Coordinating the Congress:
Explaining Caucus Persistence in the United States House

Jennifer Nicoll Victor
Assistant Professor of Political Science
George Mason University

Nils Ringe
Associate Professor of Political Science
University of Wisconsin

Abstract
This paper represents a first-cut look at a new dataset of the compete membership of legislative caucuses in the U.S. House of Representatives from 1993-2010 (103rd-111th Congresses). We develop a theory that describes the conditions under which caucuses should be expected to *persist* over time, based on the benefits caucuses are known to provide to their members. We ask and answer questions about whether caucuses persist more when there is greater diversity in its party and committee representation, when the caucus members are more active in terms of sponsorship and cosponsorship of bills, when the caucus co-chairs represent both parties, and when the caucus is large. Our findings suggest that caucuses play a strong role in helping legislators to coordinate legislative activities, but provide almost no support for the idea that causes serve only as a weak signaling mechanism to constituents.

Paper prepared for the Annual Meeting of the American Political Science Association,
August 29 - September 1 2013, Chicago, Illinois

Introduction

This paper is our first stab at analyzing a new dataset on legislative member organization (LMOs) in the U.S. Congress, where they are called Congressional Member Organizations, or simply "caucuses." These data are notable in that they contain complete caucus membership information for all members of Congress between 1993 and 2010 (or congresses 103-111), which allows us to investigate fundamental aspects of the evolution of caucuses over time. In this paper, we focus on identifying what factors explain the persistence of caucuses across one or more congressional terms.

LMOs are an often overlooked, yet notable feature of numerous legislatures around the world. Ringe and Victor (2013) find that LMOs exist in national legislatures of 25 countries, in a sample of 45 advanced industrial democracies. One of these legislatures is the U.S. Congress, which has hundreds of LMOs, such as the Congressional Black Caucus, the Biomedical Research Caucus, the Congressional Arts Caucus, the Congressional Caucus for Women's Issues, the Older Americans Caucus, the Congressional Hispanic Caucus, and the Rural Health Care Coalition.

Although previous research on LMOs has almost exclusively focused on congressional caucuses (e.g., Ainsworth and Akins 1997; Fiellin 1962; Hammond 1991, 1998; Hammond, Mulhollan and Stevens 1983, 1985; Loomis 1981; Stevens, Mullhollan and Rundquist 1981; Vega 1993; Victor and Ringe 2009; Ringe and Victor 2013), there are no systematic longitudinal analyses of the caucus system beyond descriptive accounts of its historical development. This is largely a function of a lack of data on caucus membership, which is exceedingly difficult to track due to the groups' informality and fluidity. Indeed, Ringe and Victor (2009 and 2013) are the first to collect and analyze

large sets of membership data (for the 109th, 110th, and 111th congresses). We extend these data to cover an additional six congressional terms (the 103rd-108th congresses) to identify what predicts the persistence of caucuses across legislative sessions.

The paper proceeds as follows. We first outline a functionalist approach to explaining caucus persistence over time, where we derive hypotheses from the functions of LMO in legislative politics, as identified in previous research. Specifically, we juxtapose an informational account of LMO benefits with alternative accounts that highlights the value of LMOs for political coordination and for signaling policy preferences and priorities to constituencies. We then describe our data collection and the operationalization of our variables and proceed to an empirical test of our hypotheses. Our results support the notion that LMOs are more likely to persist over time when they enable their members to coordinate legislative activities, most importantly bill cosponsorship.

Theory

We take a functionalist approach to address the question of LMO persistence across legislative terms. Our intuition is that LMOs should be more likely to persist if they successfully provide legislators with the benefits they expect to receive from joining LMOs and maintaining their membership in them. We derive hypotheses about the factors that ought to explain the persistence of LMOs over time from competing propositions regarding the key functions of LMOs in legislative politics.

The most extensive recent treatment of LMOs is Ringe and Victor's forthcoming *"Bridging the Information Gap: Legislative Member Organizations in the United States*

and European Union" (2013). This first comparative analysis of LMOs concludes that legislative member organizations (LMOs), including caucuses in the U.S. House of Representatives, allow legislators to establish internal information networks that transcend the boundaries imposed by partisanship and committee jurisdictions. The structure of these networks allows for policy-relevant information to flow efficiently between legislators and their offices. In other words, the main benefits of LMOs are relational (LMOs allow legislators to establish relationships with colleagues with whom they would not be connected otherwise) and informational (LMOs give them access to both substantive information and "political intelligence" that would otherwise be difficult to acquire).

Specifically, Ringe and Victor argue that LMO networks are primarily composed of *weak ties*[1] between legislators and their offices (Ringe and Victor 2013; see also Granovetter 1973, 1974). Information flows more efficiently through these networks because much of the information circulating in a social network composed of strong ties tends to be redundant, due to the frequent interactions between all network members. LMO ties transcend closely-tied social circles that would be isolated from each other in their absence, because they *bridge structural holes* in the legislative network by cutting across party and committee lines (Ringe and Victor 2013; see also Burt 1992, 2000, 2004).[2] Hence, LMO ties help to efficiently diffuse socially distant ideas and information that are relevant to legislators' policy choices.

[1] *Strong ties* reflect close and frequent social contacts that exist, for example, between friends or between close and trusted colleagues, while *weak ties*, representing more casual social contacts, link acquaintances whose connections are more tenuous and context dependent.
[2] Structural holes are empty spaces between different regions of a network.

Key to this idea of information diffusion in LMO networks is that LMOs have heterogeneous memberships when it comes to their members' party affiliations and committee assignments. This is because heterogeneous LMOs connect legislators with colleagues from other parties and committees to whom they would not be socially tied in the absence of joint LMO membership. Accordingly, we should expect to find that *LMOs are more likely to persist over time when they connect a greater proportion of legislators who do not share the same party affiliation (H1) or committee assignments (H2).*

While the role of caucuses in facilitating the acquisition, provision, and exchange and information has been recognized by extant research on caucuses in the Congress, previous work also highlights additional functions of LMOs, in particular political coordination (such as agenda setting, search for compromise, and building policy coalitions) and signaling (of policy priorities to constituents).[3] A variety of studies, for example, emphasize the role LMOs play in allowing for the coordination of legislative activities outside the formal party and committee structure (e.g., Fiellin 1962; Hammond 1991, 1998; Hammond, Mulhollan and Stevens 1983, 1985; Loomis 1981; Miller 1990; Stevens, Miller and Mann 1974; Vega 1993). The benefits associated with this coordination are difficult to measure, in that they tend to be indirect and diffuse (Ringe and Victor 2013, especially Chapter 7). Activities we can readily observe, however, include the sponsorship and cosponsorship of legislation. We expect that *LMOs are more likely to persist over time when their members are more likely to sponsor (H3) and cosponsor legislation (H4).* In addition, because political coordination is more likely to

[3] Ringe and Victor find and present evidence for all three functions throughout their volume, but their focus is squarely on the informational role of LMOs in both theoretical and empirical terms. Indeed, their empirical results overwhelmingly support the notion that the major benefit of LMOs lies in their capacity to provide and diffuse policy-relevant information between legislative actors.

take place between LMO leaders than rank-and-file members (Ringe and Victor 2013), it should make a difference if LMO leaders represent more than one legislative party. We therefore hypothesize that *LMOs are more likely to persist over time when their leaders do not share the same party affiliation (H5).*

All else equal, we should expect caucus size to be a multiplier of these informational and coordination benefits of LMOs. This is because of two caucuses that are equally heterogeneous in their membership, or of two caucuses whose members are equally inclined to coordinate their legislative activities, the one with a greater number of members will offer increased informational or coordination benefits, respectively. Hence, we expect to find a *positive relationship between LMO size and LMO persistence (H6).*

The third role ascribed to LMOs is representational, whereby LMOs allow legislators to signal policy preferences and priorities to constituents (Loomis 1981; Stevens, Mullhollan and Rundquist 1981; Singh 1996; Miler 2011) and help promote their electoral needs (Ripley 1983; Davidson and Oleszek 1981; Caldwell 1989). We do not discount the relevance of these LMO functions, especially in the U.S. Congress;[4] indeed, the signaling, coordination, and informational functions of LMOs are not mutually exclusive. Yet, we are able to consider in this paper if signaling *alone* explains why legislators join and maintain LMOs, thus making them persist over time. We can test this proposition because *none of the characteristics discussed in hypotheses H1-H6 ought to help explain the persistence of LMOs over time (H7)* if lawmakers joined LMOs for the sole purpose of (cheaply) signaling preferences and priorities to constituents. After

[4] Ringe and Victor find and present evidence for all three LMO functions in their volume, but their focus is squarely on the informational role of LMOs in both theoretical and empirical terms. Indeed, their empirical results overwhelmingly support the notion that the major benefit of LMOs lies in their capacity to provide and diffuse policy-relevant information between legislative actors.

all, if this were the case it should not matter that LMOs have large and/or heterogeneous memberships, or if they facilitate political coordination, because these benefits are irrelevant from legislators' points of view. A given LMO will persist over time as long as there is an incentive for at least some legislators to signal to constituents that they care about its cause.

Data and Operationalization

Collecting data on the membership of individual caucuses in the U.S. Congress is not a straightforward task, since only the most formalized and well-supported caucuses maintain memberships online and there is no comprehensive register of caucuses and their members (either current or going back in time). Therefore, in order to obtain the membership information we seek, we relied on the *Congressional Yellow Book*, which is a directory of information about each member of congress.[5] The directory is published quarterly and compiles its information largely with information submitted from members' self-reports. It lists caucus memberships, among other information, for each member. Using the winter directory for each even-numbered year (representing the last possible published directory for each congress), we compiled the membership data for the 103rd-111th congresses by recording each individual Representative's caucuses. We purposefully used the winter edition of even numbered years, because it represents the last published directory for each term of Congress. We know that members continually, and fluidly, join caucuses throughout a term of Congress, so by collecting the data at the end of the term we seek to maximize the probability of capturing the complete caucus memberships for each term.

[5] The following description of our data collection is adopted from Chapter 4 in Ringe and Victor 2013.

While collecting membership information in congressional caucuses using the *Yellow Book* is the most comprehensive method we are aware of to gather these data, it is likely moderately error prone. First, we know that there are significant differences in directories published within the same congress in different seasons. A member might report being a member of the Bike Caucus, for example, in the spring, summer, and winter editions of the *Yellow Book*, but not in the fall. Presumably, the member was a member of the caucus throughout the year (or congress), but failed to indicate it for the fall survey. We assume the *Yellow Book* surveys are completed by staffers and interns and that such self-reports likely include some errors. Second, we hired a team of research assistants (primarily undergraduates) to record these data, one member at a time, by hand. Such a process is also likely to produce at least a small number of errors. To check the extent to which this was a concern, we have performed coding checks on 14 percent of randomly selected members and found an error rate of less than one percent. We are therefore confident that measurement error in our dataset is minimal. Moreover, we assume that surveying the caucus memberships as reported in one directory (of the eight published for a single term of Congress) provides a conservative estimate of total caucus memberships. A complete survey of all the directories from a term of Congress would likely produce measurement error in a direction where we would over-estimate legislators' memberships and thus potentially bias empirical results in favor of our theoretical propositions. Finally, we have no reason to believe that using a different edition of the directory would result in substantive findings that deviate from the patterns we identify.

We also took a number of additional steps to reduce the amount of error introduced into the data. At the end of the coding process, we eliminated caucuses in which only a single member of congress indicated membership—a caucus of one member is not a caucus. We eliminated interparliamentary groups, because they do not satisfy the definition of LMOs we established in our theoretical approach and in the cross-national data used in Ringe and Victor (2013). We also eliminated caucuses that are state-delegations, or state-party-delegations, since these sub-groupings of members are already designated as connected or affiliated legislators by their state and party. We eliminated groups that are party organizations or leadership organizations. For example, a "Speaker's Task Force for a Drug Free America" is not a caucus, but a party leadership group. Such groups are not caucuses because they do not meet the definition of being a purely voluntary group and they receive some resources from the party leadership, which caucuses do not. We went to great lengths to identify similar sounding groups and ascertain whether or not they were separate groups. Since members have self-reported their caucuses, there were often differences in the ways in which caucus names were listed. For example, a member who indicated membership in the "Congressional Caucus to Combat Alzheimer's Disease" was determined to actually be a member of the "Bipartisan Congressional Task Force on Alzheimer's Disease" because the former had only one member and the latter is a longstanding caucus. Occasionally, members would indicate that they were members of a sub-component of a caucus. A few caucuses have very active sub-groups. For example, the "Northeast-Midwest Congressional Coalition" has an "Upper Mississippi River Task Force" associated with it, but members of the latter are considered to be members of the former. The River Task Force is not considered to be

a separate caucus. Finally, with a few noted exceptions, we excluded individual members of Congress who did not serve full terms during a single congress because of death, resignation, or special election.[6]

Our unit of analysis is caucus-congress, and we construct two dependent variables. To measure *short-term caucus persistence*, we include a dichotomous dependent variable that is coded 1 if a caucus persists between any two legislative terms and 0 if not. For example, if Caucus A existed in the 103rd Congress as well as the 104th, it would receive a 1; it would be coded 0 if it only existed in the 103rd and not in the 104th. Our data includes a total of nine terms of the U.S. Congress (103rd-111th), which means we have eight congresses worth of observations for this dependent variable. The variable is distributed with 253 0s (14.7 percent) and 1470 1s (85.3 percent). Table 1 describes the number of unique caucuses in each congress and the rate of caucus persistence from congress to congress.

[TABLE 1 HERE]

In addition, we construct an alternative dependent variable that measures at time *t* the number of previous congresses in which each caucus existed. We label this variable *medium-term caucus persistence* because of the time period we are able to consider

[6] A few members of Congress served long enough terms (although not complete terms) that we were able to obtain complete caucus and attribute data. These include Rep. Judy Chu in the 111th (elected by special election to replace Rep. Hilda Solis, July 14, 2009), Laura Richardson in the 110th (elected by special election to replace Rep. Juanita Millender-McDonald, August 21, 2007), Paul C. Broun, Jr. in the 110th (elected by special election to replace Rep. Charles Norwood, July 17, 2007), and Nicola (Niki) S. Tsongas in the 110th (elected by special election to replace Martin Meehan, Oct. 16, 2007).

(1993-2010), which allows us to examine the persistence of caucuses for up to 9 legislative terms, as Table 2 shows.

[TABLE 2 HERE]

This variable has two notable drawbacks. First, we cannot know whether caucuses existed prior to the 103rd Congress, because the relevant data have not (yet) been collected. In other words, we are *not* measuring caucus *age*, because of our limited sample of congresses. Second, this measure does not acknowledge caucuses that "skip" congresses. If a caucus is present in the 103rd, 104th, and 106th, it will have *medium-term caucus persistence* values of 1, 2, and 3, respectively. Despite these shortcomings, using indicators for both short-term and medium-term caucus persistence will allow us to offer more nuanced results regarding the determinants of caucus persistence over time.

We predict caucus persistence using the following independent variables:

- *Proportion of Cross-Party Dyads (H1)*—This variable describes the proportion of all dyads within a single caucus who are from opposite parties. It ranges from 0 to 1, and has a mean of 0.40 with standard deviation 0.3. The variable is skewed toward zero, with 25 percent of the observations equal to zero.
- *Proportion of Dyads with No Common Committees (H2)*—This variable describes the proportion of all dyads from a single caucus who share no committee assignments. It ranges from 0 to 1, and has a mean of 0.75 and standard deviation of 0.24. In this variable 6 percent of observations are zero, and 21 percent are 1.

- *Sponsorships (H3)*—This variable is a count of the total number of bills that were sponsored by members of Congress (MCs) in each caucus in each congress. It has a decreasing logarithmic or power-law distribution. It ranges from 3 to 4354, has a mean of 262 with a standard deviation of 429.
- *Cosponsorships (H4)*—This variable is a count of the number of unique bills that members in a caucus cosponsored in a given congress. If two members of the caucus cosponsor the same bill, it is not counted again. This variable has a left-leaning distribution with mean 1373 and standard deviation 1030, ranging from 129 to 6139.
- *Leaders Opposite Party (H5)*—This is a dichotomous variable equal to 1 if a caucus has two co-chairs who are from opposite parties. Of the 2142 total congress-caucus observations 40% (869) have co-chairs from each party.
- *Members (H6)*—We calculate the number of members in each caucus. This variable has a decreasing logarithmic or power-law distribution, a mean of 16.6, and a standard deviation of 25.7. The means by Congress are shown in Table 1.

Analyses and Results

We estimate two models. The first uses a logit estimator for the dependent variable *short-term caucus persistence*, and includes fixed effects for time (congress dummies), and robust standard errors clustered on caucuses. The second model assumes a poisson distribution for the *medium-term caucus persistence*. Our findings are summarized in Table 3.

[TABLE 3 HERE]

Our results point to the coordination function of LMOs as the primary driver of caucus persistence over time. We hypothesized that caucuses are more likely to persist when their members sponsor (H3) and cosponsor legislation (H4), and when caucus leaders come from opposite parties (H5). We find support for H4, in that the more unique bills the members of a caucus cosponsor, the more likely the caucus is to persist in both the short- and medium-term. H5 is partially confirmed, since a bipartisan caucus leadership has a positive and significant effect on short-term persistence, but is insignificant beyond that. We do not find support for H3, however, because the more bills caucus members sponsor the *less* likely the caucus is to persist over time. These findings suggests that caucuses may play a coordination role in organizing willingness to cosponsor legislation; however, combined with the sponsorship variable it suggests that caucuses are not a source of legislative originality and MCs do not lean on their caucuses to help them develop bills for introduction.

We find mixed support for H6, according to which caucus size should increase the likelihood of LMO persistence over time. Our results show that larger caucuses are no more likely to persist from one term to the next, but that they are more likely to persist in the medium-term, as the positive and significant coefficient in Model 2 indicates.

While we find some support for the coordination story and the proposition that caucus size is a determinant of caucus persistence in the medium-term, the informational and signaling functions of caucuses do not seem to explain caucus persistence over time. Our results show, first, that the variables for *Proportion of Opposite Party Dyads and*

Proportion of Dyads with No Common Committees are either insignificant (both in Model 1 and *Proportion of Dyads with No Common Committees* in Model 2) or in the opposite direction we hypothesized (*Proportion of Opposite Party Dyads* in Model 2). This contradicts both H1 and H2. Second, we argued that lawmakers joining LMOs for the sole purpose of (cheaply) signaling preferences and priorities to constituents ought to entail that none of the independent variables included in our model explain the persistence of caucuses over time (H7). In other words, all predictors should be statistically insignificant, which is not what we find.

Conclusion

This paper sought to identify the determinants of caucus persistence over time using a functionalist logic, whereby those caucuses capable of offering those benefits their members expect to attain by joining these groups are most likely to persist across one or more legislative term. Using a new, longitudinal dataset that includes complete caucus membership information for all MCs during the 103rd-111th congresses, we juxtaposed three primary functions ascribed to LMOs in previous research (informational, coordination, and signaling) and find that successful political coordination, in particular bill cosponsorship, seems to explain what makes caucuses persist both in the short- and medium-term.

Table 1: Short-Term Caucus Persistence

Congress	Number of Unique Caucuses	Persistence (N) (%)	Mean Membership
103	89	60 (67%)	18
104	119	96 (80.7%)	119
105	162	136 (84.0%)	162
106	178	148 (83.1%)	178
107	227	208 (91.6%)	227
108	269	235 (87.4%)	269
109	302	253 (83.8%)	302
110	377	334 (88.6%)	377
111	419	?	419
TOTAL	603	68%	16.7

Table 2: Medium-Term Caucus Persistence

Legislative Terms	Frequency (Percent)
1	603 (28.2%)
2	467 (21.8)
3	328 (15.3%)
4	252 (11.7%)
5	187 (8.7%)
6	118 (5.5%)
7	96 (4.5%)
8	59 (2.8%)
9	32 (1.49%)
TOTAL	2142

Table 3: Predicting Caucus Persistence

VARIABLES	(1) Logit Short-term	(2) Poisson Medium-term
Total Membership of Caucus	0.0214	0.00693**
	(0.0253)	(0.00343)
One leader from each party	0.533***	0.0280
	(0.193)	(0.0487)
Sponsorship	-0.00285**	-0.000372**
	(0.00125)	(0.000185)
Cosponsorship	0.00119***	0.000119**
	(0.000238)	(4.82e-05)
Proportion of Opposite Party Dyads	-0.165	-0.136*
	(0.235)	(0.0778)
Proportion of Dyads with No Common Committees	-0.153	0.0937
	(0.255)	(0.0996)
103rd Congress	-1.046***	-1.218***
	(0.319)	(0.0572)
104th Congress	0.0415	-0.737***
	(0.318)	(0.0642)
105th Congress	-0.0486	-0.515***
	(0.294)	(0.0584)
106th Congress	-0.254	-0.254***
	(0.267)	(0.0505)
107th Congress	0.559*	-0.202***
	(0.286)	(0.0462)
108th Congress	0.157	-0.0441
	(0.233)	(0.0431)
109th Congress	-0.132	0.0654**
	(0.235)	(0.0334)
Constant	0.801**	1.005***
	(0.317)	(0.111)
Observations	1,723	1,723
Pseudo R-squared	0.0870	.
Log Lik	-656.3	-3106
Number of clusters	544	544

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

References:

Ainsworth, Scott H., and Frances Akins. "The Informational Role of Caucuses in the U.S. Congress." *American Politics Research* 25 (4) (1997): 407 - 430.

Burt, Ronald S. *Structural Holes*. Cambridge, MA: Harvard University Press, 1992.

Burt, Ronald S. "The Network Structure of Social Capital." *Research in Organizational Behavior* 22 (2000): 345-423.

Burt, Ronald S. "Structural Holes and Good Ideas." *American Journal of Sociology* 110(2) (2004): 349-99.

Caldwell, Charles F. "Government by Caucus: Informal Legislative Groups in an Era of Congressional Reform." *The Journal of Law and Politics* 5(3) (1989).

Davidson, Roger and Walter Oleszek. *Congress and Its Members*. Washington, DC: Congressional Quarterly Press, 1981.

Fiellin, Alan. "The Functions of Informal Groups in Legislative Institutions." *Journal of Politics* 24 (1962): 72 - 91.

Granovetter, Mark. "The Strength of Weak Ties." *American Journal of Sociology* 78 (1973): 1360-80.

Granovetter, Mark. *Getting a Job*. Cambridge, MA: Harvard University Press, 1974.

Hammond, Susan Webb. "Congressional Caucuses and Party Leaders in the House of Representatives." *Political Science Quarterly*, 106(2) (1991): 277-294.

Hammond, Susan Webb. *Congressional Caucuses in National Policy Making*. Baltimore, MD: Johns Hopkins Press, 1998.

Hammond, Susan Webb, Daniel P. Mulhollan, and Arthur G. Stevens Jr,. "Congressional Caucuses: Legislators as Lobbyists." In *Interest Group Politics*, edited by Allan Cigler and Burdett A. Loomis. Washington, DC: Congressional Quarterly Press, 1983, 275-297.

Hammond, Susan Webb, Daniel P. Mulhollan and Arthur G. Stevens, Jr. "Informal Congressional Caucuses and Agenda Setting." *Political Research Quarterly* 38 (1985): 583-605.

Loomis, Burdett. A. "Congressional Caucuses and the Politics of Representation." In *Congress Revisited*, 2nd Edition, edited by Lawrence C. Dodd and Bruce I. Oppenheimer. Washington, DC: Congressional Quarterly Press, 1981, 204-220.

Miler, Kristina. "The Constituency Motivations of Caucus Membership." *American Politics Research* 39(5) (2011): 885-920.

Miller, Cheryl M. "Agenda-setting by State Legislative Black Caucuses: Policy Priorities and Factors of Success." *Policy Studies Review* 9 (1990): 339 – 354.

Ringe, Nils and Jennifer Nicoll Victor (with Christopher J. Carman). *Bridging the Information Gap: Legislative Member Organizations as Social Networks in the United States and the European Union.* Ann Arbor: University of Michigan Press, 2013 (*forthcoming*).

Ripley, Randall. *Congress: Process and Policy.* New York: W.W. Norton & Co, 1983.

Singh, Robert. 1996. "The Rise and Fall of Legislative Service Organisations in the United States Congress." *The Journal of Legislative Studies*, 2(2) (1996): 79-102.

Stevens, Arthur G., Jr., Arthur H. Miller, and Thomas E. Mann. "Mobilization of Liberal Strength in the House, 1955-1970: The Democratic Study Group." *American Political Science Review* 68(2) (1974): 667 - 681.

Stevens, Arthur G., Jr., Daniel P. Mulhollan, and Paul S. Rundquist. “U.S. Congressional Structure and Representation: The Role of Informal Groups.” *Legislative Studies Quarterly* 6(3) (1981): 415-437.

Vega, Arturo. “Congressional Informal Groups as Representative Responsiveness.” *American Review of Politics* 14 (1993): 355 - 373.

Victor, Jennifer N. and Nils Ringe. “The Social Utility of Informal Institutions: Caucuses as Networks in the 110th U.S. House of Representatives.” *American Politics Research* 37(5) (2009): 742-766.