Lobbying Together:
State Attorney General *Amicus Curiae* Coalitions

Shane A. Gleason†
Doctoral Candidate
Southern Illinois University Carbondale
Department of Political Science
sgleason@siu.edu

June 29, 2013

Abstract

Increasingly *amicus curiae* briefs are filed by large coalitions which include as many as a hundred different organizations on the same brief. While previous studies examine which interest groups file together, no study has yet examined the coalitional activities of state attorneys general (SAGs). SAGs, the representatives of the states at the Court operate in a different institutional context than other *amici* which makes it impossible to generalize from other *amici*. Moreover, sitting at the intersection of the state and federal levels of government SAGs are an attractive source of information for the Court; indeed SAGs are the second most influential class of *amici* at the Court trailing only the federal solicitor general. Since previous research finds SAGs are more successful in larger coalitions, it is critical to understand how SAG *amicus curiae* brief coalitions form and which actors take central roles in their network. Drawing on the interest group literature network, as well as previous work on SAGs and elite attorneys, I argue SAGs coalitional activity is influenced by a confluence of political and administrative factors. In this manuscript, I employ descriptive social network analysis and exponential random graph models to provide the first systematic analysis of the SAG *amicus curiae* brief network. I find the shape of the SAG network cannot be reliably predicted by either political or administrative factors. However, I find ties formed between SAGs are governed by a combination of institutional and resource based explanations.

---

*Prepared for the 2013 Annual Meeting of the Political Networks Section of the American Political Science Association

†Thanks to Scott Comparato, Scott McClurg, and Drew Seib.
In 1993 Ohio State Attorney General (SAG) Lee Fisher wrote an *amicus curiae* brief in *Wisconsin v. Mitchell*¹ in support of the petitioner. Keeping with common practice, Fisher then asked other SAGs to sign the brief as well. Unhappy with the meager number of SAGs who joined his brief, Fisher and his assistants began a campaign of telephone calls and in-person meetings to urge other SAGs to join the brief. Eventually every SAG joined the brief and the Court ruled for Wisconsin. Fisher’s persistence highlights an important feature of SAG *amicus curiae* brief activity, larger coalitions are more likely to secure review at the agenda setting stage (Goelzhauser and Vouvalis, 2013) and to win at the merits (Clayton and McGuire, 2001-2002). Accordingly, coalitional activity is an attractive option for SAGs. By doing so SAGs are likely to influence the justices to vote for their endorsed party (Box-Steffensmeier, Christenson and Hitt, forthcoming) and even shape the content of the Court’s opinion (Corley, 2008).

By filing *amicus curiae* briefs in large coalitions SAGs are also more likely to write the interests of the states, and their own personal preferences, into Supreme Court caselaw. In this way SAGs ensure a continual pro-states’ rights caselaw which can shape every facet of American life, from the way in which health care is provisioned by the state governments to the scope of hate crimes laws.² Coalitional activity is also a practical decision for SAGs. Coalitional activity represents a trade-off; coalition members lose absolute control over the content of the *amicus curiae* brief, but they gain in terms of costs. The average *amicus curiae* brief filed at the Supreme Court costs approximately $30,000 in 2012 dollars, but the cost of joining a brief is just a few hours of legal research to decide to sign the brief (Miller, 2009-2010). By forming coalitions SAGs with few resources can participate as *amici*, without having to expend their limited resources (e.g. Hula, 1999). Whichever way coalitional activity is approached, it is an increasingly common approach by SAGs.

Figure 1, shows the steady increase in the average size of SAG *amicus curiae* brief

---

coalition size from fewer than five SAGs on each brief in 1970 to approximately twenty SAGs on the average brief by the late 1990s. Given an increasingly pro-states’ rights Court (Clayton and McGuire, 2001-2002) and SAGs’ increasing success rate as amici (McAttee and McGuire, 2007) coincides with increasing SAG coalitional activity, it is imperative that scholars understand how SAGs form amicus curiae brief coalitions. However, the literature is silent on how SAG coalitions form.

Amicus curiae coalitions are mentioned in the literature (Epstein and O’Connor, 1987, 1988; Hansford, 2012), but no study systematically explores how SAG amicus curiae brief coalitions form. However, the interest group and executive attorney literatures explore coalition formation in depth (see for example: Box-Steensmeier and Christenson, 2012; Heinz et al., 1993). In these networks the central actors, if any, are usually politically moderate and resource rich. Ties between actors are governed primarily by the political and administrative characteristics of each actor (see for example: Box-Steensmeier and Christenson, 2012; Hula, 1999; Heinz et al., 2005). While these literatures are informative, they are not a perfect fit for this study because SAGs operate in a unique institutional context which spans all three branches of state government and sits at the intersection of the state and federal levels. As such, SAGs face unique institutional constraints which interest groups and elite attorneys\textsuperscript{3} do not. I argue SAG amicus curiae brief coalitions can best be explained by both political and administrative factors.

A SAG situated near the center, or core, of the network can mobilize large coalitions easily (e.g. Friedkin, 1993), much the same way that Box-Steensmeier and Christenson (2012) find prominent interest groups are able to bring disparate groups together. Interestingly, executive attorney networks often lack a core because executive attorneys work in

\textsuperscript{3}Elite attorneys are a somewhat amorphous term in the literature. In general, elite attorneys are defined as leaders in a given issue area (Heinz et al., 1993) or an exclusive class of attorneys that frequently appear before the Court and have earned its respect (McGuire and Caldeira, 1993). By definition, the solicitor general is an elite attorney (Black and Owens, 2012; McGuire, 1998). As executive attorneys, SAGs are also elite attorneys (Morris, 1987; Procost, 2010, 2011).
such specialized subfields that they have little occasion to network with others across the broader policy network. However, Paik, Southworth and Heinz (2007) find centrally situated Federalist Society lawyers are able to bridge the divide between the religious right and other conservative lawyers in the conservative cause lawyer network, demonstrating that elite networks need not have a hollow core. While scholarship on elite attorneys is informative to this study, there are marked differences between elite attorneys and SAGs, most notably the size of the network.

Both the interest group and executive attorney networks are vast, with hundreds, if not thousands, of actors. In contrast, the SAG network is much smaller with only fifty actors. Small networks, like the U.S. Supreme Court Bar, tend to be densely connected (McGuire, 1993). Moreover, unlike elite attorneys who are legal specialists, SAGs are legal generalists who work in a variety of issue areas (Horowitz, 1977). In this sense, it is possible that the core of the SAG *amicus curiae* brief network is indistinguishable from the periphery with no group of SAGs particularly central. However, such an expectation does not explain why Ohio SAG Lee Fisher was able to mobilize forty-eight SAGs in a term when the average brief was signed by approximately fifteen SAGs. Was his success a function of his network location (Granovetter, 1973)? If Fisher’s success was due to network location, he could mobilize a large coalition to make his position appear important to the Court (Box-Steensmeier, Christenson and Hitt, forthcoming; Collins, 2008).

While network placement can shed light on which SAGs are centrally located, it is also important to determine which SAGs are most likely to form ties. For example, perhaps Fisher’s success was not a function of his network location, but rather something unique about Fisher that made him particularly well suited to bring a disparate coalition together. Was he politically moderate enough to appeal to SAGs on both ends of the political spectrum, or did he simply have enough resources to engage in a lengthy campaign to win over his colleagues in other states? The literature on both interest groups and executive attorneys notes ties are often formed with actors that are similar in some respect. For instance,
Nelson et al. (1988) find elite attorneys form ties primarily within their own policy area; little networking occurs across issue areas. Later work finds attorneys form ties with those politically like themselves (Heinz, Paik and Southworth, 2003), or at least those with whom they feel they can compromise (Paik, Southworth and Heinz, 2007; Paik, Heinz and Southworth, 2011). The same is also true of interest groups, where ties are most often formed between ideologically similar actors in both congressional lobbying (Hula, 1999) and amicus curiae brief coalitions (Box-Steensmeier and Christenson, 2012; Hansford, 2012).

Resources are also a powerful predictor of tie formation in both the elite attorney and interest group literatures. Interest groups with few resources often seek to form ties with resource rich groups in order to address their own deficiencies (Box-Steensmeier and Christenson, 2012) and allow them to participate in the network, though often in a more limited form (Hula, 1999). If a group is active in the network in at least some fashion, it can report to its constituency that it is actively pursuing the group’s interests at the Court (Caldeira and Wright, 1988; Clark and Wilson, 1961; Hula, 1999). Elite attorneys are also constrained by resources, though in that network a lack of resources often means that the actor does not form many ties and becomes isolated from the rest of the network (Heinz, Paik and Southworth, 2003).

In this manuscript, I argue SAG amicus curiae brief coalitions can be explained by examining both network location and individual level characteristics of each SAG. By adopting this dual approach, I provide the most comprehensive account of SAG amicus curiae brief coalition formation. By adopting this dual approach I am able to provide the most complete account of SAG amicus curiae brief coalitions to date. I proceed in several parts. First I discuss the literature and formulate hypotheses based on the network location of SAGs. I then discuss the literature and formulate hypotheses on SAG tie formation. I next discuss the data and methods employed in this study. Subsequently, I present and discuss the results. I conclude by reviewing the results and offering directions for future research.
Network Location

The most influential actors in any network are generally located in the core, or center, of the network. These actors have considerable power over other actors since they can “introduce” actors to each other and may be able to build coalitions by bridging together actors who might not otherwise form ties with each other (e.g. Box-Steensmeier and Christenson, 2012; Friedkin, 1993; Hansford, 2012), even if they are not well connected themselves (Granovetter, 1973). In contrast, actors near the periphery, or edge, of the network have little influence on the shape of the coalition, nor can they successfully reach other actors on their own without the aid of more connected actors (Box-Steensmeier and Christenson, 2012; Hula, 1999). To be in the core actors must be willing to compromise (Paik, Southworth and Heinz, 2007) and relatively resource rich (Box-Steensmeier and Christenson, 2012; Hula, 1999).

It is important to note that not every network has a core. Heinz et al. (1993) entitle their book *The Hollow Core*, because the policy networks they study are characterized by small localized clusters of actors with no distinct central actors. In the context of SAG *amicus curiae* brief coalitions, the early 1970s networks are characterized by hollow cores. However, by the mid-1970s, the network is densely connected with a readily identifiable core. Figure 2 shows the 1970 network, which does not have a core. Contrast Figure 2 to Figure 3, which shows the 1976 network. Figure 3 is densely connected with a readily identifiable core. In the 1976 network, SAGs located in the core are better situated to mobilize large coalitions. Based on previous research, I expect those actors in the core to be both politically moderate and resource rich.

Coalitional activity requires compromise wherein coalition members must agree to a common position (Hula, 1999). Groups with more extreme or inflexible preferences typically occupy the periphery of elite attorney networks; the inability to compromise renders these
groups incapable of reaching the compromises required to occupy a central role in the network (Paik, Heinz and Southworth, 2011). In contrast, moderate interest groups tend to form more ties and accordingly occupy a central position in the network (Paik, Southworth and Heinz, 2007). While there is little work on political bargaining by SAGs, it stands to reason that SAGs will follow a similar pattern. Since SAGs are elected officials who have strong political preferences (Fox and Lawless, 2005; Provost, 2010), they are likely hesitant to join onto any brief which departs radically from their policy preferences. Moreover, a moderate SAG will likely have to compromise less in order to reach consensus with other SAGs (e.g. Paik, Heinz and Southworth, 2011). Accordingly, Hypothesis 1 follows:

**Hypothesis 1** Politically moderate SAGs are more likely to be in the core of the network.

Coalitions require startup costs, which are beyond the capacity of most resource poor actors. In congressional lobbying networks resource poor groups often join existing coalitions. By doing so the joining groups have little control over the group’s agenda, but are still able to claim participation to their members. While there is a difference between congressional lobbying, which is an ongoing expense, and *amicus curiae* briefs, which have a relatively low one-time cost (Barker, 1967; Caldeira and Wright, 1988, 1990), the core of interest group *amicus curiae* brief networks is occupied by resource rich actors who easily mobilize support (Box-Steensmeier and Christenson, 2012). In the case of Fisher, a greater budget likely enabled him to dedicate staff and resources to lobbying his fellow SAGs, whereas if he had less resources, the obligations of his office would likely keep him from building such an extensive coalition of support for his brief. Accordingly, SAGs with more resources should network widely to build coalitions and thus secure a central role in the network. Accordingly, Hypothesis 2 follows:

**Hypothesis 2** SAGs with more resources are more likely to be in the core of the network.

Resource rich actors often retain expert in-house counsel (Hula, 1999). Some SAGs have state solicitors general (Miller, 2009-2010), which are appellate experts who should garner
respect from other SAGs. The Court values the input of quality counsel and often defers to them (Johnson, 2003; Johnson, Wahlbeck and Spriggs, 2006; McGuire, 1995, 1998; McGuire and Caldeira, 1993). This deference to quality attorneys extends to SAGs at the agenda setting stage; Goelzhauser and Vouvalis (2013) find SAGs with state solicitors general are most likely to be successful at securing review for their endorsed parties. Particularly since SAGs are risk adverse legal actors (Waltenburg and Swinford, 1999b), they should respond favorably to mobilization efforts by appellate specialists since the expectation should be that these actors are best able to craft winning legal arguments. In the ongoing example of Lee Fisher, Ohio had a state solicitor general during the 1994 term. Such a response places SAGs with state solicitors general in the center of the network and would further explain how Fisher was able to mobilize such a vast coalition. Accordingly, Hypothesis 3 follows:

**Hypothesis 3** SAGs with state solicitors general are more likely to be in the core of the network.

**Tie Formation**

While SAG location within the network is informative to determine which SAGs are influential in the network, it is also necessary to determine which SAGs will form ties with each other. Tie formation is perhaps a more stringent test of network activity between actors. While two actors in the core of a network may have little contact with each other, perhaps they share common ties but do not actually form ties with each other, a measure of which actors form ties indicates which actors actively network with each other. By assessing tie formation I am also able to move beyond one of the traditional limits of social network analysis, the ability to make causal claims. While this approach to social network analysis is relatively new, and not without limitations, it provides a more complete picture of how SAGs function in their *amicus curiae* brief network. Much like network placement, I argue that tie formation is a function of political and administrative considerations.
Political Considerations

SAGs are elite attorneys whose actions are guided by policy preferences (McAtee and McGuire, 2007). Since coalitional activity presumes a common position on which all parties agree, it is likely coalition members resemble each other in some fundamental way (Hula, 1999; Hansford, 2012). Since most SAGs are elected and elected officials have distinct policy preferences (Fox and Lawless, 2005), this should be most pronounced in terms of ideology. Heinz, Paik and Southworth (2003) find elite attorneys network most with ideologically proximate attorneys.

In the more immediate context of amicus curiae briefs, Box-Steffensmeier and Christenson (2012) find interest groups form ties with other like-minded groups. In a more SAG specific example, Hansford (2012) finds SAGs tend to file for amicus curiae briefs for the same party as ideologically proximate interest groups. This expectation is also supported anecdotally by Minnesota SAG Walter Mondale’s account of his amicus curiae brief in Gideon v. Wainwright, which Mondale asserted he filed the brief because Gideon’s lack of counsel was “an outrage” (Mondale, 2010, 6). Presumably any SAG joining Mondale’s brief agreed with him to an extent. To coordinate with politically similar actors means less compromise is needed from the central goal of the coalition (e.g. Hula, 1999). Accordingly, Hypothesis 4 states:

**Hypothesis 4** SAGs are more likely to form ties with SAGs ideologically proximate to themselves.

While ideological proximity is a strong marker of the political preferences for any two given SAGs, it is not a comprehensive explanation. Liberal SAGs from New England and the Pacific Northwest share a common ideology, but care about different issues. In the literature on elite attorneys region is a key predictor of tie formation since geographically proximate attorneys have more opportunities to interact (Heinz et al., 2005). In the elite attorney network, ties between geographic areas are rare since there are few opportunities to interact. However, in the context of a geographically compact network, such as the Supreme Court

\footnote{372 U.S. 335 (1963).}
Bar which is centered in Washington, D.C., dense connections are the norm (McGuire, 1993). The role of region in SAG coalitional activity in multi-state litigation cases is mixed. During the 1980s Morris (1987) finds regionalism has little impact on SAG coalitions. However, by the 1990s Waltenburg and Swinford (1999a) contend SAGs from the same geographic area have the same basic concerns and should cooperate frequently.

When assessing the role of geography on SAG amicus curiae brief coalitions, it is important to consider the institutional changes SAGs faced in the early 1980s, namely the creation of the National Association of Attorneys General’s Supreme Court Project. Before the formation of the Supreme Court Project, SAGs were most likely to have contact with geographically proximate SAGs (Zimmerman, 1998). In this era, SAGs from opposite ends of the country had no formal mechanism to drive their interactions. However, after the formation of the Supreme Court Project, annual meetings, regular training sessions, and updates from the national organization effectively transformed SAGs from fifty geographically dispersed actors into a small densely connected network (e.g. McGuire, 1993; Myers and Ross, 2007). Moreover, it is common for the Supreme Court Project to not only alert SAGs of potential cases in which they could file briefs, but also to suggest coalition partners to those SAGs that initiate amicus curiae briefs (Myers and Ross, 2007). In this way the effect if geographical distance may be nullified after the early 1980s. Accordingly, any argument based on the geographical distribution of SAGs must also include a caveat based on time. Hypothesis 5 follows:

**Hypothesis 5** SAGs are more likely to form ties with geographically proximate SAGs before the establishment of the Supreme Court Project.

While geographic location should serve as a strong predictor of tie formation, not all SAGs within a given geographic region will join a coalition because of institutional design. SAGs are selected by either election or appointment. Fox and Lawless (2005) demonstrate those who run for elected office are different from those who do not. The importance of selection mechanism is most evident when examining the SAGs in their later career endeavors. While
many SAGs go on to higher elective office, appointed SAGs rarely mount runs for higher office (Provost, 2010). Instead these SAGs often take academic positions or join private law firms. This point can also be clearly demonstrated by looking at the later careers of former U.S. solicitors general, who are appointed. Since the 1950s, the majority of solicitors general have gone on to careers on the federal bench, private law firms, or academia, while none have sought elected office (Biddle, 1962; Caplan, 1987; Griswold, 1992; Salokar, 1992; Days, 2001).

Appointed SAGs also behave differently in office than their elected counterparts. Provost (2010) finds that appointed SAGs are less likely to file amicus curiae briefs than their elected counterparts, which belies the different motivations of each type of actor. Appointed SAGs tend to be drawn from the legal profession and principally focus on enforcing state law and not on filing amicus curiae briefs to either raise their profile with the state electorate or to influence policy (e.g. Clinton, 2004; Mondale, 2010).

The literature on congressional lobbying also suggests that ties should be most prevalent between politically inclined actors. This research finds network ties are frequently formed because actors are politically motivated and actively seek to participate as amici (Hula, 1999). Studies on SAGs in other contexts substantiate this finding, appointed SAGs are less ambitious, less likely to engage in multi-state litigation (Provost, 2010), and less likely to file and join amicus curiae briefs in criminal procedure cases (Provost, 2011). Accordingly, Hypothesis 6 states:

**Hypothesis 6** Appointed SAGs are less likely to form ties with other SAGs than their elected counterparts.

**Administrative Considerations**

Resources influence SAG amici behavior and impact the type of ties they form (e.g. Nicholson and Collins, 2008; Wilson, 1989). Since there is a great deal of resource variation across SAG offices (Solberg and Ray, 2005; Wall and Winder, 1995; Winder, 1991), coalitional activity may be the only way in which SAGs with few resources are able to participate (e.g. Hula,
The previous literature suggests actors with few resources behave differently across both the elite attorney and interest group literatures. Elite attorneys that lack resources tend to abstain from networking (Heinz et al., 1993, 2005); whereas interest groups with few resources form ties with groups with greater resources in order to account for the difference (Box-Steensmeier and Christenson, 2012; Hula, 1999). It seems probable SAGs with few resources will follow the lead of interest groups rather than elite attorneys since the studies on elite attorneys generally examine association or contact (see for example: Heinz et al., 1993; Paik, Heinz and Southworth, 2011), while the findings on interest groups are specific to coalitional activity in general and *amicus curiae* brief activity in particular.

Resources take many forms including budget and staff (Solberg and Ray, 2005; Wall and Winder, 1995). A small budget precludes many elective activities, such as *amicus curiae* briefs (Nicholson and Collins, 2008) since an small budget increases the office's workload and prevents hiring additional staff (Wilson, 1989). However, interest groups in this situation still participate in coalitional activity by forming ties with resource rich groups (Box-Steensmeier and Christenson, 2012; Hojnacki, 1997; Hula, 1999; Whitford, 2003). Thus, a SAG with a small budget should seek out resource rich groups in order to augment his own shortcomings (e.g. Box-Steensmeier and Christenson, 2012) in coalitions. Hypothesis 7 follows:

**Hypothesis 7** SAGs with small budgets and staffs will form ties with SAGs with large budgets.

**Methods**

To explore these hypotheses I employ social network analysis. Social network analysis allows observations, in this case SAGs, to be observed in the context of other observations rather than as independent observations (Wasserman and Faust, 1994; Snijders, 2010; Snijders, van de Bunt and Steglich, 2010). Social network analysis is usually descriptive in nature and does not make causal claims in the same way as regression analysis (e.g. Fowler et al., 2007;
Fowler and Jeon, 2008; Borgatti et al., 2009; Wasserman and Faust, 1994). However, recent methodological innovations allow scholars to predict ties based on the structural features of the network (e.g. Anderson, Wasserman and Crouch, 1999; Frank and Strauss, 1986; Snijders, 2010). Neither approach is intrinsically better than the other, and the method should suit the hypotheses the researcher poses. In this manuscript I employ both methods; I use descriptive social network analysis to assess the network location hypotheses and exponential random graphs to explore the tie formation hypotheses.

Descriptive social network methods involve calculating statistics measuring each actor’s position within the network. To evaluate network location I employ two measures of network centrality, degree centrality and betweenness centrality. Degree centrality measures the total number of unique ties each SAG makes that term. This value ranges from zero, if a SAG makes no ties, to forty-nine, if a SAG forms ties with every other SAG. Betweenness centrality measures the shortest path for each SAG to reach every other in the network. For instance, if SAG A can reach SAG B only by going through SAG C, SAG A’s betweenness centrality is one. A SAG with a lower betweenness score is more centrally located in the network and thus more able to mobilize coalitions, even if he lacks many direct connections (degree centrality) of his own (Granovetter, 1973).

Predictive models of tie formation are relatively new to social network analysis. Until recently these models made harsh assumptions which made applied social science research problematic (e.g. Borgatti et al., 2009). Presently, exponential random graph models are the primary predictive social network analysis model and have been applied to amicus curiae brief networks in the interest group context (Box-Steffensmeier and Christenson, 2012). Exponential random graph models function akin to logit models and evaluate the propensity of a tie to exist between each dyad of actors given the values of attributes, or independent variables and structural features of the network. Attributes can be specific to an actor, such as a measure of how each SAG is selected, or they can be specific to a pair of actors, such

For instance, the Markov model requires nodes, save for those within each dyad, to be independent of each other (Frank and Strauss, 1986).
as the difference between two SAGs’ budgets (e.g. Handcock et al., 2012).

While exponential random graphs allow scholars to test causal hypotheses in social network analysis, there are limitations to the approach. Exponential random graph models are unable to account for longitudinal data or valued ties. The Statnet Development Team is currently developing temporal exponential random graphs, which allows exponential random graphs to be evaluated over time (Handcock et al., 2012). While this model shows great promise, it is not ready for applied research, as attributes cannot yet vary with time. Presently the best solution to this problem is to follow the lead of Box-Steffensmeier and Christenson (2012) and estimate several models at different points over the course of the study. I choose five evenly spaced years over the course of the study, 1970, 1976, 1982 is contemporaneous with the establishment of the Supreme Court Project, while 1988 and 1994. I choose these years to capture the full range of variation across the network; the two earliest years are before the establishment of the Supreme Court Project and Justice Powell’s comments on SAGs’ ineffectiveness as amici, which served as a catalyst for improved briefs from SAGs (Baker and Asperger, 1981-1982). 1982, 1988, and 1994 are situated in a period of growth for amicus curiae briefs in general (Collins, 2008) and SAG briefs in particular (Ross and Catalano, 1988).

The other limitation of exponential random graphs is valued ties. A tie between two actors is considered dichotomous and makes no distinction between one tie and ten ties between a given pair of actors. Desmarais and Cranmer (2012) and Krivitsky (2012a) are developing exponential random graph models that account for valued ties, but these methods are likewise early in development and not yet ready for applied research. While a great deal of variation is unfortunately lost when researchers are forced to dichotomize dependent variables, this limitation can be dealt with via a threshold value. By setting a threshold value, it is possible to only consider a tie to exist if two SAGs join more than a predetermined number of briefs with each other in a given term. While not ideal, this solution represents the best trade-off

6Desmarais and Cranmer (2012) call their model a generalized exponential random graph model and Krivitsky (2012b) calls his the ergm.count model.
until valued ties are ready for applied research.

Data

Social network analysis requires data to be arranged as network matrices. In order to create network matrices I begin with a list of all amicus curiae briefs filed by state attorneys general in the years examined in this study. The data is in the traditional format where each row denotes one SAG amicus curiae brief and fifty independent variables are coded as either zero (a given SAG does not join the coalition) or one (the SAG joins the coalition). Using a PHP script, I convert the data into a network matrix where each row and column is an observation. Each intersection notes whether or not those two SAGs formed a tie in that term. To illustrate how this transformation works, consider the following example. Assume there are two states, A and B, and three briefs in a term. State A joins the brief in cases one and three, but not two. State B joins a brief in cases two and three, but not one. This hypothetical is represented graphically in Table 1 as a traditional dataset.

[Table 1 About Here]

From the data in Table 1, I create the matrix in Table 2. In this example, each SAG files with the other one time. The matrix is symmetrical, in that values of A:B and B:A are the same.

[Table 2 About Here]

Networks can be characterized in terms of their density, or the percentage of all possible ties which are formed. Table 3 shows the percentage of all ties that are formed each term at a variety of threshold values. In 1970 network density was 0.07 at a one tie threshold. By 1976, the average network density is such that almost every SAG files with every other SAG at least once per term, the average density is 0.98. However, many of these ties are fleeting and do not represent an enduring relationship (e.g. Goodreau et al., 2008). However, if a
SAG forms multiple ties with another SAG it is likely indicative of more enduring ties. In Table 3 the densities displayed in the “Three” and “Five” columns show the network density decreases once the threshold for a tie is increased. In the interest of evaluating meaningful ties, I proceed with a threshold of one for the 1970 term, three for the 1976 term, and five for the 1982 term onward.

[Table 3 About Here]

Each of the matrices is then paired with an attribute sheet in which each row represents a unique SAG measured on a number of variables for each term. Moderate political ideology (Hypothesis 1) is measured by creating a dichotomous variable equal to one if a SAG is within one standard deviation either above or below the mean value for political ideology for the term as measured by Berry et al. (1998). Greater resources (Hypothesis 2) are measured with both budget per capita and the log of the number of attorneys on staff. These concepts are operationalized as two dichotomous variables equal to one if a given SAG has resources above the mean value for that term and zero otherwise (Solberg and Ray, 2005). Whether or not a given SAG has a state solicitor general (Hypothesis 3) is measured with a dichotomous variable set to one if the SAG has a state solicitor general and zero if he does not (Miller, 2009-2010).

Ideological distance (Hypothesis 4), for both citizen and elite ideologies, is measured with the absolute difference between each SAG’s respective state ideology (Berry et al., 1998). A dichotomous variable notes whether two states are contiguous with each other (Hypothesis 5). SAG selection mechanism (Hypothesis 6) is noted with a dichotomous variable equal to zero when the SAG is appointed by another political actor and one when the SAG is selected by voters (Solberg and Ray, 2005). Differences in budget (Hypothesis 7) are measured by the absolute difference between the per capita budget for each SAG in 1999 dollars (Solberg

---

7I create two measures of this variable, one for citizen ideology and one for elite ideology.
8I also estimated the model with the log of geographic distance between each respective state capital (e.g. Caldeira, 1985). This model does not perform well and often has difficulty converging. Coupled with the greater theoretical justification for the contiguous variable, I opt for that model.
Descriptive Results

After calculating degree and betweenness centrality I rank all SAGs in ascending order on each of these metrics and examine where SAGs with the attributes of interest rank. Table 4 shows the results of this analysis. Results for both degree and betweenness are listed in a series of two numbers. The first value represents the number of SAGs who meet the criteria of that hypothesis located in the core of the network. The second number is how many of those SAGs are located in the periphery of the network. I now turn discuss the results of each hypothesis.

Table 4 About Here]

Hypothesis 1 argues politically moderate SAGs are more likely to be in the core of the network. In terms of citizen ideology, I find weak support for the argument that SAGs with moderate citizens will be more active in the core of the network. Across all five terms I find a relatively even split between the core and the periphery for SAGs with moderate citizens in terms of both degree centrality and betweenness centrality. The exception is 1988 where SAGs from states with moderate state citizen ideology are more likely to be in the core in terms of both degree centrality (21 moderate SAGs in the core, 12 in the periphery) and betweenness centrality (20 moderate SAGs in the core, 14 in the periphery).

Elite ideology performs much the same as citizen ideology. In the 1970, 1976, and 1994 terms I find a relatively even split between moderate SAGs in the core and in the periphery. However, I find in 1982 moderate SAGs are more likely to be in the core in terms of degree centrality (19 SAGs in the core, 12 in the periphery), but this finding translates only weakly to betweenness centrality with only slightly more SAGs in the core than in the periphery (17/14). In 1988, the reverse is true where degree centrality only weakly supports Hypothesis 1 (18 in the core, 15 in the periphery), but the degree centrality offers support for the
Hypothesis, with 20 SAGs with moderate elite ideologies in the core and 14 in the periphery in the core of the network in the 1982 and 1988 terms.

Hypothesis 2 argues SAGs with greater resources are more likely to be in the core of the network. In terms of budgetary resources I find a relatively even split between SAGs with higher resources in both the core and the periphery. There are, however, a number of exceptions. In the 1976 term SAGs with larger budgets are more likely to be in the core of the network in terms of degree centrality (5 in the core, 2 in the periphery), but there is a relatively even split in terms of betweenness centrality (3 in the core, 4 in the periphery). The 1982 term is the only term in which Hypothesis 2 is supported by both degree centrality and betweenness centrality. In 1982 5 SAGs with high resources are in the core and 2 are in the periphery in terms of degree centrality and the same distribution also holds for betweenness centrality. In 1988 there is an even split in terms of degree centrality, but SAGs with more resources are actually less likely to be in the core in terms of betweenness centrality (2 in the core, 5 in the periphery).

I also evaluate Hypothesis 2 with a measure of staff size. Staff resources perform somewhat differently than budgetary resources. In 1970 SAGs with larger staffs are less likely to be in the core in terms of degree centrality (4 in the core, 6 in the periphery), but are more likely to be in the core in terms of degree centrality (6 in the core, 4 in the periphery). The 1976 term supports the hypothesis that SAGs with larger staffs are more likely to be in the core of the network with both degree centrality (4 in the core, 2 in the periphery) and betweenness centrality (5 in the core, 2 in the periphery). 1982, however, is a relatively even split between the core and periphery across both measures. The 1988 term reverses the general pattern of 1970 and 1976. In terms of degree centrality, SAGs with larger staffs are less likely to be in the core (3 in the core, 5 in the periphery) and there is an even split in terms of betweenness centrality. In 1994 there is a relatively even split in terms of degree centrality, but in terms of betweenness centrality SAGs with larger staffs are less likely to be in the core of the network (2 in the core, 5 in the periphery).
Hypothesis 3 contends SAGs with state solicitors general are more likely to be in the core of the network. Much like the previous two hypotheses, the findings are mixed across terms, however in general the results suggest SAGs with state solicitors general are less likely to be central in the network both in terms of degree centrality and betweenness centrality. In 1970 I find an even split between the core and the periphery on both measures of network centrality. In 1976 SAGs with state solicitors general are less likely to be central in the network in terms of degree centrality (1 in the core, 4 in the periphery) and split relatively evenly in betweenness centrality (2 in the core 3 in the periphery). In 1982 the distribution is identical for both measures of network centrality and relatively even across the core and the periphery (2 in the core, 3 in the periphery). The 1988 network provides strong evidence against Hypothesis 3. In terms of degree centrality only 2 SAGs appear in the core while 5 are in the periphery. When examining betweenness centrality only 1 SAG with a state solicitor general is in the core while 6 are in the periphery. 1994, by contrast, provides limited support for the hypothesis. In terms of degree centrality SAGs with state solicitors general are more likely to be in the core of the network (8 in the core, 6 in the periphery), though there is an even split in terms of betweenness centrality (7 in the core, 7 in the periphery).\footnote{Ideally, I would test whether these differences are significant with a $\chi^2$ test. However, the sample size is small, in some cases as few as five observations, that there is not enough statistical power to perform these tests.}

**Exponential Random Graph Model Results**

The exponentiation random graph models are presented in Table 5. Unfortunately the 1970 model cannot be estimated because the model fails to converge, possibly because the 1970 network is sparse, with a density of just 0.07. However, the other terms are all sufficiently dense as to estimate exponential random graph models. Frequently, exponential random graphs require network structure measures to estimate models. After extensive testing, I find a sociability term, which models the propensity of each actor to form ties, best accounts

\[9\]
for the structure of each network (Snijders, 2010). In traditional analysis fit is often tested with measures such as AIC, BIC, and the $\chi^2$ coefficient. These coefficients are not meaningful for exponential random graph models because of interdependence in the model. For the same reason, it is not meaningful to discuss coefficients substantially beyond the direction of the sign (Goodreau et al., 2008). However, exponential random graph model fit can be assessed visually by plotting the distribution of the data on several measures of network fit against the same values estimated for the given model (Morris, Handcock and Hunter, 2008), shown in Figures 4 and 5. In Figures 4 and 5 the solid black line in each plot shows the distribution of the data based on a number of network structures. The box plots and dotted lines represent point estimates and the 95% confidence intervals estimated by the model. Overwhelmingly, the model fits the data well, which indicates the models are properly specified.

[ Table 5 About Here ]

[Figure 4 About Here ]

[Figure 5 About Here ]

The results indicate both resources and institutional design impact the decision to form amicus curiae brief ties with other SAGs. Elected SAGs are more likely to form ties than their appointed counterparts across all models. Resources play a role in the formation of ties as well, though only in the 1976 and 1994 models. In those two models, larger gaps between the resources of two SAGs increases the probability of tie formation. SAGs from contiguous states are only more likely to form ties in the 1976 term.

In the 1976 model I find SAGs are more likely to form ties with SAGs from contiguous states, which supports Hypothesis 5 in terms of both the significance of the coefficient and

---

10In addition to the statistical explanation for the sociality term, previous research on interest group coalitions suggest different groups have different inclinations to join coalitions (Box-Steppensmeyer and Christenson, 2012; Hula, 1999). Research on SAGs suggests some SAGs are more sought out for amicus curiae coalitions (Epstein and O’Connor, 1987, 1988). The sociality term is not included in the model output because the term produces a coefficient for each state. Presenting the results of the sociality term would require an additional fifty terms in Table 5.
the fact that the 1976 term is before the establishment of the Supreme Court Project. I also find elected SAGs are more likely to form ties than their appointed counterparts, which supports Hypothesis 6. Finally, during the 1976 term SAGs are more likely to form ties with each other as the absolute difference between their respective budgets increases, which supports Hypothesis 7.

The 1982 term differs from the 1976 term, in this model the only significant finding is that elected SAGs are more likely to form ties than their appointed counterparts, which supports Hypothesis 6. The results are identical for the 1988 term. However, the results change once we consider the 1994 term. In the 1994 term elected SAGs are more likely to form ties than appointed SAGs, which provides support for Hypothesis 6. Additionally, I find SAGs are more likely to form ties with each other as the difference between their respective budgets increases, which provides support for Hypothesis 7.

**Discussion**

The above results provide the first rigorous examination of how SAGs interact with each other in *amicus curiae* brief networks. While I draw heavily upon existing research on elite attorneys and interest group networks, the results suggest the central actors in the network cannot be easily identified by hypotheses derived from those studies. In contrast, the tie formation hypotheses, which are derived from the same literature, perform better. In general, the results suggest that political and administrative characteristics largely do not shape where SAGs are situated in the SAG *amicus curiae* brief network, but institutional and resource characteristics of each SAG are consistent predictors of tie formation. These results demonstrate that while SAGs share characteristics with their interest group and elite attorney counterparts, they are sufficiently different that previous findings cannot be readily generalized to SAGs.

The descriptive models suggest the core of the network does not align well with any
of the explanations of network centrality posed above, though hypotheses about politically moderate SAGs and SAG resources are supported sporadically. While these results might be interpreted to suggest there is an omitted variable which explains SAG network location, it is important to recall the SAG network is small, not unlike the Supreme Court Bar (McGuire, 1993). In such a small network the core and the periphery can become indistinguishable. Supporting this point, Hansford (2012) notes SAGs appear as a dense cluster within his study of *amicus curiae* coalitions.\(^{11}\) Still, the network location results do point to a few general patterns which warrant discussion.

In terms of political ideology, moderate actors are relatively evenly distributed across both the core and periphery. While this distribution is often closely split, there are several instances where moderate actors are more prevalent in the core. This is in line with expectations and is supported by the previous literature which demonstrates the willingness to compromise or work across the proverbial aisle is critical to holding a central place in the network (e.g. Paik, Heinz and Southworth, 2011). However, Box-Steensmeier and Christenson (2012) note that fluctuations from term to term may be due to the docket. It is possible that the terms examined here may include a handful of cases which nearly every SAG signs onto. In this way, even the most extreme actors will join with actors in the core.

Resource based explanations provide mixed evidence. When considering each SAG’s budget I find a relatively even split between those in the core and those in the periphery. While there are three instances where SAGs with larger budgets are more likely to be in the core, there is one instance where those with larger budgets are less likely to be in the core. This perhaps highlights the relatively low cost of *amicus curiae* briefs (Caldeira and Wright, 1988), particularly if joining a brief where one simply needs to sign the brief (Box-Steensmeier and Christenson, 2012; Provost, 2011). Resources are also examined from

\(^{11}\)It is also possible the way in which I tested the hypotheses impacted the results. To assess this, I estimated two regression models per term where the dependent variable is degree count and betweenness score with each of the measures for the network position hypotheses as independent variables. The models fit poorly and in most models none of the independent variables were significant. The only variable to achieve statistical significance is budget, though only in two of the ten models.
a staff perspective with the expectation that SAGs with more staff will be better able to dedicate resources to *amicus curiae* brief activity. While there is also variation in this measure of network location, larger staffs generally signal a less central role in the *amicus curiae* brief network.

This finding is surprising, if only because a larger staff should enable SAGs to engage in more elective activities. This finding is somewhat less perplexing once we consider the type of activity SAGs engage in. Particularly in the 1980s and 1990s SAGs have often coordinated multi-state litigation campaigns in which SAGs simultaneously file suit in multiple states in order to create *de facto* national standards without national level legislation (Gifford, 2010). Multi-state litigation differs from *amicus curiae* briefs in one important respect, it is expensive in terms of time and money (Waltenburg and Swinford, 1999b). It is possible that SAGs with large staffs opt to participate in multi-state litigation rather than *amicus curiae* briefs, which for joining require little more than a day of legal research (Miller, 2009-2010).

A similar trend may be at play for the network location of SAGs with state solicitors general. Goelzhauser and Vouvalis (2013) find SAGs with state solicitors general are active and effective *amicici* at the agenda setting stage at the U.S. Supreme Court, but I find those same SAGs are less likely to be in the core of the SAG *amicus curiae* brief network at the merits stage. Accordingly, this result, in tandem with the results of the budgetary measure, suggests future work might examine the way in which SAGs allocate the resources they have at their disposal across a multitude of legal venues. It may well be the case that SAGs see the primary value of state solicitors general as supervising direct litigation and agenda setting rather than filing *amicus curiae* briefs at the merits stage.

The tie formation models demonstrate SAGs form ties based on institutional and administrative factors. In all four models elected SAGs are more likely to form *amicus curiae* brief ties with other SAGs. This finding is consistent with previous research which shows elected actors are different from the general population (Fox and Lawless, 2005) and appointed actors (Provost, 2010, 2011). The results highlight the importance of institutional factors in
shaping actions by governmental actors. Resources are a consistent feature in the literature on tie formation between interest groups (Box-Steppensmeier and Christenson, 2012; Hula, 1999) and elite attorneys (Heinz, Paik and Southworth, 2003; Paik, Southworth and Heinz, 2007), yet resources only predict ties in two models. This discrepancy appears perplexing, but may be a function of an expectation for SAGs to join amicus curiae briefs especially after the establishment of the Supreme Court Project. Supporting this explanation, one of the two terms where resources predict tie formation is before the establishment of the Supreme Court Project.

Interestingly, geographic proximity is only significant in the 1976 model. This suggests geographic distance has ceased to matter in tie formation. This change, as I hypothesized earlier, may be due to the creation of the Supreme Court Project, which is tasked with coordinating SAG activity at the Supreme Court (Ross, 1990). It is possible the Supreme Court Project now fills the coordination role which geographic proximity once did.

Interestingly, ideological explanations are never significant predictors of tie formation. This suggests SAGs are not overly political when deciding with whom to file. This explanation, while inconsistent with the interest group and executive attorney literatures, is consistent with SAGs status as legal actors in general (Horowitz, 1977) and as repeat players in particular (Galanter, 1974; Wohlfarth, 2009). In this view, SAGs sign briefs that make quality legal arguments, when their resources allow. By doing so, SAGs can secure their reputation and attorneys cognizent of the law and not motivated by politics alone.

On the other hand, SAGs may be able to find a common ground for their amicus curiae briefs despite gaps in their ideology. This is supported by SAGs' record on criminal procedure amicus curiae briefs; during the 1980s SAGs always supported the government actor (Ross, 1990). Also, as representatives of the state governments, SAGs are likely to file in federalism cases (Morris, 1987) where their interests likely align (Chen, 2003). However, ideology does still explain SAG network activity, at least in some terms with respect to network centrality. This suggests that while SAGs are not totally devoid of ideological considerations when
participating in *amicus curiae* brief coalitions they are not overtly political actors when forming *amicus curiae* brief coalitions.

**Conclusions**

SAGs are the second most frequent and successful class of *amici* (McAtee and McGuire, 2007) and are key federal actors who alone can speak in the states’ name to the Supreme Court. While previous work establishes that SAGs are more successful in coalition activity (Clayton and McGuire, 2001-2002; Goelzhauser and Vouvalis, 2013), scholars have until now known very little about the formation of SAG coalitions. This paper provides the first systematic examination of the shape of the SAG *amicus curiae* brief coalition network and of the determinants of SAG tie formation. The results suggest the core of SAG networks cannot be explained entirely by findings from the interest group or executive attorney literatures. Tie formation is governed by institutional and resource based factors.

The departure of the my results from the prior literature on interest groups and executive attorneys highlights the unique institutional role in which SAGs operate. To be sure, they share characteristics with actors examined in previous network studies, but situated as they are between the state and federal governments, SAGs operate under unique pressures which lead them to behave in different ways than other *amici* or elite attorneys. Accordingly, the coalitional activity by SAGs warrants further attention from scholars. The need for future work is amplified by the increasingly important role of SAGs in the federal system. While this study provies the shape of the SAG *amicus curiae* network and distinguishes it from the existing network literature, it also raises many new questions. These new questions can and should guide future research.
Figure 1: Average SAG Amicus Curiae Coalition Size: 1970-1999
1970 SAG Amicus Curiae Coalition Network

Figure 2: 1970 SAG Amicus Curiae Brief Network
1976 SAG Amicus Curiae Coalition Network

Figure 3: 1976 SAG Amicus Curiae Brief Network
Table 1: Cases in Which SAGs A and B File an *Amicus* Brief

<table>
<thead>
<tr>
<th>SAG</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Table 2: Example of the Network Matrix

<table>
<thead>
<tr>
<th>SAG</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Table 3: Network Density by Threshold

<table>
<thead>
<tr>
<th>Threshold:</th>
<th>One</th>
<th>Three</th>
<th>Five</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970 Term</td>
<td>0.07</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>1976 Term</td>
<td>0.98</td>
<td>0.15</td>
<td>0.00</td>
</tr>
<tr>
<td>1982 Term</td>
<td>0.99</td>
<td>0.75</td>
<td>0.20</td>
</tr>
<tr>
<td>1988 Term</td>
<td>0.99</td>
<td>0.86</td>
<td>0.47</td>
</tr>
<tr>
<td>1994 Term</td>
<td>0.99</td>
<td>0.90</td>
<td>0.47</td>
</tr>
<tr>
<td>Attribute</td>
<td>Term</td>
<td>Degree Centrality</td>
<td>Betweenness Centrality</td>
</tr>
<tr>
<td>--------------------</td>
<td>------</td>
<td>-------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Moderate Citizens</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>18/16</td>
<td>18/16</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>17/15</td>
<td>14/17</td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>17/13</td>
<td>17/14</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>21/12</td>
<td>20/14</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>16/19</td>
<td>16/19</td>
<td></td>
</tr>
<tr>
<td>Moderate Elites</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>14/15</td>
<td>16/13</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>17/14</td>
<td>16/14</td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>19/12</td>
<td>17/14</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>18/15</td>
<td>20/14</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>16/18</td>
<td>16/19</td>
<td></td>
</tr>
<tr>
<td>Budget Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>4/3</td>
<td>3/4</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>5/2</td>
<td>3/4</td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>5/2</td>
<td>5/2</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>3/3</td>
<td>2/4</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>3/3</td>
<td>3/3</td>
<td></td>
</tr>
<tr>
<td>Staff Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>4/6</td>
<td>6/4</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>4/2</td>
<td>5/2</td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>4/5</td>
<td>4/4</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>3/5</td>
<td>4/4</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>3/4</td>
<td>2/5</td>
<td></td>
</tr>
<tr>
<td>State Solicitor General</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1970</td>
<td>2/2</td>
<td>2/2</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>1/4</td>
<td>2/3</td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>2/3</td>
<td>2/3</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>2/5</td>
<td>1/6</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>8/6</td>
<td>7/7</td>
<td></td>
</tr>
</tbody>
</table>

Centrality scores are presented as counts of core/periphery.
Table 5: SAG Tie Formation

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sociality</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contiguous States</td>
<td>2.709*</td>
<td>0.140</td>
<td>-0.409</td>
<td>0.108</td>
</tr>
<tr>
<td></td>
<td>(1.119)</td>
<td>(0.381)</td>
<td>(0.277)</td>
<td>(0.381)</td>
</tr>
<tr>
<td>Elected SAG</td>
<td>22.991**</td>
<td>21.100**</td>
<td>19.980**</td>
<td>21.680**</td>
</tr>
<tr>
<td></td>
<td>(0.267)</td>
<td>(0.160)</td>
<td>(0.107)</td>
<td>(0.143)</td>
</tr>
<tr>
<td>∆ Budget</td>
<td>0.500†</td>
<td>0.021</td>
<td>-0.009</td>
<td>0.323*</td>
</tr>
<tr>
<td></td>
<td>(0.284)</td>
<td>(0.134)</td>
<td>(0.125)</td>
<td>(0.135)</td>
</tr>
<tr>
<td>∆ Citizen Ideology</td>
<td>0.033</td>
<td>-0.008</td>
<td>0.000</td>
<td>-0.012</td>
</tr>
<tr>
<td></td>
<td>(0.024)</td>
<td>(0.010)</td>
<td>(0.001)</td>
<td>(0.013)</td>
</tr>
<tr>
<td>∆ Elite Ideology</td>
<td>-0.017</td>
<td>0.016</td>
<td>0.001</td>
<td>-0.004</td>
</tr>
<tr>
<td></td>
<td>(0.039)</td>
<td>(0.019)</td>
<td>(0.001)</td>
<td>(0.014)</td>
</tr>
</tbody>
</table>

Significance levels: †: 10% *: 5% **: 1%

References


Figure 4: Exponential Random Graph Goodness of Fit Diagnostics (1976 and 1982)
Figure 5: Exponential Random Graph Goodness of Fit Diagnostics (1988 and 1994)


