

# Getting the message across: evaluating think tank influence in Congress

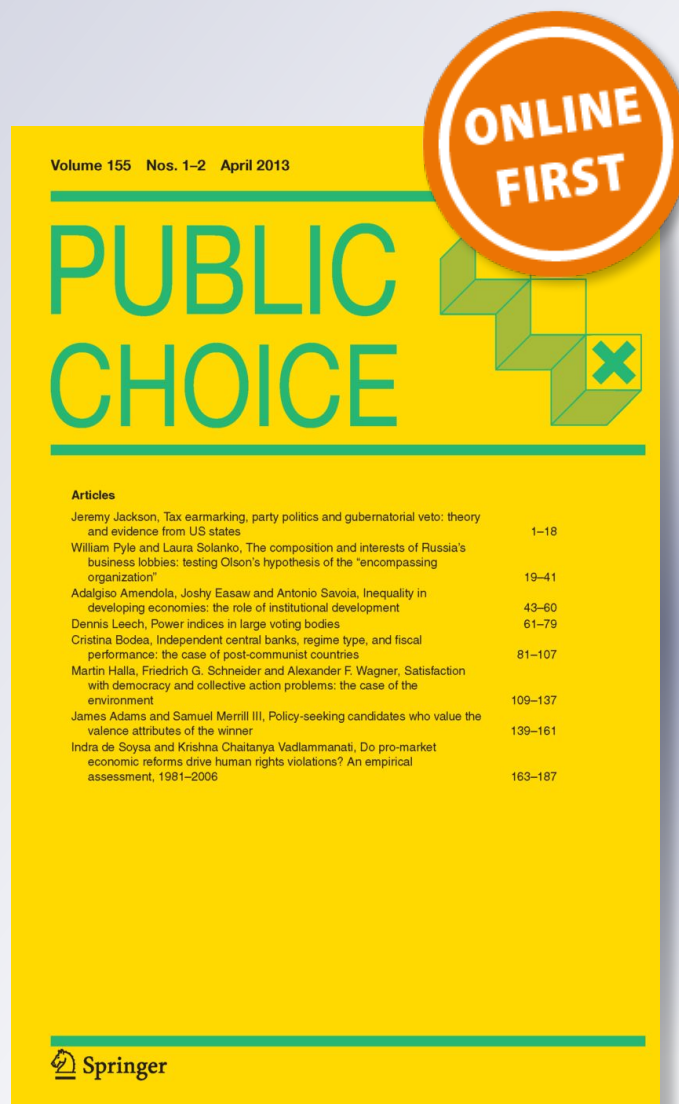
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# Getting the message across: evaluating think tank influence in Congress

Joshua Y. Lerner<sup>1</sup>

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**Abstract** Skirting the lines between academic, promotional and advocacy organizations, think tanks spend an inordinate amount of time and money attempting to influence policy debates, all the while being legally barred from lobbying. Think tanks, unlike interest groups, do not bring with them electoral constituencies to advocate on behalf of, so the ways in which they persuade legislators to adopt their opinions cannot simply be electoral in nature. Using a dataset of think tank citations from congressional floor speeches and committee testimony records, I compare the influence of think tanks based on a new measure of their ideologies and, in doing so, show that think tanks engage in strategic ideological positioning to maximize their influence. An additional hypothesis examined is the relationship between think tank members' previous work experiences in government with the organizations' overall prominence. By treating think tanks as strategic actors in legislative politics, I show that think tanks' ideological positioning affects directly how members of Congress engage with them, both by citing them in floor speeches and in calling them to testify, with more extreme think tanks being cited more frequently in floor speeches and more moderate think tanks called more often to testify.

**Keywords** Think tanks · Congress · Policymaking

## 1 Introduction

Think tanks and position advocacy groups dominate public discourse on policy in the United States, often setting the parameters of the debate, influencing the decisions of policymakers and informing both sides of the policy discussion. While these organizations

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appear to influence a number of policies, the ways in which they exert that influence and shape politics are understudied. The literature on interest groups deals overwhelmingly with what Olson (1965) termed “economic pressure group organizations” or special interest groups, ones that exist to extract rents and obtain favors for specific constituencies. Public interest groups on the other hand, deal with the realm of information as political capital. Just how they might exercise influence in the policy process is the question posed in this paper. They must convince members of Congress not only that their information is the “best” in terms of quality, but is the most relevant to any given member of Congress (MC).

Discussions of think tanks in social scientific settings have been limited to work that considers think tanks descriptively or as sociological phenomena detached from policy research; rarely have they been integrated with the research studying the policy universe, except in regards to foreign policy (Abelson 2009; McGann 2007; Stone 1996). Most research has yet to consider the think tank as an institution, integrated into a larger Washington-centric policy universe, that is interconnected with more well understood realms (Congress in particular). Because think tanks are hybrids of political, academic, media and corporate organizations, this is both necessary but difficult.

To better integrate think tanks into our understanding of the policy making process, I create a theoretical framework to evaluate think tank efficacy and observe the role they have in policy making, with a particular interest in analyzing how their implicit ideologies and their connectedness to inside-the-beltway politics relate to one another. That relatedness is an indirect way of observing the transmission of ideas, which is the true currency of think tanks (Medvetz 2012). The main contributions of this paper are the development of a new measure of organizational ideology using individual ideological scores derived from campaign contributions (Bonica 2014), and the application of those scores to the study of think tank influence in Congress. The paper presents a theory of how ideas persist between think tanks and other external political actors and how that shapes the behavior of members of Congress. In what follows, I demonstrate that think tanks’ ideological positioning directly affects how members of Congress engage them, both by citing them in floor speeches and in calling them to testify, with think tanks further from the chamber median being cited in floor speeches and think tanks closer to that median being called to testify.

This discussion proceeds as follows. First, I define what a think tank is. Second, I link think tanks to the literature on public policy formation in Congress. Third, I develop a theoretical account of how think tanks utilize strategic ideological positioning such that they are most useful to MCs who have a demand for expertise to bolster their positions, while still maintaining the necessary signaling of expertise. Fourth, I present the model and discuss the variables that go into the model. Finally, I present and discuss the results and what further questions they raise.

## 2 Defining the think tank

Conceptualizing exactly what a think tank is turns out not to be as simple as it may at first seem. Often, think tanks are just defined heuristically with several high-visibility examples used: The Heritage Foundation, Center for American Progress, and the RAND Corporation are think tanks, semi-governmental research bodies like the Congressional Budget Office (CBO) or the Congressional Research Service are not. The most public face of a think tank is the limited exposure individual experts get when speaking to the media about their research, so the public’s perception of think tanks is hard to ascertain. Rich (2005), in one

of the few attempts by political scientists to discuss think tanks in terms of American politics, defines them as “independent, non-interest based, nonprofit political organizations that produce, and principally rely on, expertise and ideas to obtain support and to influence the policymaking process.” That is the motivating definition for this paper.

The natural place to begin a discussion of think tanks would seem to be in the interest group literature. Some studies of interest groups have included think tanks as a subclass of interest groups themselves (see Grossmann 2012), while most studies generally do not address think tanks at all (see, for example, Baumgartner et al. 2009). While the interest group literature has shed a bright light on how those groups try to “buy access” to Congress, and how they affect particular debates and roll call votes (Denzau and Munger 1986; Hansen 1991; Hall and Wayman 1990; Esterling 2007; Baumgartner et al. 2009; McKay 2011), most often the policy demands they study require a constituency effect that is not found in think tanks. Work on treating interest groups as ideologically strategic movers is particularly astute and helped me think through how think tanks might behave similarly, even within their own constraints (McKay 2008). While the existing interest-group literature does not address think tanks explicitly, it does demand a more ground-up approach to thinking about them before we can even consider more ambitious and thorough approaches that have been applied to interest groups.

What is missing from standard accounts is something more context driven—independence, as Medvetz rightly points out, is something of a false choice in defining think tanks in particular, the nature of the work being produced and the people being hired suggests a lot about the organization. The vast majority of the output of a think tank will be some hybrid of social scientific research and activism that addresses topics that are inherently *political* in nature and are integral to the policy process, a view that is consistent with what Bertelli and Wenger (2009) found about the conditions under which think tanks are founded. People with varying backgrounds in media, academia, business and politics write think tanks’ reports, and the primary logic behind them is to persuade others to the veracities of their claims. It is best then to see think tanks as something of an extension of partisan networks, and that they play a highly visible role in legitimizing the machinations of the party they are aligned with.

### 3 Think tanks and the policy literature

The main obstacle to understanding think tanks is simply the paucity of research on them. Think tank research is largely absent from the political science literature, despite their prominence in the media’s coverage of policy debates (Medvetz 2012). Although the growth in think tanks’ prominence has coincided with progressively polarized legislative politics, little attention has been paid to the ever more polarizing role think tanks’ expertise have contributed to modern politics (Rich 2005).<sup>1</sup>

Studies of congressional lawmaking probably are the most fruitful venue for additional research on think tanks, particularly literature that focuses more on legislative outputs than on the process of legislating. The specific changes to the contents of major legislation should be the chief orientation of research on think tanks: research agendas devoted to a

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<sup>1</sup> No articles specifically about think tanks have been published in the *American Political Science Review*, the *American Journal of Political Science*, or the *Journal of Politics* in the past 30 years (Rich 2005).

policy-centric view of Congress dovetail with the same types of substance-driven concerns that think tanks themselves have.

The policy agendas literature pays attention to are the writing of legislation, and thusly there is concern with the hearings, testimony and drafting process of bill-making and not just with votes (Baumgartner and Jones 2002). Where think tanks impact the policy writing process is at the information gathering and position defending stages of legislative development. Since members of Congress are devoting more and more time to campaigning (Fleisher and Bond 2004), they have less time and other resources at their disposal to properly judge the merits of a given policy (Adler 2002). Think tanks add to the narrative of the policy agendas literature by informing the content of testimony, which explains the seemingly paradoxical decline in legislative time devoted to lawmaking as the number of committee hearings has risen. Think tanks are vital to the effective transmission of information in the process of transforming ideas into legislation, since proposed bills serve as “vehicles” for policy ideas (Adler and Wilkerson 2013). While attempts have been made to build a similar framework for interest groups (Grossmann 2012; Hansen 1991; Baumgartner et al. 2009), nothing of the sort has been done with respect to non-lobbying organizations. A policy-intensive theory of legislative behavior requires that think tanks be studied comprehensively.

#### 4 Expertise and policy equilibrium

An important contribution of this paper is the development of a model of think tank interactions with Congress that sees them as a part of an explicitly partisan policymaking process. Think tanks exist because of partisan demands for previously unavailable information and expertise. The demand for experts to defend explicitly partisan and ideological policies required the development of institutions providing expert level knowledge constrained by ideology. The broad presumption here is that elite interactions take place at the highest levels of a policy-making community that sits at the intersection of ideology, interests and the crafting of a public policy.

A theory of think tank interactions with congressional policy makers has two sides: a demand side (Congress) and a supply side (the think tanks). On the demand side, MCs view policy expertise as a means of furthering their own legislative ends, with think tanks providing some of that support (Bertelli and Wenger 2009). A reasonable assumption to make is that the policies think tanks craft either will promote largely well-defined ideological predispositions or that they address new topics, ones that generally demand more information than ordinary partisan issues would require. Ignoring the discussion of new topics,<sup>2</sup> the fact that the ideological positioning from year to year amongst MCs are quite stable suggests that their policy concerns largely remain stable as well—that conclusion is borne out in the policy agendas literature in that the status quo for most policy fields is partisan-centric permanence (Poole and Rosenthal 1997; Baumgartner and Jones 2002). The

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<sup>2</sup> There is evidence that the rise of new topics to legislate on is rather rare; with the exception of foreign policy/national security issues that sometimes arise rather suddenly, by the time there is ample pressure for Congress to move on a new topic, there has already been a saturation of partisan expertise on the market, such that there is little ambiguity about what each ideological side of a policy looks like (Baumgartner and Jones 2002).

structure of congressional policymaking thus is more constrained by interactions between ideology and partisanship.<sup>3</sup>

That consideration is important in understanding how MCs view think tanks because it explains how the two interact. The ways in which MCs use think tanks to further their ends are twofold: they cite them in floor speeches to bolster their own policy positions and to attack the positions of the members of the opposite party, or they call them to testify at committee and subcommittee hearings, in which case the politicians' motivations are more flexible. It is of course possible that some MCs genuinely want to learn about a bill's actual (or "unintended") effects, but since we assume that policy expertise is not primarily about changing minds, but instead crafting policies, it follows that MCs will seek out think tanks that enhance their existing policy priors, not changing them altogether (Poole 2007).

My argument is that the rationale behind calling experts from think tanks to testify is related to a balancing logic of expertise. The expectation of most subcommittee hearings is no more than a recitation of a simple ritual: I call on my "expert" to testify, you call on yours, and then the public judges based on what was said. While that version of the behavior of committees is the most reassuring for the democratic process, hearings have minimal impact on the public's perception of policy debates (Gilens 2001; Bartels 2005), so it may lack substantive motivation.

Think tanks are called to testify in hearings to serve two primary functions, first as part of congressional oversight responsibilities (as a "fire alarm" service) and, secondly, as information-conduits (McCubbins and Schwartz 1984). Testimony requires substantial effort to validate the expressed opinions; because it is not enough to have someone support the same policy positions that a MC does, think tank representatives must appear to be experts as well (Adler 2002; Levy and Peart 2016).<sup>4</sup>

The supply side of the expertise/policymaker relationship is the creation of think tanks to fill policy space. Given the ever-rising need for policy expertise, the utility that MCs gain from citing think tanks rises concomitantly as well. The boards of directors of think tanks are tasked with crafting an organizational agenda that is able to influence outcomes in Washington, under the constraint of staying within the ideological spaces of their donors and their board members. The policy contributions of think tanks, then, must be understood in the context of deliberate strategic thinking about maximizing the utility of a given organization constrained by donor expectations and preferences. Since board members usually combine wealth with an interest in public policy, their continued associations with think tanks suggest *some* actualized after-tax returns on their investments. And if that is true, the value added by being part of a think tank surely must be worth the money they donate.

<sup>3</sup> Not that we can separate the two readily when it comes to MCs.

<sup>4</sup> The foregoing model suggests an important consideration: although rarely will specific testimony matter in the passage or writing of policy, the presence of partisan expert testimony acts as a counterbalancing force between the partisan sides. An equilibrium is reached between both sides, in that the marginal impact of any given testimony is rather slim. If we were to assume a case of no testimony at all, then the presence of a single expert would provide more legitimacy to one ideological side than the other. Furthermore, if one side unilaterally were to withdraw unilaterally from the expertise margin of the legislative debate, MCs from that party would be unable to make persuasive cases at the committee or floor level to push policies in their direction (follows the logic of Cox and McCubbins 1993, 2005). That outcome is reminiscent of concerns from Republican House members in the pre-Heritage Foundation era that they had no resources on which to draw to defend their policy positions. As such, compromises made on legislation were often less favorable to the Republicans than they would have imagined possible (Edwards 1997), owing to the imbalance in partisan information and expertise valence.

Think tanks ultimately act to maximize their policy credibility—their propensity to produce ideologically consistent work—and their overall reputations, and their ability to produce quality work. Both reputation and credibility play into think tanks' ultimate goals: influencing policy change. To achieve those ends, think tanks are faced with strategic tradeoffs about where they position themselves ideologically. Ideological think tanks saturate the market to encourage policy congruent expertise with MCs who will then cite them, which bolsters their position-taking strength. Less ideological think tanks come into existence to expand the legitimacy of the policymaking process itself, and to serve both sides with policy relevant feedback. Ideological distance from the chamber median predicts the placement of the specific think tanks, as reflected in the relative distributions of think tank ideology and MC ideology. Because the distribution of members is bimodal and polarized, the think tanks that wish to be cited more are incentivized to align themselves closely with the median points of the two parties separately. Given the conciliatory nature of hearings, with a greater emphasis on a bipartisan agenda for the presentation of expertise, it follows that think tanks who want to be called to testify more, would do best to position themselves as more bipartisan or non-ideological. This is reflected in the relatively moderate ideology scores for those organizations that get called to testify the most.

To better understand this relationship, it is necessary to think about how think tanks relate the tradeoff of their public ideology to their reputation as a serious producer of policy research. Consistent with this tradeoff emerges the two different forms of influence discussed in this paper: citations, which represent low cost affirmations of ideological proximity (like Mayhew's position taking), and calls to testify, which represent higher cost calls that require more explicit expertise than just partisan affirmation. These ideas give us two sets of very clear hypotheses. The first set has to do with the interplay between ideology and the two different forms of influence for each organization.

**H<sub>1A</sub>** As a think tank's ideological distance from the median of the chamber increases, citations will increase.

**H<sub>1B</sub>** As a think tank's ideological distance from the median of the chamber increases, calls to testify will decrease.

A secondary set of assumptions deals with how think tanks position themselves in the policymaking network. Think tanks are only able to influence policies when they are close enough to the policy making process to get the attention of MCs before bills are written. Because of the need for proximity, think tanks value employees who have experience in the federal bureaucracy or in Congressional staffs for their ability to get the research done by the think tanks into the hands of MCs. Direct influence can be sought by tapping into networks of "revolving door" ex-Congressional staffers, former federal bureaucratic employees, and high ranking political appointees or civil servants. Think tanks are no different than any other organization that seeks to maximize social influence in policy making; these social connections are vital to gaining the access to MCs so that the organization's policy preferences can be well met. Because of this dynamic, an organization's proximity to power acts as a lowering of the informational transaction costs for MCs to engage their policy literature. Therefore, the secondary hypotheses are that for each organization:

**H<sub>2A</sub>** As a think tank's proximity to power increases, their citations will increase slightly and;

**H<sub>2B</sub>** As a think tank's proximity to power increases, their calls to testify will increase significantly.

This paper hopes to be the first to accurately report the dynamic relationship between think tank operations, ideology, and the policymaking process.

## 5 Why floor speeches and hearings?

One of the underlying arguments in this paper is that the substance of floor speeches and committee hearings are key aspects of legislative decision-making. The main dependent variables operationalized above—think tank citations in floor speeches and expert calls to testify during Congressional hearings—are only relevant if these activities represent deliberate attempts by Congressmen to alter the legislative agenda and policymaking. If the purpose of these legislative activities is to influence that agenda, then the groups and organizations that the MCs are bringing to the table matter.

The first data source of interest here are citations in floor speeches. Because floor speeches are a source of almost cost-free advertising, they must also largely appeal to members' constituencies (Maltzman and Sigelman 1996). These speeches represent an opportunity for an MC to address particular policy concerns that they otherwise might not have the ability to; in the C-SPAN era, it is often seen as a chance to be as local as they can over issues they know will impact their members (Morris 2001). For an MC to cite an organization in support of a given position, the benefit of referencing an outside groups' expertise in favor of its position must be greater than any potential "baggage" the member would take on by associating themselves with that group. This assumption means that members will positively cite think tanks they see as being prominent enough that the organization has credibility, while remaining ideologically close to their relevant constituents. Combine this with the pervasive nature of polarization and it is clear that think tanks that are ideologically more closely aligned to large parts of the chamber would be more likely to be cited. These types of appeals keep MCs connected to their primary constituents more closely, and thus give think tanks the incentive to move towards that same extreme.<sup>5</sup>

Beyond just floor speeches, the theory developed in this paper requires that hearings must be informative, not strictly demonstrative, and the language from these hearings must not just be "cheap talk" (or at least cannot only be cheap talk), but instead play a substantive role in the legislative process. Much analysis has been done operating from that exact assumption, that hearings are informative, and this would not put my efforts outside the mainstream (Diermeier and Feddersen 2000; Esterling 2004, 2007 as examples). Committees carefully orchestrate hearings so that the record reflects their work on legislation and so that the hearings shape legislators' understanding of the issue in a manner the committee members find most useful; any hearing, therefore, is as informative as the committee wants it to be (Esterling 2004). Since the chair of a committee has complete calendar powers over the hearings and controls the exact timing of all witnesses, and since committee staffers go to great lengths to prepare witnesses to testify, committees then are incentivized

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<sup>5</sup> It is also likely that the same die-hard member of an MC's primary reelection group would be active enough to potentially contribute to the think tanks too, creating something of a feedback loop. Where strong ideologues and major political donors meet would be where this relationship would be most likely born out: considering that this is beyond the scope of this paper, this is just speculative, but important nonetheless.

to use the hearing demonstratively. As Esterling (2004, p. 252) puts it: “Hearings show that legislators have developed the necessary expertise to write good policy, perhaps to expand or maintain committee jurisdiction, to extract concessions from the legislature as a whole or to help with reelection efforts...Hearing[s] reflect the committee’s relative need for information on an issue. That is, hearings will be either informative or not informative depending on the committee’s special interests regarding and informational needs for the policy topic. Precisely because committees prepare very carefully to ensure that hearings meet goals, the hearings are a valid data source for gauging the nature of committees’ interest in policies.”

Again, though, as to the relevance of hearings as more than just “cheap talk”, but as a forum for meaningful exchange of information, consider what the members themselves argue. As Kingdon states, “Congressmen themselves believe the hearings do provide them with the bulk of information needed to legislate, and the hearings do affect their decisions” (1989, p. 213). Given all this, and include the need for think tanks to justify the importance of their activities, testifying before Congress becomes a mutually beneficial action that connects think tanks and MCs in desired policy outcomes.

Given the relevance of what think tanks do in their role in hearings as experts, it seems straightforward that, in an increasingly polarized Congress, think tanks would take on additional policy making roles. If we assume that polarization has both increased the level of contentiousness in Congressional policymaking, and simultaneously that Congress is now making policy over greater domains, then it follows that think tanks would be asked to fill in that role even more (Rogers 2005; Winer et al. 2008; Martin and Thomas 2013). The demand for this expertise would be most realized in the parts of the legislative process where MCs require the greatest outside input, and that would be in hearings for the gathering of expertise and in floor speeches for repackaging that expertise for their audience of choice.

## 6 Measuring think tank ideology

I turn now to the new measurement for and procedure for the testing of these hypotheses. For this paper, I propose an original measure of ideology for think tanks relying heavily on research done on scaling campaign contributions. The first step to understanding think tanks as policy actors would be to ground their activities in some more coherent ideological framework. While there is some literature discussing think tank ideology (McGann 2007; Rich 2005 for example) most of these use simple designations, either made by other policy insiders or by members of Congress or the media as a proxy for think tank ideology.

Thinking about measuring the ideology of a think tank is something that does not lend itself to an easy metric. The dominant method for measuring ideology in political science literature is the DW-NOMINATE scaling technique, which uses roll call votes to map preferences, mostly, onto a unidimensional scale.

What most of these methods all have in common, though, is that they are reserved for the study of legislators and/or survey respondents (such as Poole and Rosenthal 1985, 1991, 1997; Clinton et al. 2004; Shor and McCarty 2011; Ansolabehere et al. 2001; Tausanovitch and Warshaw 2012). An additional technique, developed by McKay (2008) for the study of interest groups ideology, used the same W-NOMINATE algorithm on interest group policy endorsements as is usually done on votes. Since think tanks are all designated

as 501c(3) organizations and have an explicit ban on policy,<sup>6</sup> So this technique would not directly work. McKay's logic, however, of deriving ideology from legislators and interest groups can be done similarly, conditional on the assumption that their preferences line up in the sense of ideological proximity.

My method of deriving think tank ideology is to take advantage of an important dataset, Bonica's (2014) ideology scores derived from contributions made to political campaigns. Using Federal Election Committee data on contributions from individuals and organizations to politicians, Bonica used a spatial scaling method to derive single dimension ideology scores based on giving patterns and intensity. His system takes each contributor and places each of their contributions to any political campaign in a matrix that compares this behavior to other contributors and to those they are contributing too. By clustering contributions similarly to how Poole and Rosenthal cluster votes, Bonica is able to derive a unidimensional ideology scale that is cross-applicable to all candidates and contributors. His data includes over 40 million unique contributors, covering each election cycle from 1980 through 2012.<sup>7</sup>

This data provided me with the unique opportunity to derive the ideological space for a think tank. Although think tanks themselves are not allowed to donate money to campaigns, think tanks are made up of individuals who are under no such obligations. While scouring the entire campaign contributions history of people at each think tank would be valuable, there is a smaller subset of people that are most relevant to guiding the work of a think tank—and this work would be the most important manifestation of their ideology—their board of directors.

The idea that the board of directors of a think tank would have set policy goals and set ideals prior to funding the think tank, is not a particularly courageous assumption; since they control the funding, and since most of them are politically conscious donors, it makes sense to think of them as investors in the policy outcomes that come from a think tank. Bonica has done work along a similar vein when comparing industries and professions, but this is the first example, as far as I am aware, of this technique being used for non-profits (Bonica et al. 2015).

The boards of think tanks are a deliberate choice for this line of analysis as well. Being a board member of a think tank suggests that a person is already political active, is most likely a serious donor, and has a vested interest in public policy concerns. Given the profile of board members in this database, it is clear that they were good candidates to have their ideology analyzed using donation patterns; they tend to give at very high rates—often times in very public ways—they tend to work in industries that are naturally very high profile to begin with, which made matching their records easier,<sup>8</sup> they tend to be overt with public statements about their political preferences, etc.

Nevertheless, there are some concerns with this technique, particularly going through Bonica's data and finding each of the board members of each think tank, given that some boards have as many as 50 members. When searching the records, it is hard to differentiate

<sup>6</sup> Then all of the organizations in this paper either are or have an associated 501c(3) wing.

<sup>7</sup> The data used here were pulled from his database in the Spring of 2014: he will update his scores given the 2014 election cycle, but those updates are not reflected in this paper.

<sup>8</sup> There were many corporate CEOs, high profile investors, politicians, military personnel, and civil servants among those listed as members of a think tanks' board. They are hardly a random selection of individuals.

people based on the limited information included in the FEC records.<sup>9</sup> When doing these comparisons, it would not be uncommon to find several dozen people with the same name, so sifting through that and trying to determine which person listed is the board member can be arduous. Among the think tanks in my dataset, I was able to identify around 65% of their collective boards of directors, with the only apparent systematic relationship between the members being their citizenship; since this data is derived from FEC records on campaign contributions, it limited the scope to only United States citizens.<sup>10</sup> This number is similar in scope to what Bonica finds in his own papers (Bonica et al. 2015; Bonica 2014).

I was thus able to create an estimate for 133 think tanks, all of which appeared in Groseclose and Milyo's (2005) study of think tanks in Congressional and media citations. They selected their think tanks from the *Think Tanks Directory in America*, and from that selected the ones that were cited in the Congressional Record (Groseclose and Milyo 2005).

This paper uses these newly generated scores and compares them with the other notable scoring method for think tanks currently in circulation—Groseclose and Milyo's (2005) method that uses citations in the Congressional record to map think tank scores to Congressmen. Their scale is derived from a weighted, yearly-recomputed measure that uses scores from the liberal PAC, Americans for Democratic Action ("ADA"), and assigns legislators a score along a liberal conservative spectrum. Their paper, which used ideology scores of think tanks to assess bias of media sources, is the only extant approach to measuring think tank ideology, but with one major drawback; their scores cannot be used in the study of Congress because they derive their estimations of think tank ideology from the Congressmen citing them, making the scores entirely endogenous.

I take the Bonica scores for the members of the boards of directors, and I generate a simple arithmetic mean for the organizations board. This score is referenced to as their "general ideology scores." Since most organizations have large enough boards where this type of technique is reasonable, it is as good as any way to take a collection of individual ideology scores and aggrandize them at an institutional level.<sup>11</sup>

The first that needs to be done is to validate these scores against the Groseclose–Milyo scores (which run from zero to one hundred, with one hundred being most liberal and zero being most conservative), as well as analyze them using what we already know about think tanks. Looking at Fig. 1 we see a very strong relationship between the two sets of scores; there is a 0.82 correlation between the two variables.<sup>12</sup>

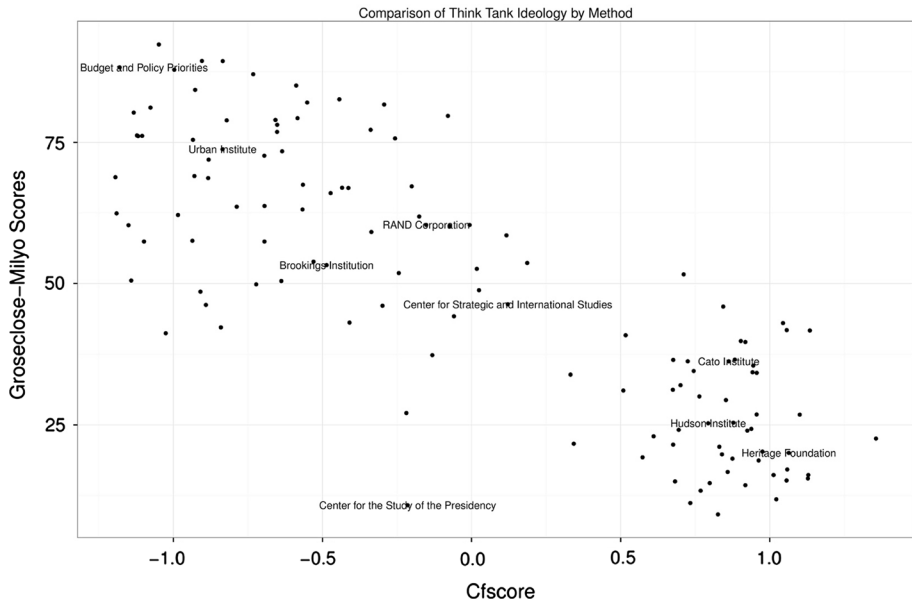
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<sup>9</sup> There are concerns that it is a practice of major investors to obscure who they are when filing these FEC donation forms, and that they will often include misleading information about profession and state of residence (especially since many have residence in multiple states). Bonica mentioned to me that it has made matching unique contributors sometimes more difficult than otherwise would be, although his algorithm, when compared with doing the comparisons by hand, did nearly as well. But these are concerns endemic to any use of contributions data. Further discussions of this are included in the online appendix.

<sup>10</sup> The only think tanks I was unable to get enough members to include in my dataset were the Third Millennium Foundation and the International Policy Institute for Counter-Terrorism, both of which were largely made up of foreign nationals. For the boards generally, I only included members in my dataset if I could verify that their known giving patterns (from the FEC website) matched their scores in Bonica's data.

<sup>11</sup> While there is small relationship between the size of the boards and their general ideology (larger boards were somewhat more liberal than smaller ones, and generally somewhat less extreme), this does not suggest that this fact is driving the results but instead suggests that board selection is itself a strategic activity designed to alter the perception of a given think tank. See online appendix for more on this.

<sup>12</sup> The most significant difference between the two being two distinct think tanks, the Center for the Study of the Presidency, which GM score as highly conservative and I score as neutral, and the Christian Coalition, which GM score as moderately conservative and I score as the most conservative. Since the Center for



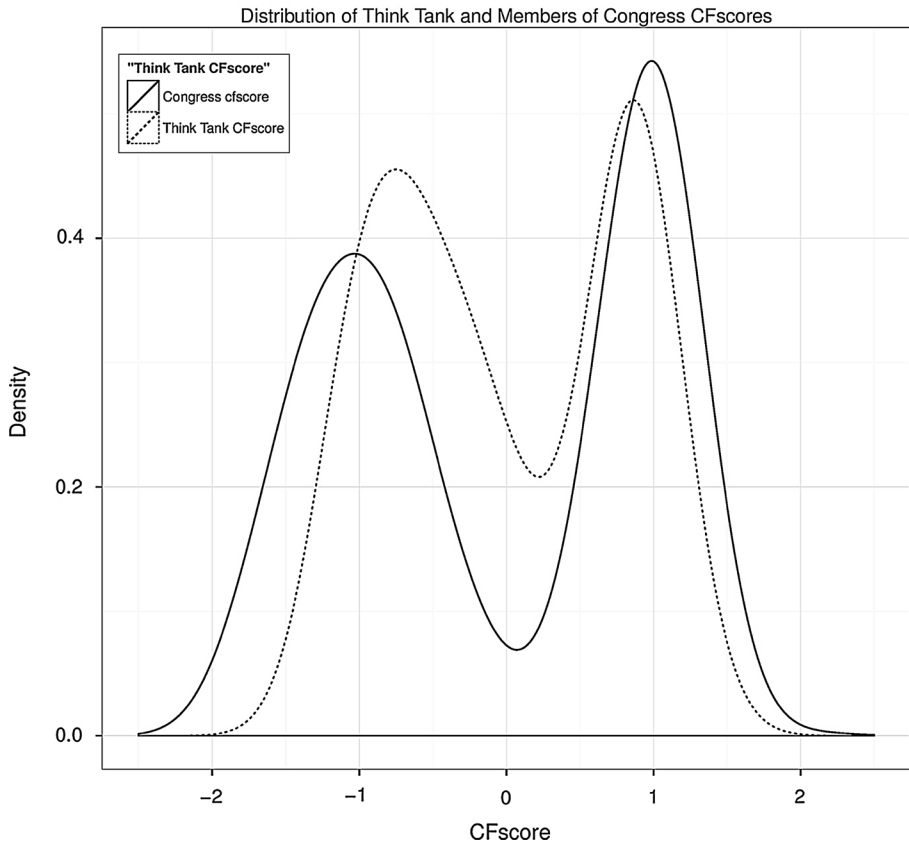
**Fig. 1** Here is a comparison between Groseclove–Mielyo Scores and the CFscores derived from Bonica (2014). Noted here are several important think tanks, and the one with the most significant deviations in ideology scores, the Center for the Study of the Presidency

This is borne out in the rest of the data as well: the correlation between the two sets of scores for think tanks receiving under 20 citations in Congress is only 0.71, whereas for those above 20 citations, it is 0.89. Bonica's data is normalized to have the center be right around 0, with a scale of  $-3.5$  to  $3.5$ , but most of the data for candidates exists between  $-1.5$  and  $1.5$ . For a point of comparison, the two parties' medians in congress currently are located around slightly more than  $-1$  and slightly less than  $1$  for Democrats and Republicans, respectively. The CFscores, though, are most useful for their ability to test theories about influence and citations in Congress.

In Fig. 2 here, we can see that the distribution of Congressional ideology and think tank ideology is very similar, suggesting a high degree of face-validity in the idea to measure these two in a similar fashion, and that there are definitely some forces shaping the ideological ecology of think tanks. Further discussions of these original scores are found in the online supplemental appendices.

Footnote 12 (continued)

the Study of the Presidency is a nonideological think tank by design. I am highly confident that its true ideology makes more sense in my scale than in GM. Similarly for the Christian Coalition: since it is the think tank founded by Pat Robertson, it is most likely toward the extreme of the conservative movement, not near the center. Both of these, and the few other reasonable deviations between the scores, are mostly caused by the paucity of citations they received; the Center for the Study of the Presidency and the Christian Coalition were only cited one and three times, respectively.



**Fig. 2** Included here is the distribution of congressmen and think tanks by CFscore. Note the similarly placed peaks and valleys

## 7 Estimation strategy

To best understand how think tank ideology directly impacts Congressional activity, we need to look at two distinct dependent variables for this study: Congressional citations and Congressional testimony. Congressional citations refer to the frequency with which a specific think tank is mentioned in the Congressional record and Congressional testimony refers to the number of times a person who is identified as being affiliated with a given think tank is called to testify in either a Committee or Subcommittee hearing.

These are obviously not perfect measures of influence in Congress, but they are traceable starting points for thinking about who is making themselves prominent amongst the policy writing community. Think tanks desire this sort of preeminence, so using these two metrics as related but distinct measures of influence is a rather straightforward way of getting at an indirect measure of influence.

To predict think tank citations, I used a Bayesian Poisson Regression Model with weakly informative priors, which uses a Bayesian Estimation Maximization (EM) algorithm that takes estimates of the coefficients from the frequentist version of the regression, then iteratively comparing estimates of the coefficients operating from a simple set prior

(in this case a Student's  $t$ -distribution), where each of the coefficients is estimated with a normal distribution, and the scale is assumed to have an error term distributed by the  $t$ -distribution. For identifiability, I use a weakly informative prior for the means and error terms of the coefficients that sets the value to zero. The best reason to use a Bayesian model here, even one with just a weakly informative prior, is the nature of my data; Bayesian approaches have been shown to be more consistent amongst lower sample size models (Gelman et al. 2008). There is also evidence to suggest that these types of Bayesian models are less susceptible to over dispersion as a means of biasing the error terms (Gelman et al. 2008). The parameters of the models are as follows,<sup>13</sup>

$$Y_i = \beta_0 + \beta_1 \text{Employees}_i + \beta_2 |\text{CFscore}_i| + \beta_3 \text{Age}_i + \beta_4 \text{Lobbyists}_i + \beta_0 \text{Expenditures}_i + \varepsilon_i,$$

which describes the Poisson regression. In each case,  $Y_i$  is either the count of Congressional citations for a think tank, or their testimony counts. Each of the other variables is measured as follows.

The first independent variable listed is the "Employees" variable. This is a metric designed to capture elements of "embeddedness" of a given think tank to the policy making process. The term, Employees, is the measure of the number of employees at a think tank that have previously worked in either the Federal Government, the Congressional Bureaucracy, or are (or were) registered lobbyists. While this will have some overlap with the Lobbyists variable, this variable is distinct and is designed to measure how a think tank pulls its employees from other parts of the policy-writing process. This is either an incidental measure of embeddedness, in that the think tanks happens to employ people with this very specific set of backgrounds, or that they strategically select employees with this type of background with the explicit purpose of increasing their influence by using the employees connections. This variable ranged from zero employees to fifty employees, with the majority having four or fewer employees.

My second independent variable is the absolute value of the CFscore of the think tank. I use the absolute value because this gets around questions about the direction of the ideology of the think tank and instead focuses on how far from the median they have placed themselves ideologically. By taking the absolute value, it eliminates structural differences caused by the ideological space occupied by the two parties, and should ameliorate influences from changes in party control of Congress during the time frame. This variable ranged from 0 to 1.35, which essentially covers the full scope of CFscores (in absolute values).

The next variable is the age of the organization in 2005, the final year the data cover. The ages range from 5 to 134 years, with a median of 27 years. Following that, we have the Lobbyists variable, which is a dummy for whether or not the organization hires lobbyists themselves or has a related lobbying organization connect to it. For the most part, this was very easily determined from their website, as several of the organizations had more famous wings that were lobbying organizations (designated as 501(c)4 organizations) while the foundation or think tank attached is a 501(c)3 organization. The final variable is the overall size of the organization: the total expenditures for the think tank in the earliest fiscal year available or in 2005, whichever was attainable. This variable had a tremendous amount of variation, with the smallest organization only having a budget of \$54,571, and the largest with a budget of \$275,076,526, with the mean organization having a budget of \$19,240,000

<sup>13</sup> where  $Y_i \sim \text{Poisson}(\lambda_i)$  where  $\lambda_i \sim \exp(x_i, \beta_j)$  and  $\beta_j \sim Nk(b_{0j}, \beta^{-1})$ . This is estimated with the 'bayesglm' function from the 'arm' package in 'R,' and uses the Student- $t$  distribution for the uninformative prior.

**Table 1** Estimating citations and calls to testify in Congress for think tanks

	Dependent variable: citations			Dependent variable: testimony		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
(Intercept)	4.06*** (0.03)	3.67*** (0.03)	2.56*** (0.04)	5.50*** (0.02)	5.05*** (0.02)	4.05*** (0.03)
ICF Score	0.37*** (0.03)	0.39*** (0.03)	1.22*** (0.04)	-1.11*** (0.02)	-1.33*** (0.03)	-0.41*** (0.03)
Federal employees		0.05*** (0.00)	0.03*** (0.00)		0.06*** (0.00)	0.05*** (0.00)
Age (in 2005)			0.01*** (0.00)			0.01*** (0.00)
Lobbyists			0.04*** (0.01)			-0.00 (0.01)
Expenditures			0.01*** (0.00)			0.01*** (0.00)
<i>N</i>	125	125	125	125	125	125
AIC	14,975.98	12,528.72	10,006.27	27,202.28	17,703.00	10,543.71
BIC	14,998.61	12,562.66	10,074.15	27,224.90	17,736.94	10,611.59
Log likelihood	-7479.99	-6252.36	-4979.13	-13,593.14	-8839.50	-5247.85

Standard errors in parenthesis

Significance at \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

Expenditures is referenced in millions of dollars

ICF Score refers to the absolute value of the organization's CFScore. Models here are Bayesian Poisson regression with either citations or testimony as the DV

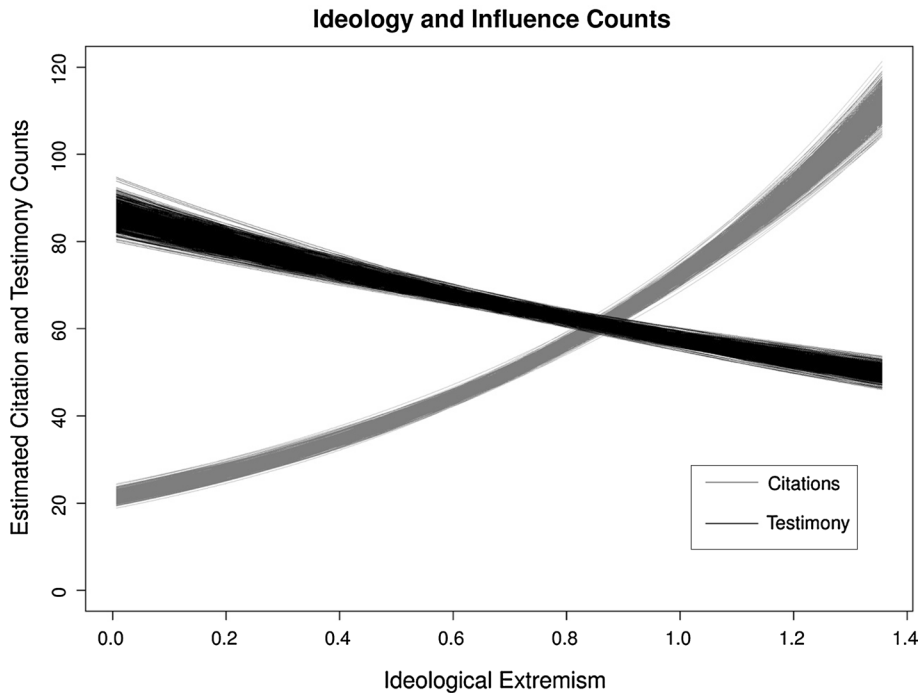
and the median having a budget of \$4,819,000. This should be an ample yet strong control for the variations in size and monetary power of an organization, and, combined with age, should be good bulwarks of non-influence based measures of prominence, and should help clear the analytic picture.

## 8 Results

Table 1 shows the results of the two different regression models, with different variables excluded to better illustrate the effects of the independent variables of interest. The first group of models deals with Congressional citations and the second group deals with Congressional testimony. The first model for each category began with just the "CFScore" variable so that we could make baseline estimation without just the controls. The second category adds in Employees, and the third regression adds in other controls; staggering the variable selection should make causal claims more easily identified.

The first thing to note from these models is the difference in the N's; from the 133 think tanks in the database, I was unable to get expenditure information for four of them and I was unable to, because of missingness, get the boards for another four think tanks, explaining the small discrepancy between the observations from the models.

The biggest takeaway from the regressions in Table 1 are that the two independent variables of interest, the number of registered former federal employees a think tank hires and

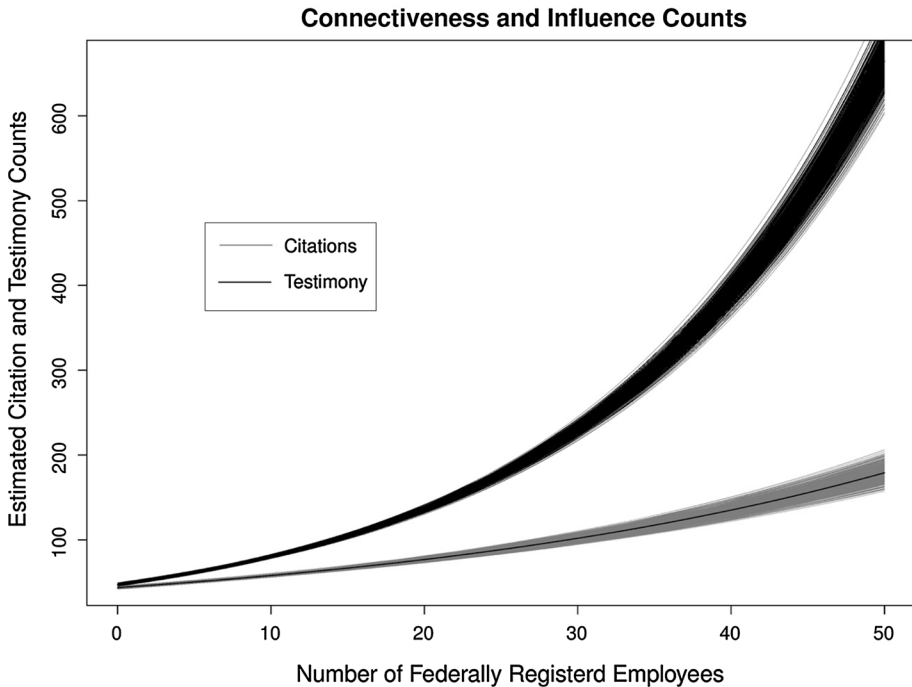


**Fig. 3** Estimated citations and testimony holding expenditures, age and connected employees at the median, with no lobbyists. The values shown represent the estimates given the different absolute value of the CFscores possible. Note the intersection between the two lines is just below 0.9, near where the medians for each party lie

the absolute value of their ideology score, are both significant in every case. The effects are consistent: for Congressional citations and for Congressional testimony, the more former federal employees in your organization (the greater your proximity to power), the more prominent your think tank. The covariates generally were significant in the direction one would estimate, with the noted caveat that having lobbyists did not increase the propensity for an organization to have someone called to testify. Thus, these findings support  $H_{2A}$  and  $H_{2B}$  in the most direct manner.

The most interesting finding here, though, was the effect that the absolute value of CFscore had on citations and on testimony, as in  $H_{1A}$  and  $H_{1B}$ . For citations, the relation is strongly positive: the further your organization is ideologically from the center, the more it gets cited. For testimony, however, the relationship is directly reversed: the farther your organization's ideology is from neutral, the less likely (or less frequently) you are to be called to testify. This appears just as the aforementioned hypotheses claim. But parsing out the magnitudes of the direct effects here, even if the baseline effect confirms  $H_{1A}$  and  $H_{1B}$ , is impossible with just a simple regression table.

To better adjudicate the direct effects of these two variables, I created two figures that measure the estimated citation and testimony counts for organizations along the range of ideology scores and along the range of number of connected employees. Figures 3 and 4 show this, with the lighter shade representing citations and darker shade representing testimony.



**Fig. 4** Estimated citations and testimony holding expenditures, age and ideology at the median, with no lobbyists. The values shown represent the estimates given the different number of connected employees possible. Note the extreme differences in the slopes for Testimony over Citations here

Both of these figures take the posterior distribution of the beta coefficients, multiplies them by basic inputs for the independent variables (in this case, selecting the median values for age and expenditures, and assuming no lobbyists) excluding the variable of interest, which is then allowed to vary along its range of values, and transforms them through their link function (the log function). So the ideology graph runs from 0 to 1.35, and the connectiveness graph runs from 0 to 50.

This effects graph allows for easy comparison of the effects of changing the variables of interest on the DV in real terms. In the ideology graph, for every additional 0.2 value of the absolute value of your CFscore, you receive around an extra 20 Congressional citations; the same unit change in ideology leads to a loss of around ten calls to testify. Theoretically, if one organization were to value citations and testimony at an equal rate, they would extract the most utility by placing their ideology right around 0.8 magnitude from zero, or just slightly more neutral than both party extremes. This graph is a strong illustration of the strategic trade-off that think tanks have to pursue to maximize their influence, as they cannot force their ideology too far to the extreme so that they are no longer considered “experts” in their field, yet having some ideology makes a think tank more serviceable as a citation for MCs. These findings completely affirm hypotheses 1a and 1b of this paper.

The most interesting point of all here though is that the two estimated counts graphs intersect right around 0.85–0.90, which is right around the median for each of the parties in Bonica’s database. The fact that the convergence occurs right around the median of the two parties suggests that there is definitely credence to the idea that think tanks strategically

position themselves ideologically to maximize their effectiveness on both dimensions, leading to a partition-style equilibrium in think tanks.

The other finding is with the second variable of interest, the number of federally connected employees. For Congressional citations, the effect is moderately powerful: for every extra ten federally connected employees, a think tank should expect 20–30 more citations. The effect also strengthens when you get beyond the 10–20 range of federally connected employees. Where this effect is even more pronounced, though, is with the testimony data. Depending on how many employees you have to begin with, every additional ten federally connected employees increases your call to testify by anywhere from 70 additional calls to testify to 200 additional calls to testify, and the effect *increases* in magnitude as you increase your total number of already existing employees. The magnitude of this effect is pronounced, and suggests that the overall proximity to power an organization has is inseparable from ideology. Remember, this effect persists when we hold the size of the organization constant, so this is not just a story of money or total employees. This directly affirms the predictions made by hypotheses 2a and 2b as well. While this effect only has a tepid impact on the role of citations, the forcefulness of the result on Congressional testimony suggests an even more important insight into the black box of policymaking and bill writing.

## 9 Conclusions and future work

These findings suggest several very important things about the relationship between think tanks, ideology, and the development of public policy. First of all, there is definitely a strategic consideration to be made when framing the ideology of an organization that deals with the policy world. Consider the distributions of CFscores for think tanks and candidates for Congress again (Fig. 2). The almost perfectly congruent distributions of the ideology scores suggest a *deliberate* matching done by the think tanks to match MCs, such that they will position themselves in such a way to benefit the MCs most directly. There is clear evidence that think tanks strategically position their ideology such that they are most useful to MCs who have a demand for legitimate expertise to bolster their positions.

But this relationship is not simply one of think tanks matching ideologies without tradeoffs. These organizations have to temper their ideological shifts with the perception of legitimacy. Expertise, then, is extended by their placement as an ideologically neutral organization. This highlights the complex role that ideology and expertise play in the pursuit of influence in Congress. Further, there is reason to expect this relationship would extend to other organizations and people that are used in the policy-making process to improve the ease of legislation, like academics or interest groups as an example.

Secondly, within the context of a policy-making framework, having an organization be more connected greatly improves the reach of their influence. Not only does this improve influence, but also it at least seems like it predicts your ability to get called to testify on policy issues, and supplants the basic reputational effects on getting public attention. This finding is in particular an exciting finding because it is largely unexplored; one can imagine many different ways of studying how this embedded network plays out in a policy context, and this is just one illustration of that point.

A more methodologically advanced approach to this question could be bridged with the use of social network analysis. Future research could model the social interactions of members of a think tank with people associated with Congress (either MCs, their staffers, or members of the bureaucracy) or with the federal government: a potentially interesting

project would look at the relationship between MC attendance at events held by the think tanks and their future interaction in formal capacities. One could even model them at the individual level, and try and track scholars to Congressional staffers to MCs. This could get to a more direct measure of how much informal interactions are had between think tanks and MCs.

Another way to further this line of research is to deconstruct the notion of what influence is; forcing us to think about influence as not just external factors explaining behavior but as something more inherent in the tasks pursued in Congress. Analysis along this line would look at the language of both the Congressional debate on issues and on the bills themselves. A text analytic approach would potentially allow for tracing of policy ideas directly through the written work of think tanks into the bills themselves, and may allow for easier tracking of where exactly policy ideas originate (Wilkerson et al. 2015).

A final extension to this paper would be to take the method of estimating organizational ideology and apply this to other equally political organizations. Potentially interesting topics include determining the role that organizational ideology plays in obtaining federal grants for specific programs, the funding of controversial projects (ideology scores of foundations themselves would be interesting), and potentially coming up with a way to give ideological scores to interest groups themselves and try to estimate probability of the passage of a certain bill or bills based on the ideology of those external groups supporting or opposing them. These extensions would further demonstrate the relevance of these findings, and reinforce the theoretical case for the study of external influence on the policy writing part of Congress.

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