The Continuing Puzzle of Committee Outliers: A Methodological Reassessment

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Modern legislatures, with their large memberships, face a collective action problem. The main function of legislatures is to provide the public policy that helps manage the inherent conflictual nature of society. However, because most legislators realize that policy will be provided without their individual contributions to the effort, the incentive is for them to forgo expending the costs involved in its provision (Olson 1965). Legislatures must develop processes by which to overcome this collective action problem.

The response of legislatures to the collective action problem is the development of committee systems to perform the duties necessary for refining legislation: collecting information (Krehbiel 1991) and distilling it into legislation that addresses the concerns of various issue publics. The membership invests its committee system with the necessary resources, such as staff and office space, to help it overcome its collective action problem. Empowering committees to do its work minimizes the costs to the membership in terms of the time and resources it must invest to perform its legislative functions. This principal-agent (Kiewiet and McCubbins 1991) model of legislative committees is an appealing one.

When first convened, the United States Congress was no different than any other legislature in that it faced the dilemma of having a need for an efficient process for enacting laws. The collective action problem is particularly acute in the present-day, 435-member House of Representatives; although they may try,
individual representatives cannot invest the time and resources to learn about, to take a position on, and to act upon a wide range of issues. It is left to the committees and their members to act as agents of the membership at large: to collect information and to refine legislation before it goes to the floor. Indeed, the growth and complexity of the committee system of the House of Representatives (Polsby 1968) is evidence of the increasing reliance of House members on committees as agents in the process of legislating. Concomitantly, the growth and development of the subcommittee system (Haeberle 1978) presents further evidence of complexity.

It follows from the principal-agent model of relationships between congressional subunits that most committees should be representative of the chamber as a whole on most dimensions and that the House, through its committee assignment process, would see to it that this were the case. For if an agent fails to perform up to the expectations of the principal, the principal has the options of either terminating or reforming the relationship. While one might then expect all committees to promulgate legislation with which a large portion of members will agree, even a cursory glance at the literature on congressional committees demonstrates there exist at least two related dimensions upon which committees can exhibit bias; these two dimensions of committee bias are geographical and ideological.

Fenno (1973), in his seminal study of committees, demonstrated that the Interior Committee possessed a disproportionate share of western representatives relative to the House as a whole. Because its members have an electoral incentive to protect farming interests, the membership of the Agriculture Committee tends to

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2 One might argue (as do Cox and McCubbins, 1993) that only the majority party through its control of the chamber constitutes the committee structure. One could plausibly argue that the majority party’s decisions regarding at least the form and number of committees take into account the need of the body as a whole to overcome its collective action problem. At a minimum, the majority is concerned with
overrepresent the Midwest. A geographical bias can influence the legislative outputs to such an extent that a large majority from the parent chamber will object and hamper the likelihood of floor passage and the committees’ ability to wield influence on the final product.

This geographical bias coincides with an ideological one. Cox and McCubbins (1993) and Londregan and Snyder (1994) demonstrate ideological imbalances on both the Interior and Agriculture committees as well as others. This is not surprising, considering that the electorates in these geographical areas of the United States tend to be more conservative than those in the rest of the nation. One might also hypothesize as to the unrepresentativeness of other committees: Public Works, as an agent of federal construction projects and, by extension, employment might be a candidate for a liberal outlier; one may also surmise that conservatives congregate on the Armed Services Committee.

The purpose of this paper is to reexamine the extent to which the committees of the U.S. House of Representatives have differed from the chamber as a whole in their policy preferences. While we agree with most research that the presence of outliers might indicate a nonrandom selection process, we believe that the methods by which this conclusion has been reached deserve a closer inspection and refinement.

The Representativeness of Congressional Committees

Many researchers have examined the question of committee representativeness. Two tracks of research are readily discernible: first, evidence of the extent to which committees are unrepresentative and, second whether unrepresentativeness influences legislative outcomes,. This paper falls squarely in the former category.

maintaining itself, and overcoming the collective action problem is one method by which to accomplish that goal.
An initial question to ask is: Does bias on committees exist? The initial answer to this question has been that there is little evidence of committee bias. Employing relevant policy preference measures, Krehbiel (1990) finds little evidence of many preference outliers for the Ninety-Sixth Congress. Groseclose (1994) employs a Monte Carlo technique to assess the extent to which the committee assignment process is a random one. Based on mixed results, he concludes that the null hypothesis of random selection cannot be discarded with much confidence. Standing in disagreement, Hall and Grofman (1990) reexamine the Ninety-Sixth Congress and conclude that, rather than that there is no bias in committee preferences, that bias does exist in some instances and that it is conditional. In their analyses of the Senate Agriculture Committee, they conclude that conditions of a narrow policy jurisdiction, an intensity of preferences of affected groups and concentrated benefits and costs in the work that a committee does can affect its representativeness in relation to the parent chamber.

Examining individual Congresses or committees within a particular Congress fails to provide a broad enough view. On balance, over-time analyses have tended to agree with the conditional nature of committee bias. Cox and McCubbins (1993) demonstrate over-time differences in preference outliers amongst the committees, particularly with respect to partisan contingents on the committees. Londregan and Snyder (1994) find much evidence of over-time bias in congressional committees, particularly on those where one might expect it given the Hall and Grofman thesis (i.e. Interior, Agriculture, Foreign Affairs). This conclusion appears to hold for subcommittees as well; Wrighton and Peterson (1996) demonstrate over-time preference outliers for the House Ways and Means and Appropriations Committees.

By implying that the chamber as a whole will cede some measure of power to its committee system and will accept, to some degree, its outputs, the principal-agent model of the relationship between the House of Representatives and its working units
provides a theoretical basis for the second major track of research on committees. How the legislative process is arranged is likely to affect outcomes. One might argue that committees exert significant influence on the process; if so, an unrepresentative committee may be able to "roll" the chamber and have its way.

That institutional arrangements affect outcomes is not a new conclusion in examinations of legislative processes. Kenneth Shepsle (1979) demonstrated the conditions under which institutional properties in concert with individual preferences would affect the policymaking process. Kenneth Shepsle and Barry Weingast (1987) build on this premise and argue that the committee's place in the process, first in line on a piece of legislation, combined with its contribution to the makeup of conference committees and an up-or-down vote on the conference report, bestow the power of an ex post veto on the committee. Keith Krehbiel (1987) counters with evidence that demonstrates the ex post veto is not absolute: most bills find resolution in means other than conference. Krehbiel also argues that institutional rules (particularly in the House) enable the chamber to undermine the will of the committee when it so desires. Steven Smith (1988) also demonstrates how process and sequence can affect whether committees are able to accomplish their preferred policy outcomes. Furthermore, this process has a dynamic characteristic: Shepsle (1989) asserts the dynamism of institutional arrangements, and David Rohde (1991) demonstrates the changes in the policy process that resulted from the reforms of the Democratic majority in the House of Representatives.

**Theory and Hypotheses**

This paper takes as its main course the view that parties in Congress play a pivotal role in the selection of members of committees. The committee composition decisions made by the parties affect the natures of the committees in turn. As the perspective of Cox and McCubbins (1993) focuses on this process, an exploration of their theoretical framework is illustrative.
Cox and McCubbins as a Theoretical Backdrop for an Analysis of the Nature of Committees

Cox and McCubbins (1993) argue that committee assignment is primarily a function of each of the party's Committee on Committees exercising close control over the process. Again, the principal-agent model is instructive: Party rank and file members invest the leadership with the power to select committee memberships to effect certain legislative outcomes. The parties employ this authority to balance certain committees and to ensure that the committees they wish to be representative of their rank and file actually are representative. This may leave one with the impression that most committees' partisan contingents should be fairly representative of the chamber's partisan contingents. However, Cox and McCubbins find consistently outlying committees. Either the party mechanisms are unable or unwilling to employ their powers and "correct" these imbalances, or they may purposefully target some committees for representativeness and leave others to another selection process.

Cox and McCubbins realize another means of committee assignment exists: self selection. The parties' Committees on Committees may carefully makes assignments to those committees each wishes to "rein in" ideologically, yet they may allow a self-selection process to take over for those committees where some of its members have particular interests (for example, a reelection one) and allow outliers to exist.

Cox and McCubbins implicitly imbed these two forces, party control and self selection, into a typology of committees (1993, p. 200). On one dimension (the one crucial to the following analysis of the committees in the 100th Congress), they

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4 Although many view these committees’ (i.e. Agriculture, Interior) issues as reelection ones that help the parties maintain (or even augment) their ranks, one can argue that there are numerous institutional processes to override the outputs of these unrepresentative committees. For example, the leadership (as an agent of the
classify committees according to their external effects, defined as "the effects that committee decisions have on the probabilities of victory of party members not on the committee." They go on to add that these effects

    might be described both in terms of size-how much the issue, on average, affects the probabilities of reelection-and distribution--whether everyone is affected to about the same extent or whether there are subsets of affected and unaffected members. (1993, 191-192)

They partition externalities into three categories: uniform, mixed, and targeted. A uniform committee (such as Public Works and Transportation) makes decisions that affect the widest range of members of the parent chamber. A targeted committee (such as Agriculture or Interior) makes decisions affecting only a small number of interested members outside the ranks of the committee. A committee with mixed externalities may make decisions affecting either a broad or a narrow range of other members.

Cox and McCubbins assert that the parties' committees on committees are more likely to exert control over the assignment of partisans to committees with uniform externalities. As agents of their memberships, we would expect the respective party leaderships to exert their influence on those committees the decisions of which have the potential to affect the largest number of its copartisans.

Hypotheses

We agree with Cox and McCubbins that parties make conscious choices when placing members on particular committees. It is at the full committee level that parties can have the most influence; once the issue becomes subcommittee selection, we expect a self-selection process to apply (Wrighton and Peterson 1996). Our first hypothesis regards the committee selection process: we expect the committee selection process to be a nonrandom one driven by the deliberate decision of a party's leadership.

rank and file) could effectively kill such legislation with an unfavorable rule or refusal to assign a rule.
We adopt the typology of Cox and McCubbins in making assertions about the nature of the preferences of committees with varied external forces acting upon them. Our second hypothesis regards the patterns of policy preferences of committees relative to their House of Representatives: *we expect the party contingents on committees with targeted externalities to be ideologically distinguishable from the House parties, while the party contingents on committees with uniform externalities will be indistinguishable from the House parties.*

**Data and Methodology**

The data for our analyses derive from two sources. The committee assignment data come from the dataset compiled by Garrison Nelson (1994) and the *Congressional Quarterly Almanacs* for 1993 and 1994. Professor Keith Krehbiel and Professor Timothy Groseclose generously supplied the interest group scores we employ.

Before we proceed to the method we employed, we believe a word about party contingents is in order. Unlike some researchers, most notably Krehbiel (1993) and Groseclose (1994), we believe that the use of party contingents is crucial to the process of discerning the existence of outliers on committees. If, as Table 1 demonstrates, the parties have placed contingents of members that differ significantly from the chamber memberships in their policy preferences on several committees, an analysis based upon full committee membership would blend preferences in such a manner as to bias any preference-outlier test in favor of the null hypothesis. Using party contingents not only reflects an accurate picture of the processes of committee assignment but also provides a clearer background upon which to test the preference-outlier hypothesis.

**Table 1: Distribution of Partisan Contingents in the Full House and in Selected Committees**

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5 While we certainly agree that partisanship is on the decline in the electorate and that this decline might find its way into the conduct of the legislative process (Krehbiel 1993), the rise in congressional party unity in recent times leads us to maintain, at least for the present, our confidence in party as organizational force in the United States Congress.
The asterisks indicate those committees that are significantly different in partisan composition from the full House.

We base the method of sampling and testing the outlier hypothesis on the method employed by Groseclose (1994) in his analysis of committee outliers. For each committee, we drew 20 thousand simulated committees from the full House using a Monte Carlo sampling method. In each draw, the sampling program drew from the Republican and Democratic contingents separately. After each contingent was drawn at random, the sub-samples were combined to produce a simulated committee with accurate partisan membership. For each simulated committee, we then calculated a median interest group score using the same interest group scores compiled by Groseclose (1994). When the procedure was complete, we had generated a distribution of 20 thousand simulated median scores for each of the committees of the House of Representatives in the 100th Congress.

If the members of a committee are chosen randomly within partisan contingents, the distribution provided by the Monte Carlo process should provide a reasonable approximation of the density function of committee preferences. In this case, one would expect the observed committee median to fall within a 95% confidence interval around the mean of the distribution of simulated medians. However, should one find the observed committee median to fall within the tails of
the distribution, one can then reject the null hypothesis that the committee membership is randomly determined.

As a second test of the null hypothesis, we need to recognize the probability of rejecting the null when it is true. For example, there are twenty-one total interest group scores for the committees of the 100th Congress. Since there is a 5% chance of rejecting the null even when it is true, we can expect 1.05 rejections (21*.05) by chance alone. In other words, even if we find one rejection per Congress, we cannot conclude that rejection of the null is the correct conclusion.

To address this problem, a second test of the outlier hypothesis is to calculate the probability that a number of rejections could occur by random chance using the same Monte Carlo process. To test this question, the simulation process randomly fills all available committees from the parent chamber. The program records the medians of each committee and calculates the number of committees that exceed the .05 level based on the previous dataset. This process is repeated 20 thousand times to determine the proportion of trials in which a set number of committees are random outliers. This calculation will allow us to determine if the number of outliers we find is statistically significant or simply due to random chance.

Findings and Analysis

Table 2 presents the results of the statistical tests. Table 2 shows the median of each actual committee, the mean of the 20 thousand simulated committee medians, the direction (higher or lower) of the deviation, and the probability (p-value) the deviation is significant for each pairing. The final column shows the outcome of Groseclose’s original 1994 analysis where party contingents were not included. 6

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6 A previous reviewer noted that our tests differ slightly from Groseclose’s initial tests. Groseclose included all simulated committee medians that were equal to or greater than the actual committee, while we use only those simulated committees whose medians are more deviant than the actual committee. Groseclose also used one-tailed significance tests, while we opted for two-tailed tests. While it is possible to argue these minor differences make our results incomparable to Groseclose’s results,
The overall trends clearly warrant the reconsideration of Groseclose’s conclusions regarding the null hypothesis of random committee assignment. In over one-third of the tests, the probability of the interest group scores for the observed committees falling within the distribution of simulated committees is below .05. The Agriculture, Appropriations, Armed Services, Foreign Affairs and Small Business committees were all significant outliers, accounting for 6 of the 21 tests, and the Education committee was an outlier in 3 of 5 tests. It is also worth noting that all of the committees which were significantly deviant in their partisan ratio (see Table 1) were also significant outliers in this test as well. It would certainly appear that the primary cause for the ideological outliers is the disproportionality of the committee in general. If parties were not making purposeful committee assignments, such widespread deviations should not be present.

Table 2: New Monte Carlo Simulations and Comparision to Groseclose’s Original Results

<table>
<thead>
<tr>
<th>Committee</th>
<th>IG Rating</th>
<th>True Med</th>
<th>Sim. Med</th>
<th>Direction</th>
<th>p</th>
<th>Groseclose’s p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aging</td>
<td>NCSC</td>
<td>78</td>
<td>77</td>
<td></td>
<td>0.561</td>
<td>0.393</td>
</tr>
<tr>
<td>Agriculture</td>
<td>NFU</td>
<td>71</td>
<td>62</td>
<td>+</td>
<td>0.036</td>
<td>0.285</td>
</tr>
<tr>
<td>Armed Services</td>
<td>ASC</td>
<td>100</td>
<td>50</td>
<td>+</td>
<td>0.001</td>
<td>0.001</td>
</tr>
<tr>
<td>Appropriations</td>
<td>BIPAC</td>
<td>23</td>
<td>33</td>
<td>-</td>
<td>0.019</td>
<td>0.089</td>
</tr>
<tr>
<td></td>
<td>CCUS</td>
<td>34</td>
<td>45</td>
<td>-</td>
<td>0.004</td>
<td>0.020</td>
</tr>
<tr>
<td>Budget</td>
<td>BIPAC</td>
<td>33</td>
<td>33</td>
<td></td>
<td>0.741</td>
<td>0.431</td>
</tr>
<tr>
<td></td>
<td>CCUS</td>
<td>46</td>
<td>45</td>
<td></td>
<td>0.669</td>
<td>0.460</td>
</tr>
<tr>
<td>Education/Labor</td>
<td>COPE</td>
<td>81</td>
<td>62</td>
<td>+</td>
<td>0.005</td>
<td>0.077</td>
</tr>
<tr>
<td></td>
<td>IBT</td>
<td>92</td>
<td>77</td>
<td>+</td>
<td>0.043</td>
<td>0.238</td>
</tr>
<tr>
<td></td>
<td>MNPL</td>
<td>78</td>
<td>67</td>
<td>+</td>
<td>0.007</td>
<td>0.206</td>
</tr>
<tr>
<td></td>
<td>RLEA</td>
<td>78</td>
<td>70</td>
<td></td>
<td>0.864</td>
<td>0.264</td>
</tr>
<tr>
<td></td>
<td>NEA</td>
<td>85</td>
<td>83</td>
<td></td>
<td>0.769</td>
<td>0.431</td>
</tr>
<tr>
<td>Foreign Affairs</td>
<td>ASC</td>
<td>20</td>
<td>50</td>
<td>-</td>
<td>0.022</td>
<td>0.068</td>
</tr>
<tr>
<td>Interior</td>
<td>CCUS</td>
<td>37</td>
<td>43</td>
<td></td>
<td>0.718</td>
<td>0.177</td>
</tr>
<tr>
<td></td>
<td>LCV</td>
<td>53</td>
<td>56</td>
<td></td>
<td>0.866</td>
<td>0.591</td>
</tr>
<tr>
<td></td>
<td>PCCW</td>
<td>50</td>
<td>50</td>
<td></td>
<td>0.645</td>
<td>0.632</td>
</tr>
<tr>
<td>Public Works</td>
<td>CCUS</td>
<td>47</td>
<td>49</td>
<td></td>
<td>0.698</td>
<td>0.470</td>
</tr>
<tr>
<td></td>
<td>LCV</td>
<td>52</td>
<td>52</td>
<td></td>
<td>0.887</td>
<td>0.475</td>
</tr>
<tr>
<td></td>
<td>PCCW</td>
<td>45</td>
<td>46</td>
<td></td>
<td>0.891</td>
<td>0.394</td>
</tr>
</tbody>
</table>

we note that in both cases, our tests are more stringent than Groseclose’s initial tests. The fact that we find significant outliers using more stringent statistical techniques only serves to demonstrate the importance of including party contingents when attempting to explain the committee selection process.
--The IG Rating column indicates which interest group rating was tested for each committee.
--The True Median column indicates the actual median of the committee in the 100th Congress.
--The Simulated Median column indicates the median of the 20,000 simulated medians generated by the Monte Carlo sampling procedure.
--The direction indicates whether the true committee was significantly higher or lower than the simulated committees. Non-significant committees were left blank.
--The p column is the probability the true committee falls within +/- 1.96 standard deviations of the simulated committee median.
--the Groseclose’s p column indicates the probabilities found by Groseclose when disregarding party contingents.

As an additional test, Table 2 shows the expected number of deviations based on chance, and the probability the number of deviations found is due to random chance alone. Once again, the evidence clearly indicates the results are not a consequence of purely random chance.

In addition to the fact that committee assignment is not a random process, the analysis of the data also provides some evidence in favor of our second hypothesis. An examination of Table 3 shows that most of the signs of the coefficients are consistent with our predictions and those of Cox and McCubbins (1993).

Table 3: Expected Number of Null Rejections

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Expected Rejections</th>
<th>Actual Rejections</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.001</td>
<td>0.02</td>
<td>1</td>
<td>0.007</td>
</tr>
<tr>
<td>0.005</td>
<td>0.11</td>
<td>1</td>
<td>0.046</td>
</tr>
<tr>
<td>0.01</td>
<td>0.21</td>
<td>5</td>
<td>0.004</td>
</tr>
<tr>
<td>0.02</td>
<td>0.42</td>
<td>5</td>
<td>0.018</td>
</tr>
<tr>
<td>0.05</td>
<td>1.05</td>
<td>9</td>
<td>0.001</td>
</tr>
<tr>
<td>0.10</td>
<td>2.10</td>
<td>9</td>
<td>0.008</td>
</tr>
<tr>
<td>0.20</td>
<td>4.20</td>
<td>9</td>
<td>0.021</td>
</tr>
<tr>
<td>0.25</td>
<td>5.25</td>
<td>9</td>
<td>0.094</td>
</tr>
<tr>
<td>0.30</td>
<td>6.30</td>
<td>9</td>
<td>0.168</td>
</tr>
<tr>
<td>0.40</td>
<td>8.40</td>
<td>9</td>
<td>0.289</td>
</tr>
<tr>
<td>0.50</td>
<td>10.50</td>
<td>9</td>
<td>0.348</td>
</tr>
</tbody>
</table>

Cox and McCubbins (1993, p. 200) predict committees with targeted externalities (Agriculture, Interior) should be more divergent ideologically than those with mixed externalities (Education, Armed Services, Foreign Affairs), which, in turn, should be
more divergent than those with uniform externalities (Public Works, Appropriations). We find this pattern not as clear as expected. Of the four targeted committees in our analysis, Small Business, and Agriculture were significantly different, yet the Interior committee was not. Of the three committees with mixed externalities, all three were divergent in some form, with the Armed Services and Foreign Affairs committees showing significance in all tests, Education in three out of five tests. Finally, we found one of the three committees with uniform externalities, Appropriations, to be an outlier.

Altogether, the evidence is mixed regarding the Cox and McCubbins hypotheses. While it is true that a higher proportion of the targeted and mixed externality committees were outliers compared to the uniform committees, the substantial deviations present in the Appropriations committee must be of some theoretical concern. It is difficult to argue that the Appropriations committee does not have uniform externalities. In fact, one could easily argue the Appropriations committee is one of the archetypes for a committee with uniform externalities. These committees conduct business that truly affects the constituents of every Congressional district. This presents us with a difficult dilemma. Either the theory is incorrect (which we suspect to be untrue), or the results are unrepresentative of the Appropriations committee over time (which we suspect is true). In either case, this is an anomaly we can not explain with the available data.

**Conclusions and Directions for Future Research**

What conclusions can we reach from the statistical tests? The evidence indicates the committee selection process is not random. We can also see that committees with targeted externalities show greater ideological bias (in general) compared to those committees with uniform externalities. We have demonstrated that

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7 The other common examples of uniform externalities are the Ways and Means and Budget committees.
the failure of Groseclose (1994) to account for party contingents in his analysis
biased the results in favor of the null hypothesis of a random committee assignment
process. Once the partisan composition of the committees is taken into account, the
results demonstrate that several committees are ideologically different from their
parent chamber. While not many committees showed such deviations, the number
that do requires that we once again reopen the question of the committee assignment
process in political science.

This study can only scratch the surface of committee bias. Although we can
demonstrate the bias in targeted committees, does this bias make a difference? Hall
and Evans (1990) found some committees are better at keeping their legislation intact
than others. Perhaps this difference is due to the ideological makeup of the
committee itself. Further examinations on the lines of Hall and Evans (1990) on the
outcomes “downstream” in the legislative process can only enhance our
understanding of the differences that biases on committees can have.

Another question yet to be explored fully is whether or not the subcommittees
of biased committees are themselves biased (Wrighton and Peterson 1996). Are all of
the subcommittees of outlier full committees biased as well, or are some of them
ideologically neutral? Do subcommittees hold the institutional power ascribed by
Shepsle and Weingast (1987a, b) to full committees? Given the movement of power
from the committee to the subcommittee within the past twenty years, these are
questions that need answers. It is to the subcommittees that we believe the best
efforts of scholars in the area of committee bias might continue to be directed.
References


