# Can Caucuses Alleviate Partisan Polarization in the U.S. Congress?

Jennifer Victor<sup>\*1</sup>, Stephen Haptonstahl<sup> $\dagger 2$ </sup> and Nils Ringe<sup> $\ddagger 3$ </sup>

<sup>1</sup>Assistant Professor of Political Science, George Mason University <sup>2</sup>Data Scientist, National Public Radio <sup>3</sup>Associate Professor of Political Science, University of Wisconsin, Madison

November 3, 2014

#### Working Paper

#### Abstract

Congress has been increasingly criticized as a broken, gridlocked, polarized, ineffective institution. In this paper we seek to explore the consequences of polarization and whether existing institutions play any role in offsetting ideological polarization. We hypothesize that participation in the voluntary, bipartisan, caucus system provides opportunities for legislators to build cross-partisan relationships and profit from shared information, which can alleviate some of the negative effects of polarization. We operationalize polarization using dyadic covoting and show that legislators are more likely to covote if they share more caucus connections, controlling for a variety of factors that predict voting. The data in this analysis spans 9 congresses (1993-2010) and includes multiple connections between legislators.

\*jvictor3@gmu.edu <sup>†</sup>srh@haptonstahl.org <sup>‡</sup>ringe@wisc.edu

## Introduction

In this paper we seek to examine whether legislators in the US Congress can alleviate some of the immobilizing effects of partisan polarization through the social and informational benefits of voluntary caucuses. Our intuition about the possibility that caucuses could have an alleviating affect on polarization stems from three observations. First, legislators have institutional incentives to form and join caucuses, which provide the benefit of access to novel information and relationships (Ringe and Victor 2013). Second, in an ideologically polarized environment some legislators have incentives to seek opposing viewpoints and actively to recruit discussion partners who may be likely to hold disparate opinions (Ringe, Victor, and Gross 2013). Third, we know that members of Congress (MCs) have been joining caucuses in increasingly greater numbers, that the number of caucuses has been growing, and that caucuses have become more bipartisan in their composition. Together, these three trends produce the notable outcome that a greater number of opposite-party MCs is tied to one another through common caucus membership. There are, in other words, a greater number of cross-partisan caucus ties, which increases the likelihood that legislators will be exposed to novel information from ideological opponents. In the aggregate this effect may reduce the presence of ideological polarization.

At the outset we want to be clear about the differences between dyadic-level polarization and aggregate-level polarization. Typically, pundits and scholars are concerned with aggregate polarization, as we observe the ideological medians of the major parties in Congress become more extreme and diverged-this is one common measure of polarization, and one we discuss below. In this project, we seek to understand the microfoundations of polarization and its consequences by examining polarization from the level of individual dyads. As any two members of Congress become ideologically distant, they are polarized. In the aggregate, as more pairs of legislators become ideologically distant-or do not share the same voting history-the institution as a whole becomes more polarized. In this paper, we will examine the tendency of individual legislators to interact with their colleagues in caucuses and examine their tendency to vote the same. To preview our findings, we find evidence that participation in caucuses can cause co-partisans to vote more similarly, but we do not find support for our expectation that opposite-partisans will also co-vote more often as they are more connected in caucuses. Our current findings show that opposite-partians are less likely to agree in their roll call votes as they are more highly connected by caucuses. We note also that in both cases the substantive effects are small; it is small enough that it does not affect aggregate polarization very much, if at all. It may be impossible to know the counterfactual situation: what would the state of polarization be in the absence of caucuses? We cannot answer this definitely because the effects we find counteract one another and the effects are small. Regardless, we can conclude that caucuses cannot completely ameliorate partisan polarization in Congress.

Before going further, we will also make it clear that the recursive nature of this relationship is not lost on us: the presence of polarization may contribute to the proliferation of caucuses, at the same time that the benefit of broad caucus participation could negatively affect polarization; however, in this paper, we seek to investigate the viability of the claim that broad caucus participation can have an alleviating affect on polarization.

# **Congressional Polarization and Gridlock**

It is well understood that congress has become increasingly polarized in recent years. Figure 1 shows the polarization in Congress by party using roll call votes from 1879-2009 (Poole and Rosenthal 2007). While a vast literature exists to help explain the sources of this polarization, in this paper we focus on its consequences. Scholars and pundits frequently point to congressional polarization as a contributing feature of gridlock in Washington. The presence of legislative gridlock and low legislative productivity may be explained by other features of the modern Congress, which may also covary with polarization. For example, modern parties and ideologies map cleanly to one another leading to ideologically homogenous parties, compared to the historical record (Karol 2009; Noel 2014). This partisan alignment in conjunction with relatively frequent majority party turnover in Congress has led to recalcitrant party elites, who have little incentive to engage in cooperation with political opponents. Together, these characteristics contribute to polarization and gridlock, that many Americans, and some lawmakers, find frustrating.

Figure 1: Congressional Polarization: DW-Nominate Scores by party 1879-2009



The roll call record makes the increasing partian polarization of the U.S. Congress readily apparent. In the 20-year period between 1992 and 2012 party groups in Congress have become more internally homogenous, and their medians have become increasingly distant from one another, according to roll call votes. Roll calls are a reasonable way to measure the ideological nature of individual legislators and of the Congress, and have formed the basis for such analyses for decades (e.g., NOMINATE scores) (Poole and Rosenthal 1997, 2007). The sources of this increased polarization are numerous and highly related to electoral competition (Abramowitz and Gunning 2006; Lebo and Koger 2007).

There is also increasing evidence that the polarization in Congress results in decreased productivity, or at least an increased dissatisfaction with the institution (Madison 2012).

Using the resume of the Congress we looked at the overall productivity of Congress during the time period of study: 1994-2010 (Senate 2012).



Figure 2: Legislative productivity of the House of Representatives 1993-2010

Figure 2 shows that while House members have actively and increasingly introduced legislation over the period of study, the percent of their bills that pass into law has declined. This suggests that single party coalitions pass bills through the chamber that do not become law. For example, in recent years House Republicans have voted to repeal all or parts of the Affordable Care Act ("Obamacare") at least 50 times (Parkinson 2014). This is a symbolic act of partisan politics, not a genuine gesture in lawmaking, as Republicans know that President Obama and the Democratically controlled Senate will not follow course. As the legislative gridlock associated with partisan polarization increases, some legislators may seek means of alleviating the negative consequences of gridlock. While it may not be possible to overcome polarization in a way that leads to increased productivity, legislators may seek ways to increase their level of contact and interaction with their peers—particularly cross-partisans. We discuss the conditions for such incentives and behaviors below.

# **Caucus** Proliferation

Concurrent with increasing polarization in the modern Congress, caucuses have proliferated. Figure 3 shows the growth in the number and size of caucuses from 1994 to 2010. The figure shows number of caucuses in Democratic-majority congresses in blue, and the number of caucuses in Republican-majority congresses in red; caucus proliferation has occurred across varying party majorities in Congress. The green line corresponds to the right axis and shows the average size of caucuses in each Congress. We use the term caucuses to refer to Legislative Service Organizations and Congressional Member Organizations. "Caucuses" is a general term understood by those in the House to refer to legislative groups, such as the Diabetes Caucus or the Congressional Bike Caucus. Prior to 1994, these groups were known as Legislative Service Organizations. Under the dominance of Democratic Party majorities in the much of the latter half of the twentieth century, the House of Representatives supported a few dozen LSOs, which came under intense Republican criticism. The early 1990s saw public allegations of corruption in caucuses and strong charges of the improper use of public funds (Rodriguez 1993). When the Republican Party won the majority of seats in the House in the 1994 election, one of the first acts of the new leadership was to de-fund and disband LSOs (Love 1995; Ringe and Victor 2013). The reforms may have been intended to curtail caucuses, but the time period following the new restrictions on the groups now called Congressional Member Organizations, shows renewed popularity in legislators' membership in caucuses. The Republican reforms that removed formal Congressional support had the perhaps unintended consequence of legitimizing dozens of pre-existing "shadow" caucuses. Under the new, and current, rules, no groups can have House resources or support and this liberated caucus organizers to form new groups under relatively few restrictions-as long as they were not supported by the House. The correlation between the growth in caucuses and the rise of polarization over the same time period is clear (r = 0.93). It may be the case that the proliferation of caucuses has been caused by structural changes to the caucus system, which may be independent of sources of polarization and gridlock. We cannot be certain whether the sources of increased polarization are also the sources of the growth in caucuses. In this project we simply seek to recognize the correlation in these events and to study their effects.



Figure 3: Congressional Caucus Trends 1994-2010 (103rd Congress - 111th Congress)

In addition to increased growth in the caucus system, the number of caucuses that have members from both political parties has also increased. Figure 4 shows the proportion of caucuses that are bipartisan, meaning groups contain members from both political parties. On average, in the time period we studied, 1994-2010, about 25 percent of caucuses are singleparty groups, while three-quarters of caucuses have members from both political parties. As the number and size of caucuses grows over time, the proportion of caucuses that contain members from both parties also grows, meaning the growth of caucuses is not primarily in single-party groups. Of the 25 percent of caucuses that are single party, the vast majority of these are small caucuses that have fewer than 10 members. In general, then, caucuses tend to be bipartisan. Figure 4: Bipartisanship in the Caucus Population 1994-2010 (103rd Congress - 111th Congress)



In what follows we seek to better understand the relationship between polarization and its accompanying gridlock with the massive growth a strongly bipartisan caucus system in the U.S. House. Caucus popularity may be partly caused by the frustrations of legislating under polarized conditions, but as we described above there are structural explanations for the proliferation of caucuses as well. Regardless of the mechanisms that have caused these phenomena, we explore the consequences of the presence of a large, bipartisan institutional feature in a highly polarized congress. More MCs join a growing number of caucuses that are increasingly bipartisan, which means that a greater number of opposite-party MCs are tied to one another through common caucus membership. Does this increasing number of cross-partisan caucus ties alleviate polarization?

## The Benefits of Caucuses

Recent research shows that while Members of Congress may not seek out caucuses for the express purpose of meeting opposite-partisans, in many cases relationships with crosspartisans is a direct byproduct of caucus membership, and one that many legislators value. Members of Congress who join caucuses make connections to legislators with whom they are not otherwise connected (Ringe and Victor 2013, chap. 5). Caucuses offer institutional flexibility not offered by parties and committees. As voluntary organizations with (potentially) unlimited issue scope, caucuses offer an opportunity for MCs to collaborate on issues for which they share policy priorities (but not necessarily preferences)<sup>1</sup>. Legislative committees provide legislators with the opportunity to interact on legislative substance with

<sup>&</sup>lt;sup>1</sup>One might suspect that members of the same caucus share not only policy priorities, but also preferences. This is often not the case, however. For example, MCs who join the Congressional Caucus on Parkinson's Disease may do so because they consider that the treatment of Parkinson's disease to be an important cause and because they share a common priority: finding a cure for the disease. Some MCs may favor the use of stem cell research in this effort, however, while others strongly oppose it, meaning that they do not share common preferences regarding the appropriate policy solution (Ringe and Victor 2013, p. 31)

members of the opposite party, but only on a limited range of topics and only with the legislators assigned to that committee. Parties offer the opportunity for legislators to discuss a broad range of topics, but only in an ideologically homogenous setting (relative to committees). Also, participation in legislative parties and committees is not optional-one cannot reasonably opt-out of the committee or party system. Caucuses offer the advantages of both with none of the costs. Caucuses are purely voluntary and can be of broad scope and size. The drawback of caucuses also stems from their voluntary, low-cost nature as they are particularly sensitive to internal collective action dilemmas. Ringe and Victor show that the casual nature of caucuses are a benefit to their longevity because for all but the caucus leaders, participation in caucuses, their events, activities, and communication is low-cost and there are no consequences for shirking. Moreover, the potential for caucuses to produce valuable and useful information about policy (e.g., expert information) or politics (e.g., legislative strategy or legislators' revealed preferences) is real, as caucuses tend to be supported by a massive complex of interest groups that use caucuses as a means to access legislators (Ringe and Victor 2013, chap. 6) (also Hall and Deardorff 2006; Esterling 2007). Interest groups supply caucuses with high quality information which gets quickly disseminated through the network of caucus members for each caucus. The more caucuses a lawmaker joins, the higher the probability that s/he will be exposed to such information across a variety of issue topics.

The presence of bipartisan caucuses, therefore, provides the opportunity for legislators to be exposed to information that they would not otherwise observe, and to make relationships with cross-partisans. It is not clear, however, that legislators choose to join caucuses for this reason. As described in (Ringe and Victor 2013) legislators join LMOs for a variety of idiosyncratic reasons, only some of which are incentive-driven. While it may be the case that legislators join caucuses for many reasons, it is worth exploring the incentives that legislators have for purposeful exposure to disparate policy information.

Legislators have strong incentives to stay in communication with members of the opposite party because the need for broad-based political and policy information is deep. Also, legislators have strong incentives to seek interactions with those with whom they are likely to disagree in order to obtain strategic advantage (Huckfeldt and Sprague, 1987), deeper awareness of opposing viewpoints (Mutz 2006), and to increase the confidence in an individual's preference ordering by checking it against the preferences of allies or adversaries with known preferences (Ringe, Victor, and Gross 2013). These incentives to seek opposing viewpoints are not, however, likely to dominate legislators' strong natural tendencies to interact with colleagues with whom they have a great deal in common. Like the rest of us, legislators are likely to prefer to talk to people with whom they agree and share interests and preferences. Unlike the rest of us, however, legislators have stronger incentives than the average citizen to seek out countervailing information. Legislators who seek to build coalitions have an incentive to maximize their number of potential coalition partners. Playing nice in the sandbox with others, even those with whom you often disagree, has advantages in the repeated game of lawmaking because it helps you to build relationships with colleagues that you may call on to join a cause and because it can provide you with access to information you might not otherwise have. Of course, legislators who do not seek to build coalitions and who seek to wield legislative power by slowing government, blocking laws, and protecting the status quo, may have different incentives and may not seek to have relationships with dissimilar others. We expect most lawmakers primarily to seek relationships with like-minded copartisans; however, for those legislators who are not interested in legislative stagnation, we expect legislators to seek means of interacting with opposite-partisans. Bipartisan, low-cost, voluntary caucuses are an excellent institutionalized means of accomplishing this goal.

Caucus participation, then, provides the opportunity for legislators to make connections of different sorts to other legislators. As caucuses are more bi-partisan, the probability of using caucuses to connect to legislators of the opposite party increases. Caucus participation has the potential to provide benefits to individual legislators in terms of building relationships and providing access to high quality information (Ringe and Victor 2013). These activities can decrease polarization if legislators use them to connect with opposite partians, gain exposure to opposing viewpoints, and ultimately cast roll call votes in which cross-partisans agree. Of course, legislators have many opportunities to get exposed to opposing viewpoints in committees, at events, etc. However, caucuses, we argue, offer a different sort of opportunity for exposure to cross-partisans and disparate information because caucuses are a low-key, relaxed, low-cost source of information and relationships. The non-threatening and voluntary environment offered by caucuses is more likely to convey information in a way that legislators are likely to heed and use it to update their preferences or beliefs about a policy or vote. Exposure to disparate information does not always result in a positive update in one's beliefs or preferences, but the context and frame in which one receives the information affects the likelihood of it changing one's beliefs (Nyhan and Reifler 2010). Since legislators voluntarily join caucuses and benefit from the resulting relationships and information in low cost and often informal ways, legislators are more likely to be affected by this information than if they had received it in a way that was less voluntary or more formal.

For example, suppose you are a legislator who has a preference for lowering crime rates and you believe that increased policing reduces crime. When riding on an elevator with an opposite party legislator (or lobbyist), your colleague argues that increased police patrols counterintuitively *increases* crime rates. You do not find the argument compelling and you dismiss the information because it did not come from a source you trust. Later, at an event organized by the Crime Prevention Caucus you (or your staffer) get a briefing on the study that showed the counterintuitive relationship between crime rates and policing. You are more inclined to update your beliefs with this information because it has come from a source that you trust, that you know you will interact with again in the future, and that has provided good information in the past. Furthermore, you now also have other colleagues with whom you can discuss the findings who have received the same information you have. In short, we expect that there is something different about caucuses, as compared to random or contrived interactions with opposite partisans. The voluntary and bipartisan nature of caucuses increase the value of the information that comes from them.

In general, we expect that legislators who are more connected via caucuses will be more likely to vote the same way.

**Hypothesis 1** Any two legislators who are more connected in the caucus network are more likely to vote the same way, all else being equal.

Additionally, we expect that co-partisans are already likely to vote the same way and

common caucus participation may have a multiplying effect on co-partisan voting behavior.

**Hypothesis 2** Any two legislators from the same party who are more connected in the caucus network are more likely to vote the same way, all else being equal.

We might also expect that opposite partians who are more connected in the caucus system will be more likely to vote the same way, all else being equal. There are a number of possible reasons for this. First, beneficial information and relationships attained through the caucus, and not by other means, will affect legislators' beliefs and preferences. Moreover, bipartian caucuses have the added advantage of exposing legislators to opposite-partians. The venue of a caucus is a casual and, generally, non-threatening one, with potential opportunities for actual socialization at receptions or events. A legislator who becomes acquainted with a great number of cross-party colleagues may, therefore, become more sensitive to their viewpoints. In the aggregate such a legislator may cast more votes with cross-partians than she would have in the absence of that exposure.

**Hypothesis 3** Any two legislators from opposite parties who are more connected in the caucus network are more likely to vote the same way, all else being equal.

While caucuses may alleviate polarization between any two opposite-party legislators, previous research on social ties and legislative covoting suggests an alternative hypothesis. Ringe, Victor, and Gross (Ringe, Victor, and Gross 2013) consider the value of social ties with political opponents for lawmakers' vote choices. They maintain that such opposite-party ties allow for negative cueing to occur, where lawmakers check their own predispositions against the positions taken by colleagues with whom they tend to disagree. For example, Legislator A may be predisposed to vote yea on a matter. In order to ascertain that this is the right vote choice, she may look at Legislator B, with whom she usually disagrees, with the expectation that B will want to vote nay. If her expectation is met, her predisposition to vote yea is confirmed. If, however, B unexpectedly signals leaning toward voting yea, A will have reason to reconsider he priors. If cross-partisan caucus ties are consciously used by legislators for the purpose of negative cueing, however, we should not expect that opposite-party members of the same caucus are more likely to vote alike, but the opposite. Our final hypothesis captures this possibility:

**Hypothesis 4** Any two legislators from opposite parties who are more connected in the caucus network are less likely to vote the same way, all else being equal.

We present hypotheses 3 and 4 above as competing hypotheses, which we test with our data in the next section. Of course, only the presence of evidence for Hypothesis 3 would substantiate the claim that caucuses can play a role in alleviating partian polarization. If the evidence favors Hypothesis 4, it would suggest that caucuses do not play a role in alleviating polarization, and could even exacerbate polarization.

#### **Research** Design

Our effort to understand the complexities of voting behavior requires a deep and longitudinal data set. While there are numerous ways to measure polarization, here we look to primary measure of recorded legislative behavior-roll call votes. Since upwards of 90 percent of voting behavior can be explained by party or ideology, we must control for these commonalities between legislators and hope to explain the remaining variance in roll calls. In this section we describe our data and data collection process.

Partisan polarization, observed at the dyadic level of voting, is the frequency with which two legislators cast the same votes. We therefore measure polarization as covoting, or voting agreement, where polarization and covoting are negatively associated (see Sinclair 2011). An increase in covoting represents a decline in polarization. While polarization is frequently represented as an aggregate measure, summarized by the roll call behavior of legislators in a Congress, we prefer to disaggregate polarization. Taking a dyadic approach, we suggest that a legislative pair who cast few or no votes alike are "polarized," but a pair who votes alike all the time does not exhibit polarization. We therefore seek to explain the frequency of dyadic covoting as a function of caucus participation.

We are, of course, not the first to attempt to link social ties to legislative voting. For example, previous research has considered the impact of friendship (Caldeira and Patterson. 1987), cosponsorship (Cho and Fowler. 2010; Fowler 2006; Koger 2003), spatial proximity (Masket 2008), staff connections (Ringe, Victor, and Gross 2013), lobbyists' donations (Koger and Victor 2009), and legislative member organizations, such as caucuses in the US Congress and intergroups in the European Parliament (EP) (Ringe and Victor 2013).

We collect data on legislators in the U.S. Congress from 1993-2010, or Congresses 103-111. We take a kitchen-sink approach to control variables, because we expect the substantive effect of caucus participation on covoting to be small. We seek to control for a variety of factors that are known to determine roll call votes, including serving in the same party, serving on the same committees, being from the same state, the mean electoral winning percent of the dyad, the electoral percent difference, the number of terms served, the number of common cosponsored bills, serving as a legislative leader (including committee chairs and ranking members), gender, mean betweenness, and mean degree.

We collect roll call data from the 103rd through 111th Congresses (Poole and McCarty 2011). The resources from voteview.com also provide data on legislators' party affiliations, and state delegations (Poole and McCarty 2011). We collected congressional caucus membership information from the same time period by hand recording data from the Congressional Yellow book (Michaela Buhler 1994-2010). This process included a member-by-member recording of caucuses listed in the winter volume of the second session for each Congress.<sup>2</sup> For more information on this process see Chapter 4 of Ringe and Victor (2013). We also collected legislative data on congressional committee assignments from (Nelson 1993, n.d.; Stewart and Woon 2009) and calculate the number of common committee assignments between all dyads. Additionally, we collected data on legislators' gender, race, and

<sup>&</sup>lt;sup>2</sup>Yellow books are published quarterly from Leadership Directories, Inc. We opted to collect the data from one book for each two-year Congress, selecting the final book published for each Congress under the logic that the final book might have the most complete information for a term.



Figure 5: Descriptive Statistics for Member of Congress Dyads

Notes: All dyads for Congresses 103-111.  $n_{dyad-Congress} = 658,991, n_{dyads} = 231,861.$  $n_{legislators} = 773.$ 

leadership status (Manning and Shogan 2009, 2010; Tong 2010; Library of Congress 2010; Office of the Clerk 2010b).<sup>3</sup> Electoral winning percent data come from the House Clerk (Office of the Clerk 2010a).

This dataset includes 658,991 dyad-Congresses across 231,861 dyads for up to nine Congresses. Of those dyad-Congresses, 50.2% share the same party, 4.2% are from the same state, 1.9% are both female, and 1.3% are both leaders. As can be seen in Figures 5 and ??, the density of covoting rates is bimodal as is expected given the likelihood of covoting with copartisans. The number of common caucuses ranges from zero to 39 but is zero more than half the time, as is the number of common committees. Mean betweenness and mean degree appear to follow power law distributions, as do the mean number of terms served and the number of bills cosponsored. The mean electoral % is roughly normally distributed and the electoral % distance is generally away from zero with a median of 11%.

To test our hypotheses a panel data model is appropriate given that we want to test the expectations where there is variation across legislator dyads and across Congresses. The

<sup>&</sup>lt;sup>3</sup>Legislators are considered a leader if they served as Speaker, Minority/Majority Leader, Minority/Majority Whip, or the Chair or ranking members on a standing legislative committee.

model is:

plus fixed effects for each Congress. To include fixed effects for each dyad we assume the dyadic effect is the sum of fixed effects for each legislator.<sup>4</sup> To implement this we include a dummy for each legislator and set it to 1 if that legislator is a member of that dyad. The lagged dependent variable addresses autocorrelation in the dependent variable. We estimate the model in **R** using the **pcse** package to ensure our measures of uncertainty take into account the panel structure of the data.

We also estimate a model that includes the interaction between the number of common caucuses and being members of the same party. This lets us separate the effects of common caucuses between same party and opposite party dyads.

# Results

Given the size of the dataset we expect that coefficient estimates are measurably differentiable from zero. For model 1, except for the dummy for both being leaders we are able to distinguish these coefficients from zero; for model 2, "both female", "both leaders", and "electoral percentage distance" are all not distinguishable from zero. The results for the control variables largely comport with expectations. For instance, being members of the same party is associated with significantly more covoting.

<sup>&</sup>lt;sup>4</sup>This is similar to the approach taken by Ringe, Victor, and Gross (2013).

	Model 1		Model 2	
	Estimate	SE	Estimate	SE
(Intercept)	0.0266	0.0024	0.0345	0.0023
(lagged DV)	0.7113	0.0011	0.7206	0.0010
Number of common caucuses	0.0023	0.0001	-0.0067	0.0001
Same party common caucuses			0.0118	0.0001
Number of common committees	-0.0016	0.0002	-0.0012	0.0002
Dummy for same party	0.0872	0.0004	0.0755	0.0004
Dummy for same state	-0.0076	0.0004	-0.0061	0.0003
Dummy for both female	-0.0028	0.0006	-0.0005	0.0006
Dummy for both party leaders	-0.0009	0.0006	-0.0008	0.0006
Mean betweenness score	0.0000	0.0000	0.0000	0.0000
Mean degree	0.0000	0.0000	0.0000	0.0000
Number of measures cosponsored	0.0005	0.0000	0.0004	0.0000
Mean electoral $\%$	0.0008	0.0000	0.0007	0.0000
Electoral $\%$ distance	-0.0001	0.0000	0.0000	0.0000
Mean number of terms served	-0.0012	0.0001	-0.0012	0.0001

Table 1: Covoting Rate by Members of Congress

Notes: Dropped 103<sup>rd</sup> Congress due to inclusion of lagged dependent variable. Includes all legislator dyads for Congresses 104-111.  $n_{dyad-Congress} = 658,991, n_{dyads} = 231,861.$  $n_{legislators} = 774.$ 

For model 1 (no interaction term) the coefficient on the number of common caucuses is about .002. One way to look at this is that one additional common caucus is associated with two additional covotes a 1000-vote Congress. Another interpretation is that four additional common caucuses is associated with about a 1% higher covoting rate. For model 2 the effect for members of opposite parties is about -0.007 and for copartisans is about 0.005. In a 1000-vote Congress one more common caucus between members of opposite parties is associated with seven fewer covotes; for copartisans it is associated with five additional covotes. An alternative interpretation for each is that three additional common caucuses between members of opposite parties is associated with a 2% decrease in covoting, while four additional common caucuses between copartisans is associated with a 2% increase in covoting.

#### Discussion

The evidence supports Hypothesis 1–legislators who are more connected through caucuses are more likely to vote the same way, all else being equal. The evidence also supports Hypothesis 2–legislators from the same party who are more connected by caucuses are more likely to vote the same way. The estimated effect is substantively small. Hypotheses 3 and 4 are competing and the evidence is more consistent with Hypothesis 4–opposite party dyads are less likely to vote the same way as they are move connected through caucuses. This evidence goes against our expectation that caucuses could play a role in alleviating polarization. Indeed, this evidence suggests that caucuses may exacerbate polarization.

There are three reasons we have some skepticism about our findings and seek to investigate further. First, we are concerned that our current estimation approach might underestimate the standard errors of our estimates because of the known presence of autocorrelation in the dyads. While we have confidence that the fixed effects approach taken here is sound, we plan to investigate the possibility that the standard errors remain underestimated. Following the example of non-parametric randomization tests, described by Erikson, et al. Erikson (2014), we seek further indication of robustness in our estimates and findings. Second, we suspect that we can better leverage the temporal nature of our data to test our expectations. We seek to develop a dynamic, simultaneous, or lagged model that will help us to estimate the possibility that caucus participation at time t affects voting behavior at time t+1. Third, we have some sense of pause about our findings because of the small size of the effects we have found. Even if Hypothesis 1 through 3 had been supported, the effect sizes are small and reveal that the effects of caucus participation are meager in the face of stronger structural incentives related to roll call voting.

While this paper represents a work in progress, our findings are consistent with conclusions drawn by Ringe and Victor (Ringe and Victor 2013) who conclude that legislative member organizations primarily affect the lawmaking process in an indirect fashion. That is, the extent to which caucus may have an impact in the legislative process is characterized by the value they inject in the process–relationships and information. These increased values are likely to affect the legislative process more broadly in the beginning stages of lawmaking, when legislators are drafting ideas, building coalitions, setting agendas, and collecting policy and political information about a proposal. Admittedly, it is difficult to measure the influence of an institution at the early stages of lawmaking. Perhaps our attempt to look for that influence in the roll call record is misguided (i.e., the so-called "street light effect"), but the fact that we find any measurable effect in the roll call record is notable.

## Conclusion

In this paper, we recognize that partisan polarization in Congress has left some members of Congress frustrated with its associated gridlock. Congressional caucuses provide an excellent institutional setting in which legislators can seek refuge from gridlock because they are voluntary, bipartisan, tend to be focused on substantive topics of interest to legislators, and provide important opportunities for developing relationships across the aisle and obtaining access to high quality information. In this paper we explore the possibility that caucuses can serve to alleviate the gridlock-inducing effects of polarization by helping members to become exposed to, and sympathetic to, countervailing viewpoints. We also recognize evidence that suggests we might expect opposite-partisans who connect through caucuses to be *less* likely to vote the same way because of the possibility that legislators use social interactions with dissimilar others to strategically check their own policy positions. The evidence presented here shows that legislators connected through caucuses are more likely to vote the same way, in the aggregate. This effect is positive for same-party legislators and negative for opposite-party legislators. We seek to investigate these findings further. However, regardless of future tests, we are confident that any effect that caucus participation has on legislators' tendency to vote the same way pales in comparison to the structural incentives they face from their political parties. While caucuses theoretically can affect legislators' voting record, the substantive effect of caucus participation on voting is sufficiently small that it is likely that caucuses neither cause nor alleviate partisan polarization.

In general, caucuses are more likely to impact lawmaking at the early stages of the legislative process, rather than at the end during a roll call; however, we find the evidence that participation in caucuses induces copartisans to engage in more covoting than they would in the absence of caucuses, suggesting that caucuses may play a beneficial informational role in the legislative process.

# References

- Abramowitz, Alan I., Brad Alexander, and Matthew Gunning. 2006. "Incumbency, Redistricting, and the Decline of Competition in U.S. House Elections." The Journal of Politics 68(1): 75–88.
- Caldeira, Gregory A., and Samuel C. Patterson. 1987. "Political Friendship in the Legislature." Journal of Politics 49: 953-75.
- Cho, Wendy K. Tam, and James Fowler. 2010. "Legislative Success in a Small World: Social Network Analysis and the Dynamics of Congressional Legislation." *Journal of Politics* 72(1): 124–35.
- Erikson, Robert S., Pablo M. Pinto Kelly T. Rader. 2014. "Dyadic Analysis in International Relations: A Cautionary Tale." *Politial Analysis* 22: 457–463.
- Esterling, Kevin. 2007. "Buying Expertise: Campaign Contributions and Attention to Policy Analysis in Congressional Committees." *The American Political Science Review* 101(1): 93–109.
- Fowler, James H. 2006. "Connecting the Congress: A Study of Cosponsorship Networks." Political Analysis 14(4): 456 - 487.
- Hall, Richard L., and Alan V. Deardorff. 2006. "Lobbying as Legislative Subsidy." American Political Science Review 100(1): 69–84.
- Huckfeldt, Robert, and John Sprague. 1987. "Networks in Context: The Social Flow of Political Information." American Political Science Review 81(4): 1197–1216.
- Karol, David. 2009. Party Position Change in American Politics: Coalition Management. Cambridge University Press.
- Koger, Gregory. 2003. "Position Taking and Cosponsorship in the U.S. House." Legislative Studies Quarterly 28(2): 225–246.
- Koger, Gregory, and Jennifer Nicoll Victor. 2009. "Polarized Agents: Campaign Contributions by Lobbyists." *PS: Political Science & Politics* 42(3): 485–488.
- Lebo, Matthew J., Adam J. McGlynn, and Gregory Koger. 2007. "Strategic Party Government: Party Influence in Congress, 1789-2000." *American Journal of Political Science* 51(3): 464-481.

Library of Congress. 2010. "Hispanic Americans in Congress, 1922-1995.".

- Love, Alice A. 1995. "Like Other Defunct LSOs, Black CaucusForms CMO." Roll Call (March 2).
- Madison, Lucy. 2012. "Congressional approval hits another all-time low." CBS News (February 8).

- Manning, Jennifer E., and Colleen J. Shogan. 2009. "Women in the United States Congress: 1917-2009." Report of the Congressional Research Service.
- Manning, Jennifer E., and Colleen J. Shogan. 2010. "African American Members of the United States Congress: 1870-2009." Report of the Congressional Research Service.
- Masket, Seth E. 2008. "Where You Sit is Where You Stand: The Impact of Seating Proximity on Legislative Cue-Taking." *Quarterly Journal of Political Science* 3: 301–11.
- Michaela Buhler, Dorothy Lee Jackson, ed. 1994-2010. Congressional Yellow book. Leadership Directories, Inc.
- Mutz, Diana C. 2006. *Hearing the Other Side: Deliberative versus Participatory Democracy*. Cambridge University Press.
- Nelson, Garrison. 1993. Committees in the U.S. Congress, 1947-1992, Volume 1: Committee Jurisdictions and Member Rosters. Congressional Quarterly Press.
- Nelson, Garrison. n.d. "Committees in the U.S. Congress 1947-1992, House Committees 80th-97 Congresses and House Committees 98th-102nd Congresses.".
- Noel, Hans. 2014. Political Ideologies and Political Parties in America. Cambridge University Press.
- Nyhan, Brendan, and Jason Reifler. 2010. "When Corrections Fail: The Persistence of Political Misperceptions." *Political Behavior* 32: 303–330.
- Office of the Clerk, United States House of Representatives. 2010a. "Election Information: Election Statistics.".
- Office of the Clerk, U.S. House of Representatives. 2010b. "Historical Leadership Information.".
- Parkinson, John. 2014. "House Takes 50th Vote to Change 'Obamacare'." ABC News online(March 5).
- Poole, Keith T., and Howard Rosenthal. 1997. Congress: A Political-Economic History of Roll Call Voting. New York: Oxford University Press.
- Poole, Keith T., and Howard Rosenthal. 2007. Ideology & Congress. Transaction Publishers.
- Poole, Keith T., Howard Rosenthal Royce Carroll Jeff Lwis James Lo, and Nolan McCarty. 2011. "DW NOMINATE Scores with Bootstrapped Standard Errors.".
- Ringe, Nils, and Jennifer N. Victor. 2013. Bridging the Information Gap: Legislative Member Institutions in the U.S. and E.U. University of Michigan Press.
- Ringe, Nils, Jennifer Nicoll Victor, and Justin H. Gross. 2013. "Keeping Your Friends Close and Your Enemies Closer? Information Networks in Legislative Politics." *British Journal* of Political Science 43: 601–628.

Rodriguez, Paul M. 1993. "Groups Don't Play by Congress' Rules." Washington Times (June 30).

Senate, United States. 2012. "Resume of Congressional Activity.".

- Sinclair, Betsy, Jennifer N. Victor Seth Masket Gregory Koger. 2011. "Agreement Scores, Ideal Points, and Legislative Polarization." Presented at the 2011 Annual Meeting of the American Political Science Association, Seattle, Washington, September 1-4.
- Stewart, Charles III, and Jonanthan Woon. 2009. "Congressional Committee Assignments, 103rd to 111th Congresses, 1993-2009.".
- Tong, Lorraine H. 2010. "Asian Pacific Americans in the United States Congress." Report of the Congressional Research Service Num. 97-398.