis

By what process do interest groups select the issues on which they lobby the Congress? Any one policy area often has dozens or even hundreds of proposed bills and equally as many interest groups and stakeholders. As interest group representatives are boundedly rational, they may have difficulty deciding on which piece of legislation they should lobby. As a way around this problem, lobbyists may look to other lobbyists in their policy area when selecting issues for monitoring and lobbying. In a crowded and competitive environment, looking at what others do may help a lobbyist lower the cost of learning about issues.

Politics is inherently social, and agenda setting is in part a social process in which interest group organizations influence each other in a complex and dynamic environment. The broad research question of this paper is whether relationships matter for interest group agendas. Specifically, do the choices of one lobbying organization affect the choices of another organization? In addition, when we view a policy domain as a network of actors who are choosing legislation, we see a skewed distribution: A handful of bills attract a great deal of interest, while the vast majority of bills receive little attention. How does this pattern come about?
To address these questions, I use longitudinal data on interest groups from a single public policy domain and their legislative choices. To capture the social interdependence of the process, I study the evolution of a network consisting of organizations choosing (or not choosing) legislation. I analyze these selections using a stochastic actor-based dynamic model of network change that conditions changes in legislative choices on the choices of other organizations (Snijders, Van de Bunt, & Steglich, 2010). The results suggest both a “bandwagon” process in which organizations choose bills that are already popular and a social influence process in which choices by a lobbying organization are likely influenced by another organization when the two organizations have overlapping agendas.

While the quantitative data provide some confirmation for these effects, exactly how are legislative choices being influenced? The social capital literature suggests that lobbyists working in a crowded and dynamic policy domain may use their relationships with other lobbyists in order to learn about and assess legislative proposals. The social capital that inheres in such relations facilitates both the willingness of one lobbyist to share his or her informed judgment and the willingness of the other lobbyist to lend credence to such information. Policy agendas develop not so much through elite consensus or through aggregation of independent choices but rather through social processes based on trust among lobbyists who work in close-knit communities. An additional question of this paper, then, is whether the conditions exist for a process in which lobbyists are influencing each other: Do lobbyists know and trust each other, and do they share information with each other?

The discussion in this paper begins with a review of prior work on lobbying and agenda setting, and I focus on social processes in the development of a lobbying agenda. Social processes suggest the importance of social capital, and I argue that interest groups provide information to each other to confirm the salience of one issue over another. Two processes are of particular interest. In the bandwagon mechanism, lobbyists will select bills to add to their agenda when they learn that other lobbyists are selecting that bill. The influence mechanism suggests that a lobbyist will choose a bill that another lobbyist has chosen because they have other choices in common. I then give a broad overview of the policy domain of U.S. retirement policy, which is the setting for this research and which is an apt site for exploring these influence ideas. Retirement policy is a single policy domain at the federal level, and I apply the dynamic network model over two congressional periods—the 106th Congress of 1999 through 2000 and the 107th Congress of 2001 through 2002. The Data and Methods section discusses in detail the lobbying and legislative data sources as well as the dynamic network model. In the Analysis section, I first provide the qualitative interview data from individual lobbyists in the retirement policy domain in order to establish the existence of a social environment that makes the bandwagon and influence mechanisms possible. I next provide quantitative evidence for these mechanisms in agenda development by looking at how the network of interest groups and bills changes over time. The actor-oriented dynamic model estimates the impact of different effects—including bandwagon and influence mechanisms—on observed changes in network ties. I conclude the paper with a brief discussion on the implications of these results for understanding policymaking.
Interest Groups and Agenda Development

This study examines whether and how interest groups influence each other in the process of developing their lobbying agendas. To be clear at the outset, this paper is concerned with the lobbying agenda, which is distinct both from the agenda of members of Congress or other policymakers and from the public agenda or issues that are salient with the broad public (Baumgartner, Berry, Hojnacki, Kimball, & Leech, 2009; Kimball et al., 2012). These different agendas are connected to each other, but I do not study those connections. Lobbying agendas both reflect the congressional agenda (what bills are “moving”) and indicate issues that lobbyists would like on the congressional agenda (what bills they would like to see passed or blocked).

Despite the plethora of studies on lobbying, there are few conclusions about the nature and processes of influence (Baumgartner et al., 2009). Appropriately, much of the work on interest group influence uses a political or policy outcome such as roll call voting as the dependent variable, but such studies have not produced agreement on how interest group activities influence such outcomes (Smith, 1995). However, if legislators are influenced by interest groups at all, they are least likely to be influenced when votes are cast (Baumgartner & Leech, 1998). Instead, most scholars in both political science and political sociology “assume that agenda setting is the arena where advocacy organizations will have their greatest influence” as they use various methods to bring greater attention, raise awareness, and create urgency around their preferred issues (Andrews & Edwards, 2004, p. 492). As the lobbying agenda reflects lobbyists’ preferences and opportunities, the study of the lobbying agenda’s development contributes to the broader question of political influence.

According to Kingdon (1995, p. 5), an agenda is “the list of subjects or problems to which governmental officials, and people outside of government closely associated with those officials, are paying some serious attention at any given time.” Agenda setting is a process in which certain public problems are identified, recognized, and defined, and specific solutions or alternatives are generated, considered, and attached to these problems. Given the limited attention span and information-processing capacity of actors, the list of problems and solutions on any particular agenda is usually very short (Baumgartner & Jones, 1993; Kingdon, 1995). The critical issue, then, is in influencing the development of the policymaking agenda, i.e., getting one’s issue on the agenda if it is not on it already. If certain issues are not even on the political agenda, groups interested in them have little chance to exert influence in the policymaking process. Moreover, groups will have little chance of defending their interests if they do not even know what is on the policy agenda. But we know little about the mechanisms for the hidden development of lobbying agendas.

At least 30 years ago, scholars noted the expansion of interest groups in Washington, DC, and the broad issue scope of these groups (Heinz, Laumann, Nelson, & Salisbury, 1993). Policy domains generally comprise a variety of issues and vary in complexity and coherence. A policy space with a diversity of interests that seek out issue niches will appear to be fragmented, but a policy space dominated by a few
interests will force attention to a more restricted set of issues, thereby increasing the chances for policy coherence (May, Sapotichne, & Workman, 2006). “The crowding of the issue space for a given policy area is not as important for policy coherence as is the degree to which attention is focused on a smaller set of issues” (May et al., 2006, p. 383, citing Baumgartner & Jones, 1993). Heinz et al. (1993) noted that many interest groups face a great deal of uncertainty despite a highly structured organizational environment. They theorized that the sources of uncertainty include not just the number of groups but also the increasing number of proposals vying for attention, the difficulty in defining preferences, and the lack of a central set of mediators that can broker deals. Heinz et al. (1993) concluded that many groups devote substantial resources just to monitoring events and other interest groups; in effect, the uncertainty inherent in the policymaking process makes groups dependent on information. But Heinz et al. (1993) did not explore the micro-level processes of information gathering and influence as lobbyists attempt to develop and refine their lobbying agendas. Baumgartner and Leech (2001) noted the skewed distribution of issues listed in lobbyist disclosure reports: A small handful of issues were listed by a large number of lobbyists—what they termed a “bandwagon” effect—while most issues received very little attention and were “niche” issues. But these results were descriptive in nature. How, then, do lobbyists develop their lobbying agendas? Why do a small number of issues become the focus of most lobbyists? I explore development of the lobbying agenda as a function of social processes.

Political activity is inherently social, whether because of the need for alliances or because policy change can affect a wide range of interests (Baumgartner et al., 2009). Alliances or coalitions are an obvious example of social processes in lobbying. For example, organizations with broad agendas may need coalitions to help advance their views, and such organizations may have a wide range of ties to potential partners that they draw on in developing coalitions (Hula, 1999). Narrowly focused groups use their resources best by working alone, as opposed to groups with a broad view that perhaps need expertise or legitimacy from coalition partners to be effective (Hojnacki, 1997). This argument is consonant with Browne’s (1990) issue niche and connects to the policy space discussion above because the assumption is that relatively few actors will be active in these niche areas. Holyoke (2009) focused on competition in the interest group environment, in which the set of policy preferences leads to conflict or cooperation among participants. Holyoke developed an elegant model of coalition formation amid competition in which lobbyists bargain over a coalition-based compromise position that will maximize their net benefits. In this model, lobbyists respond to different audiences (clients, legislators) who provide incentives for taking particular positions, and Holyoke found that lobbyists resolve conflicts among their clients by making trade-offs among available resources and the positions of their differing audiences.

But social processes abound even outside of alliances. The policy domain requires a social orientation, which has been recognized by policy and political scientists for decades. Hugh Heclo (1978) made a key early contribution by noting the rise of issue networks, which are loose associations of policy professionals
around an issue or set of issues. The critical characteristics of these issue networks were, first, their fluidity of large numbers of actors who had varying levels of commitment to others and, second, their social nature: “Network members reinforce each other’s sense of issues as their interests, rather than (as standard political or economic models would have it) interests defining positions on issues” (p. 102). The issue network “ties together what would otherwise be the contradictory tendencies of, on the one hand, more widespread organizational participation in public policy and, on the other, more narrow technocratic specialization in complex modern policies” (p. 103). Heinz et al. (1993) found that the work context of representation was a primary source of connections in the lobbying community and that time spent working in Washington was positively associated with knowing more political elites. Kingdon’s (1995) policy entrepreneurs engaged in continuing interaction as they reviewed and shaped each other’s proposed solutions. Baumgartner et al. (2009) note a similar process:

People inside and outside of government are constantly monitoring their peers to see which new studies are being received with credibility, which key actors are showing interest in which proposals, and which legislative vehicles may be taking shape. They want to be associated with initiatives that have a chance of passage, not to waste their time working on proposals (even ones they like) that are likely to go nowhere. (p. 252)

The result of this process of monitoring others’ positions and activities amidst uncertainty is that policy activity reflects a social cascade in which initial “chaos” changes over time into an ordered state (Baumgartner et al., 2009), somewhat similar to the policy agenda coherence noted above. Initially, lobbyists might have a wide variety of possible legislative proposals from which to choose, but over time and under certain conditions they focus on a much smaller set of initiatives.

But these studies do not provide an underlying process that explains the types of interactions that we see, let alone lobbying agenda development. One possible process is similar to the theory of legislative subsidy as developed by Hall and Deardorff (2006). In this theory, a lobbyist is motivated to supply high-quality information to a member of Congress not as an exchange but as a subsidy to the legislator’s constrained time and cognitive budget. The legislator then uses these information subsidies to exploit the policy process in order to pursue legislative objectives that he or she shares with the lobbyist. We might apply this idea to the development of the lobbying agenda: In a complex environment characterized by differential knowledge, lobbyists with better information, more experience, or deep expertise may provide information subsidies to other lobbyists in the process of agenda development.

This subsidy or information sharing idea suggests a social capital perspective in which connected lobbyists accumulate resources that are specific to their relationships (Coleman, 1988). As social capital inheres in relations and is not possessed by individuals, it enables the willingness both to give and to receive information that is
not otherwise available. For social capital to work, trust or reciprocity must be present (Glanville & Bienenstock, 2009).

To be sure, organizational resources or policy preferences matter. “Groups that seek influence must have the kind of costly resources that enable them to know, to attain, to frame, and to deliver the sort of political and policy information (and interpretations) that are relevant to the goals of those legislators who have the power to make decisions that affect policy” (Leyden, 1995, p. 443). However, resources can include social relations within the policy domain because such relations lower search costs and enhance credibility and influence (Uzzi, 1997).

Relationships and networks matter for politics and policymaking in a number of ways, and the number of network-based political and policy studies is growing (Heaney & McClurg, 2009; Robbins, 2010). For example, network analysis has been used to explain legislative bill cosponsorship (Cho & Fowler, 2010), party cooperation across competing interest groups (Grossman & Domínguez, 2009), political participation (McClurg, 2003), and social movement cooperation across coalition boundaries (Heaney & Rojas, 2008). Network analysis may be particularly relevant in addressing interactions between interest groups. “Networks reflect the patterns and histories of interaction among actors, thus suggesting their degree of familiarity with one another’s habits and preferences, reliability, and character. Thus, the strength or weakness of ties in networks, as well as the patterns in which they are arranged, may make all the difference in overcoming barriers to collaborative activity” (Heaney & McClurg, 2009, pp. 729–30, citing Gould, 1993). The next section discusses specific network-based mechanisms of agenda development.

**Bandwagon and Influence Mechanisms**

Dür (2008) distinguishes three broad approaches to measuring interest group influence: process tracing, assessing attributed influence, and gauging the degree of preference attainment. With regard to preference attainment, “the outcomes of political processes are compared with the ideal points of actors . . . the idea is that the distance between an outcome and the ideal point of an actor reflects the influence of this actor” (Dür, 2008, p. 566). For example, Mahoney (2007) ascertained the preferences of a sample of advocates over a sample of issues and assessed whether or not an outcome associated with each issue reflected those preferences.

Applying the approach of preference attainment to this study, I look at whether organizations change their agenda choices in response to the choices of other actors. This focus is somewhat different from the alliance literature discussed above in that agreement on what are the important issues is not the same as developing coordinated actions around those issues. Opponents can influence each other as to what is important even if they disagree on the merits, and groups on the same side of an issue influence each other even when they have different levels of interest or different ideas about tactics. I focus on two processes, “bandwagon” and “influence.” These processes have been explored in other areas, such as the adoption of deviant behavior by adolescents (see, e.g., Steglich, Snijders, & Pearson, 2010).
Before describing these processes in more detail, I should state two foundational assumptions. First, processes like bandwagon and influence can only occur in a social environment. That is, these effects can only occur if people know each other and can communicate with each other. Second, social processes can only have an effect if they provide some benefit to the lobbyists directly involved. Even if one person hears about legislative developments from others working in the policy domain, why should that person update his or her preferences as a result of the information? Information is only useful if it is credible, and credibility is based on the perceived trustworthiness of the source. Bandwagon and influence mechanisms only work in policy domains when most actors know each other and have a history of interaction and when actors can expect their interactions with others to continue into the future and that the others will take their interests into consideration because the others expect interactions to continue into the future (Hardin, 2002).

**Bandwagons**

An issue that attracts interest or activity might become a focal point because such interest or activity signals the issue’s importance and legitimacy (Berardo & Scholz, 2010). “The social nature of lobbying, with its sensitivity to context, can therefore be characterized by mimicry, cue-taking, and bandwagon effects” (Baumgartner & Leech, 1998, p. 140). An organization new to a policy domain may know the basics of an issue and where it stands on the issue, but it may not know about the merits and/or likelihood of a specific legislative proposal. Choices by other organizations may send signals about such legislative proposals. There may even be an underlying process of deference as new organizations look to organizations with more expertise or experience in the policy domain (Baumgartner et al., 2009). Network scholars outside the policy and political science disciplines have theorized as to the development of highly skewed distributions within networks—distributions that resemble the skewed lobbyist-issue distribution noted by Baumgartner and Leech (2001). Such scale-free or power law distributions arise because of two key forces: network growth and preferential attachment (Barabási, 2003). As new actors join a network, they do not randomly attach themselves to incumbent actors but are more likely to attach themselves to those incumbent actors that have the most ties with other actors. In other words, if a new actor has a choice between actors A and B, and A has twice as many ties as B, the new actor is much more likely to choose A over B. These conditions should hold in a policy domain with fluid participation by lobbyists and newly proposed legislation introduced over time. My first hypothesis states that an organization is more likely to lobby on a piece of legislation as the number of other organizations lobbying on that legislation increases.

**Influence**

As noted above, policy domains are social in nature in that organizations look to each other when orienting themselves to common issues. Homophily, a process of
attachments based on social similarity (MacPherson & Smith-Lovin, 1987), might also affect agenda choices. But unlike other homophily studies that use similarity in terms of individual attributes, I use similarity in terms of choices. Again, two organizations on different sides of an issue may nonetheless agree on which bills are important. Organizations that have the same issues in common may make the same choices in the future. If a lobbying organization has a number of common issues with another actor, their ongoing relationship is likely to be stronger. The second hypothesis states that an organization is more likely to choose a piece of legislation that another organization chooses as the number of their joint choices on other legislation increases.

This paper tests these arguments by looking at longitudinal data on network relations and legislative agendas using a dynamic model of network change in the federal retirement policy domain. The paper also provides qualitative evidence as to the social or relational foundation of these processes. This project uses the policy domain as the research site, with organizations as the unit of analysis. This is an appropriate level of analysis, as the policy domain is a subsystem whose organizational members are identified by a criterion of mutual relevance or common orientation (Laumann & Knoke, 1987). The following section provides background on retirement policy and the time period under study.

The Retirement Policy Domain

The research field for this project is federal retirement policy over the time period 1999–2002, which covers two presidential administrations and major tax bills that changed many aspects of retirement policy. Lobbying in this area covers issues related to Social Security, federal pensions, private-sector pensions, and related employee benefits topics. Much of the activity relates to tax and labor laws that regulate private-sector retirement plans. Pension assets in private pension plans have seen tremendous growth since 1985, with total assets rising from $2.2 trillion (in 2004 dollars) to $5.7 trillion by 2006 (U.S. Department of Labor, 2008).

The nature of retirement policy has opened the domain to a variety of groups. Between 1999 and 2002, the time period of this study, a cumulative 284 organizations indicated that they lobbied on retirement issues at least once, either on their own behalf or on behalf of other organizations. During any one period, however, the figure is much lower, ranging from 120 organizations in the first half of 1999 to a high of 165 by the second half of 2002. For the 106th Congress (1999–2000), 190 organizations participated in retirement policy, and a total of 238 organizations participated during the 107th Congress (2001–02). Across all four years, 57 organizations or 20 percent were long-term players, i.e., they lobbied in all eight time periods for which I collected data, while organizations that lobbied only one or two years made up approximately 35 percent of the sample. The implication of these numbers is that new groups moved into the retirement policy domain in greater numbers, creating a crowded and fluid policy environment.

Why did this influx occur? Long-term trends and short-term events contributed to heightened interest in retirement policy issues. The American population is aging,
and while an aging population puts pressure on public programs such as Social Security and Medicare, it also affects private-sector retirement plans. This demographic trend, combined with the decline of the unionized workforce, has enabled corporate sponsors of pensions to switch from defined-benefit plans, in which the risk of funding and investments is borne by employers, to defined-contribution plans, in which workers are primarily responsible for contributions and investments. These long-term trends became more pronounced in the early 2000s as the recession of 2001 put great pressure on employers to fund their remaining defined-benefit pension plans. Budget politics have also put private retirement plans under pressure as Congress periodically adjusts the tax incentives in order to raise revenue. Finally, the Congress also passed major tax legislation in 2001, which provided opportunities for retirement-related policy change. After 2000, a Republican Congress and executive branch were receptive to employer and financial interests in expanding tax incentives and corporate flexibility with regard to retirement policy. In summary, various trends and events created both more opportunities for changing retirement policy and a more crowded and fluid policy domain.

Data and Methods

Data and Population of Interest

The population of interest in this project is the set of all organizations that lobbied in the federal retirement policy domain over 1999–2002. This was an interesting period in retirement policy and spanned the Clinton and George W. Bush administrations. The population of lobbyists is derived from publicly available disclosure reports required by the Lobbying Disclosure Act (LDA) that were filed by lobbying organizations on a semiannual basis with the U.S. Congress over four years for a total of eight time periods. These reports indicate the issues and bills on which organizations lobbied, policy domains in which the organizations were active, lobbying expenses/income, and basic organizational information.

The data source has limitations. The LDA does not cover all possible interest group activity or even all face-to-face lobbying. Lobbying for registration purposes only includes informal contacts between lobbyists and policymakers (Furlong, 1998) and as such does not cover activities such as public relations campaigns. LDA expenditure minimums may exclude groups using volunteers or that are active only for a short time or on a single issue (Baumgartner & Leech, 2000). These are valid critiques of the sample selection, but the LDA nonetheless is an appropriate source for this study. As a practical matter, it would be difficult to expand upon the richness of the LDA’s longitudinal data by trying to survey over time all who work on retirement policy issues, and a cursory inspection of the LDA report data indicates that all major groups are represented (business, labor, public interest, financial services, etc.). Moreover, as discussed below, the LDA reports provide detailed organizational and legislative data, and I have a complete sample of lobbyists, which is important for social network analysis. As noted by Baumgartner and Leech (2001), other methods of data collection in this area have their own limitations and sources
of bias, and these are the best available data for this study. Another concern is the unit of analysis, as this paper focuses on those lobbying organizations that register, as opposed to their clients or the pairing of client and lobbyist. Theoretically, I am interested in those organizations that directly lobby policymakers on specific issues in this domain over time. Clients that hire lobbyists are not always present in Washington, so the social processes discussed above would not apply to them. As a practical matter, I tried different kinds of networks, such as client-based networks, in an exploratory analysis, but the model did not converge.

Lobbyist–Bill Bipartite Networks. This is a social network analysis of the development of lobbying agendas. The networks are bipartite or two-mode networks, one mode consisting of lobbying organizations and the other mode being legislative bills. When an organization indicates that it is lobbying on a particular bill, a directional tie goes from the organization to the bill. Figure 1 illustrates these bipartite relations for the second half of 2000, with blue squares representing bills and red circles representing lobbying organizations, and a line going from an organization to a bill indicates that the organization listed that bill on its LDA report.

Outcomes and Explanatory Effects

The outcome measure is the set of lobbyist-bill bipartite networks, described in the paragraph above, observed over time. Because working with large networks uses a
lot of computational effort and because all bills that did not pass “die” at the end of a Congress, the analysis is broken into two parts. I use four networks for the 106th Congress (1999–2000): the first and second halves of 1999 and the first and second halves of 2000. In this time period there were 190 lobbying organizations and 311 legislative bills. The four networks for the 107th Congress (2001–02) consisted of 238 organizations and 285 legislative bills.

The dependent network measure only includes the specific legislation (e.g., “H.R. 3028”) listed by lobbyists on their LDA reports, not general descriptions of issues (e.g., “savings”). This focus on specific legislation raises a couple of issues. Data from the LDA reports are self-reported and raise the issue of whether specific legislation is accurately reported. This paper does not address these concerns, which would require a different study, but I argue that the data in this study are appropriate. I collected all listings of issues, no matter how vague or specific, and inputted them into the dataset. For each 6-month time period in this study (eight periods in all), I created a subdataset containing only the specific legislative bills, as identified by the use of, for example, “H.R.” for House Resolution or “S.” for Senate bill, followed by the identification number. From 1999 through 2002, the lobbying organizations listed a cumulative 7,522 issues or bills, and 80 percent were identifiable legislation. Interestingly, the percentage of specific bill mentions as a proportion of all issue mentions showed a gradual increase within each Congress. For example, in the 106th Congress, the percentage of specific bill listings began at 81 percent in early 1999 and finished at 84 percent by the end of 2000. At the start of the 107th Congress, 69 percent of issues were identifiable pieces of legislation, and by the end the percentage had risen to 81 percent. This makes sense, because the choices for listing legislation in the LDA reports are more limited at the beginning of a Congress than at the end because legislation is introduced over time.

Even if it was possible to use both identifiable bills and nonbill issue descriptions, I was interested in seeing how concrete agendas developed over time. Specific legislation seemed a better indicator of actionable agenda formation than descriptions of nonbill issues. This is not to say that a reference that does not identify a specific bill is vague, as some descriptions are very specific. However, even within fairly narrow subissues there are different approaches that are possible, and these approaches are captured by concrete legislation. Therefore, I focus on identifiable bills.

Explanatory Network Effects. The main explanatory network effects that test the bandwagon and influence hypotheses are illustrated in Figure 2. The key network parameter for the bandwagon hypothesis is the popularity (in-degree) effect of a bill. The popularity or in-degree effect is simply the number of lobbying organizations that selected a particular bill. If a bill has a lot of ties coming from lobbying organizations, its popularity or in-degree measure will be high, and the effect predicts that an organization will select a bill on the basis of its current popularity with other organizations. The following equation represent this effect:
The popularity or in-degree effect for a lobbying organization \( (i) \) is defined by the sum of the in-degrees of the bills \( (j) \) to which a lobbying organization \( i \) may be tied from other lobbying organizations \( (h) \) (Ripley, Snijders, & Preciado, 2012). Figure 2a illustrates this effect, with the dotted line representing the predicted choice of the lobbying organization.

The key network parameter for the influence hypothesis is the 4-cycle effect. The 4-cycle effect looks at the effect of similar choices made by any two organizations. If organization A is lobbying on bills X and Y and if organization B is lobbying on X, the 4-cycle effect predicts that organization B will then select bill Y for lobbying because A and B have both selected X. The equation below shows this effect:

\[
s_i^{\text{net}} (x) = \sum_j x_{ij} x_{ij} = \sum_j x_{ij} \sum_h x_{hj}
\]

\[
s_j^{\text{net}} (x) = \sum_{i_1, i_2, i_3, i_4} x_{i_1 i_2} x_{i_3 i_4}
\]

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\]

In the two-mode network of organizations \( (i) \) and bills \( (j) \), the 4-cycle effect counts and controls for the number of 4-path structures that consist of each pair of organizations \( (i_1 \) and \( i_2 \) completely connected to each pair of bills \( (j_1 \) and \( j_2 \) (Ripley et al., 2012). Figure 2b illustrates this effect, with the dotted line representing the predicted choice of the lobbying organization.

I am also able to incorporate an effect for how, if at all, changes in the coalition network affect changes in the legislative bill network. As discussed above, alliances and coalitions are visible social processes within policy domains, and being connected to others in a coalition likely influences lobbying agendas. I gathered the coalition data from several sources by researching various websites related to retirement policy, witness lists at congressional hearings, press releases produced by the coalitions themselves, and qualitative information from my interviews with individual lobbyists, as well as going to organizational and coalition websites, including
archived websites from the Internet Archives (http://www.archive.org). I was able to identify 16 coalitions that operated between 1999 and 2002, although not all coalitions operated continuously. The coalition data were converted into longitudinal network data in which the lobbying organizations are tied to each other if they share one or more coalitions in common. The coalition data allowed me to include a coalition degree effect, which is the effect of the number of an actor’s coalition ties on that actor’s adding a tie to legislation in the legislative network. In the modeling literature (Ripley et al., 2012, p. 133), this coalition activity effect is represented by the following equation:

\[ s_{i}^{\text{net}}(x) = \sum_{j} [x_{ij}(w_i - \bar{w})] = x_{i*}(w_i - \bar{w}) \]

In the above equation, \( w \) is the tie in the coalition network and \( x_{ij} \) is the outgoing tie from lobbying organization \( i \) to bill \( j \).

**Explanatory Organizational Effects.** Agenda choices may be associated with organizational attributes such as time and resources. I controlled for the organization’s total time (in 6-month reporting periods) spent on retirement policy, which is based on the number of reports for retirement policy from 1998 through 2004. I use this extended time period for the time variable in order to assess the effects of long-term actors on policy. As the reports are filed semiannually, organizations spent about 3.5 to 4 years on average on retirement policy out of a maximum of 7 years, but the standard deviations shown in Table 1 for both periods indicate a sizable minority

**Table 1.** Descriptive Statistics for Organizational, Legislative, and Network Variables, 1999–2000 and 2001–02

<table>
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<tr>
<td><strong>Organizations</strong></td>
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<tr>
<td>( N )</td>
<td>190</td>
<td>238</td>
</tr>
<tr>
<td>Private employers (%)</td>
<td>28.9</td>
<td>37.4</td>
</tr>
<tr>
<td>Financial services (%)</td>
<td>26.3</td>
<td>27.7</td>
</tr>
<tr>
<td>Labor (%)</td>
<td>12.6</td>
<td>10.5</td>
</tr>
<tr>
<td>Total time in policy domain (6-month periods), mean (SD)</td>
<td>8.089 (4.489)</td>
<td>7.365 (4.397)</td>
</tr>
<tr>
<td>Number of staff, mean (SD)</td>
<td>3.012 (2.938)</td>
<td>2.924 (2.650)</td>
</tr>
<tr>
<td>Number of coalitions, mean (SD)</td>
<td>0.821 (2.013)</td>
<td>0.777 (1.866)</td>
</tr>
<tr>
<td><strong>Legislation proposals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>( N )</td>
<td>311</td>
<td>285</td>
</tr>
<tr>
<td>Number of bill cosponsors, mean (SD)</td>
<td>23.586 (49.908)</td>
<td>30.144 (59.619)</td>
</tr>
<tr>
<td>Bill sponsor in Democratic Party (%)</td>
<td>32.8</td>
<td>47.0</td>
</tr>
<tr>
<td>Bill sponsor on jurisdictional committee (%)</td>
<td>49.3</td>
<td>52.6</td>
</tr>
<tr>
<td>Bill progress, mean (SD)*</td>
<td>1.482 (1.158)</td>
<td>1.611 (1.393)</td>
</tr>
<tr>
<td><strong>Legislative network</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bill degree, mean</td>
<td>5.248</td>
<td>4.684</td>
</tr>
<tr>
<td>Number of 4-cycles per org.</td>
<td>80.732</td>
<td>68.549</td>
</tr>
</tbody>
</table>

*On a 6-point ordinal scale where 1 = not reported out of committee, 2 = reported out of committee, 3 = approved by one chamber, 4 = reported out of committee in the second chamber, 5 = approved by the second chamber, 6 = passed into law.
(about 20 percent) of organizations are consistent long-term players in retirement policy. I also controlled for the size of an organization’s lobbying staff as a proxy for resources. The staff figure comes from the lobbying reports, where an organization lists the individual lobbyists working on retirement policy issues. Other organizational variables were considered, such as interests, but these variables were dropped during the model selection process, as discussed below.

Explanatory Legislative Variables. Not all proposed legislation is created equal, and scholars have made a point of distinguishing one proposal from another (see, e.g., Mayhew, 1991). Legislation associated with a powerful sponsor or that has many cosponsors may attract interest group attention. In addition, lobbyists often speculate on which bills will move through Congress, as relatively few might make it out of committee. Therefore, for legislative bills I control for (i) the number of cosponsors for that bill; (ii) whether the bill sponsor is a member of the committee of jurisdiction for that bill; and (iii) the bill’s ultimate progress. For the last, I use an ordinal scale with six categories: 1 (not reported out of committee), 2 (reported out of committee), 3 (approved by one chamber), 4 (reported out of committee in the second chamber), 5 (approved by the second chamber), 6 (passed into law). As Table 1 shows below, cosponsorship and bill progress are skewed, as few bills have lots of sponsors or are enacted into law. About half of the bills were sponsored by members of committees of jurisdiction in both the 106th and the 107th Congress.

Table 1 provides descriptive statistics for these network, organizational, and legislative attributes.

Longitudinal Network Modeling

As noted in the previous section, policy domains are dynamic in nature, with organizations entering and leaving in every period and new legislation being introduced continuously. Within this flux, lobbyist–legislation relationships form, deepen, and dissolve, with implications for the overall structure of relations (Heaney & Rojas, 2004; Powell, White, Koput, & Owen-Smith, 2005). “Choices made early on may strongly affect subsequent opportunities, but path dependence can be offset by a constant flow of new arrivals and departures” (Powell et al., 2005, p. 1136). Thus, the structure of the interest group–legislation network changes over time.

To model changes in the organization–legislative bill network, I use a stochastic actor-oriented model that represents network dynamics on the basis of observed panel network data and evaluates these data through statistical inference (Snijders et al., 2010). In this model, each actor in the network maximizes a utility function that represents the costs and rewards for an actor to be in a specific state (e.g., choosing, dropping, never choosing, or keeping a piece of legislation on their agenda) at one moment in time given the network structure, the changes made by other actors, and random influences. In general, the choice of action for an actor at
time $t$ is based on the endogenous and explanatory effects. If an action can be described as a function of one or more substantive utility arguments, the model assumes that the actor is able to determine the immediate effects of currently contemplated actions. Therefore, each decision about an actor’s network ties is associated with a change in utility. The choice of action can also be based on utility arguments that are not explicitly modeled in the utility function and for which measurement or specification errors exist; that is, the random utility model assumes that the actor would choose the action that would maximize utility combined with a random error term. When the expected change in utility is approximately the same for all actions, the actor’s choice will be more or less determined by pure chance. However, if compared to other actions one action is associated with a relatively large increase of expected utility, the probability of choosing this specific action is also relatively large.

In order to test the hypotheses, I estimate the different network structural effects on the probability of network change, controlling for organizational and legislation-related effects using the following function:

$$
 f(x_{ij}) = \sum_k \beta_k s_{ijk}(x_{ij}) + \sum_l \beta_l e_{il}(x_{ij}) + \sum_m \beta_m d_{jm}(x_{ij}) + \epsilon
$$

where $k$, $l$, and $m$ are the number of parameters $\beta$ to be estimated, $s$ are the structural effects (i.e., in-degree popularity, 4-cycle, and coalition degree), $e$ represents the effects associated with the attributes of an organization, $d$ represents the effects associated with the attributes of legislation, and $\epsilon$ is a stochastic error term. The model requires that the network structural effects include an “out-degree” or density effect as intercept, which is the number of outgoing ties from an organization, and that this effect controls for the density of the network. A negative out-degree coefficient indicates that choosing legislative bills for lobbying is costly.

As noted above, organizations move in and out of the policy domain, and legislators introduce legislation throughout a Congress. The dynamic model can control for such organizations and for bills that are not available or that do not exist at a particular observation point. In this way, I can distinguish bills that have been introduced but not chosen from bills that have not yet been introduced.

In general, the model simulates what happens between observations using the random utility model. The organizational actions that make the network develop are the core of the simulation procedure. The SIENA software program estimates the model based on a maximum likelihood estimator using the method of moments, implemented as a continuous-time Markov chain Monte Carlo simulation. The model (i) calculates likely starting values for the parameters, (ii) simulates the choice process according to the starting values, (iii) compares the resultant simulated network with the observed networks, and (iv) adjusts values to reduce differences between the observed and the simulated data. The model then uses a number of simulations to determine the frequency distributions of predictions, which then are used to calculate standard errors for the final parameter values.
Model Selection. Modeling network dynamics presents some challenges, particularly in this case, where I had a lot of background data on the lobbying organizations and the bills. However, incorporating too many effects can cause a failure in convergence, and not all possible effects and variables add value to the model. Ripley et al. (2012) recommend a basic forward-selection process that chooses effects based on theory and research question, testing for goodness of fit and statistical significance and then assessing the model for time heterogeneity. In this paper, the key effects of interest were the 4-cycle and the in-degree/bill popularity effects, so these were automatically included, although both exhibited excellent goodness-of-fit scores. I then added different effects to the model and tested each for goodness of fit according to the score-type tests (Ripley et al., 2012; Schweinberger, 2012). After a basic model was determined, I then tested the model for time heterogeneity. The basic model assumes that the effects do not vary over time, which is often not the case. When time heterogeneity is indicated, time dummy variables can be added to control for variance over time (Lospinoso, Schweinberger, Snijders, & Ripley, 2011). A number of the effects in this model indicated time heterogeneity, and time dummies were added only for time periods for which heterogeneity was indicated by the test.

Results and Discussion

Descriptive Results

The lobbyist–legislative bill network has a particular pattern. As shown in Table 1, the average bill is selected by about four or five lobbyists, but the core–periphery structure shown in Figure 1 suggests a skewed distribution of ties for both lobbying organizations and firms. Figure 3 shows the smoothed kernel density distribution of ties for lobbying organizations and legislation proposals, respectively, over each 6-month time period of this study. The distributions all show a “fat tail” such that a small number of organizations and bills have a lot of ties. Most organizations focus on a small subset of bills, but a small group of lobbyists are actively pursuing and/or monitoring a larger set of bills. Not shown in the figures is that fact that many organizations initially do not make a selection, as many bills have not been introduced, but over time new selections are made, as shown in Table 2 (discussed below). Yet the skewed pattern of legislative choices shown in Figure 3 persists.

Table 1 also shows substantial overlap in agenda choices. In terms of the 4-cycle pattern, there were, on average, about 80 such relationships per organization over the whole 106th Congress and 69 for the 107th Congress. The presence of these 4-cycle relationships is driven by a small number of organizations and bills that are garnering the lion’s share of the network ties.

In sum, we see a distinct pattern of relationships between lobbyists and bills, but what causes this pattern? The answer comes in two parts. The next section uses qualitative evidence to show that this policy domain is a social environment
Figure 3. Distribution of Ties for (a) Lobbying Organizations (Outgoing) and (b) Legislation (Incoming), 1999–2000 and 2001–02.

Note: The figures are based on kernel density plots.
characterized by trust-based information flows. The analysis then provides the results of the quantitative modeling for bandwagon and influence mechanisms that likely generate the skewed pattern of ties between bills and lobbyists.

### Qualitative Evidence of the Social Environment of Lobbying

Before we can test the hypotheses, we should determine if any social mechanism is possible. Lobbyists get information from different sources, but the point of this paper is that lobbyists are looking to each other as credible and trustworthy information sources. For the interlobbyist bandwagon and influence mechanisms to exist, actors in a policy domain must know each other, must interact with each other, must share information with each other, and must give credibility to the information gained from other lobbyists. But does this interaction and sharing actually occur?

I collected qualitative interview data from 25 individual retirement policy lobbyists. Each lobbyist had several years or more of experience in retirement policy, such that they would be able to indicate the presence of social processes in the policy domain.

The statistical data indicated a core group of about 20 percent of organizations that worked consistently on retirement policy, and this fact was found in the qualitative data, too. Individual lobbyists in retirement policy not only knew each other but had a clear sense of a close-knit core group of organizations. I mentioned to one lobbyist that I counted over 300 organizations working on retirement issues in recent years; he said, “Of the 300, it’s probably the 30 to 50 organizations and lobbyists who do this week in and week out. This is sort of the community on retirement.” Another lobbyist who held positions in the legislative and executive branches characterized the size of the pension community as small: “Now there are more associations who are interested, but having said that, like everything else in the world, there are only a few who do all the work. Twenty percent of people do 80 percent of the work.” In such a close-knit environment, a lot of information is flowing in both directions.

---

<table>
<thead>
<tr>
<th>Period:</th>
<th>No Bill ( (0 \rightarrow 0) )</th>
<th>New Bill ( (0 \rightarrow 1) )</th>
<th>Drop Bill ( (1 \rightarrow 0) )</th>
<th>Keep Bill ( (1 \rightarrow 1) )</th>
<th>Jaccard Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>106th Congress</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st half 1999 → 2nd half 1999</td>
<td>58,389</td>
<td>254</td>
<td>124</td>
<td>323</td>
<td>0.461</td>
</tr>
<tr>
<td>2nd half 1999 → 1st half 2000</td>
<td>58,188</td>
<td>325</td>
<td>181</td>
<td>396</td>
<td>0.439</td>
</tr>
<tr>
<td>1st half 2000 → 2nd half 2000</td>
<td>58,189</td>
<td>180</td>
<td>188</td>
<td>533</td>
<td>0.592</td>
</tr>
<tr>
<td>107th Congress</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st half 2001 → 2nd half 2001</td>
<td>67,282</td>
<td>219</td>
<td>139</td>
<td>190</td>
<td>0.347</td>
</tr>
<tr>
<td>2nd half 2001 → 1st half 2002</td>
<td>66,716</td>
<td>705</td>
<td>174</td>
<td>235</td>
<td>0.211</td>
</tr>
<tr>
<td>1st half 2002 → 2nd half 2002</td>
<td>66,604</td>
<td>286</td>
<td>291</td>
<td>649</td>
<td>0.529</td>
</tr>
</tbody>
</table>

*For the 107th Congress, I calculated an alternative index for the middle time period based on the fact that this time period was experiencing a period of growth. The value of the alternative index was 0.562.*
through the policy domain, as noted by a lawyer who represented a group of organizations who have their own lobbyists:

It’s not just from me to them but from them to me as well when I have those conversations. But I am probably talking to nonclient lobbyists every day about something. I am probably on the horn with someone at one of the [trade associations] that I don’t represent or somebody at one of the financial institutions that I don’t represent almost every day because there’s some significant nexus of interests and we’re trying to coordinate, trying to get on the same page, trying to share information, trying to plan, so those relationships are important.

As many lobbyists pointed out, however, sharing information has risks and possible repercussions. A lobbyist noted that the close-knit nature of the pension community made it difficult to mischaracterize another’s position because information flowed so easily and quickly:

It really shows how small we are . . . I send reporters down the line and, or the reporter talks to me, I can easily tell who they talked to before they talked to me even though they don’t name them, then I tell them, “You talked to so and so.”

Close-knit communities facilitate trust among the actors, which in turn facilitates repeated interaction and information sharing. A corporate lobbyist noted, “When you’ve developed a relationship and you know the person, you are willing to share.” As another explained:

And [trust] can come up in innumerable ways in terms of somebody in your respective membership or someone on Capitol Hill shared some information with you on the one hand, you have to make a judgment call between sharing the information because it would be helpful for the other person to know; not sharing the information because maybe the person who shared the information specifically does not want it to be shared with this other group who is your ally for whatever reason that relates to their own relationship or their own distrust that it remain confidential or whatever it might be.

As a result, fine-grained information or tacit knowledge moves easily within such communities because the credibility of the information is a function of the relationship that transmits the information. Thus the quality and usefulness of the information that is being shared is higher.

Now, there’s information like the bill was introduced three days ago, which you can find out on Thomas.5 Versus “my boss is going to introduce this bill in ten days and it is going to have these elements,” and that’s nowhere to be
found in the public domain. But it’s not interpretative, it’s more general, but it’s still valuable because it’s not out in the public domain. So, things that are purely informational can be valuable.

An attorney who represents business interests remarked that when he is asked to review draft legislative proposals by pro-labor congressional staffers, the usual worries about his input being mischaracterized as an endorsement may be alleviated by trust-based relations, which create tacit expectations: “There are some staffers, some offices where you wouldn’t have to ever think about that. It would just be understood.” He also puts it this way about information sharing generally:

And you know it’s a lot of what we do is sort of informational exchange. I often feel that I am a broker. Like I am gathering information from various sources and disseminating it out to various sources. It’s a big part of what I do. And when you feel that you’ve clicked with someone, whether you’re relatively early in that relationship or you’ve got a very significant relationship, it’s easier to pick up the phone, it’s easier to shoot the email than if you don’t feel that connection with someone because you are less worried about putting somebody out, you’re less worried about somebody taking it out of context, you’re less worried about confidentiality, all the things that facilitate trust and information flow are easier when there’s that sense of connection.

These relations and information flows are not restricted to those on one side of an issue or the other. A long-time lobbyist who works for a corporate trade association noted that embedded relationships gave her unique access to views and information from policymakers: “We were having a meeting with other [pro-business] pension types downtown, and people would be worried about this or that or the other thing on, wondering where labor is, or wondering where AARP is, or wondering where [a pro-labor Democratic staffer] is, and I just would go and pick up the phone and call.”

In general, policy domains can contain a subset of actors who form a close-knit group and who develop processes for fine-grained information transfer. That is, information flows easily, and it is more proprietary and tacit in nature than what would be exchanged in arm’s-length relations. “Social relations make information credible and interpretable, imbuing it with qualities and value beyond what is at hand” (Uzzi, 1996, p. 678). Having established the social conditions that make the bandwagon and influence hypotheses possible, the next section provides quantitative evidence for the hypotheses.

**Dynamic Modeling of Lobbyist–Bill Networks**

Table 2 describes the changes in the lobbyist–bill network over the observed time periods. Looking at the first column of results, No Bill (0 → 0), the vast
majority of observations consists of nonties; that is, a lobbying organization has not chosen a bill. The second column, labeled New Bill (0 → 1), indicates newly created ties when an organization adds a bill to its agenda. The third column, Drop Bill (1 → 0), gives the number of times an organization drops a bill from its agenda. The fourth column, Keep Bill (1 → 1), indicates when an organization keeps lobbying on a bill from one time period to the next. In summary, lobbying organizations’ choices changed quite a bit. For example, between the first and second halves of 1999, 243 new ties to legislation were created, while 143 ties were dropped by lobbying organizations. However, the number of unchanged legislative choices increased over time.

A key assumption of the dynamic model is that observations are made of a gradually changing network. Because the data collection is based on time periods of fixed length for lobbyist reporting, the 6-month time periods do not match the actual rates of change in the networks. In order to see if the data collection points are not too far apart, Table 2 shows the Jaccard index, which is a function of the number of ties present at both observation points as well as the number of ties added and dropped between the two observation points. In general, Jaccard values should be above 0.3 (Snijders et al., 2010), and for each Congress the values meet this criterion, except for the middle time period in the 107th Congress. However, Snijders et al. (2010) note that when the network is in a period of growth and the second network has many more ties than in the prior network, one “may look instead at the proportion, among the ties present at a given observation, of ties that have remained in existence at the next observation” (p. 49). Such a period of growth in the middle of each Congress is present in Table 1, as 704 new ties were added from the end of 2001 to the beginning of 2002, which is significantly higher than other time periods. Most likely, this growth spurt reflects, at least in part, the continuing introduction of legislation over the course of the first year of a Congress as well as information gathering by lobbying organizations on newly introduced legislation. Using the alternative index calculation proposed by Snijders et al. (2010), the value is 0.562 from the end of 2001 to the beginning of 2002.

Table 3 provides the results of the longitudinal modeling of the lobbyist–bill network. The first two columns of results are for the 106th Congress, which was in session from 1999 through 2000. The first three rows of results are the rate parameters that provide the estimated changes per organization from one period to the next, and these indicate an average rate of nearly three tie changes between the observation points. As Ripley et al. (2012, p. 92) note, the rate parameter “refers to unobserved changes, and that some opportunities for change lead to the decision ‘no change,’ and moreover some of these changes may cancel (make a new choice and then withdraw it again), so the average observed number of differences per actor will be smaller than this estimated number of unobserved changes.” The next row of results is the out-degree (density) parameter that is required in any model and serves as a control for the network density (Ripley et al., 2012). As noted previously, the fact that the coefficient is negative (−3.509) indicates that selecting additional legislation (as represented by a tie going “out” from an organization) is costly, such that organizations will select additional legislation only if there
are benefits to doing so. A density coefficient of −3.509 translates into a baseline conditional probability of choosing a legislative bill on which to lobby of 0.029 (equal to 1/(1 + e^{−(−3.509)})). The remainder of the parameters test whether our processes of interest capture these benefits.

The focus of this paper is on social processes that are represented by the network effects of 4-cycles for the influence hypothesis, in which similar organizations make similar choices, and in-degree popularity for the bandwagon hypothesis. There is a significant effect (0.029) for 4-cycles or influence, as choices made by others will affect the choices of a particular lobbying organization. This increases the chance of lobbying on a bill because of this 4-cycle effect from 0.027 to 0.028 (1/(1 + e^{−(−3.509) + 0.029})). There are, on average, 80 4-cycles per lobbying organization, so, on average, the 4-cycle effect results in a 23 percent increase (1/(1 + e^{−(−3.509) + (0.029 × 80)})) in choosing legislation. One time dummy was added for the change in observations between the end of 1999 and the first half of 2000, and the coefficient (−0.29) is significantly negative and offsets the original effect for that period.

Table 3. Longitudinal Model of Lobbyist–Bill Network Changes, 1999–2000 and 2001–02

<table>
<thead>
<tr>
<th>Rate parameters</th>
<th>Estimate</th>
<th>SE</th>
<th>Rate parameters</th>
<th>Estimate</th>
<th>SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st half 1999 → 2nd half 1999</td>
<td>3.323</td>
<td>0.304</td>
<td>1st half 2001 → 2nd half 2001</td>
<td>1.901</td>
<td>0.218</td>
</tr>
<tr>
<td>2nd half 1999 → 1st half 2000</td>
<td>3.662</td>
<td>0.281</td>
<td>2nd half 2001 → 1st half 2002</td>
<td>3.498</td>
<td>0.299</td>
</tr>
<tr>
<td>1st half 2000 → 2nd half 2000</td>
<td>3.118</td>
<td>0.236</td>
<td>1st half 2002 → 2nd half 2002</td>
<td>3.475</td>
<td>0.274</td>
</tr>
<tr>
<td>Out-degree (density)</td>
<td>−3.509***</td>
<td>0.101</td>
<td>Out-degree (density)</td>
<td>−3.804***</td>
<td>0.336</td>
</tr>
<tr>
<td>Time dummy 2</td>
<td>−0.427***</td>
<td>0.156</td>
<td>Time dummy 2</td>
<td>1.679</td>
<td>0.992</td>
</tr>
<tr>
<td>Time dummy 3</td>
<td>−0.652***</td>
<td>0.153</td>
<td>Time dummy 3</td>
<td>1.060</td>
<td>1.013</td>
</tr>
<tr>
<td>4-cycles</td>
<td>0.029***</td>
<td>0.003</td>
<td>4-cycles</td>
<td>0.041***</td>
<td>0.008</td>
</tr>
<tr>
<td>Time dummy 2</td>
<td>−0.029***</td>
<td>0.006</td>
<td>Time dummy 2</td>
<td>0.087**</td>
<td>0.025</td>
</tr>
<tr>
<td>Time dummy 3</td>
<td>0.017</td>
<td>0.009</td>
<td>Time dummy 3</td>
<td>0.010</td>
<td>0.023</td>
</tr>
<tr>
<td>In-degree (popularity of bill)</td>
<td>0.040***</td>
<td>0.005</td>
<td>In-degree (popularity of bill)</td>
<td>0.039***</td>
<td>0.006</td>
</tr>
<tr>
<td>Time dummy 2</td>
<td>0.020</td>
<td>0.012</td>
<td>Time dummy 2</td>
<td>−0.006</td>
<td>0.017</td>
</tr>
<tr>
<td>Time dummy 3</td>
<td>0.017</td>
<td>0.009</td>
<td>Time dummy 3</td>
<td>−0.003</td>
<td>0.016</td>
</tr>
<tr>
<td>Coalition activity–bill activity</td>
<td>−0.008</td>
<td>0.045</td>
<td>Coalition activity–bill activity</td>
<td>−0.169</td>
<td>0.199</td>
</tr>
<tr>
<td>Time dummy 2</td>
<td>−0.155</td>
<td>0.108</td>
<td>Time dummy 2</td>
<td>0.916</td>
<td>0.599</td>
</tr>
<tr>
<td>Time dummy 3</td>
<td>−0.245**</td>
<td>0.097</td>
<td>Time dummy 3</td>
<td>1.142</td>
<td>0.596</td>
</tr>
<tr>
<td>Total time in policy domain</td>
<td>0.145***</td>
<td>0.018</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Number of bill cosponsors | 0.002** | 0.001 |
| Time dummy 2 | 0.006 | 0.001 |
| Bill sponsor on jurisdictional committee | 0.272*** | 0.082 |
| Time dummy 2 | −0.141 | 0.204 |
| Time dummy 3 | 0.504* | 0.204 |
| Bill progress | 0.061 | 0.031 |
| Time dummy 2 | −0.227** | 0.079 |
| Time dummy 3 | −0.020 | 0.069 |
| Bill progress | 0.045 | 0.035 |
| Time dummy 2 | −0.158 | 0.096 |
| Time dummy 3 | 0.127 | 0.095 |

* p < .05; ** p < .01; *** p < .001.
The in-degree parameter evaluates the effect of a bill’s popularity on the choice of lobbying organizations to select it, which tests the bandwagon hypothesis. This, too, has a significantly positive effect (0.029), such that each increase in a bill’s existing ties will result in a 3 percent increase in the chance that an organization will select that bill. So if 20 organizations have selected a particular bill, the chance that another organization will select that bill increases to 6 percent. But this increase is not linear: If 100 other organizations select that bill, the chance of selection goes to 62 percent. That is, an organization’s propensity to choose a bill gradually accelerates as more organizations add that bill to their agendas. Thus, we can see how the “bandwagon” effect or “social cascade” that Baumgartner et al. (2009) mention can occur—some tipping point is reached when lobbyists flock to a bill. The time dummies are not significant.

The other network effect of interest is the effect of changes in the coalition network on bill selection. However, the coalition activity–bill activity effect is not significant except for the time period from the first half of 2000 to the second half of 2000, the effect for which is significantly negative (−0.245), suggesting that an increase in one’s coalition ties in that period has a negative effect on selecting bills. Belonging to a number of coalitions may limit the legislative agenda of member organizations, as coalitions may narrowly target their efforts and resources after deliberation by coalition members.

In terms of significant effects for organizational controls, total time in the retirement policy domain is significantly associated with adding legislation to one’s agenda (0.145). If an organization is active over all time periods, the probability of selecting new legislation increases from 3 to 8 percent. Being a long-term player in the policy domain may evidence an ability or interest in covering more issues as bills are introduced over the span of a Congress. Someone who has spent time on retirement policy knows who are the relevant policymakers and likely has good information about developments, so such lobbyists are best positioned to update their agendas as legislation is proposed. Long-term participants may also be acting as information clearinghouses to which others can refer.

For legislative controls, the number of cosponsors on a bill (0.002) and whether a bill’s sponsor is a member of the relevant committee of jurisdiction (0.272 for the initial coefficient and 0.504 for a time dummy) are significant and positive, but the effect is slight for both. Actual bill progress is not significant except for the dummy term for the middle time period (second half of 1999 to first half of 2000), which was negative (−0.227). I do not have a single explanation for why bill progress would have a negative effect in one time period, but that could happen for different reasons: For example, when a bill moved forward, provisions related to retirement policy could have been altered or stripped out altogether.

The results for the 107th Congress are similar to those of the 106th. The rate parameters for the next Congress are similar to the prior time period, although the rate parameters increase from one time period to the next. The out-degree (density) parameter remains negative (−3.804).

We see similar results of significance, direction, and magnitude for the structural effects of 4-cycles (0.041 for the initial coefficient and 0.087 for one time
dummy). As the average number of 4-cycles per organization is 69, the probability of selecting legislation for the average organization rises to 27 percent. The in-degree popularity (0.039) is again small, but the effect increases as more organizations choose a bill, as we saw in the results for the prior Congress. For example, if 100 organizations have selected a bill, the probability for any organization selecting that bill is 52 percent. Again, organizations look to choices of others when they already share similar preferences, and bandwagon and influence effects appear to be present. Only one other effect is significant for our control measures. The number of staff is associated with a significantly positive effect on choosing legislation (0.173), which shows a 3 percent probability of selecting legislation rising to 4 percent at the average number of staff of three people per organization. The 107th Congress had a Republican majority in both houses as well as a Republican White House, so larger organizations (at least in terms of staff) like the U.S. Chamber of Commerce may be more active with their legislative agenda in this time period.

Conclusion

The purpose of this paper was to focus on interest groups’ relations with other groups and the outcomes, if any, associated with such relationships. Given a network of lobbying organizations and legislative proposals, I argued in this paper that an organization’s lobbying choices are, in part, conditional on the choices of other lobbying organizations. The longitudinal model of network change was used to explain the agenda choices of lobbying organizations over several time periods and, hence, the evolution of the agenda itself. The results provided support for both the influence hypothesis in the form of the 4-cycle effect and for the bandwagon hypotheses in the form of the in-degree effect. The qualitative evidence of networked relations among lobbyists provides an understanding of the results. While information and influence can come from different sources, lobbyists in a policy domain, particularly long-term players, tend to know each other, share information, and exchange interpretations about developments. This flow of information evokes the information subsidy idea borrowed from Hall and Deardorff (2006). In such an environment, lobbyists learn about the choices of other lobbyists and likely condition their choices as a result. In short, networks imbued with repeated interaction and with transfers of fine-grained knowledge affect policy agenda development.

These findings fit with other work on interest groups like Holyoke’s (2011) competition model and the “hollow-core” structure of influence of Heinz et al. (1993). If interest groups are on opposing sides on an issue, they nonetheless can influence each other on what is the issue on which to disagree. In the Heinz et al. (1993) study, which had a more macro-level focus, the authors found not a central coordinating set of actors but a network organized as a sphere around a hollow core. There, the structure of representation was paired with a high degree of uncertainty in the policymaking process as private interests increasingly developed representation
in Washington over the late 1970s and early 1980s. My results suggest that policy actors deal with this uncertain and unmediated environment by looking to others in the policy domain, particularly those who provide reliable information about policy developments.

These results speak directly to ideas of policy change and stability as discussed by Baumgartner et al. (2009). As these authors noted, policy often is stable, but when change occurs, the magnitude of change is much more significant than a mere marginal adjustment in policy. For significant change to occur, context matters in that the social nature of Washington lobbying ensures that policy actors will look to each other before investing resources into particular proposals. When actions are conditional on others, a social cascade can occur that punctuates a period of stability with a significant policy shift (Baumgartner et al., 2009, pp. 251–53). The results in this paper confirm this process: lobbyists’ choices for their agendas are conditional on the choices of others. By this we can understand a policy domain as social and dynamic space.

Are these results limited to a particular policy domain? Lowi’s (1964) argument about types of policies having specific implications for political behavior may be useful. The retirement policy domain may encourage embedded relations in that the technical complexity of pension tax law puts a premium on expertise and provides a benefit to long-term players who invest in the details of policy. Thus, these findings may be limited to similar domains with a regulatory or technical emphasis, such as health care or intellectual property, and may not extend to more particularistic/distributive areas such as budget politics. Moreover, size and composition of the policy domain may matter (Olson, 1965; Ostrom, 1991). More research, then, is needed.

However, I expect to see quantitative and qualitative evidence of these social processes across a range of policy domains and even across levels of government for at least two reasons. First, politics and policy work are specialized according to experience and expertise, such that we should see institutionally created communities within which are dense ties but between which are only weak connections. Such communities reduce the distance between actors, with the result that actors tend to know and interact with each other. Second, actors face complex and information-rich environments with limited resources. Social relationships augment one’s resources and leverage one’s knowledge and expertise into effective advocacy. The real pleasure we feel from positive social interactions in work situations also reinforces the strategic benefits of these social processes (Homans, 1950). For these reasons, policy agendas likely develop neither through elite consensus nor through aggregation of independent choices but rather through social processes like bandwagon and influence that are supported by trust-based relations in close-knit communities. Such close-knit communities may not be the elite-driven models of policymaking, but they do suggest a different kind of elite hierarchy, one consisting of expertise and experience.

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Notes

1. The website for the federal lobbyist registration reports is http://sopr.senate.gov/.
2. For example, S. 741 was listed 98 times by the lobbyists in the first half of 1999.
3. Social network analysis uses the term “degree” for a tie, and in the case of directional relationships, “in-degree” means ties coming into a node and “out-degree” means outgoing ties.
4. I used RSiena version 4.0 (Ripley et al., 2012). A free copy of the latest version and documentation are available at http://www.stats.ox.ac.uk/~snijders/siena/.

References


