

PARTY COALITIONS AND INTEREST GROUP NETWORKS

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Abstract:

We analyze affiliation networks of interest groups that endorse the same candidates in primary elections, donate to the same candidates in general elections, and voice support for the same legislative proposals. Patterns of interest group ties resemble two competing party coalitions in elections but not in legislative debate. Campaign endorsement and financial contribution ties among interest groups are consistently correlated but legislative ties do not follow directly from electoral alliances. The results challenge the consensus in the emerging literature on the expanded party organization; interest groups have distinct incentives to join together in a party coalition in elections but also to build bipartisan grand coalitions to pursue legislative goals. We also modify conventional views on party differences. The Democratic coalition is not fractured into many small constituencies. The Democratic campaign and legislative networks are denser than equivalent Republican networks, with a core of labor organizations occupying central positions.

Scholars and pundits often argue that political parties are coalitions of interests. Candidates and legislative leaders attempt to satisfy different interest groups to build winning coalitions, sometimes facing internal conflicts among party supporters. Interest groups, in turn, ally with others to elect candidates and pass legislation that they support. How do the patterns of interest group interaction match up with the competition between the two major U.S. political parties? Do we have two partisan coalitions of interest groups, regularly lining up to fight one another in elections and legislative debates or is there evidence of cross-party alliances? Do the scope and internal structure of the party coalitions differ or is their symmetry between the two parties?

Our goal is to explore the patterns of behavior of groups on both sides of the aisle. First, we want to know if interest group competition matches the ideal type of competing party coalitions. Yet we know that this is not the only pattern of interest. If the groups are not highly partisan, is there a central core of groups that support candidates and legislation forwarded by both parties? Second, we hope to assess the internal conflict within each party. If labor unions are central to the Democratic Party, for example, do they form a coherent bloc? Do social conservative groups comprise a distinctive faction in the Republican Party? A third set of questions deals with the potential influence of individual groups. Are the actors that are most central to the political parties also central to bipartisan coalitions? Are the groups that are most central in legislative coalitions the same as those who are central in electoral coalitions?

We argue that the interest group alliance patterns that emerge depend crucially on whether the goals are electoral or legislative. We expect interest groups to line-up clearly on two sides when a winner-take-all election forces partisan choices, but not in the multidimensional politics of legislative debate. We assess these ideas by looking at the apparent structure of interest group cooperation that emerges as groups support the same primary candidates, give money to the same general election candidates, and support the same legislation. We use the tools of Social Network Analysis (SNA) to

analyze original data on campaign endorsements, financial contributions, and legislation support lists for clues as to the structure of the interest group universe.

Interest Group Alliances

In asking these relatively new questions, we hope to contribute to at least two existing literatures, one that deals with interest group alliances, and the other that focuses on party networks. The interest group alliance literature focuses on legislative coalitions whereas the party networks literature focuses on electoral coalitions. The two literatures also have very different types of coalitions in mind. Studies of interest group coalitions generally envision organizations actively working together to achieve policy goals (see Salisbury et al. 1987; Hojnacki 1997; Hula 1999). In the interest group literature, there is even debate about whether these coalitions are worthwhile or not (see Hojnacki 1997); this makes sense if you are an interest group leader deciding whether to lobby alone or pursue a joint lobbying campaign with other groups. It does not make sense, however, if groups are merely joining a list of endorsees of candidates or policy proposals. There is typically no cost to someone else independently announcing support for your position by endorsing a candidate or legislation that you support. Being on the same side as another interest group does not require a formal alliance. Yet this is the dominant way it has been conceptualized among interest group scholars.

Hojnacki (1997) looks at alliances with a critical eye, asking whether coalitions are typically in an interest group's interests. The costs of joining an alliance will often outweigh the potential benefits, she finds, especially if groups have narrow issue interests or fear that allies will not participate. This research takes on the individual interest group's strategic perspective, rather than envisioning wider links with political parties or across the issue spectrum. In a follow-up article, Hojnacki (1998) investigates coalitional behavior in five issue areas. She finds that interest groups

will sometimes work in coalitions if it improves their reputation. She argues that these effects are more common in closely coordinated lobbying campaigns with regular interactions. In this work, the goal is to figure out how to get interest groups to contribute time and resources to a collective effort rather than to investigate who sides with whom in general political conflict.

Hula (1999) investigates many successful interest group coalitions in three policy areas, interviewing group leaders to find out why they join and what they do in the coalition. He distinguishes between core members of a coalition, “players,” and “tag-alongs.” The latter lend their name to a formal coalition but do little or no work in advocating the coalition’s positions. Hula finds that interest groups often form close associations in several different coalitions and through interlocking boards. This research shows that coalitions are often broad-based but diverse in workload. The results suggest that many coalitions are built to provide signals of broad support, rather than to mobilize resources for lobbying.

Salisbury et al. (1987) use surveys to find out who interest group leaders and lobbyists view as allies and adversaries in four policy domains. They analyze the coalitions in each area, as seen by participants, but do not seek to connect them to the general conflict between parties or within the universe of policy conflicts before Congress. The same group of scholars use network analysis to investigate the shape and structure of interest group coalitions in these four policy areas (see Heinz et al. 1993). They find that most policy conflicts feature a “hollow core,” with no one serving as a central player, arbitrating conflict. In some areas, government agencies are caught in the middle between opposing sides; in others, disconnected issue specialists are linked only to those who work on similar topics and share views. From these findings, we can surmise that several policy areas do not have a core-periphery structure of conflict but we are unsure how each conflict fits into the larger framework of party competition or interest group efforts to pass legislation.

Several questions remain unanswered: how do interest groups that sign onto the same legislative proposals line up across issue areas? Do they form broad partisan coalitions that mirror the polarized voting patterns of legislators? How do the patterns of conflict and cooperation among interest groups on legislation line up with their participation in coalitions to get candidates elected?

Party Networks

These are especially important questions in light of new treatments of political parties as networks of a wide variety of actors that include, but are not limited to, their formal apparatus. In this “party network” literature (see Bernstein 2004), there is support for the idea that a great many elite partisan actors together comprise the party organization. For example, Schwartz (1990) uses network analysis to show that officeholders, donors, and interest groups were all important constituent parts of the Illinois Republican party organization. Masket (2004) finds that informal, local elite networks are alive and well and often attempt to control the nomination process in primary elections. Several studies of this “Expanded Party” (Bernstein 1999) show that both campaign professionals and personal staffs are overwhelmingly party loyal and that when they select candidates or members to work for, that can be a signal of party insider support for that person (Kolodny 1998; Monroe 2001; Bernstein 2000; Bernstein and Dominguez 2003). Partisan elected officials are by most definitions an important part of the party, and their endorsements of candidates have been shown to be an indicator of party support for a candidate (Cohen *et al.* 2001). Some, though not all, donors and fundraisers have also been shown to have partisan ties (Koger, Masket and Noel forthcoming; Author 2005).

A number of different actors qualify as part of the party under this broadened definition, including loyal interest groups that pursue issues that fall within a party’s stated positions. Most party scholars would agree with the statement that political parties are aggregations of interests.

Pundits also recognize the coalitional nature of parties, and often point to factional groupings within them. Bawn et al. (2006) go even further to argue that the party organization is essentially composed of loosely aligned but aggressive “policy demanders,” including interest groups, who select candidates to best represent them. Party officials, in their story, are merely agents for these intense minorities in the party coalition, and so official committees cannot be powerful independent of the support of the interests. Yet we actually know little about the shape of the interest group coalition of each party. Are there recognizable factions in the two American parties? Does the Democratic Party really function as a coalition of minorities? Although these questions have been raised (Bernstein 2004; Author 2007), they remain unanswered.

Not all studies of party networks assume that the coalition partners are entirely divided between the two parties. In a recent network analysis of party coalitions, Koger, Masket, and Noel (forthcoming) analyze sales of mailing lists among official party organizations, interest groups, and media outlets. They find that some actors are connected to both parties. Yet the overall network still has a polarized structure that lines up with the two-party system. Even if two party coalitions are not assumed from the outset, they emerge through patterns of interest group ties.

Previous analyses, however, are limited because they have not attempted to examine the same groups’ behaviors across different contexts. The literature on party networks (*e.g.* Bernstein 1999; Bawn et al. 2006) focuses primarily on candidate selection and donation patterns. In contrast, literature on interest group networks (*e.g.* Salisbury et al. 1987; Hula 1999) looks primarily at legislative coalitions in particular issue areas. It anticipates coalitions around individual issue positions rather than grand coalitions around parties. When interest group alliances are aggregated, do they develop into party coalitions? When interest groups that support one party’s candidates intervene in legislative debate, do they stick with their electoral allies or cross party lines?

Expectations

When we look at interest group networks in both electoral and legislative contexts, previous findings suggest some initial expectations. The existing literature on party coalitions leads us to expect to see two large party coalitions in the electoral arena. The literature on interest group legislative networks, in contrast, leads us to expect that interest groups will divide based on issue positions and interests, rather than partisanship. Since financial contributions are designed to both help candidates get elected and help gain access to policymakers, we expect that patterns of interest group contributions will likely come out somewhere in the middle, not as partisan as primary endorsements but more partisan than legislative debates. This would be consistent with another exploratory analysis of PAC contributions during the 2000 election cycle (Robbins and Tsvetovat 2006).

These expectations have important implications for the debate over partisan polarization. Political conflict is potentially multi-dimensional; citizens have diverse interests and ideas and disagree about public problems and proposed solutions. Yet scholars and pundits argue that American politics is now polarized along a single dimension (see McCarty et al. 2006). Interest groups that line up with the two major political parties on opposite sides of this spectrum are implicated in the polarization story (see Hacker and Pierson 2005). Scholars have found increasing polarization in elections and legislative voting, but it is not clear whether interest groups help account for both patterns. Scholars have largely ignored the question of which interest groups line up in their support of candidates and legislation, and how they do so. Certainly elections may produce two major coalitions of officeholders, supported by polarized and partisan interest groups. But do these same groups continue to drive party polarization when it comes time to build legislative coalitions? Or do they, instead, work to bridge partisan differences in service of their own ends?

Observing how Members of Congress build legislative coalitions leads us to expect less interest group polarization in legislative debate, with legislators striving to generate diverse lists of prominent interest group supporters. Arnold (1990), for example, argues that Members of Congress identify attentive and inattentive publics who might care about an issue and estimate their preferences and the probability of translating these into public policy. He finds that the Congressional leadership seeks to bring in many coalition partners early in the process and often uses persuasive lobbying and public opinion campaigns to move legislation. If Members of Congress are seeking to bring more outside participants on board, often enlisting interest groups and constituencies in the process, it may make sense to build lists of all kinds of organized supporters.

We expect that the structure of conflict and cooperation should vary with the incentives groups face—the need to win elections should polarize groups into party coalitions, and the need to create majorities to pass legislation should create broader alliances and multidimensional relationships. Yet we remain agnostic about the role of various coalition partners in these networks. Perhaps players central to each party’s coalition are also the key players in legislative debates. Or perhaps peripheral partisan actors play especially important roles in bipartisan networks. Close examination of the networks of relationships between interest groups in different contexts can help us develop and assess further hypotheses.

Campaign Endorsements, Legislative Support Lists, and Financial Contributions

Our research attempts to gain new empirical leverage for assessing the composition, shape, and structure of interest group networks. We analyze who sides with whom, even if we do not know whether they explicitly work together. In addition to shared legislative support, we look for interest groups that endorse the same candidates in party primaries or give to the same candidates in general elections. We argue that even in the absence of evidence of coordination or relationships, the

repeated support of the same candidates and proposals across contexts probably does indicate the presence of both personal and strategic relationships, including potential lines of communication and shared goals. In the language of SNA, these links constitute shared affiliations.

We collected data on which interest groups side with each other in three different contexts in which groups that have a public policy agenda might try to affect officeholders (or potential officeholders). The first of those contexts is endorsements prior to primary elections. We would expect to see primary candidate endorsers to be groups that have chosen to pursue an electoral strategy, since they choose to take sides in an intra-party contest, presumably in favor of candidates who are already committed to their policy agenda. To analyze groups that endorse in primaries, we created a dataset of endorsements of primary candidates in open seat and competitive 2002 House and Senate races.¹ We generated the dataset using a survey of Congressional candidates.² Interest groups that endorsed candidates were coded both using the title of the group and, when available, the Federal Election Commission's coding of that group's political action committee, as listed in Congressional Quarterly's *Federal PACs Directory*.

Figure 1 shows the types of group endorsements that were received by 175 candidates in the sample. Electoral support for Democrats is concentrated among unions; Republican support is more evenly distributed across corporations, issue groups, and other interests. Generally, the groups that endorsed in the primaries would fit a description of "partisan" groups. Unions comprised a large portion of Democratic endorsements, and single-issue groups and corporate groups endorsed most in Republican primaries. Within the single-issue category, ideological and abortion groups were the biggest Republican endorsers. Of single-issue and identity groups, environmentalists and women endorsed Democratic candidates most often.

[Insert Figure 1 Here]

To investigate the degree to which these groups side with each other on a regular basis, below we use a two-mode dataset and employ standard SNA techniques. We create an undirected affiliation network by linking interest groups that endorse the same candidates. The number of jointly endorsed candidates provides a measure of the strength of ties.³ Groups that endorse many of the same candidates are seen as more closely tied to each other. To divide the networks by party, we focus on endorsements for each party's candidates.

Second, we looked for interest group coalitions announced by Members of Congress in the Congressional Record. These announcements typically came in the form of highlighting a set of groups who agreed with the Member who announced the coalition, either in support of or opposition to a piece of legislation. To locate the coalitions, we began with a list of interest groups that rate Members of Congress (from McKay forthcoming) and snowball sampled from that list, searching the Record for mentions of those groups in coalitions, and any others mentioned with them, ultimately finding more than 2,500 organizations mentioned in coalitions in the Congressional record.⁴ We found 319 coalitions surrounding legislation or amendments announced in floor debate from 1999-2002. Given that more than 16,000 bills were introduced in this period, announced interest group coalitions were rare as a percentage of total bills introduced.

The coalitions were quite diverse in topic area. We categorized the coalitions based on their issue area, using the coding categories created by the Policy Agendas Project.⁵ Figure 2 shows which issue areas generated the most coalitions. Health issues account for the most coalitions, 15.2% of the total. Coalitions surrounding civil rights and liberties, government operations, and banking and commerce also account for large shares of the total, with the rest distributed across many other categories.

[Insert Figure 2 Here]

These coalitions surrounded a broad cross-section of legislative debates but seemed to be most common around significant legislation that had a chance of passage. Almost 73% of the coalitions were around bills, with the rest surrounding amendments. More than 74% of the coalitions were in favor of legislation, with the remainder organized against a proposal. More coalitions were announced in the Senate record (208) than the House record (111), suggesting that the Senatorial precedent and looser party control may necessitate more external coalitions. These coalitions were not based around insignificant legislation that stood no chance of passage. Overall, the coalitions were involved in legislation that was very likely to pass. More than 21% of the bills or amendments that the coalitions were formed around became law. Just over one-third of the bills or amendments passed their respective chamber but failed elsewhere, meaning the majority of coalitions surrounded legislation that passed at least one chamber.

To divide the networks by party, we considered a coalition to be Democratic if the groups were mentioned by a Democratic member, and Republican if they were mentioned by a Republican member. There were 191 coalitions mentioned by Democrats, averaging 19.2 interest group members each. The dataset contains 128 coalitions mentioned by Republicans; there were 25.9 interest group members per coalition for Republicans. By linking interest groups that support the same legislative proposals, we create three undirected affiliation networks (one for Republican announced-coalitions, one for Democrats, and one for all coalitions). The number of jointly supported proposals constitutes our measure of the strength of ties.

Finally, we collected PAC contribution data for all candidates in the 2002 general election.⁶ We again create three undirected affiliation networks, one for Republican candidates, one for Democrats, and one for both. We link interest groups that give to the same candidates, using the number of shared recipients as a measure of the strength of ties. In what follows, we explore each network and assess the associations among them.

Network Analysis

Table 1 summarizes our analysis of nine different networks. In these networks, interest groups are connected based on campaign endorsements, legislative ties, and financial contributions. In each case, we created networks for all actors, networks associated with only Democratic legislators and candidates, and networks associated with only Republican legislators and candidates. We report the global characteristics of each network.

[Insert Table 1 Here]

The networks vary dramatically in size (the number of interest groups involved) and density (the average number of connections between groups). The smallest networks cover primary campaign endorsements, where only 239 interest groups are involved and both parties have roughly equally sized networks. Many more organizations endorse legislative proposals (2,562) and donate to political candidates (3,504).⁷ The Democratic legislative network is slightly larger than the Republican network, whereas the Democratic contribution network is slightly smaller. More organizations donate to Republicans but more organizations endorse legislative proposals announced by Democrats. The endorsement network has a density of .19 (s.d. .53), meaning that most interest groups do not share an endorsee with most other groups. Separately analyzed, the Democrats' network is more tightly connected than the Republicans' network. The overall legislative network is less than half as dense (density=.08; s.d. = .33) as the endorsement network. The Democratic legislative network (density=.12; s.d.= .39) is also twice as dense as the Republican network (density=.06; s.d.= .29). This indicates that Republican-oriented organizations are unlikely to be connected with one another, separating their support of legislative proposals into coalitions with fewer partners. The density of the financial contribution network is much higher (density=1.5). This indicates that, on average, groups that give together give to the same candidates across the

board. A pair of randomly chosen two Republican givers would be likely to have given to 1.4 of the same candidates. Many Democratic givers also choose the same candidates, though not as many.

We also report centralization scores to assess how well the nine networks match ideal types of networks that are highly centralized. Degree centralization measures the degree to which a small number of actors have the preponderance of links to all other actors. Betweenness centralization measures how closely the networks resemble a system in which a small set of actors appears between all other actors in the network that are not connected to one another (see Wasserman and Faust 1994). There is some inconsistency in our reports of the two measures, meaning that a network that is centralized using one definition is not necessarily centralized under the other definition. The results do indicate, however, that the financial contribution network is the least centralized of the three networks and the campaign endorsement network is the most centralized. There are a lot of peripheral donors that only donate to a few candidates but not as many peripheral endorsers. There are no clear-cut differences between the parties; coalition patterns among Democrats do not necessarily amount to a more centralized network, even though they feature a denser set of connections among actors.

We also report some qualitative characteristics of the networks that are visible in the network illustrations. As we will see below, the campaign endorsement and financial contribution networks are divided along partisan lines. In the endorsement network, the Teamsters are the most prominent actor that bridges the gap between the two parties. In the PAC contribution network, several groups, including single-issue and professional organizations, create a central structure between the two parties. The legislative coalition network, in contrast, does not feature a clear partisan divide; it is instead dominated by a diverse core of bipartisan organizations that are closely connected to one another, along with a periphery of many other disconnected actors. For the party-

specific networks, most have a core-periphery structure, with unions typically occupying the central space for Democrats and business groups occupying the central space for Republicans.

For closer analysis of each type of network, we assess the central actors and connection patterns associated with all three ties. As a reminder, the first dataset of primary endorsements counts the number of times that each interest group endorsed the same candidate as every other interest group in the population. Table 2 shows the most central groups in the endorsement networks, using two standard measures: degree centrality and betweenness centrality. Degree centrality measures the total number of connections made with other groups, including multiple connections for groups that share more than one candidate endorsee. Betweenness centrality, in contrast, measures the number of paths between other nodes that potentially pass through the interest group (see Wasserman and Faust 1994). Note that the groups that are most central to each party's network are groups that also give a great deal of money exclusively to one party and are commonly considered to be important to each party's coalition. The results show that several large unions are central to the Democratic electoral network. The U.S. Chamber of Commerce is the most central actor for Republicans, measured by betweenness centrality.

[Insert Table 2 Here]

Figure 3 shows the core of the endorsement network for both parties, along with a small visualization of the entire endorsement network. Note that there is very little overlap between the endorsers of Democratic and Republican primary candidates. These are, as expected, mostly highly partisan groups. Only the Teamsters are significant players in both parties' primaries. Breaking each party's network down, the Democrats do not have distinct groupings of endorsers, but the Republicans do appear to have a faction of conservative groups (Club for Growth, American Conservative Union, Madison Project, Campaign for Working Families) that endorse a different set of candidates than the more mainstream groups do.

[Insert Figure 3 Here]

Table 3 shows the most central groups in the legislative networks. This legislative network includes many groups that do not appear to play a highly partisan role in primary electoral politics, including disabilities groups and religious organizations.⁸ Unions, women's groups, and single-issue groups are all central in the Democratic legislative network; business and health groups are central in the Republican legislative network. At least one group, the United Auto Workers (UAW), is highly central to the Democrats' electoral network but is mentioned frequently by Republicans in the legislative network. No Republican endorsement groups are central to the Democrats' legislative network. This finding deserves further study, but may be driven by the larger number of Democratic-leaning constituency groups in Washington. Yet like in electoral politics, unions are again central to the Democratic network and corporate associations are central to the Republican network. Measured by betweenness centrality, however, both liberal and conservative groups appear to bridge gaps by linking Republican and Democratic interests in the complete network.

[Insert Table 3 Here]

Figure 4 shows the core of the whole legislative network, along with a small illustration of the entire network. The preponderance of cross-party coalitions is striking. The legislative network does not split clearly along partisan lines. Both "Republican" groups, like the US Chamber of Commerce, and "Democratic" groups, like AFSCME, the Sierra Club, and UAW, appear central to the network. There are lots of strong links between traditionally Democratic and Republican interests. Both liberal and conservative groups are also strongly linked to groups that attempt to take a non-partisan stance and do not participate in elections.

[Insert Figure 4 Here]

Most of the legislative coalitions were announced in floor debate so it is possible that many groups add their names to broad coalitions after bill passage is assured. Yet 72 of the coalitions in

our dataset were announced at the time that the bills were first introduced. We created a network based only on coalitions announced at bill introduction to find out whether the core-periphery structure and bipartisanship of the network would remain. The bill introduction network is smaller (301 groups) and has a much higher density (.33) and degree centralization (26.2%) than the entire legislative network. The bill introduction network is even more dominated by a core set of interconnected groups from both parties. There was again no clear partisan divide. This suggests that many more peripheral actors may add their names to coalitions once the relevant bills come up for a vote; yet the bipartisan core of the legislative network is apparent even when bills begin their journey from introduction to enactment.

In theory, PAC contributions in general elections could take either of two forms. They could serve as indicators of support for a particular party's candidates, like campaign endorsements, or they could serve as attempts to buy access for broad-based legislative support, creating a similar pattern to the legislative network. In practice, they fall somewhere in between. Financial contributions in general elections are a fairly partisan affair, but a group of access-oriented organizations donates to candidates in both parties. Of the top 500 groups that gave to each party's candidates in our dataset, 239 gave at least one-third of their contributions to candidates of both parties. There is a moderate degree of partisan polarization among general election contributors, but some actors fill the gap between the parties.

Table 4 reports the most central interest groups in the affiliation networks of all PACs that give money to the same candidates as well as the most central groups in each party's network. Using either measure of centrality, there is little overlap between the Republican and Democratic lists. Unions dominate the Democratic lists; Corporate and development interests dominate the Republican lists. In the complete network, some associations appear as givers to both parties. Some

interests from each party's lists of supporters also show up in the centrality lists for the complete network.

[Insert Table 4 Here]

Figure 5 illustrates the core of the financial contribution network, along with a thumbnail sketch of the complete contribution network.⁹ There are some interest groups in the middle that donate to candidates in both parties. The groups that give to candidates in both parties may serve as a bridge between the Republican and Democratic givers, but they appear to be primarily hedging their bets by donating to many incumbent Members in both parties. On each side of the diagram, we see partisan groups that are closely connected among themselves and connected to the groups in the middle that support candidates in both parties.

[Insert Figure 5 Here]

To test whether access-seeking groups were causing the financial contribution network to appear less partisan, we created a network based only on PAC contributions to Congressional challengers. This challenger contribution network was smaller (1,603 groups) and had a lower density (.2). The structure of the challenger contribution network was more divided by party because many of the access-oriented groups no longer appeared in the dataset.

Multiplex Networks

Combining multiple types of relationships between interest groups into a single multiplex network can provide additional insights that comparing networks one at a time does not allow. Fortunately, many interest groups in the dataset participated in more than one political activity analyzed here. As a result, we can assess whether the shared affiliations they develop for legislation, primary endorsements, or general election contributions are associated.

Figure 6 shows the combined legislative and campaign endorsement networks, with both types of relations represented. The clear pattern is that electoral links (represented in blue) are limited to the two sides of the network whereas legislative coalition links (represented in green) link interests across the network. The U.S. Chamber of Commerce, the National Organization for Women, and AFSCME occupy the most central positions in this combined network. The visualization also seems to indicate that, when all issues are combined, there is a core-periphery structure to interest group coalitions instead of a “hollow core.” Many unions, advocacy groups, and business interests are central to the network, including some from each party’s network. There are fewer highly central Republican interests but the U.S. Chamber of Commerce is the most central to the entire network. Given that it has the largest lobbying force in Washington, its centrality may be quite helpful in legislative coalitions. There is certainly a partisan sidedness to this overall network, but the legislative ties between groups on both ends of the spectrum are still relatively dense. A “hollow core” seems more present in the endorsement network and it appears to result from party polarization. In legislative debates, these polarized interests appear to link forces often enough to appear on the same side of many legislative issues.

[Insert Figure 6 Here]

We quantitatively assess the associations between types of ties among interest groups in Table 5, using QAP correlation.¹⁰ Among the 99 groups that endorse candidates and legislation, the correlation between the strength of legislative and endorsement ties is .31. This indicates that there is a significant but not overly large association between how strongly a group is linked to others in legislative coalitions and how strongly they are linked in supporting the same candidates. Among Democratic-leaning groups, the correlation between legislative and electoral ties is much higher (.34) than among Republican groups (.19). This indicates that, when Democratic groups endorse the same candidates, they are more likely to endorse the same legislation than their equivalently connected

Republican counterparts. Overall, endorsing candidates and legislation are not unconnected activities but neither activity completely predicts the other. This is probably a consequence of the many large cross-party coalitions that are formed around legislation.

[Insert Table 5 Here]

Among the 115 interest groups that give money and endorse legislation, PAC contribution ties are not significantly correlated with legislative coalition ties. The results do not support the notion that ties among financial contributors go hand-in-hand with partnerships designed to advance legislation in Congress. Among the 107 groups that both donate and endorse candidates, the correlation among interest group ties is only .06. This indicates that groups who endorse the same candidates in primaries are also likely to give to the same candidates in general elections, but only to a minor degree. Yet this low correlation is driven by different contribution patterns to incumbent Members of Congress and to challengers. The correlation between the endorsement network and the challenger contribution network was .31 and statistically significant at the .01 level. Interest groups that endorse the same candidates give to many of the same Congressional challengers, but do not necessarily give to the same incumbents. A similar set of partisan groups endorses in primary elections and gives to challengers.

Among the 53 organizations that appear in all three datasets, a slightly different picture emerges. The correlation between the strength of legislative and endorsement ties becomes insignificant and negatively signed. Among the subset of groups that give contributions, legislative and endorsement ties are less related. Among this subset, the correlation between the strength of financial contributions and legislative ties is again low and insignificant. In contrast, the correlation between PAC contribution ties and campaign endorsements in this subset rises to .11 and remains statistically significant. The larger correlation between contribution and endorsement ties may indicate that these PAC contributors are mostly driven by a desire to elect candidates, rather than to

move legislation by gaining access. Certainly, contributions to Congressional challengers confirm this picture. Donations to incumbents, however, may follow a distinct pattern that combines electoral and legislative goals.

Discussion

We should be cautious in drawing any large theoretical conclusions from these exploratory and descriptive results. Yet the results seem quite consistent. Electoral competition among interest groups (whether it is manifested in primary endorsements or general election contributions) appears polarized along partisan lines whereas legislative competition appears multidimensional and driven by a bipartisan core of diverse actors. Interest groups involved in elections, especially via endorsements, generally pick one party's candidates to support. There are few internal disputes within these two party coalitions in elections.

Ties among interest groups in legislative debate do not match the picture of two competing party coalitions. Alliances appear to be driven in part by issue area and partisanship, but there are some groups who appear to serve as general-purpose participants in many different networks. Some of these generalists are also some of the most central actors in each party's electoral networks. Others, such as identity representatives and professional associations, may be the "tag-alongs" in coalitions identified by Hula (1999); they may not do the primary lobbying work in their coalitions. Yet they may also serve important roles as bridging interests that form the core of a coalition network that is otherwise diffuse. In each issue area it may look like relationship patterns have a "hollow core" structure (see Heinz et al. 1993) but they do not look this way when all links are combined. Whatever role it serves, the core of bipartisan central actors is indicative of the distinct kinds of interest group coalitions that appear in legislative debate. Interest group coalitions in support of legislation are frequently bipartisan grand coalitions that include some groups that rarely,

if ever, endorse or give to the same candidates in elections. These coalitions appear across the issue spectrum and are frequently tied to legislation that manages to pass one or both chambers.

More investigation will indicate how important these coalitions are to legislative success. Yet their existence seems quite inconsistent with the legislative coalitions envisioned by theories of polarization (see McCarty et al. 2006; Hacker and Pierson 2005). Though legislative votes appear polarized along party lines, the broader conflicts that include interest groups and may lead to successful legislation are not unidimensional and polarized. Perhaps scholars are missing an important feature of how political conflicts are debated and resolved by looking only at legislative voting. After all, if successful legislative coalitions require outside coalition-building work (see Arnold 1990), perhaps they also require reaching out to both partisan and non-partisan groups in the interest group community.

The results may also challenge the notion that the interest group community has no “core” set of interests involved everywhere and no bridging organizations in the middle of competing groups. The legislative network of interest group coalitions explored here does have a core-periphery structure. Some groups from each party coalition are central to the network, including corporate interests, unions, women’s organizations and religious groups. In contrast, the campaign endorsement network has the familiar left-right bifurcated structure, with interest groups in each party picking sides and staying together. Contribution networks come out somewhere in the middle, with both access-oriented groups and party coalitions. Unidimensional and polarized politics may arise due to incentives inherent in plurality elections, but not due to a two-sided debate over public policy among interest groups. The results point to limitations in how the polarization perspective describes political competition. Interest groups reflect and contribute to polarized elections but perhaps not to polarized legislative debate. In elections, they act as party coalitions; in legislative debate, they may seek to bridge divides to forge consensus.

Our analysis does not directly invalidate previous findings of a “hollow core” in the structure of policy debates but it should lead to a reconsideration of the implications of previous research.

Heinz et al. (1993) focus on patterns of acquaintance among lobbyists representing different groups whereas we analyzed which interest organizations side with one another in legislative debates. Taken together, however, the two sets of findings necessitate a revision of the previous conclusions. From their evidence, Heinz et al. (1993, 302) conclude:

“If the network structure is a rough sphere, then communication occurs on the surface of the sphere among parties that are in relatively close proximity to one another, rather than through the center. Thus, the cohesion that makes the system function is produced incrementally, step by step around the sphere. This suggests that the policy-making structure is held together not by the magnetism of a dense core but by surface tension, like a soap bubble. If this analogy implies instability, that is probably appropriate.”

Even if communication patterns are not centralized, however, the structure of interest group coalitions is centered on a dense core of prominent organizations, including some associated with each political party. The stability in the system may result from the willingness of important interest groups to join large coalitions and from the signals that those coalitions send to legislators and to peripheral groups. The focus on the incremental communications between individuals representing each group may belie the stable macro-level structure of interest group alliance patterns.

Some observers viewed the previous findings as evidence for theories of pluralism over elitism. Certainly, competition among many different unlinked groups is more consistent with a pluralist view than an elitist view. Yet our evidence is unlikely to tilt the debate in the other direction. The interest group community does have a core set of organizations that ally with one another on legislative proposals, but many of these same organizations take opposing sides in elections. A small subset of groups does dominate patterns of alliances but the core subset includes business groups, unions, professional associations, and identity groups. The results are consistent with elitist theories only if all these groups and the two parties can be subsumed within the same elite class.

Our analysis could also stimulate a re-evaluation of the literature on party networks. This literature is correct to focus on how candidate selection creates largely unified party networks (see Bernstein 1999; Author 2005; Bawn et al. 2006). Yet these unified parties in elections may not be unified within parties and divided between parties in legislative debate. If we are expanding our view of parties to include interests that affect nomination politics, we may also have to include the wider set of interests that have looser ties to the two parties and endorse their legislative proposals. Attempts to define “the party,” even as an extended set of interest groups, need to be attentive to the limitations of mapping the party in the electorate onto the party in government. It appears that many more interests are involved in legislation and many more of them cross party lines, even if they generally support one party’s proposals more than the others.

There may be an important middle ground between traditional and contemporary views of the relationship between parties and interest groups. In the traditional view, Schattschneider (1960) argues that parties should not be viewed as aggregates of interest groups because parties and interest groups have distinct motives and operate in different arenas. In the contemporary view, the definition of the party is expanded to include interest groups typically affiliated with each party. With Schattschneider, we find that different motives produce distinct relationships. Yet we show that the electoral or legislative goals of the interest groups determine their coalition patterns. In legislative debate, they act largely independently of parties; in electoral politics, they act in aggregate as parties.

Overall, our analysis has confirmed a few of our initial suspicions. First, social network analysis may provide a new window onto the question of party networks and the related notion of interest group coalitions. By analyzing affiliation networks among interest groups across the legislative and electoral spectrum, we may gain insight into the global patterns that are less clear when focusing on a few issue areas or a few elections. By treating interest group decisions and party connections as related, rather than strategic decisions that can be analyzed as independent choices,

we may also see how the generic partisan structure of political competition places interest groups in positional dynamics that they do not entirely control through their coalition joining decisions.

Second, elections and legislative debate appear to be very different arenas for competition among parties and interest groups. We cannot assume that “the party” is structured similarly, or even contains the same organized members, in the two contexts. Taking note of the related but different roles that some interest groups play in the two arenas, we need to consider whether groups in a party do not make a single decision to join a party and stick with it but join one side in elections only to build links across the aisle afterwards. Given that the contribution networks are so unique, we also need to question the use of PAC contribution data as a window onto interest group behavior generally. It appears to be subject to a unique set of determinants as well as different incentives for partisan and access-oriented groups, rather than offering a unified look into how interest groups attempt to influence either legislation or elections.

Third, scholars may need to theorize about and analyze each major party’s networks of interest group supporters independently. Upon first examination, the Democratic Party networks do look different but not in the way suggested by folk theories. Democratic coalitions, as they develop in elections and legislative debates, are not simply amalgamations of many small minorities. Yet they are distinct in two important ways. First, the legislative network is denser and contains more central players. Many Democratic groups, led by unions but also including others, share a large number of ties to one another; no equivalent set appears for Republicans. Second, electoral ties among Democratic interest groups are more predictive of their legislative ties than equivalent ties among Republican interests. Theories of how party coalitions develop and maintain themselves that are meant to apply to all parties may not explain the behavior of both Republicans and Democrats.

Finally, we hope that our preliminary work suggests that scholars have a long way to go in integrating the insights of the literature on party networks and the literature on interest group

coalitions. Given that the former starts from the assumption of unified party constituencies while the other questions the value of coalitions at all, scholars need to investigate whether each literature could learn from the other. Interest groups are clearly a key part of the “extended party” envisioned in the new literature on political parties as well as an important component of the legislative coalitions that Members of Congress attempt to build to pass legislation. The initial evidence indicates that scholarly models of how party coalitions develop may not fully incorporate the wider structure of legislative conflict that interest groups help to build. Interest group ties do aggregate into patterns that resemble competing party coalitions, but only intermittently in elections. Similarly, issue-specific investigation of interest group coalition behavior may fail to elucidate the wider structures of partisan political conflict and core-periphery relations that serve as the framework for potential interest group coalitions. The literature on the expanded party and investigations of interest group coalitions each have something to teach one another, but only if each set of scholars is willing to learn from the other.

¹ We include 60 (52 House, 8 Senate) primary races in seats that were open due to retirement, and 34 races in seats that were open due to redistricting. In addition, we included 40 primaries (32 House and 8 Senate) in seats where a primary contest was expected, because the incumbent seeking re-election was perceived to be vulnerable (in a Toss-Up or Leaning seat, according to the February 2002 Cook Political Report.)

² Of 497 candidates, 275 (55%) responded to the phone and mail survey. Contact with each candidate was attempted at least two times, always including a phone call the day after the primary election. The candidates who responded to the survey appear to be a fairly representative sample of the universe of 2002 primary candidates, aside from a small bias towards primary winners, which occurs because they continued to have campaigns and staffs for more days after the election and so there were more successful follow-up calls. Most candidates reported individual endorsements rather than group endorsements, so the endorsements reported were only received by 175 candidates. In the whole universe of House and Senate candidates, 314 (65%) won their primary. Of those for whom we have endorsements, 161 (60%) won their primary. In the whole sample 39 (8%) were incumbents, while of our respondents 19 (7%) were incumbents. In the whole sample 77 (16%) were state legislators, of the respondents, 50 (18%) were state legislators. On the basis of these and other similar descriptive statistics, we cautiously assume that the response rate is not significantly biased toward candidates who received endorsements.

³ See Wasserman and Faust (1994) for additional information on affiliation networks. The network analysis was implemented in UCInet.

⁴ McKay (forthcoming) uses interest group report cards on Members of Congress to create a measure of interest group ideology. To confirm that these mentions could be used as an indicator of partisan association, we analyzed how often the organizations analyzed by McKay were mentioned in a supportive light by Members of Congress from each party. The relative rate of mentions of each organization by Democrats and Republicans in Congressional floor debate is correlated with McKay's ideology measure at .9. This is similar to the measure of interest group partisanship used by Groseclose and Milyo (2005).

⁵ See www.policyagendas.org for more information.

⁶ We obtained these data from the Federal Election Commission website, www.fec.gov. The datasets were created by first identifying Republican and Democratic candidates in the FEC "candidates" database for 2002. We then electronically matched those candidates' committee id numbers to those in the "itpas.dta" PAC contribution database.

⁷ The size of the donation network is slightly artificially inflated because it includes the official party committees.

⁸ Centrality in the legislative network is likely to be a function of group resources, issue agendas, and strategies. We do not have enough data to evaluate the causes of group centrality. For those organizations where we have data, however, we noticed that many of the most central organizations have large staffs and memberships; they also appear to be older.

⁹ Due to the extremely high density of connections in the core group of donors, the core visualization uses dichotomous links established when groups support a large number of the same candidates rather than valued ties.

¹⁰ This procedure associates the strength of one set of ties to all other nodes to another set of ties to all other nodes by correlating the column matrices associated with each set of ties for all nodes. For more information, see Wasserman and Faust (1994).

Table 1: Characteristics of Interest Group Networks

		Size	Density	Centralization		Central Actors	Structure
				Degree	Betweenness		
Campaign Endorsements	Overall	239	.19	7.3%	19.3%	Teamsters	Partisan Divide
	Democratic	121	.21	14.1%	6.4%	Unions	Core-Periphery
	Republican	118	.17	14.3%	13.1%	Business; Ideological	Separate Group of Conservatives
Legislative Coalitions	Overall	2,562	.08	6.2%	1.9%	Business, Unions, Health, Religious	No Partisan Divide; Core-Periphery
	Democratic	1,738	.12	4.7%	3.7%	Unions, Women's, Single-Issue	Core-Periphery
	Republican	1,621	.06	10.4%	2.8%	Business, Health	Core-Periphery
PAC Contributions	Overall	3,504	1.5	5.6%	0.9%	Single-Issue	Partisan Divide with Central Actors
	Democratic	2,683	1.1	5.4%	1.0%	Unions	Core-Periphery
	Republican	2,779	1.4	6.7%	0.5%	Business	Core-Periphery

Table 2: Most Central Interest Groups in Campaign Endorsement Network

	Complete Network		Democrats		Republicans	
Degree Centrality	AFSCME	235	AFSCME	230	Associated Builders and Contractors	104
	National Education Association	177	National Education Association	172	Susan B. Anthony List	95
	International Brotherhood of Electrical Workers	167	International Brotherhood of Electrical Workers	164	National Rifle Association	90
	Sheet Metal Workers Intl	157	Sheet Metal Workers Intl	151	Americans for Republican Majority	86
	Sierra Club	155	Sierra Club	151	National Right to Life	85
	Service Employees International Union	149	United Food and Commercial Workers	147	United Parcel Service	85
	United Food and Commercial Workers	147	Service Employees International Union	143	Wal-Mart	79
	Transportation Workers Union	140	Transportation Workers Union	134	U.S. Chamber of Commerce	76
	Intnt'l Brotherhood of Teamsters	137	American Trial Lawyers Association	126	Business and Industry Pac	66
	American Trial Lawyers Association	131	United Auto Workers	125	National Federation of Independent Business	65
Betweenness Centrality	Intnt'l Brotherhood of Teamsters	5542	Transportation Workers Union	501	U.S. Chamber of Commerce	928
	U.S. Chamber of Commerce	2536	Sierra Club	360	Associated Builders and Contractors	716
	Coal PAC	1064	AFSCME	324	United Parcel Service	434
	International Assn of Fire Fighters	1062	International Brotherhood of Electrical Workers	254	Susan B. Anthony List	378
	Associated Builders and Contractors	999	Sheet Metal Workers Intl	229	Club for Growth	324
	Transportation Workers Union of America	972	National Education Association	213	National Rifle Association	282
	Credit Union Legislative Action Council	868	United Auto Workers	210	National Defense PAC	276
	Sierra Club	688	Women's Campaign Fund	196	Americans for a Republican Majority	246
	SunTrust Bank PAC	674	Service Employees International Union	185	National Right to Life	232
	National Women's Political Caucus	667	Campaign for UN reform	184	Madison Project	197

Table 3: Most Central Interest Groups in Legislative Network

	Complete Network		Democrats		Republicans	
Degree Centrality	National Partnership for Women & Families	2059	AFSCME	1248	National Mental Health Association	1210
	American Assn of University Women	1843	American Assn of University Women	1144	American Foundation for Blind	1112
	AFSCME	1727	National Organization for Women	1082	National Partnership for Women and Families	1111
	National Mental Health Association	1628	National Partnership for Women and Families	948	American Academy of Family Physicians	1111
	National Organization for Women	1618	American Federation of Teachers	882	Consumers Union	1033
	American Medical Association	1593	NETWORK (Catholic)	766	United Auto Workers	1031
	Friends Committee on Legislation	1581	AFL-CIO	756	American Medical Association	1017
	American Federation of Teachers	1541	National Women's Law Center	754	Friends Committee on Legislation	1000
	American Psychological Association	1502	National Education Association	702	Families USA	998
	American Public Health Association	1480	National Council of Jewish Women	699	National Committee to Preserve Social Security and Medicare	997
Betweenness Centrality	US Chamber of Commerce	63234	AFSCME	49517	US Chamber of Commerce	43392
	AFSCME	53412	American Public Health Association	35000	National Federation of Independent Businesses	25476
	National Organization for Women	53166	National Organization for Women	33340	National Association of Manufacturers	21127
	U.S. Public Interest Research Group	43628	American Assn of University Women	28936	Family Research Council	19930
	National Partnership for Women and Families	42210	National Partnership for Women and Families	26497	United Auto Workers	17638
	Family Research Council	39848	NETWORK (Catholic)	24689	American Conservative Union	17408
	American Public Health Association	37453	National Council of La Raza	24514	United Church of Christ	15587
	United Church of Christ	37020	U.S. Public Interest Research Group	23671	Focus on the Family	15129
	Sierra Club	34259	American Federation of Teachers	20710	Evangelical Lutheran Church	14975
	Consumer Federation of America	34174	United Methodist Church	19804	National Mental Health Association	14659

Table 4: Most Central Interest Groups in Financial Contribution Network

	Complete Network		Democrats		Republicans	
Degree Centrality	National Association of Realtors	78083	AFSCME	39721	National Federation of Independent Businesses	44183
	American Medical Association	71284	National Education Association	38621	National Association of Realtors	43458
	National Automobile Dealers Assn.	68956	Association of Trial Lawyers	38029	National Automobile Dealers Assn.	43443
	Credit Union Legislative Action Council	68879	American Federation of Government Employees	36742	American Medical Association	41358
	United Parcel Service	67153	Ironworkers PAC	36692	National Beer Wholesalers Assn.	41160
	Planned Parenthood	66020	International Brotherhood of Electrical Workers	35496	United Parcel Service	39670
	National Association of Home Builders	65794	American Federation of Teachers	35256	National Association of Home Builders	39429
	American Hospital Association	64546	United Auto Workers	34978	Associated General Contractors	38595
	American Dental Association	62029	American Federation of Realtors	34625	Credit Union Legislative Action Council	38065
	National Beer Wholesalers Assn.	59893	International Association of Firefighters	34598	Planned Parenthood	37734
Betweenness Centrality	Planned Parenthood	53542	United Auto Workers	29474	National Federation of Independent Businesses	21446
	National Automobile Dealers Assn.	28161	National Education Association	23945	Planned Parenthood	21129
	National Association of Realtors	27657	Planned Parenthood	22096	American Medical Association	19774
	American Medical Association	27373	International Brotherhood of Electrical Workers	21929	National Automobile Dealers Assn.	17942
	United Auto Workers	25144	AFSCME	21494	Associated Builders and Contractors	17291
	American Dental Association	24447	Brotherhood of Carpenters and Joiners	20834	National Association of Realtors	16999
	United Parcel Service	22126	Communication Workers of America	20285	Associated General Contractors	14475
	Credit Union Legislative Action Council	22062	Ironworkers PAC	19987	National Association of Home Builders	14036
	National Assn. of Home Builders	21995	Association of Trial Lawyers	19693	United Parcel Service	13977
	National Education Association	21520	Amalgamated Transit Union	19342	National Rifle Association	13960

Table 5: Correlations Between Types of Interest Group Ties

Correlations between types of ties among 53 nodes with all three ties:

	Campaign Endorsements	Legislative Coalitions
Legislative Coalitions	-.03	
PAC Contributions	.11*	.09

* p = <.05

Correlations between types of ties among all nodes with each pair of ties:

	Campaign Endorsements	Legislative Coalitions
Legislative Coalitions	.31* (99 nodes)	
PAC Contributions	.06* (107 nodes)	.02 (115 nodes)

* p = <.05

Figure 1. Pre-Primary Endorsements in 2002 Congressional Elections

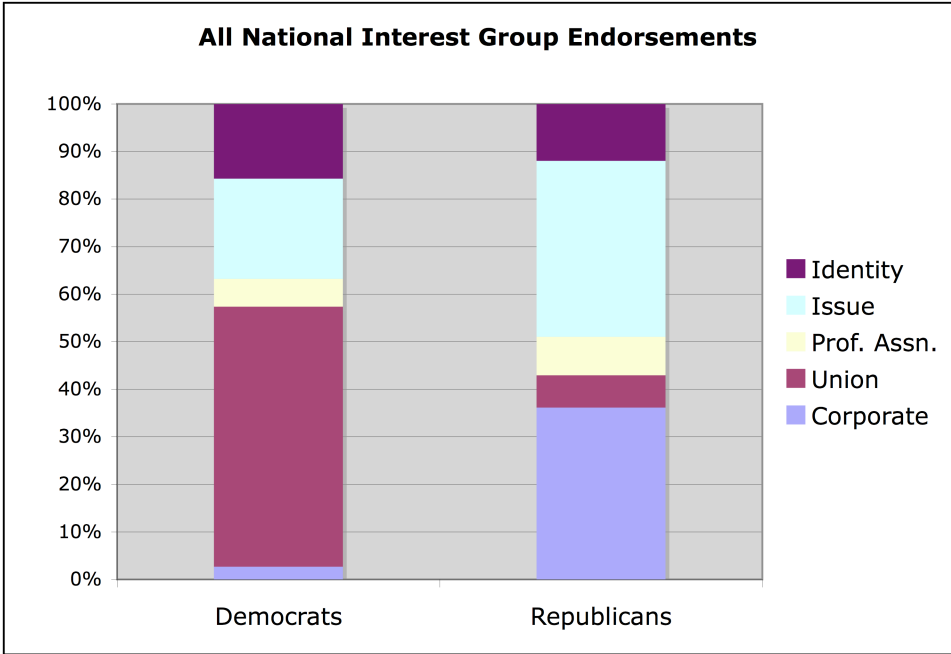


Figure 2. Legislative Coalitions by Topic Area

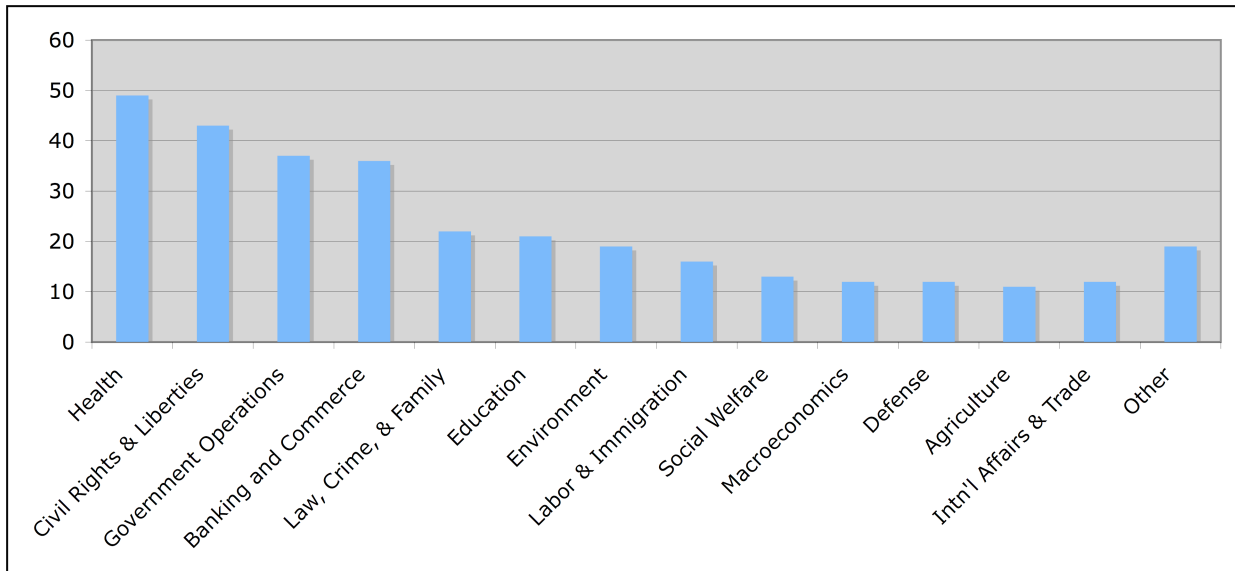
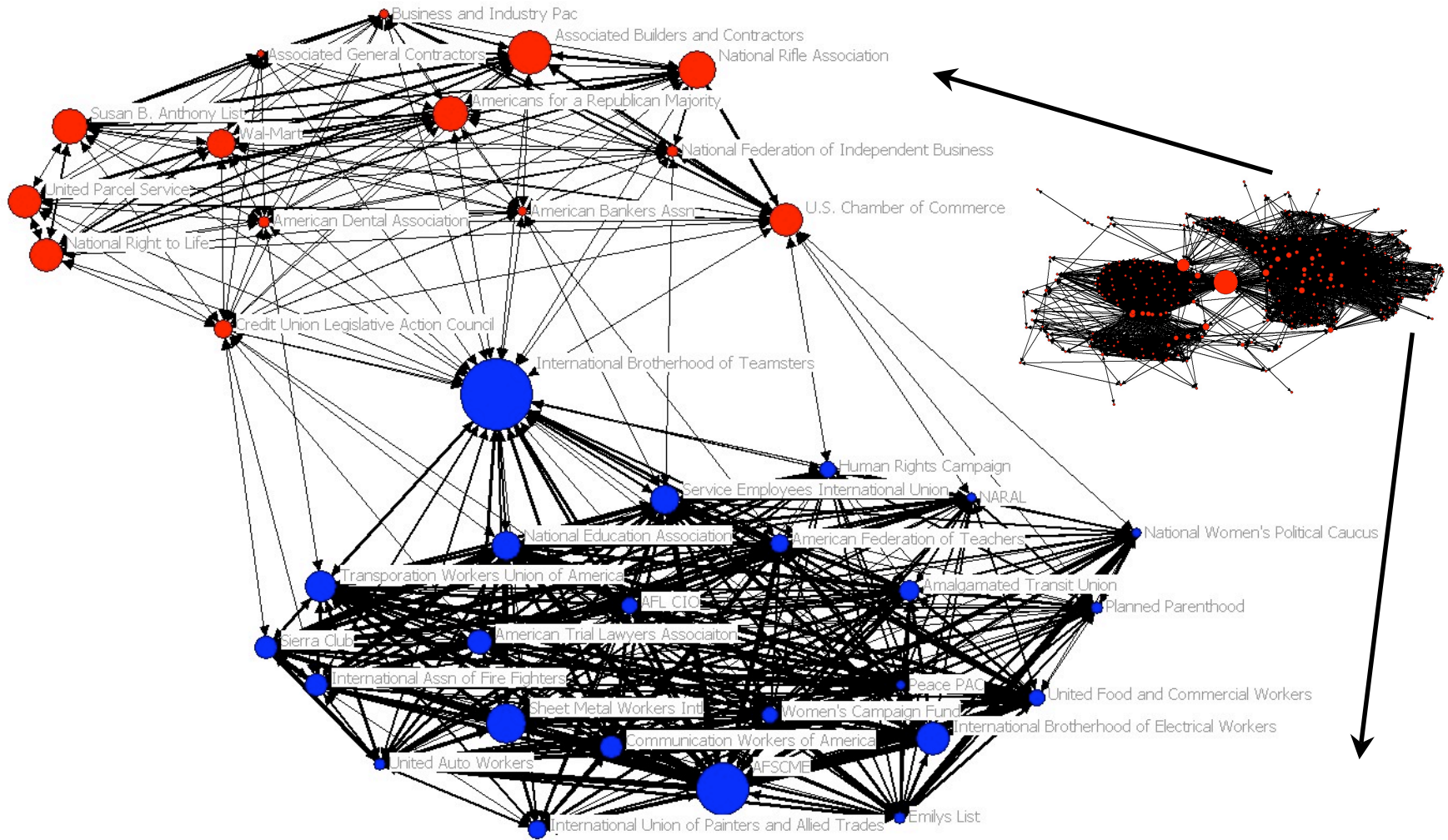
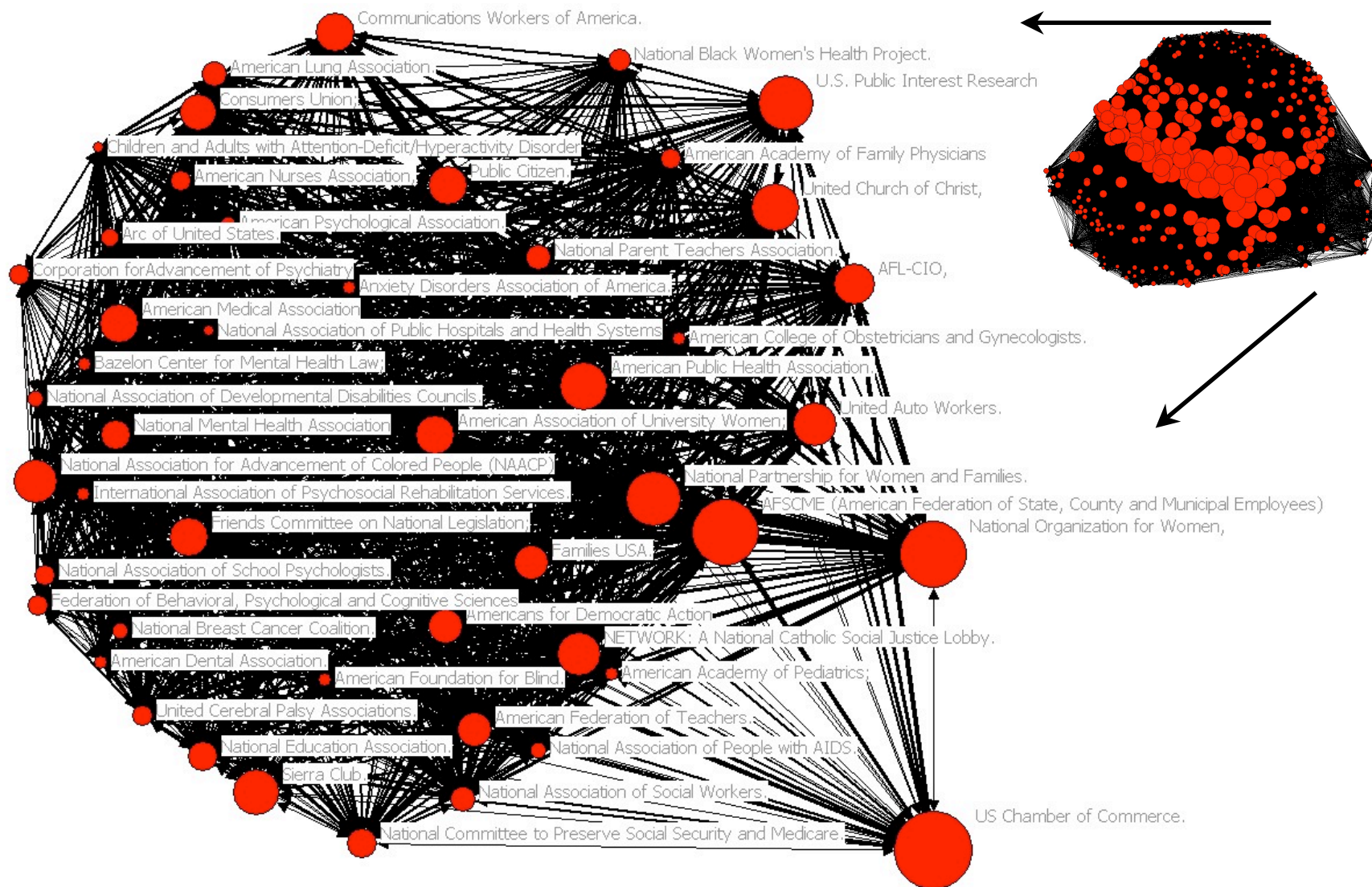


Figure 3: Core of Endorsement Network



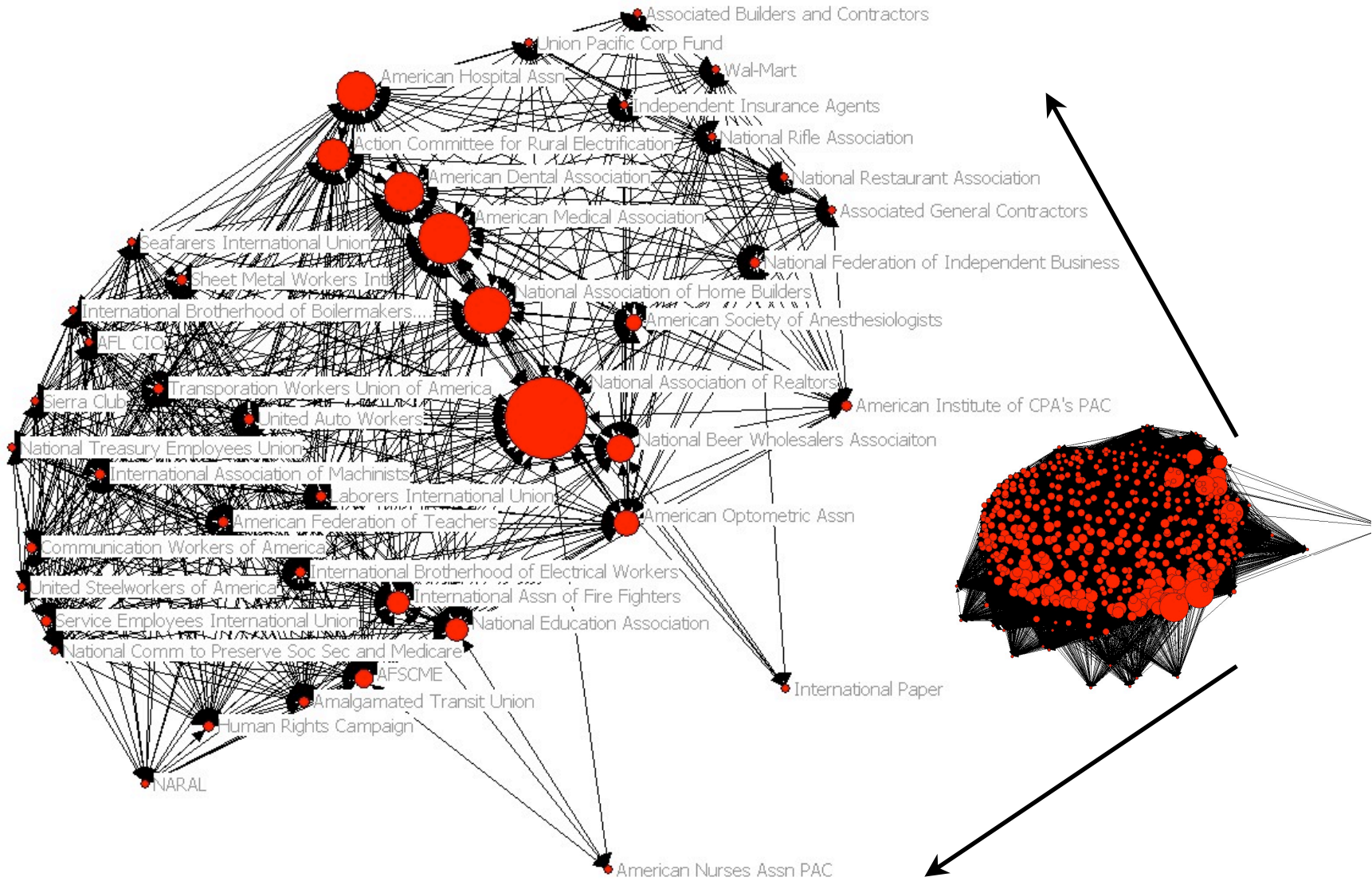
Width=# of ties, Size=betweenness centrality, Layout=spring embedding, Red=Republican, Blue=Democrat

Figure 4: Core of Legislative Network



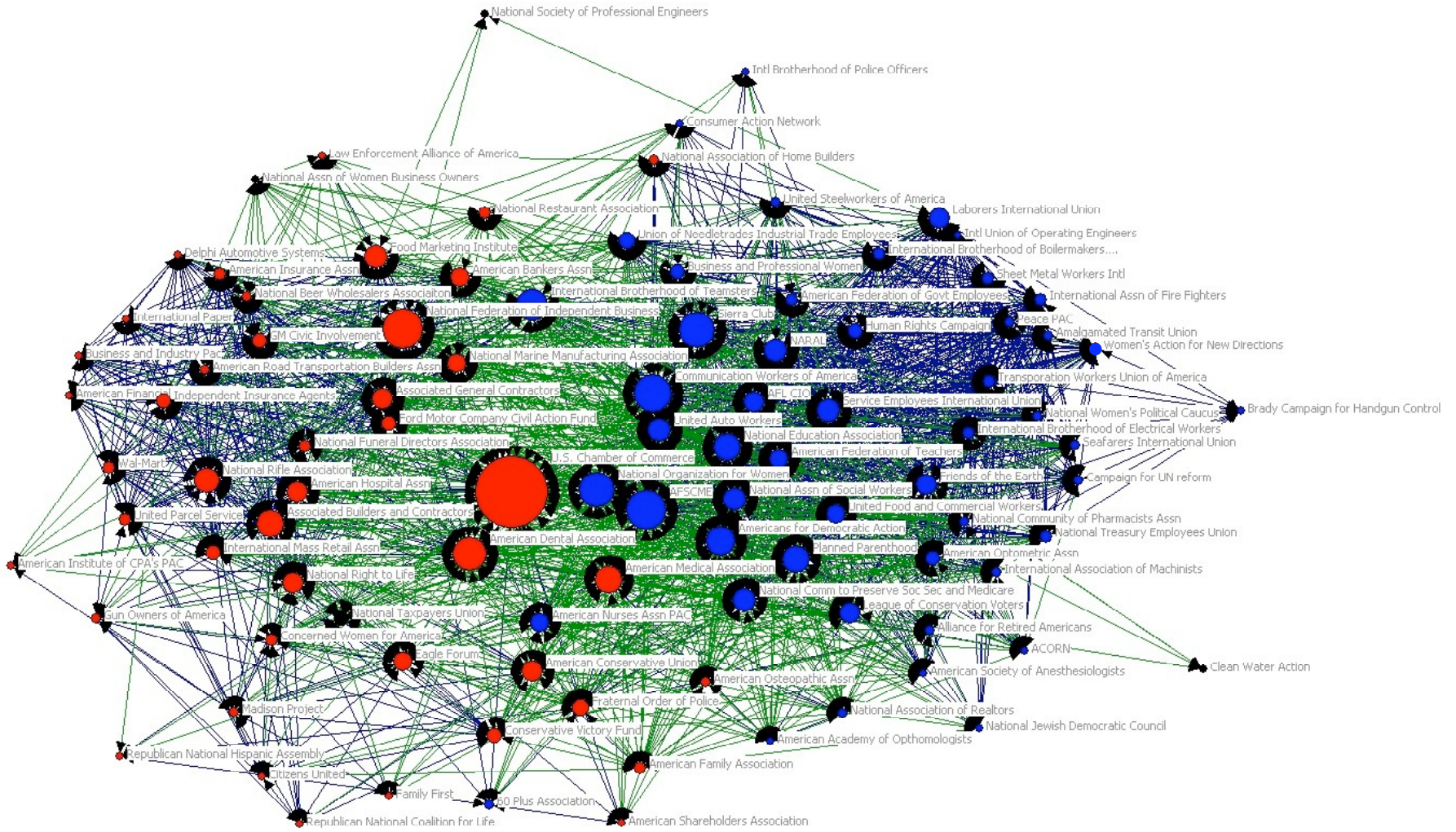
Width=# of ties, Size=betweenness centrality, Layout=spring embedding

Figure 5: Core of Contribution Network



Width=# of ties, Size=betweenness centrality, Layout=spring embedding; Dichotomous links established with 85 shared ties or more

Figure 6: Core of Combined Legislative and Campaign Endorsement Networks



Width=# of ties, Size=betweenness centrality, Layout=spring embedding
 Green Ties = Legislative Ties, Blue Ties = Electoral Ties, Blue Nodes = Democratic, Red Nodes = Republican

References

- Arnold, D. (1990). *The logic of congressional action*. New Haven: Yale University Press.
- Bawn, K., M. Cohen, D. Karol, S. Masket, H. Noel, and J. R. Zaller. (2006). A theory of parties. Paper presented at the annual meeting of the American Political Science Association. Philadelphia, PA.
- Bernstein, J. (1999). *The Expanded Party in American Politics*. Unpublished doctoral dissertation, University of California, Berkeley.
- (2004). Party network research, factions, and the next agenda." Paper presented at the 2005 State of the Parties Conference. Akron, Ohio.
- Bernstein, J. and C. B. K. Dominguez. (2003). Candidates and candidacies in the expanded party. *PS*, April, 165-169.
- Cohen, M., D. Karol, H. Noel, and J. R. Zaller. (2001). Beating reform: The resurgence of parties in presidential nominations, 1980-2000," paper presented at the annual meeting of the American Political Science Association, San Francisco, California.
- Dominguez, C. B. K. (2007). The Democratic Party coalition: Pre-nomination behavior of leadership PACs, party committees and interest groups," Paper prepared for presentation at the Annual Meeting of the American Political Science Association, Chicago, IL.
- (2005). Groups and the party coalitions: A network analysis of overlapping donor lists." Paper presented at the annual meeting of the American Political Science Association, Washington, D.C.
- Groseclose, T. and J. Milyo. (2005). A measure of media bias." *Quarterly Journal of Economics*, 120, 1191-1237.
- Hacker, J. S. and P. Pierson. (2005). *Off center: The Republican revolution & the erosion of American democracy*. New Haven: Yale University Press.

- Heinz, J. P., E. O. Laumann, R. L. Nelson, and R. H. Salisbury. (1993). *The hollow core: Private interests in national policy making*. Cambridge: Harvard University Press.
- Hojnacki, M. (1997). Interest groups' decisions to join alliances or work alone." *American Journal of Political Science*, 41, 61-87.
- Hojnacki, M. (1998). Organized interests' advocacy behavior in alliances." *Political Research Quarterly*, 51, 2, 437-459.
- Hula, K. W. (1999). *Lobbying together: Interest group coalitions in legislative politics*. Washington: Georgetown University Press.
- Koger, G., H. Noel, and S. Masket. (Forthcoming). Partisan webs: Information exchange and party networks." *British Journal of Political Science*.
- Kolodny, R. (1998). *Pursuing majorities: Congressional campaign committees in American politics*. Norman, OK: University of Oklahoma Press.
- Masket, S. (2004). *A party by other means: The rise of informal party organizations in California*. Unpublished doctoral dissertation, University of California, Los Angeles.
- McCarty, N., K. T. Poole, and H. Rosenthal. (2006). *Polarized America: The dance of ideology and unequal riches*. Cambridge, MA: MIT Press.
- McKay, A. (Forthcoming). A simple method to estimate interest group ideology. *Public Choice*.
- Monroe, J.P. (2001). *The political party matrix*. Albany: State University of New York Press.
- Robbins, S. and M. Tsvetovat. (2006). The structure of interest networks: A first cut using PAC contribution data." Paper presented at the annual meeting of the Midwest Political Science Association, Chicago, Illinois.
- Salisbury, R., J. Heinz, E. Laumann, and R. Nelson. (1987). Who works with whom? Patterns of interest group alliance and opposition." *American Political Science Review* 81, 1217-1235.

Schattschneider, E. E. (1960). *The semisovereign people: A realist's view of democracy in America*. New York: Holt, Rinehart and Winston.

Schwartz, M. A. (1990). *The party network: The robust organization of Illinois Republicans*. Madison: The University of Wisconsin Press.

Wasserman, S. and K. Faust. (1994). *Social network analysis*. Cambridge: Cambridge University Press.