



The Evolution of Legislative Jurisdictions

Frank R. Baumgartner; Bryan D. Jones; Michael C. MacLeod

The Journal of Politics, Vol. 62, No. 2. (May, 2000), pp. 321-349.

Stable URL:

<http://links.jstor.org/sici?sici=0022-3816%28200005%2962%3A2%3C321%3ATEOLJ%3E2.0.CO%3B2-A>

The Journal of Politics is currently published by Southern Political Science Association.

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/about/terms.html>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/journals/spsa.html>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is an independent not-for-profit organization dedicated to creating and preserving a digital archive of scholarly journals. For more information regarding JSTOR, please contact support@jstor.org.

*The Evolution of Legislative Jurisdictions**

Frank R. Baumgartner
Pennsylvania State University

Bryan D. Jones
University of Washington

Michael C. MacLeod
The Forestar Group

We consider the clarity of the jurisdictions of the committees of the U.S. Congress over the entire post-war period. We offer a theory to explain changes in clarity over time, emphasizing how the rise of new issues and the redefinition of existing ones undermine the clarity and stability of committee jurisdictions. We present results from a new dataset on all congressional hearings between 1947 and 1994—67,291 cases in all. Using new summary indices of jurisdictional clarity, we trace the evolution of the jurisdictional system for both the House and Senate. We demonstrate low levels of clarity for most issues and a decline in clarity for the system as a whole over time. Further, we show that these developments are the result of changes in issue-density (the rise of new issues and the redefinition of old ones) and increases in institutional resources, in particular professional committee staff. We note the implications of these findings for models of legislative behavior and government decision-making more generally.

Process and structure are generally treated as distinct entities in political science. Students of public policy study “process.” Students of institutions study “structure.” We argue in this paper that process and structure are fundamentally intertwined, and we offer a perspective for studying both simultaneously. We focus on the committee system of Congress, but our approach and findings have broad implications for the evolution of the American system and of democratic systems of governance more generally.

Legislative organization, like governmental structures in general, is not static but subject to continual pressure for change, especially as new issues arise on the agenda. Committees, like other legislative organizational structures, continually adapt to internal and external demands (Polsby 1968; see also Ragsdale and Theis 1997). Roger Davidson (1986) has noted the dynamic, evolving na-

*This research was supported by the National Science Foundation (SBR-9320922), the Department of Political Science at Texas A&M University, and the Center for American Politics and Public Policy at the University of Washington. We appreciate comments from John Hardin, Charles Jones, Nelson Polsby, and Mark Smith.

ture of the operation of congressional committees; he shows that as member goals and environmental constraints changed, so did committee structures, procedures, and politics. Similarly, David King's (1997) study of jurisdictional change shows it to be fundamentally evolutionary—characterized by an opportunistic, trial-and-error, path-dependent process. Indeed, over the years many scholars have detected a pattern of mutual adjustment in committees that has a clear evolutionary flavor (Jones 1961; Morrow 1969; Manley 1970; Price 1972; Clausen 1973; Fenno 1973; Hinckley 1975; Price 1978, Davidson 1986; Dodd 1986; Sinclair 1982, 1986; Cooper and Young 1989; Smith 1989; Strahan 1988; Hansen 1991; and Hall 1996). David King's (1994, 1997) recent analysis of jurisdictional change in Congress has made clear how entrepreneurial committee chairs are active in protecting their legislative turf from the incursions of rivals at the same time as they attempt to expand their own reach by claiming jurisdiction over new issues as they arise.

We focus on the fundamental role of issues and issue-definitions in affecting internal legislative structures. There is no question that institutional structures profoundly affect the ways in which issues are defined and handled in Congress, but issues are not wholly secondary to the structures within which they are considered. Rather, issues and structures co-evolve, in a dynamic dance that, over the long term, changes both the way in which issues are understood and decided, on the one hand, and the manner in which structures are used to channel the consideration of those issues, on the other. This process has external determinants (e.g., how many and what kinds of issues are pressed on national government?) and internal ones (e.g., how do active participants attempt to define issues and utilize internal structures to gain leverage over newly important issues?). We explore these questions here with respect to the development of the congressional committee system over the past several decades, showing the impact of new issues on jurisdictional clarity.

In this paper, we present a theory of jurisdictional dynamics and test this theory by presenting results from a new dataset on all congressional hearings conducted between 1947 and 1994—67,291 cases in all. If we are correct in our diagnosis, then the jurisdictional structures of committees in Congress must change under the onslaught of new issues and new issue-definitions. On the other hand, a committee system cannot devolve into a state of utter entropy; such a system would fail to provide any benefits to a legislative body. Our analyses demonstrate that jurisdictional clarity is on the decline, that clarity is a function of increasing issue complexity and the institutional resources available to process issues, but that committees do continue to specialize.

A Model of Jurisdictional Clarity

Authority and Competition in the Policy Process

A fundamental component of the internal structure of any political system is a division of labor into policy-relevant jurisdictions. The notion of a jurisdic-

tion is a general one, not confined to courts (from which it was borrowed). Any sub-part of a political system must have some way of determining whether a given issue is germane to its policy-relevant activities. A jurisdiction is the set of issues germane to a given institution.

We may distinguish two conditions by which a political system may consider issues: authority and competition. Policy-making where jurisdictions are clear is a question of authority. Policy-making where jurisdictions are contested is a matter of competition. In general, areas of American public policy differ in the degree to which jurisdictional authority is clear. Elsewhere two of us argued that many changes in public policy over the post-war period stemmed from shifts in jurisdictional authority rather than from changes in the preferences of leaders of those institutions with original control (Baumgartner and Jones 1993). As new issues came to the public's attention or as new ways of thinking about old issues gained prominence, different sets of institutional actors exerted their jurisdictional authority. The possibility of shifting institutional control from one institutional venue to another creates strong incentives for strategic policy entrepreneurs to attempt to move the issue into the venue controlled by their own supporters and away from all others. Venue-shopping is encouraged in the case of contested jurisdictions, and it is facilitated where there is no agreement on how an issue is properly understood.

Just as there is competition by the states, localities, and various agencies of government over control on important issues, within Congress the various committees compete for control over new issues as they arise and for continued authority in areas where jurisdiction has previously been granted. Like the broader institutional structure, committees are sometimes authoritative, operating with a relatively clear and unchallenged jurisdictional mandate. In other cases, they compete with one another for control, just as happens in the broader political system. Taken as a whole, the committee system is constantly evolving as new issues arise and old questions are considered in a new light.

Evolutionary Dynamics in Legislatures

Our fundamental premise is that legislative organizations—including party organizations, floor voting arrangements, member-enterprises (Salisbury and Shepsle 1981; Browne 1995), and the committee system—evolve in response to member preferences and the superiority of certain organizational forms. By “superiority of organizational form” we mean that some forms of organizational structure solve the problems facing a legislature better than other forms. In the case of the committee system, for example, decentralization and the division of labor have clear advantages (Simon 1996, chap. 8), in effect providing a valuable collective good in the acquisition of information (Krehbiel 1991; King 1997) and the distribution of constituency benefits (Mayhew 1974). But these collective advantages are counterbalanced by the constraints on individual member behavior. While the members value the collective goods that stem from jurisdictional clarity, they also would like to be able to work on whatever issues matter to them.

Because members have competing and mutually antagonistic goals, organizational arrangements tend to be compromise solutions, neither reaching the goal of perfect clarity nor that of total freedom. Rather, jurisdictional structures are in a continual state of adjustment or at best in periods of temporary stability. The basic argument goes as follows:

- *Structures determine issues*: Existing legislative structures select their own issues. For example, the substantive jurisdictional alignment of the committee system is oriented toward certain framings of issues and against others (Shepsle 1979). Rules of any system have a bias toward some issues and against others—even if the rules are simple and direct tools of a legislative majority.
- *Legislators have dual preferences*: A committee system is a collective good: It provides information from specialists (Krehbiel 1991), works against issue-cycling (Shepsle 1979), and helps set priorities for the chamber. But maintaining a legislative committee system involves a classic collective goods problem. Collectively, legislators prefer clear-cut committee jurisdictions, since they promote stability and information-acquisition, but individually they prefer vaguer jurisdictions, since they allow for strategic action on issues (Hardin 1998; King 1997). As a consequence, legislators themselves have two kinds of preferences. First, legislators have induced or basic preferences for issues. They prefer some legislative outputs to others. Second, legislators have preferences for organizational forms, and preferences for clear and rule-based systems predominate. The call for clear and simple committee jurisdictions is heard again and again.
- Issue-based preferences, being at least partially induced, shift in response to the introduction of new issues and the changing saliences of old ones. Issues themselves may emerge from many sources, including social, economic, political, and technological forces, from party and presidential programs, or from entrepreneurial legislators searching for competitive advantage. Whatever the genesis of new issues or changing salience of old ones, the emergence of new issues into the legislative arena creates strains on the existing organizational structure, designed inevitably with a different set of issues in mind.
- As the number and mix of issues facing the legislature change and more issues are considered on the legislative agenda, these issues are more likely to be interconnected (Baumgartner and Jones 1993; Jones 1994; Evans 1995).
- *Issues determine structures*: The interconnections among issues add additional constraints to existing structures; as a result, the existing organizational structure increasingly fails to fit the pattern of incoming issues (Jones, Baumgartner, and Talbert 1993). In particular, existing jurisdictional alignments among committees increasingly overlap. Calls for organizational reform are heard.

The mechanisms described above exhibit certain characteristics of an assurance game. In such a game, two equilibria exist. If all members cooperate (that is, respect committee jurisdictions and not attempt to encroach on others), then all benefit from a clear and stable set of committee jurisdictions. If all members defect, then all benefit from the freedom to follow their own interests, but

the committee system devolves toward a homogenous state in which there is no difference among the committees. In this second equilibrium, individual incentives wreck the collective good, and the resulting committee system would produce no collective information gains for the chamber. Intermediate forms in which some members defect and some cooperate are not in equilibrium and should not be sustained, according to this perspective.

Our approach is different. The evolutionary focus adopted here implies that *neither of these equilibria will be reached*. A committee system that did not respond to the information needs of members and to the advantages of the specialization of labor would not be sustainable. A committee system that did not respond to the changing nature of political issues would not sustain the reelection drives of members. As a consequence, these contradictory demands result in a solution to the jurisdictional problem that is never stable (at least so long as the issue demands on the legislature are not constant). The key difference is that we view the agenda of Congress as constantly changing. Faced with this changing agenda, and in particular with an increasingly dense set of policy issues to deal with, the committee system must continually evolve while simultaneously attempting to solve these two antagonistic goals.

We may view increasing issue complexity as adding constraints to solving the collective goods problem. The addition of constraints implies that global solutions are less and less likely. Organizational "solutions" to these multiple constraints are found by trial and error, are mostly made via local adjustments rather than systemic reforms (King 1997), and tend toward local rather than global optima. Even global reforms cannot alleviate patterns of overlap because an increasingly dense issue-agenda inevitably involves greater overlap among issues, as we show in more detail shortly.

New Issues vs. Redefinitions of Old Ones

Issue dynamics are a consequence of two factors: the introduction of new issues into a political system and the re-weighting of attributes characterizing existing issues. The multidimensional nature of political issues makes it problematic to predict which dimension of an issue will be predominant at any given time. Tobacco is simultaneously a cash crop and export-producing commodity, on the one hand, and a leading cause of lung cancer and heart disease, on the other. To the extent that different dimensions, or attributes, of an issue become salient at different times (or in different venues), we can expect decision-makers to react differently (see Jones 1994). Practically speaking, therefore, the rise of new issues on the governmental agenda should have the same impact as the redefinition of old ones.

Sometimes truly new issues arise on the government's agenda. Cable TV regulation was not an issue before there was cable TV. Congress held no hearings on gene-splicing, organ transplants, or space exploration before the requisite technologies were available. Technological advance, scientific progress, demographic changes, and the growth of government programs lead to the emergence

of issues that previously were not considered in government. Other times new issues arise by the redefinition of old ones, so that these become newly controversial and more complex. Pesticides regulation is a good example. Once seen as a means to improve agricultural productivity, the issue came increasingly to be seen from the perspective of environmental degradation and toxicity. Of course the issue harbors both dimensions, or attributes. Policy-makers and other advocates may disagree about the relative importance of each dimension of the issue, and over time the consensus may change. In any case, new issues can come from social or technological advance, or they may come from the redefinition of old issues. Both processes have the effect of adding to the density of the government's policy agenda. Issue-density in turn is inevitably related to jurisdictional clarity.

The Jurisdiction Problem

The jurisdiction problem is that of fitting a set of issues to a set of institutions designed to provide a division of labor. Assume that at a particular time a legislature has established a committee system based on the issues facing the body at that time. Assume that the legislature creates K committees to deal with N issues and that it divides the jurisdictions of the committees so that there are no jurisdictional conflicts. This situation can be represented by a KN matrix in which each entry is either a 0 (for no jurisdiction) or a 1 (where jurisdiction has been assigned). Normally K is less than or equal to N .

Now suppose that a jurisdictionally clear system is desired. What would this mean? There are two different elements of jurisdictional clarity. The first might be termed *jurisdictional overlap*: the extent to which two or more committees share responsibility for a single issue. The second is *jurisdictional span*: the extent to which a single committee has responsibility for more than one issue. Table 1 below illustrates this difference. There a system of K committees handles N is-

TABLE 1
A Hypothetical Committee System

	Issue 1	Issue 2	...	Issue N	Span: Issues Per Committee
Committee A	1	1	.	0	2
Committee B	0	0	.	0	1
Committee C	0	0	.	0	1
...
Committee K	0	0	.	1	1
Overlap: Committees per Issue	1	1	...	1	

sues. Multiple column entries indicate that an issue has been assigned to more than one committee, causing jurisdictional overlaps. Multiple row entries indicate that a committee's jurisdiction incorporates more than one issue, leading to increased span. In the example of Table 1, there are no problems of jurisdictional overlap: No issues are assigned to more than one committee. But Committee A's jurisdiction spans two issues.

Models of congressional behavior based on a powerful committee system typically assume both narrow span and little overlap. Models of committee selection bias are based on the idea that "high demanders" will attempt to gain seats on the committees with jurisdiction over issues of particular concern (Shepsle 1978; Shepsle and Weingast 1987; but see Krehbiel 1990, 1991). If a committee's jurisdiction spans more than a single topic, however, members may attempt to gain seats on the committee for a variety of unrelated reasons. This, in turn, may result in increased intracommittee conflict and decreased likelihood of committees being systematically stacked with high demanders overall. It also suggests that committee bias may be time-dependent, as new issues emerge that alter selection patterns (see Hall and Grofman 1990; Jones, Baumgartner, and Talbert 1993; Londregan and Snyder 1994; Adler and Lapinski 1997).

One solution, often used by Congress, to the problems posed by increasing issue density is to redefine existing issues more narrowly so that no issue spills beyond the jurisdiction of a single committee. Committee jurisdictions become defined in highly specific terms based on the language of statutory authority, executive agency activities, or clauses of the tax code rather than in broad policy terms. This allows for clear allocation of legislation to particular committees, but also lays the groundwork for future claims of authority by strategic drafting of legislation to fit into one specific definition of jurisdictional authority rather than another. In the 105th House of Representatives, for example, the Commerce Committee is given authority over "health and health care facilities, except health care supported by payroll deductions" (Rule X-e-3), which goes to Ways and Means because of its traditional control over Social Security issues. This reaction to the jurisdiction problem leads to problems of coordination since policies created by a variety of different statutes may coexist in a single policy area. It helps explain some long-standing contradictions of government policy as well.

In the absence of the multiplication of committees in Congress, the emergence of new issues must decrease the clarity of the committee system even if the new issues do not overlap with the old. At a minimum, each new issue increases the average committee span. If the new issues share elements in common with each other or with existing issues (as is likely), then they are likely to lead to problems of both increased span and overlap. Over time, Congress has become active in scores of new issues, inevitably causing important changes in the committee structure. Most of these have worked in the direction of a breakdown of clarity. Span has increased, overlap has become common, and clarity has inevitably been diminished because of the long-term rise in new issues of public concern.

Hypotheses

From the above discussion, we may deduce the following hypotheses.

1. *Span Hypothesis*. If issue-density increases and the number of committees stays constant, then jurisdictional span must increase, and jurisdictional clarity must therefore decline.
2. *Overlap Hypothesis*. If issue density increases, and these issues contain elements in common with earlier issues, then jurisdictional span *and* jurisdictional overlap will increase, and jurisdictional clarity must therefore decline.

These two hypotheses, combined, lead to the Jurisdictional Entropy Hypothesis.

3. *Jurisdictional Entropy Hypothesis*: Unless a legislature can find ways of dropping issues from consideration (unlikely where new agencies have been created via legislation), its jurisdictional system will tend toward increasing complexity over time as issue-density increases. As issues are added they automatically create problems of span, and in practice they also create increasing problems of overlap. Jurisdictional clarity declines as issue-density increases.

Because a jurisdictionally clear committee system has collective benefits, demands for reorganization often arise. We expect that these structural reforms will have little long-lasting effect, because member preferences for issues will undermine them (see also King 1997; Hardin 1998). More important, no reform can solve the problem of getting a relatively fixed committee to deal with a constantly changing and ever-increasing set of issues.

4. Structural reforms of the committee system will have insignificant effects on jurisdictional clarity (assessed as either span or overlap) in the long term.

As issue-density increases, members (and committee chairs, in particular) demand more organizational capacity to handle the increased workload. Increasing the number of subcommittees is one possible response, but this response will have little effect on clarity. More important is the increase in committee staff resources. This increase in staff resources then reinforces the ability of the committee system as a whole to monitor a greater number of issues over time, but it leads to further declines in jurisdictional clarity.

5. Increased issue-density leads to the growth of committee staff resources.
6. Growth in staff resources leads to declines in jurisdictional clarity (both span and overlap).

It is not the increased activity of congressional committees per se that matters in declines in jurisdictional clarity. Rather the key variable is the increased diversity of these actions. As a consequence, the co-evolutionary approach can be distinguished from a theory based on organizational overload. The mere number of hearings held by Congress, for example, should not be as important as the diversity of different topics being discussed. Further, staff resources and issue-

density should be more important predictors of jurisdictional clarity than the number of subcommittees.

If issues were not important and if internal factors alone affected congressional structures, then we would hypothesize that reforms would have dramatic and simultaneous effects across the entire committee system. We expect, by contrast, to see a gradual decline in the clarity of the entire committee jurisdiction system, but for this gradual decline to be composed of more dramatic changes occurring at different times in different issue-areas. On an issue-by-issue basis, jurisdictional clarity will show occasional rapid changes as new issues emerge and the system adjusts first by increments, then by moving to a new jurisdictional alignment. As new issues are recognized, new areas of jurisdictional authority are granted. Because all issues do not rise on the agenda simultaneously, and because structural reforms are not the primary factor in jurisdictional change, overall levels of clarity should show more gradual change.

7. Changes in the clarity of the congressional committee system will be gradual, reflecting different periods of more rapid change for particular issues or particular committees.

We may state a final hypothesis about the clarity of the committee system as a whole:

8. Declines in clarity should be proportionate to the increase in the density of the congressional agenda and to the number of staff available to work on diverse issues.

Summary Indicators of the Clarity of the Congressional Jurisdiction System

The hypotheses we detailed above imply changes in jurisdictional clarity, so we need clear indicators of span and overlap that can be followed across time. We develop indicators of clarity based on the proportion of total legislative attention to a given issue across committees (for a measure of overlap) or the proportion of total committee attention across issues (for a measure of span). Our measure shows a value of 100 in the case of perfect jurisdictional clarity and a value approaching 0 in the case of maximum overlap or span. Our measures are simply Herfindahl indexes, a measure used by economists to assess market concentration (we multiply by 100 for ease of presentation). Following Hardin (1998), political scientists have used the measure to assess jurisdictional concentration (Baumgartner, Jones, and Rosenstiehl 1997; see also Gray and Lowery 1996; Poole and Rosenthal 1997). For each issue, therefore, we can use a Herfindahl score to summarize the degree to which a single committee dominates (a high score) or shares authority with a large number of rivals (low score). Similarly, for each committee, we can summarize the degree to which it focuses its attention on just a single issue (a high score) or spreads its attention across many topics (low score). Both span and overlap are measured in the same way. Span

indicates the range of attention of any particular committee; overlap indicates the range of committees active for any particular issue.

The averages of the span and overlap scores provide measures of the overall clarity of the entire committee jurisdiction system, which we call the *Indices of Jurisdictional Clarity*.¹ These indices are, in effect, the sums of the indices of span and the indices of overlap, divided by the maximum value possible for those sums. Since the maximum scores would indicate the complete absence of jurisdictional span or overlap, the indices of jurisdictional clarity indicate the clarity of the committee system relative to a perfectly clear committee-based, structure-induced equilibrium (SIE) system (Shepsle 1979; Shepsle and Weingast 1987).

Empirical Evidence

Jurisdictional Clarity: A Cross Section

The theory we have outlined above requires that we cross-tabulate congressional committee structures with temporally consistent policy content codes for the hearings that committees conduct. In order to do this, we have developed a carefully validated set of content codes for congressional hearings. Our data set consists of every congressional hearing reported by the Congressional Information Service from 1947 to 1994, over 67,000 hearings in all. Each hearing is assigned to one of 19 major topic categories such as agriculture, health, education, and to one of 222 subtopics, based on the abstract and title of the hearing as reported by CIS. Here we limit our focus to the major topics.²

Before we proceed to a test of the hypotheses, we examine jurisdictional clarity for a single Congress. Our primary measure of jurisdictional claims here is

¹The theoretical maximum for the sum of the Herfindahls is equal to the number of issues (for the overlap matrix) or the number of committees (for the span matrix). So “averaging” the Herfindahls is equivalent to dividing the sum of the Herfindahls by the number of issues or committees. We define the *Index of Jurisdictional Clarity*, for the committee system as a whole, as the average of the Herfindahls. It would have a value of 100 in the case of perfect clarity, and a score approaching 0 in the case of maximum overlap or span. The index therefore presents a simple indicator of the distance from absolute jurisdictional clarity of the system. It may be calculated for issues (overlap) and for committees (span):

$$IJC_o = \frac{\sum_i \sum_j p_{ij}^2}{N}; \sum_i p_i^2 = 1; \quad N = \text{the number of issues.}$$

$$IJC_s = \frac{\sum_i \sum_j p_{ij}^2}{K}; \sum_j p_j^2 = 1; \quad K = \text{the number of committees.}$$

²Some apparent lack of clarity is inevitable because our coding rules are not the same as those used in Congress. However, our argument hinges on changes in clarity, not their absolute levels. Further, our coding rules and topic definitions are closer to what an outside observer would consider to be typical definitions of the issues than are the congressional rules, since those are often based on statutory precedents rather than generally understood meanings of common terms. Full details on coding procedures and data set may be found at the Center for American Politics and Public Policy web page at the University of Washington, <http://depts.washington.edu/ampol/>.

a simple count of the number of hearings within a topical category that were held by a particular committee. To ensure that this measure adequately assessed jurisdictional claims, we also look at referral hearings only (those involving hearings on bills referred to a committee by the parliamentarian). We also study hearing-days, rather than simple counts of hearings, in order to adjust for the scheduling of hearings on trivial matters. In both cases findings do not differ materially from hearing counts. Table 2 shows the simple matrix of committee coverage by topic, for the 102nd House of Representatives.

Several features are remarkable in the evidence presented in Table 2. First, there is a lot of span and considerable overlap. Reading down the columns shows the degree of overlap for each issue; looking across the rows shows the degree of span for each committee. There are several issue-areas, such as foreign affairs, where the predominant committee holds the vast bulk of hearings on the topic: In this case, one can see by reading down the columns that Topic 17 (Foreign Affairs) was the subject of 175 hearings in the 102nd House; 117 of these were indeed in the Foreign Affairs Committee. Education (Topic 6 in the table), agriculture (4), and interior (19) also tend to have relatively clear jurisdictions, with a single committee holding the bulk of the hearings in these issue-areas. (Even these issue-areas, representing the clearest cases, would not correspond to a definition of clear jurisdictional authority. Various elements of each issue-area escape from the control of the most relevant committee.) Much more common than these areas of relatively little committee overlap are those areas such as health (Topic 3), labor (5), environment (7), energy (8), transportation (9), law (10), commerce (13), defense (14), or trade (16), where no single committee dominates the entire issue-area. As any lobbyist knows, the typical issue-area in Congress is subject to the potential intervention and activity of a number of committees, each claiming a different part of the jurisdictional action.

Table 2 also shows the broad span of most committee activities, as can be seen by reading across the rows. A few committees, notably Armed Services, Interior, Post Office, and Foreign Affairs, limit the bulk of their activities to the single issue-area that defines their jurisdiction (or, in the case of Education and Labor, the two areas that define their activities). Much more common is the situation where a committee is active in two or more related areas (e.g., Agriculture is active not only in the area of agriculture but also in interior—because of public lands issues—and the environment—because of pesticides, land, and water quality issues). More common still are those committees that have become active in quite a number of relatively disparate topics. Only 8 of the 21 standing committees of the 102nd House held half or more of their hearings in a single issue-area. Many committees spread their attention across four or more issue-areas. Note the broad spans of Energy and Commerce, Ways and Means, and Appropriations. These powerful committees have extremely broad spans of attention and influence.

The right-most column in Table 2 presents the Index of Span. High scores indicate a narrow span of attention, as in the case of Armed Services: With 63

TABLE 2

Hearings by Committee and Topic, 102nd Congress, House of Representatives

Committees	Topics																			Total	Index of Span	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19			
Post Office and Civil Service	0	4	0	0	0	1	0	0	0	0	0	0	0	0	4	0	0	1	56	1	67	71
Armed Services	0	2	2	0	0	1	1	1	0	2	0	0	0	2	63	2	0	5	1	0	82	60
Foreign Affairs	0	0	0	1	1	0	1	0	1	8	0	0	0	0	23	3	21	117	0	0	176	48
Interior and Insular Affairs	1	0	0	0	2	1	21	12	1	2	0	0	0	0	3	0	1	0	3	76	123	42
Veterans Affairs	0	2	16	0	0	2	0	0	1	0	0	5	1	27	0	0	0	0	0	0	54	35
Agriculture	0	0	1	50	1	0	11	2	0	0	5	4	4	1	0	1	0	1	4	0	100	30
Merchant Marine	0	0	0	1	1	1	51	4	24	0	0	0	1	3	5	2	10	0	4	107	29	
Education and Labor	0	6	8	0	26	66	1	0	0	11	8	0	2	0	0	5	1	2	2	138	28	
Banking, Finance, Urban Aff.	10	2	0	2	0	0	1	1	0	4	3	26	73	4	0	14	7	8	0	155	27	
Small Business	0	4	12	0	2	2	9	1	0	1	2	2	43	1	1	8	3	2	0	93	25	
Public Works, Transportation	1	0	1	0	4	2	11	4	28	2	0	1	2	1	0	1	3	17	3	81	19	
Budget	24	0	7	0	2	1	1	0	1	0	4	5	3	11	2	2	1	3	0	67	18	
Judiciary	0	9	4	1	14	1	3	0	1	42	1	0	23	2	5	0	4	11	2	123	18	
Science, Space, Technology	2	0	5	1	1	11	20	28	10	0	0	0	9	8	54	16	4	2	0	171	16	
Energy and Commerce	0	1	43	4	4	2	30	13	6	2	0	1	24	6	15	8	2	3	2	166	14	
Ways and Means	20	0	32	2	13	0	3	1	1	11	15	1	7	2	0	20	1	6	0	135	13	
Appropriations	7	0	7	14	2	2	2	4	7	6	2	4	6	18	4	0	7	31	27	150	11	
Government Operations	3	8	19	3	11	4	13	8	9	10	2	7	8	7	3	7	5	13	4	144	7	
District of Columbia	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	12	*	
House Administration	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	10	3	16	*	
Rules	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	6	*	
Total Hearings	70	40	157	79	85	97	180	79	90	103	42	56	208	184	94	107	175	179	141	2,166		
Index of Overlap	23	14	16	44	17	48	15	20	20	21	20	26	20	17	37	13	46	16	34			

Topics: 1 Macroeconomics; 2 Civil Rights; 3 Health; 4 Agriculture; 5 Labor; 6 Education; 7 Environment; 8 Energy; 9 Transportation; 10 Law; 11 Social Welfare; 12 Community Development; 13 Domestic Commerce; 14 Defense; 15 Space, Science, and Communications; 16 Foreign Trade; 17 Foreign Affairs; 18 Government Operations; 19 Interior and Public Lands.

*Not calculated due to low n.

of its 82 hearings on a single topic, its index score is a relatively high 60.³ Low numbers, such as the 13 for Ways and Means, show that that committee spreads its attention across many issue-areas. The last row of Table 2 shows the Index of Overlap for each of our 19 issue-areas. This index summarizes the degree to which hearings on a given topic are concentrated in few committees or spread across many. No issue gets a score of over 50; the average is just 25. In any case, looking either at span or at overlap, the picture that emerges from Table 2 is one of a great deal of jurisdictional ambiguity.

According to our data, education issues are among the most straightforward of all in terms of committee jurisdictions, with an overlap score of 48 in Table 2, above. For the sake of example, therefore, and to illustrate the degree to which jurisdictional ambiguity is a fact of congressional life, consider the committees that a university president might be called upon to deal with. A simple reading of House Rule X shows the following: "Education matters generally" go to the Committee on Education and the Workforce (Rule X-f-6). However, activities having to do with agricultural colleges and experiment stations, agricultural research, agricultural education extension services, and home economics are referred to the committee on Agriculture (X-a-4, 5, 6, 16). Biomedical research goes to Commerce (X-e-1); international education goes to International Relations (X-i-8); mining schools and experiment stations are under the jurisdiction of the Committee on Resources (X-l-14); the National Science Foundation, science scholarships, and scientific research in general go to the Committee on Science (X-n-10, 13, 14); education of veterans, of course, goes to Veterans' Affairs (X-r-3). Defense research projects, often done on college campuses, go to Armed Services, of course. Finally, according to Rule X, section 3, clause c, "The Committee on Education and the Workforce shall have the function of reviewing, studying, and coordinating, on a continuing basis, all laws, programs, and Government activities dealing with or involving domestic educational programs and institutions, and programs of student assistance, which are within the jurisdiction of other committees."

In other words, for the case that appears to be one of the simplest, there are at least eight committees with Rule X authority over some parts of education matters generally. This does not include tax issues such as the tuition credit included in the 1997 deficit reduction bill; tax matters, relating to education or anything else, go to Ways and Means.⁴

³We multiply our scores by 100 for ease of presentation. Note that the Herfindahl index, based on the squared proportions of hearings, is exponential: A decline from perfect clarity, with a committee's attention on only one topic, to attention evenly split between two topics, would lead to a drop from 100 to 50 in the Index score, a 50-point drop; but a decline from attention split among four topics to an even split among five topics would lead to a 5-point drop—from 25 to 20. The lowest possible score for the Index of Span with 19 issues is 5.3; for the Index of Overlap with 21 committees, the minimum is 4.8.

⁴This remarkable jurisdictional situation is subsequent to the Republican reforms designed to clarify and simplify the congressional committee system undertaken in 1995 (although several scholars have noted that these reforms had only a modest impact; see King 1997; Deering and Smith

Our theory leads us to expect few differences between the House and Senate. In spite of the larger size of the House, both bodies must face an increasingly crowded policy agenda. One important difference between the House and Senate concerns the ability of Senators to amend legislation on the floor, avoiding the closed rules that are more common in the House. This difference should make Senators on the whole slightly less concerned with establishing committee jurisdictions on bill referrals in areas partially covered by other committees.

A comparison of Table 2 with an equivalent table for the 102nd Senate shows that the two bodies are remarkably similar in their inability to avoid problems of span and overlap. Just as in the House, there are a few areas where a single committee enjoys relatively complete control over an issue-area. Education, interior, foreign affairs, and energy matters are characterized by relatively clear committee jurisdictions. On the other hand, the general picture of jurisdictional overlap is roughly similar to what we observed in the House. The average overlap score for the 19 topic areas in the 102nd House was 25; for the Senate, 31. Similarly, the average span score for the committees of the 102nd House was 32; for the Senate, 28.

Trends toward Jurisdictional Entropy

In this section we show how our indicators of jurisdictional clarity have changed over time, for both the House and the Senate. In Table 2 above we presented our two indicators of clarity for a single Congress. In Table 3 we show the index of overlap for each of our 19 issue areas over time, with a summary indicator of the average degree of overlap in the last row.

Table 3 makes clear that the drift toward organizational entropy in the House of Representatives has not affected each area of policy equally.⁵ Some issue-areas, such as education, agriculture, and science, have remained relatively clear in their jurisdictional arrangements. Others, including health, energy, and the environment, have never been characterized by a clear committee structure. Most issue-areas, however, have exhibited a marked increase in the number of committees showing some level of activity, as reflected in the generally declining clarity scores in the table. These movements toward greater overlap have occurred at different times for different issues. The combined effects of the trends evident from Table 3 are a general, and relatively gradual, decline in overall indicators of jurisdictional clarity for the House, findings that are closely paralleled, again, in the Senate. These figures are reported for the House in the last

1997). The example comes from the 105th Congress; the situation is similar to that in other Congresses before or since.

⁵A significant complication in the dataset concerns the release of previously unpublished hearings by CIS. Many House and Senate committee hearings were originally not made public, especially in the early years. CIS has progressively been making these hearings available, but this process is not complete. We have ensured that the findings reported in this paper are robust with respect to the problem. For a full discussion, see Hunt, et al., 1997.

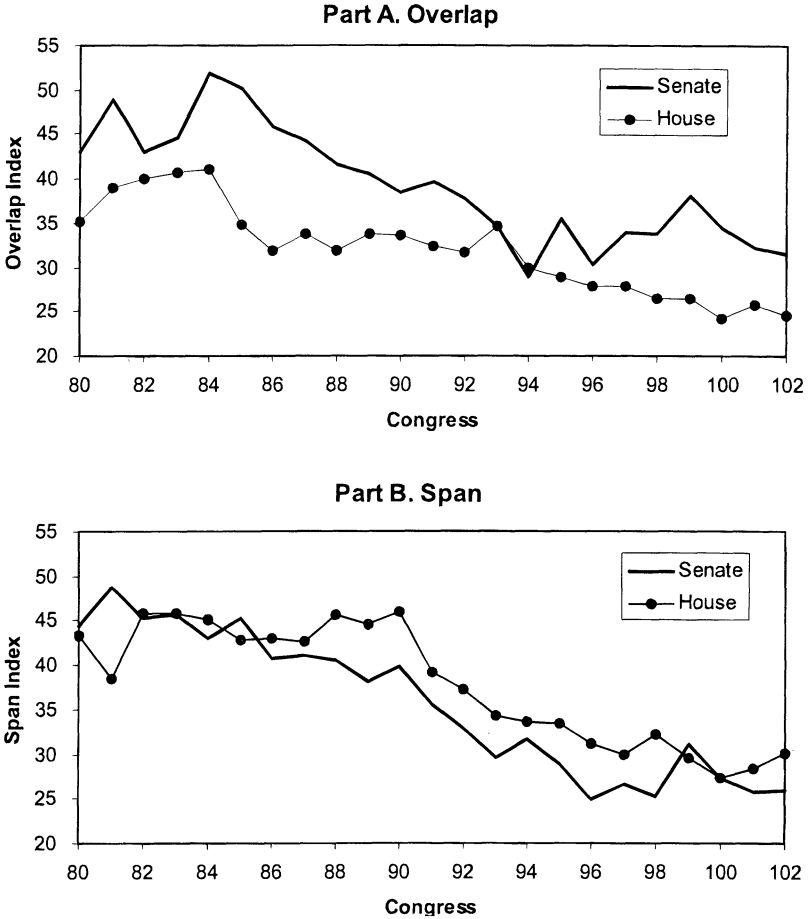
TABLE 3
Index of Jurisdictional Overlap, House of Representatives, All Hearings, 80th to 102nd Congress (1947 to 1992)

Topics	Congress																							Total Hearings	Avg.
	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102		
Agriculture	34	52	58	54	56	55	56	57	56	55	64	43	38	76	48	49	49	55	39	31	43	39	44	1,593	50
Education	20	47	42	23	31	38	50	49	31	68	49	66	54	72	66	58	46	63	54	72	40	54	48	993	50
Space, Science, Comm.	79	50	39	63	52	42	42	45	27	39	41	35	45	61	45	56	47	33	37	56	46	37	37	1,168	46
Public Lands	74	80	70	73	70	70	70	37	37	32	36	41	27	27	31	34	23	21	23	27	28	25	30	3,825	41
Foreign Affairs	18	38	22	27	19	61	18	28	33	53	34	44	53	46	52	52	54	56	48	47	43	52	46	2,172	41
Law, Crime, Family	42	48	65	57	70	64	29	59	25	23	13	29	28	33	27	38	34	48	41	27	20	24	21	1,230	38
Social Welfare	50	38	50	78	76	43	27	33	42	56	41	26	45	47	35	20	24	21	24	20	23	22	20	578	37
Civil Rights, Liberties	33	85	91	86	58	44	52	53	18	17	20	39	21	18	21	19	20	27	17	17	18	19	14	1,072	35
Macroeconomics	31	18	51	63	58	21	52	38	67	33	26	36	32	38	21	24	20	15	24	20	18	22	24	1,056	33
Defense	47	53	22	30	26	25	25	37	40	37	39	30	34	35	23	24	23	19	17	20	24	18	17	4,494	29
Foreign Trade	21	18	50	16	70	23	28	28	33	26	39	44	25	45	21	26	23	24	17	16	15	16	13	855	28
Employment, Immigr.	28	15	20	26	16	20	29	27	28	34	44	41	39	28	40	26	25	14	24	24	21	24	17	1,343	27
Community Develop.	19	42	40	27	32	21	31	19	39	19	20	26	29	19	17	19	17	25	28	17	18	26	26	749	25
Health	31	41	24	30	23	15	25	27	18	23	50	24	24	25	26	26	28	19	20	16	15	17	16	1,501	24
Energy	32	16	33	29	17	34	22	19	28	44	29	31	24	13	20	21	19	24	20	22	20	18	20	1,529	24
Environment	43	33	33	22	34	23	24	28	25	19	24	22	22	19	18	15	21	16	15	16	15	17	15	1,504	23
Transportation	31	30	28	29	29	27	21	18	23	20	23	22	21	18	15	15	17	19	18	20	20	20	20	1,898	22
Domestic Commerce	18	29	32	24	22	18	18	18	22	21	20	16	20	17	15	18	18	16	16	16	19	19	20	2,246	20
Gov't Operations	25	17	15	17	19	19	21	22	19	19	21	15	18	18	17	17	22	15	15	16	15	16	16	4,478	18
Average	36	39	41	41	41	35	32	34	32	34	34	32	32	35	30	29	28	28	26	26	24	26	25	34,284	

Notes: There were a total of 35,574 House hearings. The number of hearings presented in this table excludes 1,290 hearings held before Select Committees.

FIGURE 1

Declining Jurisdictional Clarity in the House and Senate.



row of Table 3. A clear and gradual trend is apparent. Figure 1 shows this trend for the House as well as the Senate.

Figure 1 shows two indices of jurisdictional clarity for both the House and the Senate. The Index of Overlap corresponds to the average figures from Table 3 and refers to the degree of jurisdictional clarity by issue. The Index of Span considers the same question by committee: High scores indicate that the committees focus on just one or a few issues each; low scores indicate that the committees delve into many different issue-areas. Both indices tell a similar story:

The typical committee in both the House and the Senate now spreads its attention more broadly than in the early post-war period.

The combined effects of increased attention to new issues, new ways of understanding old issues, and rivalries among existing committees are a drift toward organizational entropy. The trends shown in Figure 1 are the result of many small changes occurring in different issue-areas at different times. Even though the Senate has not used the same rules for jurisdictional arrangements as the House, and even though the two bodies have had different periods of institutional reform, the two show remarkably similar trends toward organizational entropy. Jurisdictional divisions among the committees, never perfect, have become increasingly confusing as the years have gone by. This process has been remarkably similar in both chambers, suggesting that institutional reforms, habits, and rules cannot be the explanation for them.

Explaining the Decline in Jurisdictional Clarity

Our explanation of the decline in jurisdictional clarity focuses on several points: increasing issue-density, institutional reforms such as the decentralization of committee power, and the rise of committee staff. We explore each of these in turn before moving to a general test of the various rival explanations simultaneously.

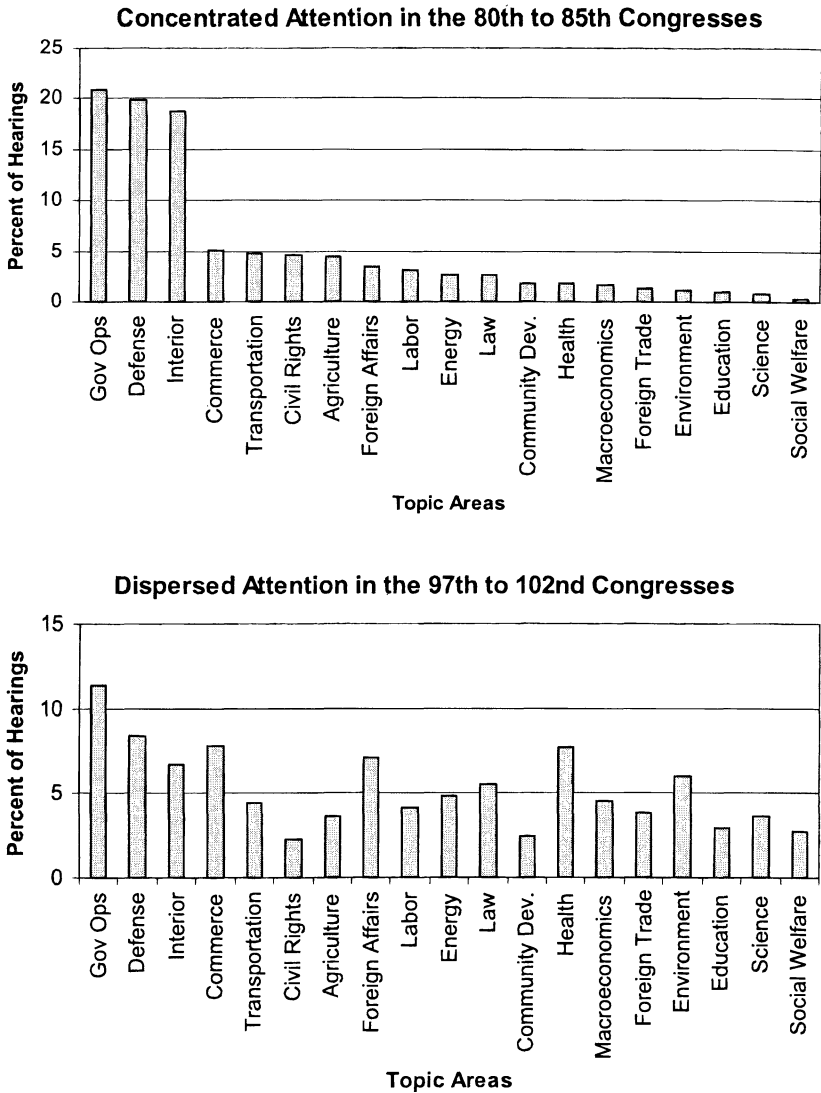
Increasing Issue-Density

We may measure issue-density using our dataset by examining the number of topics and subtopics that were the subject of hearings over the period of study. If we compare the topics discussed in congressional hearings in the early post-war period with those in more recent times, we can see a dramatic shift in the range of congressional attention. In the early period (80th to the 85th Congress), 60% of all congressional hearings concerned just three topics: Government Operations (21%), Defense (20%), and Public Lands, Indian Affairs, and Water Management (19%). No other issue-area accounted for over 5% of the total number of hearings. In contrast, in the later period (97th to 102nd Congress), no issue received more than 11% of the total congressional attention. Several topics, such as energy, health care, the environment, and banking, finance, and domestic commerce, grew from being the subject of only trivial levels of congressional attention to accounting for more than 5% of congressional hearings. Figure 2 shows the dramatic increase in the breadth of congressional attention over time.

The trends toward jurisdictional complexity were not limited only to a small number of issue-areas; rather they stem from a general increase in attention to a great number of topics. Figure 3 shows the number of subtopics in our database that were the subject of five or more hearings in each Congress. (Counting the number of subtopics with more than one, five, or ten hearings per Congress, counting the numbers with more than one, five, or ten days of hearings, or cal-

FIGURE 2

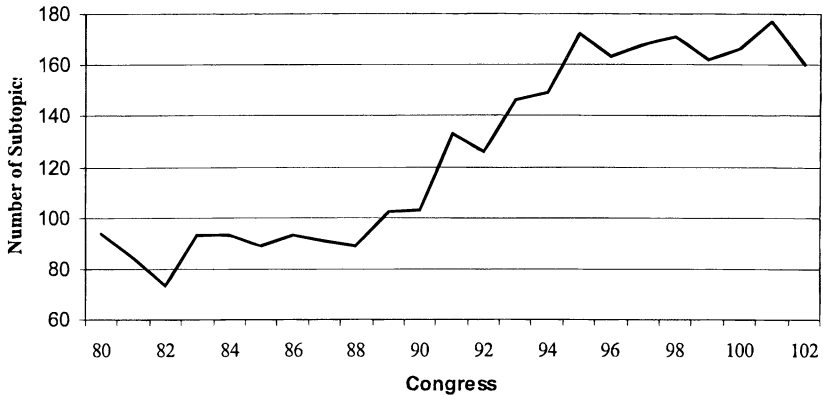
The Increased Spread of Congressional Attention Over Time.



culating an index of concentration based on a Herfindahl score separately for each Congress shows a similar trend.)

Whether we consider the simple number of our topics that are the subject of a minimum of congressional attention in a given Congress or construct a more

FIGURE 3
Number of Subtopics with at Least 5 Hearings.



inclusive index of the spread of congressional attention, we see a continuing trend over time toward greater diversity. Congresses of the 1990s deal with a much greater diversity of issues than did those of the 1950s. How has the institution reacted to the rise of so many new issues?

Committee Organization and Staff Resources

Congress has had two important reactions to the dramatic rise in the numbers of issues in the post-war period. First, it has given itself the means to explore this expanded policy agenda by organizational reforms, and, second, it has increased the size of its professional committee staff. The expansion of subcommittees and the use of select committees graphically illustrate the congressional struggle with the jurisdiction problem. Nelson (1993, xxix) notes that subcommittees and committee assignments have both grown in the modern period. Both the number of subcommittees holding hearings and the size of committee staff increased as the legislative workload reached its peak in the 1970s. We can measure both the sizes of committee staff and the number of subcommittees for each Congress; our analysis below includes these indicators as well as a simple count of the number of hearings, a measure of workload.

Structural Reforms

The modern set of committee jurisdictions in Congress was largely established with the Legislative Reorganization Act of 1946. Congress is more or less continually adjusting its governing rules, but only the reforms of the mid-1970s are likely to have had impacts on jurisdictional clarity (Schickler 1999). Fortunately, it is straightforward to test for the effect of these reforms (1974 in

the House; 1977 in the Senate; testing for the effects of the 1995 reforms in the House will have to await the collection of sufficient data over several years).

Statistical Tests of a Full Model of Jurisdictional Entropy

We are now in a position to combine the considerations above into a single model of congressional jurisdictional entropy. In particular, we are interested in the extent to which the influx of new issues affects committee jurisdictional clarity in comparison to internal organizational factors. We test the following model:

$$C_t = \alpha + \beta I_t + \gamma O_t + \delta H_t + \zeta R_t + \epsilon_t$$

C is jurisdictional clarity (assessed as the average Herfindahl score for overlap); I is issue-density (assessed as the number of distinct subtopics on which at least one hearing was held); O is organizational capacity (assessed as the size of professional staff); H is the number of hearings conducted; and R is structural reform (0 before the reform; 1 after). Because jurisdictional clarity must adjust instantaneously to changes in issue-density and capacity, we hypothesize simultaneous temporal effects; that is, no lags are postulated (this is particularly appropriate considering that our data are annual, not broken into finer periods of time). The hypotheses we test are that issue-density and organizational capacity (staff resources) lead to declines in clarity, but neither the overall level of hearing activity nor organizational reforms have any effect on clarity. This implies the following pattern of expected coefficients:

$$\beta < 0; \gamma < 0; \delta = \zeta = 0.$$

Tables 4 and 5 present the results of a series of statistical tests of this model. We present separate estimations of the basic model, three each for the House (Table 4) and for the Senate (Table 5). In Part A of each table, we present the model and results for all hearings. Since committees can hold non-referral hearings on any topic, but only get bill referrals if they have established jurisdiction in the area, we consider non-referral and referral hearings separately in parts B and C of the two tables. Model 1 presents results including our measure of issue-density and staff size as well the simple number of hearings and a binary variable for major institutional reforms (1974 in the House; 1977 in the Senate). Models 2 and 3 present simpler tests, eliminating the superfluous variables and showing the predictive power of a model of the decline in jurisdictional clarity based on the combination of staff size and issue-density. (An examination of Figures 1 and 2 shows that the series are non-stationary; the series display distinct autocorrelation. Simply differencing was unsatisfactory, as tests indicated that the results were over-differenced. Therefore we present GLS estimates here, with satisfactory results.)

Tables 4 and 5 show clearly that a simple model can explain much of the decline in jurisdictional clarity across the post-war period. Jurisdictional clarity is inversely related to the number of distinct issues being considered by the legislative body and to the level of organizational resources directed at the inves-

TABLE 4
 Explaining the Decline of Jurisdictional Clarity in the U.S. House,
 1947–92.

	Model 1		Model 2		Model 3	
	β	<i>t</i> -ratio	β	<i>t</i> -ratio	β	<i>t</i> -ratio
A: All Hearings (34,284)						
Constant	56.51	14.24	56.54	14.21	56.81	15.27
Issue-density	-0.15	-3.70	-0.14	-3.67	-0.14	-3.74
Staff size	-0.001	-0.36	-0.002	-0.62	-0.002	-1.24
1974 reforms	-1.92	-0.49	-0.79	-0.21		
Number of hearings	0.002	0.93				
Adjusted R ²		0.84		0.84		0.84
Durbin's <i>h</i>		-0.18		-0.26		-0.18
Akaike Criterion		9.12		8.91		8.54
B: Non-Referral Hearings (17,009)						
Constant	83.72	26.27	84.17	31.15	82.54	23.09
Issue-density	-0.13	-2.67	-0.14	-3.27	-0.15	-2.99
Staff size	-0.019	-3.08	-0.02	-3.19	-0.014	-4.54
1974 reforms	9.62	1.21	8.98	1.26		
Number of hearings	-0.005	-0.65				
Adjusted R ²		0.90		0.90		0.90
Durbin's <i>h</i>		2.53		2.60		3.05
Akaike Criterion		28.98		27.93		28.44
C: Referral Hearings (17,275)						
Constant	66.01	11.03	61.53	10.35	62.38	11.21
Issue-density	-0.12	-1.96	-0.16	-2.92	-0.16	-2.98
Staff size	-0.003	-0.52	0.004	0.86	0.003	1.11
1974 reforms	3.90	0.66	1.22	0.22		
Number of hearings	-0.01	-2.07				
Adjusted R ²		.44		.40		.41
Durbin's <i>h</i>		-0.52		-0.28		-0.33
Akaike Criterion		19.13		20.15		19.31

N = 46 for all models

Notes: The dependent variable in each model is an index of jurisdictional overlap based on the numbers of hearings listed, calculated separately for each year. The maximum theoretical value of 100 indicates a complete absence of overlap, a committee system where each issue falls into the jurisdiction of only one committee. Lower scores indicate greater jurisdictional overlap.

Entries are GLS regression coefficients. Models A and C exhibit first-order autocorrelation, and they are corrected using Shazam's AUTO procedure. Model B exhibits significant autocorrelation and mild heteroskedasticity, and it is corrected using Shazam's AUTCOV = 1 procedure. For model B, first- and second-order autocorrelation and difference models were tested; results were similar for all.

TABLE 5
 Explaining the Decline of Jurisdictional Clarity in the U.S. Senate,
 1947–92.

	Model 1		Model 2		Model 3	
	β	<i>t</i> -ratio	β	<i>t</i> -ratio	β	<i>t</i> -ratio
A: All Hearings (25,423)						
Constant	66.18	18.82	66.05	18.77	65.90	19.31
Issue-density	-0.13	-2.39	-0.10	-2.32	-0.10	-2.35
Staff size	-0.014	-3.52	-0.014	-3.51	-0.014	-3.78
1977 reforms	0.63	0.40	0.34	0.22		
Number of hearings	0.005	0.81				
Adjusted R ²		0.83		0.83		.84
Durbin's <i>h</i>		0.07		0.01		0.01
Akaike Criterion		11.83		11.51		11.03
B: Non-Referral Hearings (12,761)						
Constant	88.33	19.57	90.91	17.21	91.21	17.90
Issue-density	-0.09	-1.55	-0.16	-2.40	-0.16	-2.43
Staff size	-0.02	-4.30	-0.03	-4.38	-0.03	-4.97
1977 reforms	0.66	0.35	-0.61	-0.25		
Number of hearings	-0.03	-3.12				
Adjusted R ²		0.90		0.89		.89
Durbin's <i>h</i>		-1.14		1.04		1.02
Akaike Criterion		20.68		23.14		22.17
C: Referral Hearings (12,662)						
Constant	77.81	16.55	75.33	15.25	73.93	14.57
Issue-density	-0.11	-1.67	-0.20	-3.23	-0.20	-3.16
Staff size	-0.003	-0.62	0.005	0.10	0.005	0.89
1977 reforms	0.22	0.09	3.78	1.76		
Number of hearings	-0.04	-2.60				
Adjusted R ²		0.53		0.46		0.44
Durbin's <i>h</i>		-0.28		0.41		-0.33
Akaike Criterion		20.47		22.82		23.37

N = 46 for all models

Notes: The dependent variable in each model is an index of jurisdictional overlap based on the numbers of hearings listed, calculated separately for each year. The maximum theoretical value of 100 indicates a complete absence of overlap, a committee system where each issue falls into the jurisdiction of only one committee. Lower scores indicate greater jurisdictional overlap. Entries are GLS regression coefficients, correcting for first-order autocorrelation using Shazam's AUTO procedure.

tigation of issues. Legislative reforms and the gross number of hearings are not generally related to clarity. Even though they generally fall short of significance, the reform coefficients are in the direction of increased clarity for both the House and Senate. An examination of Figure 1 suggests the possibility that the reforms may have nudged the system towards greater clarity, but only for a

very brief period. Generally speaking, the reforms had very little effect on clarity, especially in the case of referral hearings, where their effects fail to reach statistical significance in either chamber. Substantively, the effects of reform appear to be modest and short-lived.

The number of issues Congress deals with, and the level of organizational resources the committees control, on the other hand, appear to have important substantive and statistically significant impacts on the clarity of the jurisdiction system. During the period studied, the number of distinct subtopics that have been the subject of a hearing has increased from approximately 100 to about 180. This rise in issue-density has a great impact on clarity, since an increase of 80 subtopics would be related to a decrease of about 12 points in clarity in the House, according to our model. (For every 10 new policy subtopics added for consideration in a year, our coefficients indicate that the clarity index declines by 1.5 in the House and 1.3 in the Senate.) Organizational resources, reflected in committee staffs, also play an important role; these have increased significantly over the same period. Together, these two variables alone can account for the vast bulk of the decline in jurisdictional clarity that we have documented; in the case of referral hearings, they together account for approximately half of the observed variance.

Our simple model holds for both the House and the Senate, and for referral hearings as well as for non-referrals. Jurisdictional clarity is more sensitive to increases in issue-density for non-referral hearings as is to be expected; jurisdictions are less formalized in this case (Talbert, Jones, and Baumgartner 1995; Hardin 1998). Other analyses, not presented here, confirm the robustness of these findings, as well as the value of the simple model. No further statistically significant relationships are added when we look at the number of subcommittees active in a given year, running the models separately excluding those topics with high numbers of hearings held in executive sessions, or including only those hearings that were originally published by CIS.⁶

The relationship between our two explanatory variables is clearly complex: Issue-density and staff size are interconnected. While there is some ambiguity in our findings because of this, the results do suggest that an increase in issue-density leads to a subsequent (and long-lasting) increase in staff size. This, in

⁶We also ran a model adding a variable for the percentage of new members in the House or Senate in a given Congress (an indicator of the potentially new areas of interest that could characterize newly arrived members of Congress); it is not significant. One variable is often significant: the number of subcommittees active in a given year. This indicator of institutional capacity is highly correlated with our preferred measure: staff size. Including both staff size and number of subcommittees in the same models creates problems of multi-collinearity and interpretation. In general, however, the staff size variable reflects better our idea of institutional capacity, and it provides more powerful statistical findings than the simple number of subcommittees active. When we drop the number of staff and include only the number of subcommittees, however, this variable also performs quite well. Both variables reflect the institutional capacity of Congress simultaneously to attend to a greater number of issues, and therefore either variable would be consistent with our theoretical expectations. All in all, we tested 220 different models in our search for alternative specifications and find the pattern of results presented in Tables 4 and 5 to be highly robust.

turn, helps justify a continued interest in a broader range of issues. Staff size is both a result and a cause of the increased diversity of attention in most congressional committees. Together, these self-reinforcing developments help explain the increasingly competitive and overlapping nature of committee jurisdictions over the post-war period.

Conclusions: Issue-Structure Co-Evolution

One may view the maintenance of a legislative committee system as a trade-off between the collective goods of use to the legislature and the individual goods useful to particular legislators. A jurisdictionally clear committee system has important collective benefits for a legislature and for each of its members. On the other hand, individual legislators would like the institution to take up their favored issues, and they would like to be able to raise these issues from the committees on which they sit. These contradictory preferences lead them to prefer a set of structural arrangements (clear committee jurisdictions), but also to advocate the introduction of previously ignored issues into the legislative process, even when these threaten to break down the structural clarity that they covet. The result of these competing legislative preferences is the co-evolutionary process we describe.

This system is under continual perturbations from both external and internal sources. External to the system are social and economic changes. Internally, legislators themselves may act as policy entrepreneurs, destabilizing existing arrangements via changing issue definitions. The result of these forces, pushing (and pulling) new issues on the congressional agenda, is an ever-more-difficult task of dividing up the various jurisdictions. The decline in jurisdictional clarity that we describe is not a pathology, and it is not subject to any single "cure." Rather, it is an inevitable consequence of an ever-more-dense public agenda. As Congress considers a greater number of distinct issues, the clarity of its committee system inevitably has had to decline.

Both informational and distributional theories of legislative organization presuppose some degree of jurisdictional clarity. Neither gains from trade nor informational collective benefits can accrue without clear jurisdictions. Yet jurisdictional clarity among congressional committees has never been as great across the board as is assumed in the literature. Moreover, jurisdictional clarity is dynamic: Clarity has declined in both the House and the Senate over time. We have presented a model of changes in clarity consisting of two primary variables: institutional capacity (staff size) and issue-density. These findings hold for both chambers, for bill referral and non-referral hearings, and they withstand comparison with various rival hypotheses. Our model does not explain all changes in jurisdictional clarity; there is still room for differences in abilities of committee chairs in claiming jurisdictions for their committees. Models of legislative behavior should take account of the increasingly competitive nature of committee jurisdictions (see King 1997; see also Bimber 1996, ch. 6 for a discussion of how competing committees used the Office of Technology Assess-

ment as a means of claiming or defending turf by requesting technical studies justifying their activities in a policy area).

Today's committee system is chock-a-block with conflicting, overlapping, redundant, and confusing jurisdictional arrangements, despite periodic attempts to simplify the committee system and make it more responsive to the majority. On the other hand, this is not a completely entropic committee system, as can be clearly seen in Table 2. It is a system that continues to provide collective benefits, albeit not at the level associated with complete jurisdictional clarity. Given the strong pressures toward entropy (collective defection in the assurance game), it may seem puzzling that any non-entropic committee system is maintained by a legislature. The clear benefits to any organization of "superior organizational forms"—specialization of labor—act as a countervailing force. As a consequence, the congressional committee system is continually out of equilibrium, continually adjusting to contradictory pressures, and generally not reflecting the predictions of either the collective goods or the individualistic perspectives. One predicts clarity; the other, entropy. In reality, we have a continually evolving system with elements of both.

These findings have a number of implications. It is at least worth considering whether the emergence of stronger legislative parties in the latter quarter of the 20th century (Cox and McCubbins 1993; Rohde 1991; 1995) reflects the inability of the committee system to accomplish legislative goals. Where competing committee chairs clash, party leaders must intervene. Where powerful committee chairs each work in isolation from each other in their respective and independent policy fiefdoms, party leadership is weak as compared to these committee leaders. Similarly, where committees clearly control information concerning a given policy area, floor amendments and floor activities are less likely to be substantial. Hall (1996, 213) shows, for example, that members of "related" committees show little deference to committee bills when these are debated on the House floor. As clarity declines, there are greater chances that more members will have some specialized policy expertise related to a given question even if the legislation was not reported from their committee. Norms of deference require norms of specialization; where specialization is less apparent, deference should be expected to be less as well. In sum, the findings presented here have important implications for a variety of elements of congressional behavior, including the roles of floor majorities and of party leaders. Informational theories of congressional organization imply that committee members invest in becoming experts in their policy areas because of expected deference from the floor, and that the floor benefits from the acquired expertise so purchased. Our understanding of the biased expertise of competing committees may imply even greater informational advantages for the floor. With competing experts, the floor need not grant a monopoly to any committee. In any case, our findings have a number of implications for theories of congressional organization; future research should clarify many of these.

There are broader implications as well. Jurisdictional entropy contains an important paradox: The very mechanism that leads to jurisdictional entropy also

gives policy entrepreneurs the opportunity to press for change. The overlap between issues makes predicting policy outcomes more difficult since jurisdictions sometimes change, but this dynamic also gives the institution greater ability to produce policy change as new ways emerge of thinking about old issues. Clarity of jurisdictional authority may be efficient in some senses, but it can lead to entrenched and sometimes unrepresentative subsystems of power. Many scholars have noted that the committee system in Congress creates incentives for “high demanders” to attempt to gain seats on those committees with control over the particular area of policy that most affects or interests them. A committee system with broad and vaguely defined jurisdictions would be much less likely to develop such biases than a system of committees where each one held unquestioned authority over a narrow, but clearly defined, issue-area. As a consequence, a jurisdictionally muddled committee system may facilitate shared expertise, compromise, and, quite possibly, democratic outcomes.

Manuscript submitted 20 October, 1998

Final manuscript received 17 August, 1999

References

- Adler, E. Scott, and John S. Lapinski. 1997. “Demand-side Theory and Congressional Committee Composition: A Constituency Characteristics Approach.” *American Journal of Political Science* 41(3): 895–918.
- Ainsworth, Scott H. 1997. “The Role of Legislators in the Determination of Interest Group Influence.” *Legislative Studies Quarterly* 22(4): 517–33.
- Axelrod, Robert. 1997. *The Complexity of Cooperation*. Princeton: Princeton University Press.
- Baumgartner, Frank R., and Bryan D. Jones. 1993. *Agendas and Instability in American Politics*. Chicago: University of Chicago Press.
- Baumgartner, Frank R., Bryan D. Jones, and Michael Rosenstiehl. 1997. “New Issues and Old Committees: Jurisdictional Change in Congress, 1947–93.” Presented at the Midwest Political Science Association, Chicago, IL.
- Bimber, Bruce A. 1996. *The Politics of Expertise in Congress: The Rise and Fall of the Office of Technology Assessment*. Albany: State University of New York Press.
- Browne, William P. 1995. *Cultivating Congress*. Lawrence: University of Kansas Press.
- Clausen, Aage R. 1973. *How Congressmen Decide*. New York: St Martin’s Press.
- Collie, Melissa P., and Joseph Cooper. 1989. “Multiple Referral and the New Committee System in the House of Representatives.” In Lawrence C. Dodd and Bruce I. Oppenheimer, eds. *Congress Reconsidered*. 4th Edition. Washington, DC: Congressional Quarterly Press.
- Congressional Information Service. 1994. *CIS Index to Unpublished U.S. House of Representatives Committee Hearings, 1955–1958*. Bethesda, MD: Congressional Information Service, Inc.
- Congressional Information Service. 1995. *CIS Index to Unpublished U.S. Senate Committee Hearings, 1969–1972*. Bethesda, MD: Congressional Information Service, Inc.
- Cooper, Joseph, and Cheryl D. Young. 1989. “Bill Introduction in the Nineteenth Century: A Study of Institutional Change.” *Legislative Studies Quarterly* 14(1): 67–105.
- Cox, Gary, and Matthew McCubbins. 1993. *Legislative Leviathan: Party Government in the House*. Berkeley, CA: University of California Press.
- Davidson, Roger H. 1981. “Subcommittee Government: New Channels for Policy Making.” In Thomas E. Mann and Norman J. Ornstein, eds. *The New Congress*. Washington: American Enterprise Institute.

- Davidson, Roger H. 1986. "Congressional Committees as Moving Targets." *Legislative Studies Quarterly* 11(1): 19–33.
- Davidson, Roger H., and Walter J. Oleszek. 1992. "From Monopoly to Management: Changing Patterns of Committee Deliberation." In Roger Davidson, ed. *The Postreform Congress*. New York: St. Martin's Press.
- Davidson, Roger H., and Walter J. Oleszek. 1996. *Congress and Its Members*. Washington: Congressional Quarterly Press.
- Davidson, Roger H., Walter J. Oleszek, and Thomas Kephart. 1988. "One Bill, Many Committees: Multiple Referrals in the U.S. House of Representatives." *Legislative Studies Quarterly* 13(1): 3–28.
- Deering, Christopher J., and Stephen S. Smith. 1997. *Committees in Congress*. Washington: Congressional Quarterly.
- Dodd, Lawrence C. 1986. "A Theory of Congressional Cycles: Solving the Puzzle of Change." In Gerald C. Wright, Jr., Leroy Rieselbach, and Lawrence C. Dodd, eds. *Congress and Policy Change*. New York: Agathon Press.
- Evans, Lawrence C. 1995. "Committees and Health Jurisdictions in Congress." In Thomas Mann and Norman Ornstein, eds. *How Congress Shapes Health Policy*. Washington: AEI/ Brookings.
- Evans, Lawrence C., and Walter J. Oleszek. 1991. "Congressional Tsunami? The Politics of Committee Reform." In Lawrence C. Dodd and Bruce I. Oppenheimer, eds. *Congress Reconsidered*. Washington: CQ Press.
- Fenno, Richard F., Jr. 1973. *Congressmen in Committees*. Boston: Little, Brown.
- Gray, Virginia, and David Lowery. 1996. *The Population Ecology of Interest Representation*. Ann Arbor: University of Michigan Press.
- Hall, Richard L. 1996. *Participation in Congress*. New Haven, CT: Yale University Press.
- Hall, Richard L., and Bernard Grofman. 1990. "The Committee Assignment Process and the Conditional Nature of Committee Bias." *American Political Science Review* 84(4): 1149–66.
- Hansen, John Mark. 1991. *Gaining Access: Congress and the Farm Lobby, 1919–1981*. Chicago: University of Chicago Press.
- Hardin, John. 1998. "Advocacy versus Certainty: The Dynamics of Committee Jurisdiction Concentration." *Journal of Politics* 60(2): 374–97.
- Hinckley, Barbara. 1975. "Policy Content, Committee Membership and Behavior." *American Journal of Political Science* 19(3): 543–57.
- Hunt, Valerie, Bryan D. Jones, Frank R. Baumgartner, and Michael C. MacLeod. 1997. Congressional Hearings Data Description. <http://depts.washington.edu/ampol/>
- Jones, Bryan D. 1994. *Reconceiving Decision-Making in Democratic Politics*. Chicago: University of Chicago Press.
- Jones, Bryan D., Frank R. Baumgartner, and Jeffery C. Talbert. 1993. "The Destruction of Issue Monopolies in Congress." *American Political Science Review* 87(3): 657–71.
- Jones, Charles O. 1961. "Representation in Congress: The Case of the House Agriculture Committee." *American Political Science Review* 55(2): 358–67.
- Jones, Charles O. 1975. *Clean Air: The Policies and Politics of Pollution Control*. Pittsburgh: University of Pittsburgh Press.
- Jones, Charles O., and Randall Strahan. 1985. "The Effects of Energy Politics on Congressional and Executive Organization in the 1970s." *Legislative Studies Quarterly* 10(2): 151–79.
- Kauffman, Stuart. 1995. *At Home in the Universe*. New York: Oxford University Press.
- Kauffman, Stuart. 1993. *The Origins of Order*. New York: Oxford University Press.
- King, David C. 1994. "The Nature of Congressional Committee Jurisdictions." *American Political Science Review* 88(1): 48–62.
- King, David. 1997. *Turf Wars: How Congressional Committees Claim Jurisdiction*. Chicago: University of Chicago Press.
- Krehbiel, Keith. 1990. "Are Congressional Committees Composed of Preference Outliers?" *American Political Science Review* 84(1): 149–63.
- Krehbiel, Keith. 1991. *Information and Legislative Organization*. Ann Arbor: University of Michigan Press.

- Londregan, John, and James M. Snyder, Jr. 1994. "Comparing Committee and Floor Preferences." *Legislative Studies Quarterly* 19(2): 233–66.
- Maltzman, Forrest. 1997. *Competing Principals: Committees, Parties, and the Organization of Congress*. Ann Arbor: University of Michigan Press.
- Manley, John F. 1970. *The Politics of Finance*. Boston: Little, Brown.
- Mayhew, David. 1974. *Congress: The Electoral Connection*. New Haven, CT: Yale University Press.
- Morrow, William L. 1969. *Congressional Committees*. New York: Charles Scribner's Sons.
- Nelson, Garrison. 1993. *Committees in the U.S. Congress, 1947 to 1992: Committee Jurisdictions and Member Rosters*. Washington: CQ Press.
- Ragsdale, Lynn, and John Theis. 1997. "The Institutionalization of the American Presidency." *American Journal of Political Science* 41(4): 1280–1318.
- Rohde, David. 1995. "Parties and Committees in the House: Member Motivations, Issues, and Institutional Arrangements." In Kenneth A. Shepsle and Barry R. Weingast, eds. *Positive Theories of Congressional Organizations*. Ann Arbor: University of Michigan Press.
- Poole, Keith T., and Howard Rosenthal. 1997. *Congress: A Political-Economic History of Roll Call Voting*. New York: Oxford University Press.
- Polsby, Nelson. 1968. "The Institutionalization of the House of Representatives." *American Political Science Review* 62(1): 144–69.
- Price, David E. 1972. *Who Makes the Laws: Creativity and Power in Senate Committees*. Cambridge, MA: Schenkman.
- Price, David E. 1978. *Policy-making in Congressional Committees: The Impact of Environmental Factors*. Tucson: University of Arizona Press.
- Rhode, David W. 1991. *Parties and Leaders in the Postreform House*. Chicago: University of Chicago Press.
- Salisbury, Robert H., and Kenneth A. Shepsle. 1981. "U.S. Congressman as Enterprise." *Legislative Studies Quarterly* 6(4): 559–76.
- Schickler, Eric. 1999. "Disjointed Pluralism: Institutional Innovation and the Development of the US Congress." University of California, Berkeley. Typescript.
- Shepsle, Kenneth A. 1978. *The Giant Jigsaw Puzzle*. Chicago: University of Chicago Press.
- Shepsle, Kenneth A. 1979. "Institutional Arrangements and Equilibrium in Multidimensional Voting Models." *American Journal of Political Science* 23(1): 27–59.
- Shepsle, Kenneth A., and Barry Weingast. 1987. "The Institutional Foundations of Committee Power." *American Political Science Review* 81(1): 85–104.
- Shepsle, Kenneth A., and Barry Weingast, eds. 1995. *Positive Theories of Congressional Institutions*. Ann Arbor: University of Michigan Press.
- Shipan, Charles R. 1992. "Individual Incentives and Institutional Imperatives: Committee Jurisdiction and Long-Term Health Care." *American Journal of Political Science* 36(4): 877–95.
- Simon, Herbert. 1996. *The Sciences of the Artificial*. 3rd ed. Cambridge, MA: MIT.
- Sinclair, Barbara. 1982. *Congressional Realignment 1925–1978*. Austin: University of Texas Press.
- Sinclair, Barbara. 1995a. "House Special Rules and the Institutional Design Controversy." In Kenneth A. Shepsle and Barry R. Weingast, eds. *Positive Theories of Congressional Organizations*. Ann Arbor: University of Michigan Press.
- Sinclair, Barbara. 1995b. "Change and Continuity in the Legislative Process: The U.S. House and Senate from the 1970s to the 1990s." Presented at the annual meetings of the American Political Science Association.
- Sinclair, Barbara. 1997. *Unorthodox Lawmaking: New Legislative Processes in the U.S. Congress*. Washington: Congressional Quarterly.
- Smith, Steven S. 1989. "Taking it to the Floor." In Lawrence C. Dodd and Bruce I. Oppenheimer, eds. *Congress Reconsidered*. 4th Edition. Washington: Congressional Quarterly Press.
- Strahan, Randall. 1988. "Agenda Change and Committee Politics in the Postreform House." *Legislative Studies Quarterly* 13(2): 177–97.

- Talbert, Jeffery C., Bryan D. Jones, and Frank R. Baumgartner. 1995. "Nonlegislative Hearings and Policy Change in Congress." *American Journal of Political Science* 39(2): 383–406.
- Young, Garry, and Joseph Cooper. 1993. "Multiple Referral and the Transformation of House Decision Making." In *Congress Reconsidered*, eds. Lawrence C. Dodd and Bruce I. Oppenheimer, 5th ed. Washington: Congressional Quarterly.

Frank R. Baumgartner is Professor and Head, Department of Political Science, Pennsylvania State University, University Park, PA 16802.

Bryan D. Jones is Professor, Department of Political Science, and Director, Center for American Politics and Public Policy, University of Washington, Seattle, WA 98195.

Michael C. MacLeod is Vice President of Organizational Development at The Forestar Group, Roswell, GA 30076.