Political Science Research and Methods (2025), 1–25
doi:10.1017/psrm.2025.10043

ORIGINAL ARTICLE

A matching theory perspective on legislative organization: assignment of committees

Ashutosh Thakur

Lee Kuan Yew School of Public Policy, National University of Singapore, Singapore
Email: adthakur@nus.edu.sg

(Received 2 July 2024; revised 20 January 2025; accepted 25 March 2025)

Abstract

How legislatures allocate power and conduct business are central determinants of policy outcomes. Much of the literature on parties and the committee system in legislatures examines which members serve on which committees. What has received less attention are the mechanisms by which parties allocate members to committees. I show that parties in the US Senate use matching mechanisms, like those used in school choice and the medical residency match. Republicans and Democrats use two distinct matching mechanisms, such that canonical theories of parties cannot apply equally to them. The Republican mechanism is strategyproof, whereas the Democrat mechanism incentivizes politicians to manipulate their reported preferences. Leveraging matching theory, I make theoretical predictions; corroborating them with archival correspondence and committee requests/assignments data.

Keywords: legislative organization; committees; matching mechanisms; strategyproof

1. Introduction

How legislatures allocate power and conduct their business are central determinants of policy outcomes. This has long motivated a study of parties in legislatures, how they organize themselves, and how they formulate and vote on policy proposals.

Theories of legislative organization have, in the context of the US Congress, focused on the committee system, with the central question being which members are assigned to which committee. Is it that members with intense preferences in a particular policy domain are appointed to those committees, as in the Distributive Theory (Denzau and Mackay, 1983; Shepsle and Weingast, 1987; Weingast and Marshall, 1988)? Or are the members most knowledgeable, or those willing to invest in expertise, appointed to the appropriate committees as in the Informational Theory (Gilligan and Krehbiel, 1987; Krehbiel, 1990, 1992)? Or are the parties powerful in controlling the appointments to further their collective agenda, as in the Cartel Agenda Theory of Cox and McCubbins (2005)?

Theories and empirics in this tradition have emphasized who is appointed to committees, rather than how they are appointed. Thereby, the literature has overlooked the structured protocols that parties follow in making committee assignments. I study this missing step.

In this paper, I examine the assignment processes by which committee members are selected. The novelty of my approach derives from the observation that members are appointed to committees via *matching mechanisms*.[1] I use this fact to leverage the tools of matching theory, to show that

[1]A *matching mechanism* here refers to the systematic, algorithmic protocol by which people are assigned to objects based on their submitted rank-ordered preferences over which objects they would like to be assigned to. *Matching theory* refers to

these procedural choices are in fact consequential for legislative organization and the role of parties therein. I test the theoretical predictions from my analysis using datasets of Senate Democrat committee requests and assignments (Frisch and Kelly, 2006; Stewart and Woon, 2005) and a novel archival dataset on Senate Republican committee requests for the 91st and 103rd Congresses (Robert and Elizabeth Dole Archive and Special Collections [University of Kansas]).

My first result is to demonstrate that the parties use *different* mechanisms to assign their members to committees. To the best of my knowledge, this has not been noted in the literature heretofore. Moreover, the matching mechanisms the parties use are structurally different, with different implications for the role of parties in Congress. Immediately, therefore, this implies that the theories of legislative organization, and the role of parties in Congress, cannot be applied on equal terms to both major parties.

The Senate Republicans use a matching mechanism that is known as the Top Trading Cycles, or Serial Dictatorship, mechanism. This is a seniority-based mechanism. It leaves no scope for party influence and exhibits, therefore, no trace of a party-dominant view of Congressional organization. It also does not imply self-selection onto committees on the basis of preference intensity or informational expertise.

The Senate Democrats use an altogether different mechanism. Committee assignments are made via an approximation of what is known as the Boston mechanism.[2] The party can wield influence, but only in case there is excess demand for a committee and party leaders (on the Democrat Committee on Committees [COC]) are asked to vote to break ties. This is consistent with a weaker form of party power, in which members' own preferences shape committee assignments, but the party can place a thumb on the scale, so to speak. And this tie-breaking can factor in intensity of preference and informational expertise, along with other criteria such as seniority.

These different, party-specific mechanisms also imply that very different approaches are required to empirically disentangle the preferences of the members, the assignments they receive, and the inferences drawn from them. The Top Trading Cycle mechanism of the Republican Party is *strategyproof*. This means that members can do no better than submit their preferences faithfully when requesting assignments. I use Republican committee request data complemented by evidence from archival correspondence to show that Republican Senators understand this and truthfully submit their preferences for committee assignments.

However, in contrast to the Republican mechanism, the Democrats' Boston matching mechanism is *non-strategyproof*. That means members can gain by reporting their preferences strategically. This complicates the inferences that researchers can make from this data. Leveraging the tools of matching theory, I show how to analyze and interpret the committee preference request data. I find evidence of strategic preference reporting by Democrat Senators consistent with what the mechanism incentivizes them to do. Moreover, by comparing requests and assignments across parties and across seniorities, I find evidence consistent with the Democrat party potentially imposing party discipline on prestige (Budget and Rules) and policy committees (Environment, Commerce, and Governmental Affairs), but not on constituency committees. The discretion arising from the tie-breaking vote by the Democrat CoC—in stark contrast with the purely seniority-based Republican mechanism—admits room for party influence. Importantly, to the extent this can be anticipated, I show that Democrats strategically respond to this through strategic reporting of preferences.

A defining feature of legislative bodies is their cast of ever-changing actors; involving some incumbent politicians who retain office, while others retire or lose elections and are replaced by a new crop

the study and design of these matching mechanisms and the analysis of the strategic considerations they induce and of the properties of the resulting allocations they deliver. As defined by the New Palgrave Dictionary of Economics, Matching theory "is the part of economics that focuses on the question of who gets what, particularly when the scarce goods to be allocated are heterogeneous and indivisible; for example, who works at which job, which students go to which school, who receives which transplantable organ, and so on" (Niederle, Roth and Sönmez, 2018).

[2]It is known as the Boston mechanism, as it was famously implemented in Boston to assign students to public schools.

of freshmen. While most of the matching theory studies the static, one-shot assignment problem, in studying committee assignments, I also emphasize the dynamics of this richer environment. *Seniority norms* (conferring preferential rights and benefits to more senior members of the Senate) and *property rights norms* (giving an incumbent who already holds committee assignments preferential consideration in retaining their current committee assignment), yielding incumbents privileged status, priority, and power in several aspects of legislative organization, are often highlighted in the literature. However, within the context of committee assignment mechanisms, these seniority and property rights norms can be implemented in several distinct ways. I show how potential inefficiencies regarding movements of politicians across committees are affected by these different implementations of the seniority and property rights norms.

The approach I describe in this paper puts committee assignments, legislative organization, and party power in a new light. The tools of matching theory allow us to see the underlying structure and test how it matters. Throughout the paper, I show how these tools are useful in explaining why the distinct procedural choices taken on by the Republican and Democratic parties incentivize very different strategic behavior by their members, imply distinct sorting possibilities as to who gets what committee, and admit different degrees of party power influencing committee membership and consequently, policy outcomes.

2. Related literature

I survey the theoretical and empirical literature on the politics of committee assignments, addressing two fundamental questions. i) How are committee positions assigned? and ii) What motivates politicians?

The theoretical literature suggests several possibilities for how committees are assigned.

The Distributional Theory (Denzau and Mackay, 1983; Shepsle and Weingast, 1987; Weingast and Marshall, 1988) posits that by dividing work across orthogonal jurisdictions and giving monopoly gate-keeping and ex-post veto power to committees, a structure-induced equilibrium is able to solve the enforcement problem of legislative bargaining and vote trading. Thus, politicians self-select into relevant committees, and the seniority system establishes the politician's "property right," giving monopoly control over that jurisdiction in exchange for control over other jurisdictions.

On the other hand, the Informational Theory (Gilligan and Krehbiel, 1987; Krehbiel, 1990, 1992) advocates that politicians in committees engage in costly information acquisition to assess and shape policy within their jurisdiction. Thus, committees consist of those members who have a lower cost of specialization to develop expertise in that particular domain.

Finally, the Cartel-Agenda Theory (Cox and McCubbins, 2005) proposes that the committee system is used by political parties as a mechanism to enforce party discipline. The assignment process is used by the parties to reward party loyalty and punish deviators, and party leaders and senior members are given important posts on the major committees to enforce the party platform via gatekeeping power.

Although they initially focused on only the House committee system, these theories have since collectively formed the foundation of American politics' understanding of committee politics more broadly. In Section 4, I reevaluate their underlying assumptions, modeling choices, and resulting predictions in light of the Senate committee assignment procedures I analyze in Section 3. More generally, I caution that careful attention must be given to the design of the matching mechanism before assessing the applicability of these organizational theories.

The politics of how committee positions are assigned has been empirically a black box. Much of the within-party negotiations, bargaining, and politics are done behind closed doors, and details of the process have not been well studied. Empirics has largely focused on the House Democrat

assignment process since the foundational work by Shepsle (1978)[3] collected committee request data from House Democrats in the 86th to 94th Congresses (1958–1978). More recently, Frisch and Kelly (2007) supplemented that dataset by including committee request data from both House Democrats and Republicans from 80th to 103rd Congresses (1947–1995). Bullock 1985 collected Senate Democrat requests from the 83rd to 91st Congresses (1953–1971) and concluded that seniority is the primary variable strongly associated with assignment success. Frisch and Kelly (2006) supplemented the dataset to 103rd Congress (1953–1994) for Senate Democrats and found that the importance of seniority is overstated and that the party leadership has had influence over the assignment process. However, empirical work has largely overlooked matching theory by assuming the assignment procedure is strategyproof, whereby reported preferences are equivalent to true preferences.[4] I show in Section 3 that the matching mechanisms used in the Senate are not always strategyproof, and hence, assuming that the stated preferences over committees are, in fact, true preferences would be misguided.

As per the question of what motivates politicians and how academicians should think of politicians' utility functions, the set of theories is rich. Mayhew (1974) postulates that politicians are solely motivated by getting reelected. Working on committees allows politicians to make speeches to advertise their brand, craft policy changes, stake out popular positions, and take credit for successfully implementing/blocking particular policies to gain popularity. Fenno (1978) suggests that politicians are motivated not just by reelection, but also by gaining power within Congress and making good public policy. All policymaking is advanced through the committee system, and power is often associated with being a chair on powerful committees such as Appropriations, Rules, or Budget. Finally, as Ferejohn (1974) argues, personal monetary gain and a desire to obtain pork-barrel projects can be achieved through legislative negotiations, vote trading, and gate-keeping power in committees.

Attempts to empirically distinguish what motivates politicians have often exploited committee assignments, however, without a careful analysis of the underlying matching mechanisms at work.

Weingast and Marshall (1988) show that politicians tend to get their first or second choice committee requests and compare voting patterns of committee members with those who aren't on the committee to conclude that committee members are preference outliers. However, this approach naively assumes that the assignment mechanism is strategyproof. Namely, that everyone's *stated* top choices are actually their *true* top choices relies on the mechanism's induced strategic properties. Hence, what appears to be "self-selection" could in fact be the gaming of a non-strategyproof mechanism.

Simply regressing committee assignments on constituency and politician-specific characteristics would, of course, ignore the assignment mechanism altogether; hence, committee request data must be used to make progress. Frisch and Kelly (2004, 2006) regress committee rank-order preferences on constituency and politician characteristics, but this also crucially relies on strategyproofness of the assignment mechanism.

Bullock and Sprague (1969); Bullock (1973); Shepsle (1978); Munger (1988); Groseclose and Stewart (1998, 1999), and Endersby and McCurdy 1996 attempt to consider ratios of committee transfers to and from committees to evaluate the relative importance or power of committees; however, this approach ignores the underlying assignment mechanism and takes for granted that the mechanism perfectly resolves the existing tenants problem of incumbents in an individually rational manner (see Section 3.5); otherwise, for example, a swap in fact can make a politician worse off.

[3]Predecessors documented committee assignment procedures (Masters, 1961; Clapp, 1963; Goodwin, 1970) and analyzed committee membership patterns (Gawthrop 1966; Bullock, 1971), transfers (Bullock and Sprague, 1969; Bullock, 1973), and requests (Rohde and Shepsle, 1973).

[4]Rohde and Shepsle (1973) suggest a social choice heuristic framework for the House Democrat committee assignment process. Although they highlight some instances of potential strategic preference reporting, their heuristic framework abstracts away from some strategic intricacies generated by the underlying matching mechanism, and their empirical analysis often assumes some degree of truthful revelation of preferences.

Shepsle (1975, 1978) acknowledges that the assignment mechanism could be non-strategyproof, and tries to structurally estimate the value for each committee. However, this structural approach does not include details of the assignment mechanism (as in Section 3) and hence does not guarantee reliable estimates. Moreover, I show that although his model somewhat captures the spirit of the Senate Democrat mechanism, it cannot be applied to the Senate Republican mechanism.

Finally, there is a growing empirical literature that uses committee assignments to understand who has the power within a committee to attract pork (Berry and Fowler, 2016), which positions/members interest groups target on committees (Hall and Wayman, 1990; Barber *et al.*, 2017; Fouirnaies and Hall, 2018; Bertrand *et al.*, 2020), and how politicians' voting behavior and legislative focus are affected by committee membership (Hall and Wayman, 1990; Stratmann, 2000; Powell and Grimmer, 2016). These analyses do not consider the underlying committee assignment mechanisms (see Section 3). Thus, in trying to isolate the impact of committee membership, these studies run the risk of picking up effects from covariates that affect committee assignments via the matching mechanisms, e.g., CoC tie-breaking in the Democrat mechanism and seniority-based assignment mechanisms used by Republicans.

3. Assignment mechanisms

In the US Senate, every two years, after each election, the Republican and Democratic parties independently match their members to legislative committees (Table A1 lists the committees by their administrative categorization into A, B, and C committees).[5] Each committee is composed of many politicians, and most politicians are assigned to multiple committees. Hence, this is a many-to-many matching problem.

The assignment procedures of both parties incorporate politicians' rank-order preferences over which committees they would like to be assigned, but not committees' preferences over politicians, making this a one-sided matching problem.[6] After every election, there are both incumbents who have previous committee assignments and first-term politicians who have no previous assignments. Whether incumbents can retain their previous assignments, how they are incentivized to participate in the mechanism, and whether their participation exposes them to a risk of getting a less preferred committee represent an existing tenants problem from matching theory.

There are several constraints—Senate official rules and some self-imposed by the Parties—that structure the committee assignment problem (Table D1 in Online Appendix D). Collectively, these rules establish a well-defined matching problem with feasibility constraints as to how many committees a member can be matched to, what the term limits are on each committee, and what the set of feasible requests is. Through these rules, the many-to-one matching mechanisms I describe in my paper to give a cleaner exposition are used repeatedly in a sequential manner to ultimately deliver many-to-many matching allocations.[7]

[5]Third-party candidates join either Democrats or Republicans for committee assignment purposes.

[6]The party (or its leaders) may very well have preferences over which politicians are assigned to which committees; however, as I explain across the next several sections in describing the mechanisms and explaining strategyproofness and CoC power, the important distinction is whether and how these preferences are incorporated within the mechanism. Section 3.1 shows that the Republican mechanism does not allow such preferences to factor into the assignment procedure. And Section 3.2 shows that party leaders' preferences—via CoC' tie-breaking votes in cases of excess demand for a committee—can be analyzed as forming a priority structure within the design of the Democrat matching mechanism.

[7]For example, Republican incumbents choose two A Committees in order of seniority, and every freshman receives one committee assignment before they receive a second assignment in order of seniority (Schneider, 2006). For Democrats, Schneider (2006) mentions that the Democrat COC "usually fills A Committee vacancies before slots on other panels ... Because the Steering and Outreach Committee does not rely on a seniority formula in assigning Senators, its process is relatively less automatic than that of Senate Republicans ... Senators who do not win election to their most preferred committee seat are protected by the 'Johnson Rule' providing that all Democrats are appointed to one A committee before any Senator receives a second assignment." As these various self-imposed rules suggest, multiple rounds of the many-to-one matching mechanism are

Table 1. Archival exhibits I: Assignment procedures

Archival Exhibit #1: *CoC elicit preferences.* Republican CoC Chairman writes letter to Senator Bob Dole (September 12, 1969) requesting his rank-order lists (if any), "The Republican Committee on Committees is once again faced with the task of recommending Minority Committee appointments to existing vacancies on Senate standing committees to the Republican Conference. ... Your Committee would like to meet on Monday next to resolve these appointments. Therefore, if your present assignments are not satisfactory will you please inform Mark Trice by 10:00 A.M. next Monday, September 15. If word is not received by that time your Committee will assume that your present committee assignments are satisfactory." (Robert J. Dole Senate Papers-Personal/Political Files, 1969–1996, Box 376, Folder 11, Dole Archives)
Archival Exhibit #2: *Example of freshman Senator reporting preferences.* As an example of freshman preference rank-order request: Senator-elect Hank Brown writes to the Republican Secretary for the Minority, Howard O. Greene Jr., on November 6, 1990, "Dear Mr. Greene: If I am elected to the Senate as anticipated, this is to request consideration by the Committee on Committees of my assignment to the following standing committees, in order of preference: 1) Committee on Appropriations, 2) Committee on Energy and Natural Resources. If I am unable to get assigned to either or both of the above committees, I would ask consideration by the Committee on Committees of my assignment, in order of preference, to the following committees: 1) Committee on the Judiciary, 2) Committee on Armed Services." (Robert J. Dole Republican Leadership Collection, 1985–1996, Series: Personal/Political 1980–1996, Box 467, Folder 10, Dole Archives)
Archival Exhibit #3: *Example of an incumbent's request.* For example of incumbent committee request: Senator John C. Danforth writes to Republican Secretary for the Minority Howard O. Greene Jr., on December 17, 1992, "I want to express my willingness to give up my seat on the Intelligence Committee in exchange for a seat on the Committee on Environment and Public Works. I have no desire to be transferred from my first two committee assignments, the Committee on Finance and the Committee on Commerce, Science, and Transportation." (Robert J. Dole Republican Leadership Collection, 1985–1996, Series: Personal/Political 1980–1996, Box 471, Folder 20, Dole Archives)

This section analyzes the underlying assignment mechanisms used to assign Senators to committees from this matching theory perspective.[8]

After each election, party leaders negotiate over the total number of seats and the party-wise split of seats within each committee. The split in most committees closely mirrors the overall party split in the legislative body.[9] A COC is selected internally within each party. It often comprises of party leaders, senior ranking members, and some other members to maintain geographic balance across the many US states. The COC requests members to submit their rank-order preference over committees (see Table 1, Exhibit #1). Freshmen are greatly encouraged to take part in this process so that they can get matched according to their preferences (see Table 1, Exhibit #2). Incumbents have one of three choices: 1) remain with their current committee assignments, 2) request a transfer to another, presumably more preferable, committee if possible, or 3) retain previous assignments and request an additional assignment (see Table 1, Exhibit #3). Each COC then uses its own assignment mechanism process to assign its members to available committee positions. Following COC assignments, each party has an internal vote to approve the assignments, followed by a vote by the entire floor. There

run sequentially, resulting in the ultimate many-to-many matching: e.g., a round of first A committee assignments, followed by the next round of second A committee assignments, etc.

[8]The description of the committee assignment process, rules, and self-imposed party constraints has been put together from Schneider (2003, 2006 and 2014) and Shepsle (1978). Judy Schneider is a Congress Specialist in the Congressional Research Service and served as a staff member on the Senate Select Committee to Study the Senate Committee System.

[9]The focus of this paper is not on the post-election negotiation between party leaders to determine committee size and ratios, but instead on the matching mechanisms used by each of the two parties after the scope of the matching problem at hand (e.g., number of positions on each committee) is well defined. Nevertheless, to provide some context for these committee size and ratio negotiations, Schneider (2006) explains, "Following general elections, one of the first orders of business for leaders of both parties in the Senate is the setting of standing committee ratios and sizes. These determinations are usually made before assigning Senators to standing committees because the party organizations that make committee assignments need to know the number of seats available to each party on each committee. [...] Committee ratios usually parallel the overall party ratio in the Senate, with each party occupying a percentage of seats on all committees consistent with the percentage of seats it has in the Senate. Senate Rule XXV sets out the number of Senators allowed on each committee. However, these committee sizes typically are amended at the beginning of a Congress through Senate approval of one or more resolutions."

is a strong pro forma norm to agree unanimously without debate or disagreement on both of these votes. The basic steps of the process are outlined in Table A2.

I highlight the different matching mechanisms used by Republicans (Section 3.1) and Democrats (Section 3.2) to assign their members to committees.[10] I analyze the key differences across these two mechanisms: the incentive to strategically report committee preferences (Section 3.3) and the discretionary power held by the COC (Section 3.4). Lastly, I underscore how the implementation of the seniority norm and property rights norm affects whether incumbents, who have existing committee assignments, risk being made worse off by participating in the assignment mechanism (Section 3.5).

3.1. Senate republican assignment mechanism

Senate Republicans "rely on a seniority formula" to make committee assignments (Schneider, 2006). Republicans define seniority ordering based on previous service and length of service as 1) Senator, 2) Congressman, 3) state governor, and all ties in seniority are broken randomly. The Republican assignment procedure can be approximated by a ***Serial Dictatorship (SD)*** mechanism, where in this order of seniority,[11] politicians are called upon and assigned to their most preferred committee amongst those still available.

3.2. Senate democrat assignment mechanism

Senate Democrats make nominations on a "seat-by-seat basis" where ties are resolved by vote of the Democrat COC (Schneider, 2006). The Democrat assignment procedure can be approximated by a ***Boston mechanism*** with tie-breaking based on the Democrat COC vote. Namely, this mechanism first tries to assign each Democrat to their top preference. If a committee has a sufficient number of vacancies compared to the demand, all those seeking assignment are assigned to that committee. If, however, a committee has an insufficient number of vacancies compared to the demand, ties are broken by a vote of the Democrat COC.[12] For those who remain unassigned, the process is then repeated by considering allocation to their second-best preference, followed by their third-best preference, and so on.

3.3. Strategyproofness

The Democratic and Republican mechanisms fundamentally differ in whether or not it is in the best interest of a politician to truthfully report their true preferences over committees to their respective COCs.

The Republican seniority-based Serial Dictatorship mechanism is ***strategyproof***, i.e., a politician can do no better than reporting their preferences truthfully to the COC, as any misreporting of preferences would only expose the politician to the risk of getting a less preferred assignment (Svensson, 1999). There is evidence that Republicans understand this when they qualify their reported preferences with "I recognize that it is not available ... but I ... note it anyway" and "Obviously, I recognize that other members are also interested in this committee ..." when ranking popular committees such as Finance and Appropriations at the top of their preference list (see Table 2, Exhibit #4). These

[10] When might these matching mechanisms face endogenous pressure to be reformed, and when are these collectively agreed upon choices of matching mechanisms stable or robust to such institutional reform are questions studied both theoretically and using simulations calibrated to the US Senate case in Thakur (2024) and Thakur and Bendor 2024.

[11] The only exception to the seniority order arises if an incumbent loses a seat due to a change in party ratios, then they are given the highest priority.

[12] "Steering and Outreach members usually make nominations by consensus. However, if significant competition exists for a particular seat, then secret balloting is usually conducted and the majority-vote winner is granted the nomination" (Schneider, 2006).

statements suggest that these politicians report their preferences truthfully—as expected when faced with a strategyproof mechanism—by ranking committees they truly value highly on their preference lists without paying any heed to how popular these committees might be or how improbable it might seem to them that they will actually be assigned to these committees.

In sharp contrast, the Democrats' Boston mechanism is ***non-strategyproof*** (Abdulkadiroğlu and Sönmez, 2003) and compromises the truthful revelation of Senate Democrats' preferences over committees. Namely, the mechanism incentivizes strategic (mis-)reporting of preferences, allowing a politician to get a more preferred committee compared to if they were truthful in reporting their preference.[13] In the Democrat Boston mechanism, truthfully ranking a popular position at the top is risky because if you fail to get this competitive seat, then your latter choices may have already been taken by others. Thus, strategically replacing highly competitive, popular committees at the top of one's preference with less popular, yet slightly less preferred committees is the way to game the system.[14] Thus, knowing which committees are popular and one's odds of being selected by the COC vote is essential for effective strategizing.

Prediction 1. *Senate Republicans request their committee preferences truthfully, while Senate Democrats' requests are an outcome of strategic behavior.*

Consistent with this cross-party difference, Schneider (2006) finds that Republicans' "personal efforts to compete for committee seats appear to be minimal as compared with Democrats." Strategic preference reporting has been documented in other settings where the Boston mechanism has been implemented (e.g., Chen and Sönmez, 2006; Pathak and Sönmez, 2008, 2013) and is consistent with the encouragement of information-gathering by Senators prior to submitting their rank-order preferences. As Schneider (2006) puts it, for Democrats, "it appears to be important for senators-elect, in formulating their preferences, to consult with party leaders, and the chairs (or ranking members) of preferred committees. This consultation acts both to notify senior senators of a freshman's substantive interests and to inform the freshman senator of the likelihood that they will be assigned to preferred committees." Hence, this communication helps Democrats strategically report their preferences (e.g., finding out which committees are popular, what are the likelihood of successfully getting assigned different committees) and also directly influence the likelihood of being assigned to a committee through personal lobbying.

A redeeming quality of the Boston mechanism, referred to as ***favoring higher ranks*** property (Kojima and Unver, 2014), is that each committee admits all the candidates who rank it higher before admitting anyone who ranks it lower on their preference rank-order lists.[15] This intuitive welfare criterion also enables politicians to express the strength of their preference (i.e., cardinal utility) by ranking something higher in their preference rank-order. However, this very property of favoring higher ranks leads to the strategic manipulability of the mechanism.

[13]If a politician's preference for a committee depends on who else is on the committee, who the other party assigns to the committee, who serves on the corresponding committee in the House (Gailmard and Hammond, 2011), etc., then neither Republican nor Democrat mechanisms are strategyproof under such interdependent preferences.

[14]Increased correlation across politicians' preferences—which implies increased competition for popular committees—makes the Democrats' Boston mechanism more susceptible to strategic behavior as there are increased gains from strategically ranking safer, less popular committees ahead of popular committees. This undermines the assumption in Weingast and Marshall (1988) that preferences over committees are sufficiently heterogeneous, and hence a mutually beneficial system of jurisdiction allocation and property rights protects from envy and over-demand for certain committees.

[15]This is the sense in which Shepsle (1975, 1978) correctly assumes the committee assignment linear programming model as "chiefly interested in accommodating member requests," by "maximizing the correlation between expressed preferences and actual assignments" (Shepsle, 1975, pp. 59, 61).

Table 2. Archival exhibits II: Strategyproofness and power of party leaders

Archival Exhibit #4: *Republicans understanding strategyproofness.*
Comments made by Senators when requesting preferences also anecdotally suggest strategyproofness of the Republican mechanism: Senator-elect Judd Gregg writes to Senate Minority Leader Robert Dole, on November 12, 1992, "1. My first preference would be for the Finance Committee. I recognize that it is not available but I thought it appropriate to note it anyway. 2. My second preference is the Appropriations Committee. Obviously, I recognize that other members are also interested in this Committee; however, should an opening by available, I would appreciate it. 3. The third preference is for the Budget Committee."
(Robert J. Dole Republican Leadership Collection, 1985–1996, Series: Personal/Political 1980–1996, Box 471, Folder 20, Dole Archives)
Archival Exhibit #5: *Republican leader's lack of influence.*
For an example of lacking personal influence in the assignment process, in response to Senator Paul Coverdell requests for Senate Republican Leader Robert Dole to advance his committee preferences, Dole responds, "As we discussed prior to the November 3, elections, I want to do everything possible to assist in your efforts to become a Member of the Senate Agriculture Committee. ... As you know, all committee assignments are based on seniority, and are the responsibility of the Committee on Committees. While I obviously can make no firm commitments, I am optimistic ... In any event, you do have my firm commitment that I will communicate your wishes to the Chairman and Members of the Committee on Committees."
(Robert J. Dole Republican Leadership Collection, 1985–1996, Series: Personal/Political 1980–1996, Box 471, Folder 20, Dole Archives)
Archival Exhibit #6: *Dynamic Republican mechanism implementation.*
Republican senators often communicate the wish to be consulted during the time of their seniority, instead of (or along with) providing a complete preference rank-order: Senator Pete V. Domenici writes to Republican Leader Robert Dole, on November 14, 1990, "I would like to be consulted when the Committee on Committees begins to assign third A Committees to senators with my seniority. At that time I would like to be advised of the various options so that I can consider them all. In particular, I am interested in the Commerce Committee, the Banking Committee, and the Judiciary Committee."
(Robert J. Dole Republican Leadership Collection, 1985–1996, Series: Personal/Political 1980–1996, Box 467, Folder 10, Dole Archives)

3.4. CoC' power

The distinct assignment procedures used by the two parties imply stark differences as to the power and influence their respective COCs can exert over their own members.

The Senate Republican Assignment Mechanism is headed by the Republican COC, which is "relatively small in part because it relies on a seniority formula in assigning both returning and newly elected Republican Senators" (Schneider, 2006). As Schneider (2006) comments, "the formula makes the assignment process somewhat automatic; the absence of significant debate and voting thus requires comparatively few members." That party leaders strictly adhere to the protocol that "all committee assignments are based on seniority" and fundamentally lack the discretion to personally influence assignments is most evident from Republican leader Bob Dole's reply to Senator Coverdell's request to advance his committee preferences (see Table 2, Exhibit #5). In line with this muted COC power, the Republican COC has not witnessed much politics over who should serve on the COC; in sharp contrast to the Democrat COC.

The Senate Democrat Assignment Mechanism is headed by the Democrat COC, called the Steering and Outreach Committee, which breaks ties using a secret majority rule balloting in case there is excess demand for a particular committee. The Democrat COC is a large group (e.g., 16 members in 2016) that often includes the Democratic leader, the Democratic whip, the chief Democratic whip, the deputy Democratic whip, and many committee ranking members. In their capacity to cast the tie-breaking votes, the Democrat COC considers many factors including, "senators' preferences, state demographics, length of time since the state was last represented on the committee, perceived willingness to support the party, policy views, and personal and occupational backgrounds" (Schneider, 2006). Because the Democrat COC has so much discretion over assignments, there has historically been a lot of political debate and changes in the composition of the COC, which has been documented by Shepsle (1978) and more recently by Frisch and Kelly (2006). Naturally, senators want a Democrat COC with allies who would advocate for their assignment. Democrats not only spend

significant time and effort strategizing over what preferences to report, but even after submitting preferences, actively lobby to convince the tie-breakers sitting on the Democrat COC to support their case. As Schneider (2006) puts it, "personal intervention by a requesting senator or another senator, is sometimes helpful."

The Democrat COC's tie-breaking power within the Democrat Boston mechanism creates opportunities for enforcing party discipline. If the Democrat COC can commit to certain tie-breaking rules, it can incentivize politicians to request committees differently and influence the final committee assignments. For example, suppose there are three politicians $\{1, 2, 3\}$, three committees $\{A, B, C\}$ each with one vacancy, and each politician must be assigned to one committee. Suppose the preferences of all three politicians are identical: $A \succ B \succ C$. If the Democrat COC values only the chamber seniority for tie-breaking purposes—by which say any tie would be broken $1 \succ 2 \succ 3$—then politicians 1 and 2 would have to rank their top choices as A and B, respectively, (to optimize and prevent any profitable deviations) and regardless of how 3 ranks his preferences and the unique equilibrium allocation will be $1 - A$, $2 - B$, and $3 - C$. However, suppose the Democrat COC commits to breaking a tie in committee B in the order $1 \succ 3 \succ 2$, then knowing this, 3 would rank committee B at the top, 1 still ranks A at the top, and regardless of how 2 ranks his preference, the equilibrium allocation would be $1 - A$, $2 - C$, and $3 - B$. In this way, commitment to a certain tie-breaking rule allows the Democrat COC to selectively reward politician 3 while punishing politician 2.

The example also highlights that party discipline à la Cartel-Agenda Theory can be imposed *only* when there is excess demand. In this perfectly correlated preference environment, by committing to different tie-breaking rules, the Democrat COC can bring about any of the six matching allocations of politicians $\{1, 2, 3\}$ to committees $\{A, B, C\}$. Absent such a correlation across preferences (e.g., had every politician's top choice been distinct), the Democrat COC would lack discretion to tie-break as there would be no excess demand. Thus, the more politicians' preferences over committees are correlated, the more scope there is for the Democrat COC to discipline via their tie-breaking powers.

However, the use of the discretionary tie-breaking power by the Democrat COC need not be limited to party disciplining. If ties are broken taking the cardinal utilities of the politicians into account, this can increase aggregate social welfare (Abdulkadiroğlu *et al.*, 2011) by accommodating the intensity of preference or factors such as expertise or experience that make a politician better suited for the position. In this sense, giving priority solely to seniority, as in the Republican mechanism, might not match the 'most worthy' politician to the committee, e.g., based on what the committee, constituency, party, and/or politician would benefit from.

Prediction 2. *Committees where the distribution of*
(a) Democrats' seniority at the time of request is significantly different,
(b) Democrats' seniority at the time of assignment is significantly different, or
(c) Democrats' seniority at the time of assignment has a higher variance
compared to that of Republicans, use non-seniority tie-breaking criteria, and/or involve party disciplining by Democrat COC.

Anticipating that the Democrat COC chooses not to exclusively use seniority as the basis for tie-breaking could cause Democrats to change their request behavior, and such non-seniority-based tie-breaking by the Democrat COC would cause the distribution of seniority at the time of request/assignment to be different compared to that of the Republicans. Taking the solely seniority-based Republican mechanism as a benchmark, any difference in the distribution of seniority at the time of assignment/request for Democrats would then suggest that i) the Democrat COC uses tie-breaking criteria that are not solely seniority-based, ii) Democrats strategically respond to Democrat

COC tie-breaking rules, and/or iii) the Democrat COC engages in party disciplining members à la Cartel-Agenda Theory via the tie-breaking vote.

3.5. Incumbents and existing tenants problem

Every two years when the committee assignment process takes place, there are newly elected freshman Senators along with incumbents, or ***existing tenants***, who are reelected or who were not up for election that year and have existing committee assignments from their most recent term. Existing tenants may want to i) stay with the committee assignments they currently have, ii) switch committees, or iii) take on additional committee assignments.

How the parties design their matching mechanisms is consequential for incentivizing existing tenants to take part in the assignment process and thereby for reaching efficient committee assignments. A mechanism is ***individually rational*** if it prevents an incumbent from getting a less preferred committee by participating in the mechanism. An individually rational mechanism can help incentivize incumbents to participate in the mechanism, thereby enabling Pareto improvements by vacating their position for someone else.

3.5.1. Seniority and property rights norms

The ***seniority norm*** confers numerous rights and benefits to senior members of the Senate: greater power within the caucuses, increased power within the committee (e.g., chair and ranking member), etc. Within the Republican committee assignment process, seniority carries two benefits: more seniority often implies a higher priority for choosing committees, and seniority (via the incumbency privilege) also results in the property rights norm. The ***property rights norm*** allows an incumbent who already holds committee assignments preferential consideration in retaining their current committee assignment. The various degrees of implementing the seniority and property rights norms result in different variants of the seniority-based Republican mechanism, which are consequential for individual rationality and Pareto efficiency.

To illustrate the differences across the variants of the seniority-based Republican mechanism consider the following running example we develop through this section.

Example 1. *Consider four incumbents* $\{Inc_1, Inc_2, Inc_3, Inc_4\}$ *and one freshman* $\{Fr_1\}$ *with seniority ordering* $Inc_1 > Inc_2 > Inc_3 > Inc_4 > Fr_1$ *and five seats* $\{A, B, C, D, E\}$*. The initial endowment is* Inc_1*—A,* Inc_2*—B,* Inc_3*—C,* Inc_4*—D,* Fr_1 *is unassigned, and seat E is vacant. The politicians' rank-order preferences over seats are given by*

Inc_1	Inc_2	Inc_3	Inc_4	Fr_1
D	C	D	E	B
A	E	C	D	A
B	B	B	A	C
C	A	A	B	D
E	D	E	C	E

In the absence of any property rights norm, existing committee assignments of incumbents would be revoked, and all committee assignments for all Republicans would be allocated anew after every election. Namely, this would correspond to a Serial Dictatorship mechanism based on seniority, where all committee positions are pooled together and, in order of seniority, all Senators are assigned to their most preferred committee that is available when it is their turn to choose. Although the SD mechanism is strategyproof and Pareto efficient, it is not individually rational, as a more senior incumbent can take the committee currently assigned to a junior incumbent, leaving the junior incumbent

worse off. Hence, the SD mechanism exposes incumbents to the risk of being made worse off. In Example 1, the SD mechanism would result in the matching (Inc_1—D, Inc_2—C, Inc_3—B, Inc_4—E, Fr_1—A), which is not individually rational for Inc_3, who prefers his initial assignment of seat C to seat B.

A *weak version of the property rights norm* would be implemented by a ***Serial Dictatorship with squatting rights*** mechanism (Abdulkadiroğlu and Sönmez, 1999). First, all incumbents would choose whether they would like to retain their previous committee assignment or vacate their current assignment and join the mechanism. Then a Serial Dictatorship in order of seniority would be run amongst all incumbents who chose to participate and all freshmen. Although the SD with squatting rights mechanism is strategyproof, it is not individually rational because by vacating their position and entering the mechanism, it is possible that both their more preferred committees and the committee they vacated are taken up by more senior politicians, thereby leaving them with a committee they rank lower compared to their previous assignment. Discouraging incumbents from participating in the mechanism in this manner can lead to Pareto losses. In Example 1, if all politicians chose to participate in the SD with squatting rights mechanism, it would result in the matching (Inc_1—D, Inc_2—C, Inc_3—B, Inc_4—E, Fr_1—A). This is not individually rational for Inc_3, who prefers to keep his initial assignment of seat C to getting seat B. Thus, if Inc_3 chose instead not to participate and retain his seat C, then this would cause Inc_2 to be assigned to seat E by participating, which in turn means Inc_4 would keep their original seat D regardless of whether he participates, thus Inc_1 would keep seat A, and Fr_1 would get seat B. This would result in the matching (Inc_1—A, Inc_2—E, Inc_3—C, Inc_4—D, Fr_1—B). This matching is not Pareto efficient, as giving seat C to Inc_2, seat D to Inc_3, and seat E to Inc_4 would be Pareto improving.

An *intermediate version of the property rights norm* would be implemented by the ***Serial Dictatorship with waiting list*** mechanism (Abdulkadiroğlu and Sönmez, 1999). In this mechanism, in order of seniority when it is their turn, a politician can choose to maintain their previous assignment or choose their most preferred committee that is available. Namely, in this mechanism, an incumbent's seat is vacated and becomes available to others only after the incumbent's turn in the order of seniority, should the incumbent choose to leave their current committee. Although strategyproof and individually rational (as existing tenants are able to keep their current assignment and hence cannot be made worse off), this mechanism is Pareto inefficient. For example, a mutually beneficial swap between two incumbents of different seniorities would never be permitted under this mechanism. In Example 1, the strategyproof SD with waiting list results in (Inc_1—A, Inc_2—E, Inc_3—C, Inc_4—D, Fr_1—B). This matching is individually rational but not Pareto efficient, as giving seat D to Inc_3, seat C to Inc_2, and seat E to Inc_4 results in a Pareto improvement.

Finally, a *strong version of the property rights norm* is implemented by the ***"You Request My House-I Get Your Turn" (YRMH-IGYT)*** mechanism (Abdulkadiroğlu and Sönmez, 1999). Namely, in order of seniority, ask politicians to choose their most preferred committee. If that committee has a vacancy, then assign the politician to that committee. If that committee is occupied by an existing tenant, see if that existing tenant is able to change to a more preferred committee by giving him your seniority turn. If this chain of more preferred moves terminates with a politician wanting either a vacant position or the initial politician's vacated seat, execute this chain of improved assignments. This mechanism is equivalent to the ***Top Trading Cycles (TTC)*** mechanism (Abdulkadiroğlu and Sönmez, 1999). In the TTC mechanism, politicians point to their top choice amongst the committees that are left and committees first point to their existing members (break ties by seniority) and then point to the senior-most, amongst remaining politicians if no incumbents are left. If this pointing results in a cycle (including a committee pointing to a politician who points back), execute the cycle, make the assignments, and remove the assigned positions and politicians from the mechanism. At each iteration, there will be at least one cycle and this algorithm will terminate (seeAbdulkadiroğlu and Sönmez, 1999, for more details). Abdulkadiroğlu and Sönmez (1999) characterize the equivalence of the TTC and YRMH-IGYT mechanisms, henceforth called the **TTC/YRMH-IGYT** mechanism.

Table 3. Summary of the static properties of the various mechanisms (Abdulkadiroğlu and Sönmez, 1999, 2003; Kojima and Unver, 2014)

	Strategyproof	Pareto Efficient	Individually Rational	Favoring Higher Ranks
Democrat				
- Boston mechanism	X	X	?	✓
Republican				
- SD w/ seniority	✓	✓	X	X
- SD w/ squatting rights	✓	X	X	X
- SD w/ waiting list	✓	X	✓	X
- TTC/YRMH-IGYT	✓	✓	✓	X

The TTC/YRMH-IGYT mechanism is strategyproof and individually rational, as an incumbent can keep their own seat if they so prefer, hence it is guaranteed to never be made worse off. Moreover, the TTC/YRM-IGYT mechanism is also Pareto efficient as it executes all Pareto-improving swaps/cycles that allow a senior politician to request a junior incumbent's committee, if the junior incumbent can take the turn of the senior politician and get a better committee for himself.[16] In Example 1, the strategyproof and individually rational TTC/YRM-IGYT mechanism results in (Inc_1—D, Inc_2—B, Inc_3—C, Inc_4—E, Fr_1—A), which is Pareto efficient.

In practice, Republicans seem to be using the TTC/YRMH-IGYT mechanism, which is individually rational. Firstly, there is evidence that the mechanism is implemented sequentially in the order of seniority as per the YRMH-IGYT mechanism (see Table 2, Exhibit #6).[17] Secondly, senator preferences explicitly indicate a willingness to change committee only if they cannot be made worse off: Senator John C. Danforth clarifies to Republican Secretary for the Minority Howard O. Greene Jr. when conveying his preferences, on December 17, 1992, "My willingness to move off the Intelligence Committee is contingent on my ability to obtain a seat on the Committee on Environment and Public Works" (Robert J. Dole Republican Leadership Collection, 1985–1996, Series: Personal/Political 1980–1996, Box 471, Folder 20, Dole Archives).

This discussion, summarized in Table 3, emphasizes that the precise definition and implementation of seniority and property rights norms matter for the committee assignment procedures. They determine whether incumbents are incentivized to or discouraged from participating in the mechanism, and thus, whether committee assignments are efficient or whether they leave Pareto-enhancing exchanges on the table.

3.5.2. Existing tenant's guarantee: seniority and more truthful behavior

Restricting attention to the Democrat Boston mechanism and assuming that the property rights and seniority norms address the existing tenants problem,[18] I show that 1) non-freshmen existing tenants

[16]The literature analyzing committee transfer ratios (Shepsle, 1978; Munger, 1988; Endersby and McCurdy, 1996; Groseclose and Stewart, 1998, 1999) necessitates such a strong version of the property rights norm, without which committee changes may have resulted in politicians becoming worse off.

[17]Sequentially implementing a Serial Dictatorship mechanism (i.e., preferences are not collected all at once up front by the Republican COC before running the mechanism, but instead politicians are asked to choose from what is left when it is their turn, as Table 2, Exhibit #6 suggests) makes the mechanism not only strategyproof, but also *obviously strategyproof* (Li, 2017). In this context, this informally means that even the worst possible committee assigned from reporting preferences truthfully (for truthful or non-truthful reporting by any other politicians), is better than the best committee assignment from any non-truthful reporting of preferences. There is a growing experimental literature that strategyproofness alone is insufficient to guarantee truthful reporting experimentally (Chen and Sönmez, 2006), in surveys (Rees-Jones, 2018), and in practice (Hassidim *et al.*, 2017). Mechanisms implemented in an obviously strategyproof manner are thought to be simple, thereby accounting for cognitive limitations.

[18]Shepsle (1975) programming model, which shares a similar spirit with the Boston mechanism, assumed that for existing tenants "an informal property right is operative: non-freshmen, whenever feasible, may retain committee assignments held in

are *more truthful* (i.e., reported preference rank order is more correlated with one's true preference rank order) in their reported preference rank-orders than freshmen and 2) non-freshman with a more preferred existing committee assignment will be more truthful in their reported preference rank-ordering.

Since an existing tenant is endowed with their current committee assignment, and because the property rights and seniority norms guarantee that the existing tenant cannot be assigned a committee that he deems to be worse than his current endowment, he is better hedged against downside risk compared to a freshman who has no such minimum payoff guarantee. Moreover, the better this minimum payoff guarantee (i.e., the more the incumbent values his current committee assignment), the more truthful the existing tenant will be in reporting preferences, as he can afford to take on more risk. To capture this intuition more formally, I posit a model of how strategizing against a Boston mechanism depends on the minimum payoff guarantee established by the existing committee assignment.

Here I explain a simple two-committee rank-order preference version of the model to illustrate the underlying strategic ideas. The politician is submitting a preference list of two committees in order to ultimately be assigned to one committee. In Online Appendix A, these results are generalized to submitting n-committee preference rank-orders.

Suppose the politician wants to choose the optimal two-committee rank-order preference $(x_1, x_2) \in X$, where $X \in \mathbb{R}$ is the set of committees. Let $u(x) : X \to \mathbb{R}$ be the utility the politician gets from being assigned committee x. For all $x > x'$, $u(x) > u(x')$. Let $p_i(x_i)$ denote the probability of being allotted committee x_i ranked in the ith place. The incentive to strategize arises in the Boston mechanism when the more you like the committee, the harder it is to get into (e.g., the highly sought-after Appropriations committee).[19] Hence I focus on this case, assuming that for all $x_i > x_i'$, $p_i(x_i) < p_i(x_i')$. An existing tenant has an existing committee assignment $\underline{x}$ which guarantees him a minimum payoff $u(\underline{x}) > 0$. Note that the true ordinal preference is higher for larger x since u is increasing. However, given that the Boston mechanism is not strategyproof, the politician must rank the committee that gives him the highest payoff conditional on being allotted that committee. Hence the politician's problem is

$$\max_{(x_1,x_2)} p_1(x_1)u(x_1) + (1 - p_1(x_1))p_2(x_2)u(x_2) + (1 - p_1(x_1))(1 - p_2(x_2))u(\underline{x})$$

To simplify notation, let us denote W for $u(\underline{x})$, u_x for $u(x)$, p_{x_i} for $p_i(x_i)$, and p_{y_i} for $p_i(y_i)$. Writing p_{x_i} involves a slight abuse of notation in that x_i's subscript i denotes the function p_i.

$$\max_{(x_1,x_2)} p_{x_1}u_{x_1} + (1 - p_{x_1})p_{x_2}u_{x_2} + (1 - p_{x_1})(1 - p_{x_2})W$$

This model simplifies the environment to consider a single politician's game against a stochastic environment. It does not characterize the equilibrium of the non-strategyproof Boston mechanism because such a model is computationally hard and would require an inordinate number of assumptions on the information, higher-order beliefs, etc., of all politicians. Instead, I assume the information and behavior of all other politicians translate into beliefs of the likelihood of success (i.e., p_i function giving the likelihood of being allotted ith reported preference x_i). This reduced form approximates a politician's representation of this game: forming beliefs about their likelihood of success in ranking committees in different rank orders and optimizing.

Without loss of generality, assume ranking preferences (x_1, x_2) are optimal for $W = 0$ and (y_1, y_2) is optimal for some $W > 0$. Firstly, it is proven that $y_1 \geq x_1$ and $y_2 \geq x_2$ (see Online Appendix A.1

the previous Congress if they wish. If a change is desired, however, a returning member may request a transfer to another (presumably more preferable) committee, in which case he voluntarily yields his property claim on his previously held committee slot" (p. 57). This is a weak version of property rights, called "squatting right," defined in Section 3.5.1.

[19] If the committee you seek were instead not highly sought after, then your chance of getting it by truthfully ranking it at the top of your preference list is very high, removing any need to strategize by misreporting your preferences.

for proof). Namely, an existing tenant with a guarantee of a committee at least as good as his current assignment $\underline{x}$, is ***more truthful*** as he ranks weakly higher x_i, which is more in line with his true ordinal preference that is increasing in x. Secondly, comparing $W > 0$ with $W = 0$ was without loss of generality, and the result holds for any affine transformation of utility; hence, for any $u(\underline{y}) > u(\underline{x})$ where $\underline{y} > \underline{x}$, it is optimal for $y_i \geq x_i$ for all i. Thus, this gives the additional result that an existing tenant is more truthful the better his guaranteed current assignment.

More generally, for n-preference rank-order, the model shows:

Proposition 1. *Assuming that for all $x_i > x_i'$, $p_i(x_i) < p_i(x_i')$, for any minimum payoff guarantees $u(\underline{y}) > u(\underline{x})$ where $\underline{y} > \underline{x}$, suppose $(x_1, \ldots, x_n)$ is optimal for $u(\underline{x})$ and $(y_1, \ldots, y_n)$ is optimal for $u(\underline{y})$, then $y_i \geq x_i$ for all* i.

See Online Appendix A.2 for proof.

Proposition 1, although based on a simple, partial equilibrium model, highlights the key strategic interplay between the Democrat Boston mechanism and the incumbent's guarantee of not being made worse off by participating. Namely, the Boston mechanism incentivizes agents to strategically misreport to hedge: not ranking highly valued, yet popular committees at the top of their list, but instead ranking slightly less valued, but much less popular committees where they have a higher chance of getting appointed. Importantly, this interacts with the incumbent's existing tenants guarantee, ensuring that an incumbent cannot be made worse off relative to their existing committee assignment. This gives empirical traction to compare incumbents' preference ranking behavior with that of freshmen within the Democrat mechanism. Prediction 3 translates the theoretical insights into empirical predictions.

Prediction 3. *(a) Freshmen Senate Democrats are more strategic by requesting fewer popular and highly sought-after committees relative to non-freshmen. (b) A non-freshman Democrat requests committee preferences more truthfully, the more they prefer their existing assignment.*

3.5.3. Incumbency and within committee seniority

As incumbents gain seniority within a committee, their influence over the policy-making process increases and they get assigned the chair/ranking-member position, which has been shown to attract more pork and lobbying money (Berry and Fowler, 2016). This phenomenon produces a ***queuing benefit*** based on the length of time served on a given committee and makes committee assignments increasingly sticky.

Since the Republican TTC/YRMH-IGYT mechanism relies on a strong version of the property rights norm to address the existing tenants problem and because higher seniority implies a higher priority in committee selection, high chamber seniority on a committee suggests that members choose to stay despite the mechanism increasing their priority for selection onto other committees. The queuing benefit is a confounding factor in this identification strategy. The decision to remain on the existing committee implies that the 1:1 exchange of being in this committee at the current relative seniority rank is better than being at the end of the queue on another new committee. Nevertheless, if seniority is higher on a committee even after removing members with the highest relative seniority within the committee, this suggests by revealed preference, that this committee is more valuable.

Prediction 4. *Committees with higher average seniority for Republican members—even after excluding politicians with high within-committee seniority (e.g., the chair and ranking members)—are more preferred.*

A similar prediction would *not* hold for Senate Democrats. Bullock 1985 and Frisch and Kelly (2006) suggest that seniority is one of the primary dimensions based on which the COC resolves ties and assigns committees. However, that seniority is the *only* tie-breaking criterion seems unlikely.

There is a significant amount of stickiness in committee assignments (see Figure C1 in Online Appendix C for a cross-party comparison). This phenomenon is generally explained as politicians developing specializations and/or because there are queuing benefits from being more senior within a committee. My discussion in this section highlights that poor mechanism design, which puts existing tenants at risk of swapping to a less preferred committee, could also explain this empirical regularity.

4. Revisiting theories of committee assignments

In light of the matching mechanisms used in the Senate, I assess the assumptions, logic, and empirical predictions of the 1) Distributional Theory of Shepsle, Weingast, and Marshall, 2) Informational Theory of Gilligan and Krehbiel, and 3) Cartel-Agenda Theory of Cox and McCubbins.

Gilligan and Krehbiel (1987) posit that when information acquisition and specialization is costly, it is efficient for committees to be stacked with members who have lower costs of specialization. As Krehbiel (1992, p. 76) states, "Informational committee power ... refers to behavior that results in gains to committee and non-committee members alike." While Gilligan and Krehbiel (1987) can be viewed as an informational efficiency story as to possible criteria for committee assignments, Krehbiel (1992) derives empirical predictions of committees having heterogeneous non-outliers, except in exceptional cases with low cost of specialization (pp. 95–96). In light of the matching mechanisms described above, this empirical claim would rely on a) Democrat COC using such selection criteria based on lower costs of information acquisition and specialization, and b) Republicans' informational benefit and expertise increasing with seniority in whichever committee they seek. While Democrat COC might incorporate informational advantages in its tie-breaking criterion, it may not be the only consideration. Moreover, it is dubious that Republican politicians care only about the informational benefit they bring to a committee, and while expertise and knowledge does increase with seniority, it is not clear whether such relative expertise is always present in all the committees a politician might desire. Hence, for the Senate, the Informational Theory might explain potential criteria used by the Democrat COC to break ties, but has difficulty explaining the Republican mechanism.

Cox and McCubbins (2005) suggest in their Cartel-Agenda Theory that committee assignments might be exploited by political parties to establish party discipline. As Cox and McCubbins (2005, p. 24) state, "The cartel ensures a near-monopoly on agenda-setting offices to the extent that it can control the relevant votes on the floor (on election of the speaker and appointment of committees). To aid in controlling these floor votes, the cartel establishes an intra-cartel procedure to decide on the nominee for speaker and on a slate of committee appointments." In light of the assignment mechanisms, Senate Republican party leaders appear to have virtually no discretion over committee assignments to establish party discipline via this channel, while Senate Democrats have such discretion through COC tie-breaking votes.

The Distributive Theory suggests that politicians self-select onto committees which they value the most, and the committee system accommodates the mutually beneficial equilibrium where politician i gives up power over the jurisdiction of j's committee, in exchange of j giving up power over the jurisdiction of i's committee.[20] Weingast and Marshall (1988, p. 160) state, "First, committees are composed of high demanders, that is, individuals with greater than average interest in the committee's policy jurisdiction. Second, the committee assignment mechanism operates as a bidding mechanism that assigns individuals to those committees they value most highly." It is not clear from the Republican TTC/YRMH-IGYT mechanism in order of seniority, how the highest demanders will necessarily get on that committee, unless highest demanders for any committee are in order

[20]Both Democratic and Republican mechanisms admitting justified envy (Online Appendix B.1) undermine the stability of such a mutually beneficial trade of jurisdictions.

of seniority. Moreover, their "bidding mechanism" notion somewhat matches the Senate Democrat Boston mechanism. However, for this mechanism to result in the highest demanders self-selecting onto the committees they value most highly, either the COC must only break ties with regards to which politicians value the committee the most or the equilibrium imposed by the non-strategyproof mechanism—a rather complex issue—causes such self-selection.

In justifying their empirical analysis, Weingast and Marshall (1988, p. 149) state, "While he —Shepsle (1975, 1978)— did not discuss the preference revelation aspects of the assignment process, it is clear that the process must rely on some means of inducing truthful requests." This goes against the notion of a non-strategyproof mechanism that incentivizes strategic, non-truthful reporting of preferences. On the other hand, Weingast and Marshall (1988, p. 145)'s notion of the bidding mechanism correctly anticipates strategic responses to non-strategyproof Boston mechanism used by Senate Democrats, "... because some committees are valued by all (e.g., the spending or taxing committees). However, here too the bidding mechanism determines assignment. The more competition for seats, the less likely the bid will be successful. Suppose each potential bidder for a highly valued committee (e.g., one concerning taxes) also values some specific policy committee with much less competition (e.g., housing, agriculture, or public works). The increased competition for seats on the tax committees implies that only those with the greatest differential value between the tax committee and their next-best alternative will pay the opportunity cost of bidding (i.e., giving up a higher probability of getting their policy committee)." However, their equilibrium calculations oversimplify the strategizing of such a non-strategyproof mechanism. Moreover, (p. 150) "...considerable evidence that freshman requests take into account competition for seats. Competition of this sort appears necessary—though not sufficient—to ensure that bids reflect underlying preferences" misinterprets the notion of strategyproofness.

Hence, the Distributional theory correctly anticipates that the Senate Democrat assignment mechanism is non-strategyproof and hence allows for strategically ranking preferences, however, it treats equilibrium calculations too naively, considers potentially strategic preferences as truthful in empirical tests, and fails to account for the very different mechanism used by Senate Republican, which is strategyproof.

5. Suggestive empirical evidence and structural estimations

5.1. Available data and limitations

I use three datasets to empirically test my predictions—summarized in Table 4—for the Senate. First, the Frisch and Kelly (2006) dataset contains Senate Democrat Committee Requests from the 80th to 103rd Congresses (1947–1995). Second, the Stewart and Woon (2005) dataset contains Senate Committee Assignments from the 103rd to 114th Congresses (1993–2017). Finally, I collected a novel dataset of Senate Republican Committee Requests for 91st and 103rd Congresses from the Robert and Elizabeth Dole Archive and Special Collections (University of Kansas). Lacking extensive and systematic Senate Republican committee request data—which is truthful due to the non-strategyproof mechanism—is a key empirical limitation.

In spite of the data limitations, I provide some suggestive evidence in Section 5.2 using the available data for Predictions 2(b), 2(c), 3(a), and 4. I lack a sufficiently large dataset of Republican and Democrat committee preferences to test Predictions 1 and 2(a), and Prediction 3(b), respectively.

5.2. Empirical tests of predictions

As is standard in the literature, I categorize the committees into four types: Constituency, Policy, Prestige, and Admin (Table A3).

Table 4. Summary of predictions

Prediction 1: *Strategic behavior.*
Senate Republicans request their committee preferences truthfully while Senate Democrats' requests are an outcome of strategic behavior.
Prediction 2: *Tie-breaking criteria and party discipline.*
Committees where the distribution of (a) Democrats' seniority at the time of request is significantly different, (b) Democrats' seniority at the time of assignment is significantly different, or (c) Democrats' seniority at the time of assignment has a higher variance compared to that of Republicans, use non-seniority tie-breaking criteria and/or involve party disciplining by Democrat COC.
Prediction 3: *Incumbent's existing assignment guarantee.*
(a) Freshmen Senate Democrats are more strategic by requesting fewer popular and highly sought-after committees relative to non-freshmen. (b) A non-freshman Democrat requests committee preferences more truthfully, the more they prefer their existing assignment.
Prediction 4: *Within-committee seniority and queuing.*
Committees with higher average seniority for Republican members—even after excluding politicians with high within-committee seniority (e.g., the chair and ranking members)—are more preferred.

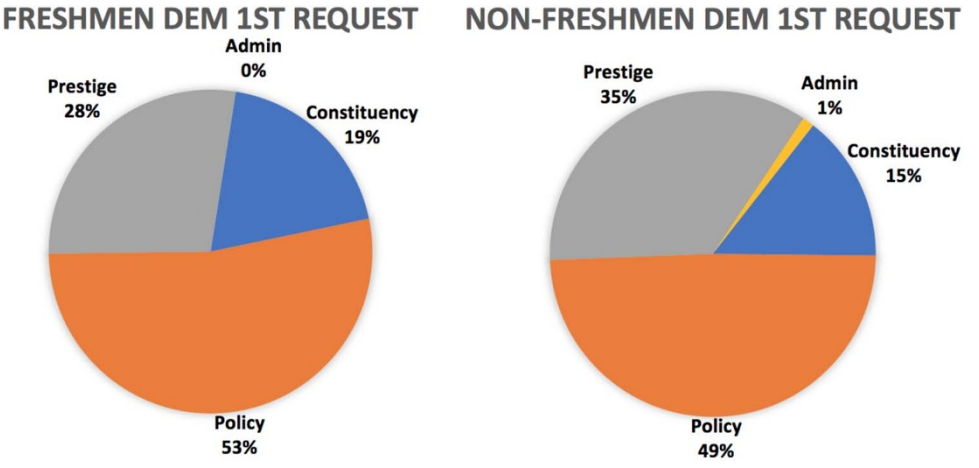

Figure 1. This figure shows the fraction of committees in each of the four categories (Constituency, Policy, Prestige, and Admin) that freshmen Senate Democrats (left column) and non-freshmen Senate Democrats (right column) from 81st to 103rd Congresses ranked as their 1st choice. Data: Frisch and Kelly (2006).

5.2.1. *Strategic preference reporting: Prediction 3(a)*

Consistent with Prediction 3(a), Figure 1 shows that freshmen Senate Democrats request 8% fewer popular, highly sought-after Prestige committees compared to non-freshmen (p-value of difference of 0.15). This behavior is consistent with the mechanism's induced incentives to strategically hedge and request safer, less popular options amongst Policy and Constituency committees, particularly when lacking the incumbents' guarantee of at least maintaining one's existing committee assignments. Moreover, the average chamber seniority at the time of request also exhibits behavior consistent with freshmen Senate Democrats being strategic in substituting their preferences away from Prestige committees (3.88 years), toward Policy (2.89 years) and Constituency (2.58 years) committees (Table A4).

On the other hand, consistent with the strategyproofness of the Republican mechanism, I find no significant substitution away from Prestige committees across Republican freshmen versus non-freshmen (p-value of difference of 0.80) using novel data for Republican assignment requests from the 91st and 103rd Congresses (Figure A1).

5.2.2. Tie-breaking criteria and party discipline: Prediction 2

In making cross-party comparisons of the distribution of seniority at the time of request and assignment, I assume that the distribution of the true preferences of Republicans and Democrats is the same. Absent the data limitations faced here, this assumption could have been relaxed by empirically matching politicians, controlling for covariates, or using structural estimation to estimate the true preferences of Democrats. Comparing cross-party differences in the distribution of chamber seniority at time of appointment (Predictions 2(b) and 2(c)) in Table A5, I find statistically significant evidence of possible party disciplining or non-seniority tie-breaking criteria used by the Democrat COC for Prestige committees (Budget and Rules based on Prediction 2(c)) and some Policy committees (Environment, Commerce, and Governmental Affairs based on Predictions 2(b) and (c)), but not for Prestige and Constituency committees. This sheds light on the selective use of party discipline or non-seniority considerations for tie-breaking by the Democrat COC.

5.2.3. Value of committees: Prediction 4

Even after trying to account for the queuing benefit—Table A6 ranks average committee seniorities while excluding 1, 2, or 3 members with the highest within-committee seniority—I find Rules, Finance, Governmental Affairs, and Appropriations represent the most sought-after committees, using the revealed preference argument combined with the seniority-based Republican mechanism in Prediction 4.

5.3. Empirical analysis with structural assumptions

Combining the knowledge of the Republican TTC/YRMH-IGYT mechanism with reduced-form structural assumptions enables empirically distinguishing the common and idiosyncratic components of politicians' utility across committees.[21] Let the utility of politician i for committee c be given by $u_{ic} = \delta_c + \epsilon_i$, with ϵ_i distributed with mean 0 and variance σ^2_ϵ. Hence, under this reduced form model of utility,[22] there is a common value δ_c which all politicians agree upon, based on legislation, pork, oversight, gate-keeping power, and campaign donations reaped from being assigned to committee c. Moreover, each politician i has an idiosyncratic value ϵ_i, which could be due to their own personal characteristics, the characteristics of their constituency, or the electoral competition they face.

Assuming this simple functional form implies that the mean μ and variance σ of chamber seniority at appointment (or minimum chamber seniority at appointment μ_{min}, σ_{min}) to the committee identifies δ_c and σ^2_ϵ, in units of chamber seniority in years, for Senate Republicans.

As seen from Tables A7 and A8, I find that i) powerful Policy and Prestige committees like Finance and Appropriations have large common values and relatively small idiosyncratic differences, ii) Constituency committees such as Small Business and Armed Services depend on particulars of the politician's constituency characteristics and hence have lower common value, and iii) Policy committees such as Environment and Labor have relatively large idiosyncratic values, depending on the politician's own views and that of their constituency, which dominate the common value component.

[21] This exercise cannot be applied to the Democrat Boston mechanism with tie-breaking by the COC, as it relies on the exclusively seniority-based TTC/YRMH-IGYT Republican mechanism.

[22] Unfortunately, data limitations preclude estimating a richer structural model with Congressperson-specific and Congressional session-specific terms. There are 426 new Senate committee assignments across 11 Congressional sessions (104th to 114th) across 25 committees in this data across 97 distinct senators. Each committee has between 7 and 36 new assignments across this time period.

6. Conclusions

Applying matching theory tools to study assignment problems in legislative organizations like the US Senate is key to developing both a better theoretical and empirical understanding of legislative organization, party power, politicians' motivations and preferences, and the broader impact on policy-making, interest group behavior, and lobbying.

In this paper, I explore theoretically and empirically the structure of these matching mechanisms and what they imply for the nature of party governance. Understanding the details of the data-generating process leads to a re-evaluation of the foundational theories of legislative organization. How parties choose to organize their committee assignment procedures is consequential. For example, the seniority-based Senate Republican mechanism does not leave much scope for discretionary party disciplining, as suggested by the Cartel Agenda Theory. And it seems dubious to assume that high-demanders and experts are necessarily ordered by seniority in order to be self-selected onto every such committee, as suggested by the Distributive and Information Theories. On the other hand, though only relevant when there is excess demand for a committee, the Senate Democrats' tie-breaking procedure of voting by the COC admits the possibility of party disciplining or selection based on expertise or relative value to the politician.

I show that the possibility and consequences of non-strategyproof behavior induced by the underlying matching mechanism has largely been ignored by the existing literature. My analysis underscores how the two parties' mechanisms differ on strategyproofness. Moreover, I highlight how precisely defining concepts like seniority norms and property right norms and understanding exactly how they are implemented in the mechanism design affects the induced strategic intricacies and properties of these mechanisms. Whether a mechanism induces strategic behavior is also consequential for how empiricists should understand and parse/subset (e.g., by party or by seniority) committee request and committee assignment data for econometric analysis. It is dubious to assume that any set of reported preferences is necessarily truthful; thus careful attention should be given to the underlying data-generating process: the matching mechanism.

Supplementary material. The supplementary material for this article can be found at https://doi.org/10.1017/psrm.2025.10043. To obtain replication material for this article, https://doi.org/10.7910/DVN/KG68DK.

Acknowledgements. I am grateful to the three referees, editor, and board member for their comments, which improved the paper. A special thanks to Al Roth, Steven Callander, Keith Krehbiel, Paulo Somaini, Fuhito Kojima, Muriel Niederle, Ignacio Rios, Carlos Varjao, Ken Shotts, David Baron, and participants at Stanford GSB Political Economy Theory Lunch and Hong Kong Baptist University for their guidance and comments. I am grateful to Scott Frisch and Sean Kelly for making available their datasets with House and Senate Democrat committee requests, Charles Stewart III and Jonathan Woon for making their datasets with Senate Committee Assignments available, and Sarah Gard for helping access and providing data from the Robert and Elizabeth Dole Archive and Special Collections (University of Kansas). I would like to thank Stanford Graduate School of Business and ECONTribute: Markets and Public Policy at University of Cologne, and acknowledge support from Lee Kuan Yew School of Public Policy and the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) under Germany's Excellence Strategy—EXC 2126/1—390838866.

References

Abdulkadiroğlu A, Che Y-K and Yasuda Yosuke (2011) Resolving conflicting preferences in school choice: The "Boston mechanism" reconsidered. *American Economic Review* **101**, 399–410.

Abdulkadiroğlu A and Sönmez T (1999) House allocation with existing tenants. *Journal of Economic Theory* **88**, 233–260.

Abdulkadiroğlu A and Sönmez T (2003) School choice: A mechanism design approach. *American Economic Review* **93**, 729–747.

Barber Michael, Canes-Wrone B and Thrower S (2017) Ideologically Sophisticated donors: Which candidates do individual contributors finance? *American Journal of Political Science* **61**, 271–288.

Berry CR and Fowler A (2016) Cardinals or clerics? Congressional committees and the distribution of pork. *American Journal of Political Science* **60**, 692–708.

Bertrand Marianne, Bombardini M, Fisman R and Trebbi F (2020) Tax-exempt lobbying: Corporate philanthropy as a tool for political influence. *American Economic Review* **110**, 2065–2102.

Bullock CS (1971) The influence of state party delegations on House committee assignments. *Midwest Journal of Political Science* **15**, 525–546.
Bullock CS (1972) Freshman committee assignments and re-election in the United States House of Representatives. *American Political Science Review* **66**, 996–1007.
Bullock CS (1973) Committee transfers in the United States House of Representatives. *The Journal of Politics* **35**, 85–120.
Bullock CS (1985) US Senate committee assignments: Preferences, motivations, and success. *American Journal of Political Science* **29**, 789–808.
Bullock CS and Sprague J (1969) A research note on the committee reassignments of southern Democratic congressmen. *The Journal of Politics* **31**, 493–512.
Chen Yan and Sönmez T (2006) School choice: An experimental study. *Journal of Economic Theory* **127**, 202–231.
Clapp CL (1963) *The Congressman: His Work As He Sees It*. Brookings Institution.
Cox GW and McCubbins MD (2005) Setting the agenda: Responsible party government in the US House of Representatives *Cambridge University Press*.
Denzau AT and Mackay RJ (1983) Gatekeeping and monopoly power of committees: An analysis of sincere and sophisticated behavior. *American Journal of Political Science* **27**, 740–761.
Endersby JW and McCurdy KM (1996) Committee assignments in the US Senate. *Legislative Studies Quarterly* 21, 219–233.
Fenno RF (1978) *Home style: House members in their districts*. HarperCollins.
Ferejohn JA (1974) *Pork barrel politics: Rivers and harbors legislation, 1947–1968*. Stanford University Press.
Fouirnaies Alexander and Hall AB (2018) How do interest groups seek access to committees? *American Journal of Political Science* **62**, 132–147.
Frisch SA and Kelly SQ (2004) Self-selection reconsidered: House committee assignment requests and constituency characteristics. *Political Research Quarterly* **57**, 325–326.
Frisch SA and Kelly SQ (2006) *Committee assignment politics in the US House of Representatives*. Vol. **5**. University of Oklahoma Press.
Frisch SA and Kelly SQ (2006) Committee assignment politics in the U.S. Senate: Democratic leaders and Democratic committee assignments, 1953–1994. *Congress & the Presidency* **33**, 1–23.
Frisch SA and Kelly SQ (2006) Senate Democrat Committee Request Data, 80th–103rd Congress.
Frisch SA and Kelly SQ (2007) House Committee Request Data, 80th–103rd Congress.
Gailmard Sean and Hammond T (2011) Intercameral bargaining and intracameral organization in legislatures. *The Journal of Politics* **73**, 535–546.
Gawthrop LC (1966) Changing membership patterns in House committees. *American Political Science Review* **60**, 366–373.
Gilligan TW and Krehbiel K (1987) Collective decisionmaking and standing committees: An informational rationale for restrictive amendment procedures. *Journal of Law, Economics, & Organization* **3**, 287–335.
Goodwin George (1970) *The little legislatures: Committees of Congress*. University of Massachusetts Press.
Groseclose Tim and Stewart C (1998) The value of committee seats in the House, 1947–91. *American Journal of Political Science* **42**, 453–474.
Groseclose Tim and Stewart C (1999) The value of committee seats in the United States Senate, 1947–91. *American Journal of Political Science* **43**, 963–973.
Hall RL and Grofman B (1990) The committee assignment process and the conditional nature of committee bias. *American Political Science Review* **84**, 1149–1166.
Hall RL and Wayman FW (1990) Buying time: Moneyed interests and the mobilization of bias in congressional committees. *American Political Science Review* **84**, 797–820.
Hassidim Avinatan, Marciano D, Romm A and Shorrer RI (2017) The mechanism is truthful, why aren't you? *American Economic Review* **107**, 220–224.
Kojima Fuhito and Unver MU (2014) The "Boston" school-choice mechanism: An axiomatic approach. *Economic Theory* **55**, 515–544.
Krehbiel Keith (1990) Are congressional committees composed of preference outliers?. *American Political Science Review* **84**, 149–163.
Krehbiel Keith (1992) *Information and legislative organization*. University of Michigan Press.
Li Shengwu (2017) Obviously strategy-proof mechanisms. *American Economic Review* **107**, 3257–3287.
Masters NA (1961) Committee assignments in the House of Representatives. *American Political Science Review* **55**, 345–357.
Mayhew DR (1974) *Congress: The electoral connection*. Yale University Press.
Munger MC (1988) Allocation of desirable committee assignments: Extended queues versus committee expansion. *American Journal of Political Science* **32**, 317–344.
Niederle Muriel, Roth A and Sönmez T (2018) "Matching and market design. *The New Palgrave Dictionary of Economics*, 2nd Edn. Palgrave.
Pathak PA and Sönmez T (2008) Leveling the playing field: Sincere and sophisticated players in the Boston mechanism. *American Economic Review* **98**, 1636–1652.

Pathak PA and Sönmez T (2013) School admissions reform in Chicago and England: Comparing mechanisms by their vulnerability to manipulation. *American Economic Review* **103**, 80–106.
Powell Eleanor Neff and Grimmer J (2016) Money in exile: Campaign contributions and committee access. *The Journal of Politics* **78**, 974–988.
Rees-Jones Alex (2018) Suboptimal behavior in strategy-proof mechanisms: Evidence from the residency match. *Games and Economic Behavior* **108**, 317–330.
Robert and Elizabeth Dole Archive and Special Collections, University of Kansas.
Rohde DW and Shepsle KA (1973) Democratic committee assignments in the House of Representatives: Strategic aspects of a social choice process. *American Political Science Review* **67**, 889–905.
Schneider Judy (2003) *The committee system in the U.S. Congress*. Congressional Research Service, Library of Congress.
Schneider Judy (2006) *Committee assignment process in the U.S. Senate: Democratic and Republican party procedures*. CRS Report for Congress.
Schneider Judy (2014) *Senate Committees: Categories and Rules for Committee Assignments*. Congressional Research Service.
Shepsle KA (1975) Congressional committee assignments. *Public Choice* **22**, 55–78.
Shepsle KA (1978) *The giant jigsaw puzzle: Democratic committee assignments in the modern House*. University of Chicago Press.
Shepsle KA and Weingast BR (1987) The institutional foundations of committee power. *American Political Science Review* **81**, 85–104.
Stewart Charles and Woon J (2005) Congressional committee assignments, 103rd to 114th Congresses, 1993–2017. [House, Senate], December 1st.
Stratmann T (2000) Congressional voting over legislative careers: Shifting positions and changing constraints. *American Political Science Review* **94**, 665–676.
Svensson L-G (1999) Strategy-proof allocation of indivisible goods. *Social Choice and Welfare* **16**, 557–567.
Thakur A (2024) *Endogenous institutional stability*. SSRN Working 4804022.
Thakur A and Bendor J (2024) Endogenous reorganization: Status, productivity & meritocratic dynamics. *Journal of Economic Behavior & Organization* **227**, 106747.
Weingast BR and Marshall WJ (1988) The industrial organization of Congress; or, why legislatures, like firms, are not organized as markets. *The Journal of Political Economy* **96**, 132–163.

Appendix

Table A1. List of senate committees

A Committees	B Committees	C Committees
Agriculture	Budget	Select Ethics
Appropriations	Rules & Administration	Indian Affairs
Armed Services	Small Business & Entrp.	Joint Taxation
Banking, Housing, & Urban Affairs	Veterans' Affairs	Joint Library
Commerce, Sci, & Transportation	Special Aging	Joint Printing
Energy & Natural Resources	Joint Econ Committee	
Environment & Public Works		
Finance		
Foreign Relations		
Education & Labor		
Homeland Security & Govt Aff		
Judiciary		
Select Intelligence		

Table A2. Timeline of Committee Assignments Procedure

1.	Election: incumbents re-elected (existing tenants) & freshmen elected
2.	Party leaders negotiate number of seats for party
3.	COC asks for preference orders
4.	Freshmen encouraged to talk with seniors, gain support, and find out what is feasible
5.	Assignment is many-to-many matching with existing tenants
6.	Vote by the party internally (norm to agree unanimously)
7.	Vote by the floor (norm to agree unanimously)

Table A3. Categories of Senate Committees

Constituency	Policy	Prestige	Admin
Small Business	Banking, Housing, & Urban Aff	Appropriations	District of Columbia
Veterans' Affairs	Commerce, Sci, and Transp	Budget	Post Office
Agriculture	Environment & Pub Wks	Rules	
Armed Services	Finance		
Energy & Nat Res	Foreign Relations		
	Government Affairs		
	Judiciary		
	Labor & Human Resources		

Table A4. Average Chamber Seniority at Request for Senate Democrats (81st to 103rd Congress) Data: Frisch and Kelly (2006)

Committee Type	Committee Name	Avg Chamb Sen when Request
Constituency	Small Business	3.21
Constituency	Veterans' Affairs	1.5
Constituency	Agriculture, Nutrition, & Forestry	2.06
Constituency	Armed Services	3.78
Constituency	Energy & Natural Resources	2.35
		Constituency Avg: 2.58
Policy	Banking, Housing, & Urban Affairs	2.05
Policy	Commerce, Science, & Transport	2.68
Policy	Environment & Public Works	2.08
Policy	Finance	3.25
Policy	Foreign Relations	5.29
Policy	Government Affairs	2.35
Policy	Judiciary	3.14
Policy	Labor & Human Resources	2.26
		Policy Avg: 2.89
Prestige	Appropriations	4.3
Prestige	Budget	4.31
Prestige	Rules & Admin	3.04
		Prestige Avg: 3.88
Admin	District of Columbia	2.33
Admin	Post Office	3.5
		Admin Avg: 2.91

Table A5. Average Chamber Seniority (in years) when appointment is made to committee by party, difference by party, and difference in standard deviations for 104th to 114th Congress (Data: Stewart and Woon (2005))

	Republicans		Democrats				
	Seniority	N	Seniority	N	Diff in Means	t-stat	Diff in Std Dev
Small Business	2.03	31	1.56	18	0.48	0.75	1.71
	(3.05)		(1.34)				
Veterans Aff	2.27	22	2.14	14	0.13	0.20	0.92
	(2.43)		(1.51)				
Agriculture	3.24	25	1.84	19	1.40	1.48	1.37
	(3.80)		(2.43)				
Armed Services	1.83	36	2.56	27	-0.72	-1.25	-1.74
	(1.11)		(2.85)				
Energy, Nat Res	3.34	35	3.04	27	0.31	0.28	0.91
	(4.74)		(3.83)				
Banking	3.31	32	2.57	23	0.75	0.63	0.40
	(4.58)		(4.18)				
Comm,Sci,Trans	1.71	34	3.44	27	-1.74**	-2.09	-2.87
	(1.29)		(4.16)				
Environ	3.80	30	1.00	14	2.80***	3.05	5.03

(*Continued*)

Table A5. (*Continued.*)

	Republicans		Democrats				
	Seniority	N	Seniority	N	Diff in Means	t-stat	Diff in Std Dev
	(5.03)		(0.00)				
Finance	8.21	33	7.39	23	0.82	0.73	-0.41
	(3.90)		(4.31)				
For Relations	2.94	36	3.40	20	-0.46	-0.36	0.14
	(4.57)		(4.43)				
Govt Affairs	7.93	15	3.00	9	4.93*	1.76	1.59
	(7.59)		(6.00)				
Home Sec	5.13	15	3.15	13	1.98	0.91	3.15
	(7.19)		(4.04)				
Judiciary	3.80	20	2.13	15	1.67	1.27	2.02
	(4.87)		(2.85)				
Labor	5.57	7	–	–	–	–	–
	(5.26)						
Health	7.00	24	7.09	23	-0.09	-0.03	-1.80
	(7.69)		(9.49)				
Appropriations	4.45	29	4.37	19	0.08	0.12	1.70
	(3.20)		(1.50)				
Budget	3.72	25	4.05	19	-0.33	-0.14	-6.43
	(3.31)		(9.74)				
Rules	7.11	18	8.73	15	-1.62	-0.56	-4.05
	(5.80)		(9.85)				

Table A6. Average Chamber Seniority (in years) of Senate Republicans on each Committee given all members, excluding most senior, excluding 2 most senior, and excluding three most senior by rank on committee. (Data: Stewart and Woon (2005))

All Members		Excl. most senior		Excl. 2 most senior		Excl. 3 most senior	
Small Business	6.32	**For Relations**	5.61	**Small Business**	4.51	**Small Business**	4.10
For Relations	7.57	**Small Business**	5.67	**For Relations**	4.69	**For Relations**	4.36
Labor	7.58	**Banking**	6.42	**Banking**	5.58	**Armed Services**	4.75
Banking	7.59	**Labor**	6.99	**Armed Services**	5.69	**Banking**	5.22
Comm,Sci,Trans	8.77	**Armed Services**	7.37	**Comm,Sci,Trans**	6.43	**Comm,Sci,Trans**	5.60
Armed Services	8.91	**Comm,Sci,Trans**	8.06	**Energy, Nat Res**	6.94	**Energy, Nat Res**	6.15
Energy, Nat Res	9.09	**Energy, Nat Res**	8.10	**Labor**	7.14	**Budget**	6.74
Environ	9.28	**Environ**	8.74	**Environ**	7.35	**Environ**	7.06
Health	9.89	**Budget**	9.62	**Budget**	7.96	**Veterans Aff**	7.35
Budget	10.47	**Health**	9.86	**Judiciary**	9.30	**Judiciary**	7.58
Veterans Aff	11.04	**Veterans Aff**	10.69	**Veterans Aff**	9.60	**Labor**	7.63
Home Sec	11.45	**Home Sec**	11.77	**Health**	9.62	**Agriculture**	9.11
Agriculture	13.27	**Judiciary**	12.55	**Home Sec**	10.15	**Health**	10.04
Judiciary	13.88	**Agriculture**	12.91	**Agriculture**	10.94	**Home Sec**	10.38
Govt Affairs	14.43	**Appropriations**	13.66	**Appropriations**	12.53	**Appropriations**	11.66
Appropriations	14.72	**Finance**	14.04	**Finance**	12.66	**Govt Affairs**	11.77
Finance	14.94	**Govt Affairs**	15.09	**Govt Affairs**	12.77	**Finance**	11.84
Rules	16.56	**Rules**	16.73	**Rules**	14.96	**Rules**	12.92

Table A7. Republican μ, σ, and $\frac{\mu}{\sigma}$ of yearly chamber seniority at time of appointment for 104th to 114th Congress (Data: Stewart and Woon (2005))

Committee Name	μ	Committee Name	σ	Committee Name	$\frac{\mu}{\sigma}$
Comm, Sci & Trans	1.71	Armed Services	1.11	Foreign Relations	0.64
Armed Services	1.83	Comm, Sci & Trans	1.29	Small Business	0.67
Small Business	2.03	Veterans' Affairs	2.43	Energy & Nat Res	0.71
Veterans' Affairs	2.27	Small Business	3.05	Banking	0.72
Foreign Relations	2.94	Appropriations	3.2	Environment & Pub Wks	0.76
Agriculture	3.24	Budget	3.31	Judiciary	0.78
Banking	3.31	Agriculture	3.8	Agriculture	0.85
Energy & Nat Res	3.34	Finance	3.9	Govt Affairs	0.88

(*Continued*)

Table A7. (*Continued.*)

Committee Name	μ	Committee Name	σ	Committee Name	$\frac{\mu}{\sigma}$
Budget	3.72	Foreign Relations	4.57	Veterans' Affairs	0.93
Environment & Pub Wks	3.8	Banking	4.57	Labor & Human Res	0.93
Judiciary	3.8	Energy & Nat Res	4.74	Budget	1.12
Appropriations	4.45	Judiciary	4.87	Rules	1.23
Govt Affairs	6.53	Environment & Pub Wks	5.03	Comm, Sci & Trans	1.32
Labor & Human Res	6.68	Rules	5.8	Appropriations	1.39
Rules	7.11	Labor & Human Res	7.14	Armed Services	1.65
Finance	8.21	Govt Affairs	7.39	Finance	2.10

Table A8. Republican μ_{min}, σ_{min}, and $\frac{\mu_{min}}{\sigma_{min}}$ of yearly minimum seniority at appointment for 104th to 114th Congress (Data: Stewart and Woon (2005))

Committee Name	μ_{min}	Committee Name	σ_{min}	Committee Name	$\frac{\mu_{min}}{\sigma_{min}}$
Foreign Relations	1	Foreign Relations	0	Environment & Pub Wks	0.713
Small Business	1	Small Business	0	Labor & Human Res	0.74
Banking	1.2	Banking	0.63	Judiciary	0.84
Comm, Sci & Trans	1.22	Comm, Sci & Trans	0.67	Rules	1.06
Armed Services	1.4	Armed Services	0.84	Energy & Nat Res	1.11
Energy & Nat Res	1.4	Agriculture	0.93	Veterans' Affairs	1.18
Agriculture	1.5	Energy & Nat Res	1.26	Budget	1.28
Veterans' Affairs	1.75	Govt Affairs	1.45	Govt Affairs	1.45
Environment & Pub Wks	1.89	Veterans' Affairs	1.49	Agriculture	1.62
Govt Affairs	2.11	Finance	1.7	Armed Services	1.66
Budget	2.43	Budget	1.9	Comm, Sci & Trans	1.83
Judiciary	2.75	Appropriations	2.63	Banking	1.9
Rules	4.25	Environment & Pub Wks	2.67	Appropriations	2.05
Labor & Human Res	5	Judiciary	3.28	Finance	3.53
Appropriations	5.4	Rules	3.99	Foreign Relations	∞
Finance	6	Labor & Human Res	6.73	Small Business	∞

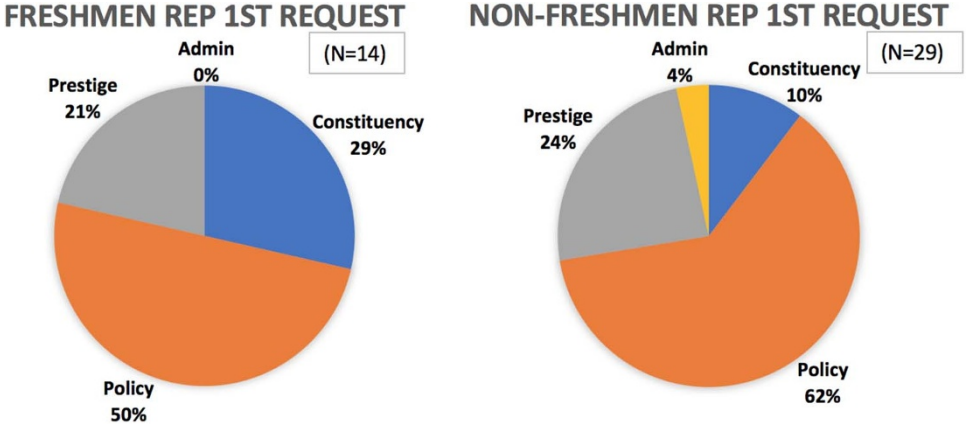

Figure A1. Republican Freshmen vs. Non-Freshmen Committee Requests. This figure shows the fraction of committees in each of the four categories (Constituency, Policy, Prestige, and Admin) which freshmen Senate Republicans (left) and non-freshmen Senate Republicans (right) for 91st and 103rd Congresses ranked as their 1st choice. I only compare 1st choice due to limited data (76% Republican non-freshmen rank only 1 choice in data sample). (Data: Dole Archives)

Cite this article: Thakur A (2025) A matching theory perspective on legislative organization: assignment of committees. *Political Science Research and Methods*, 1–25. https://doi.org/10.1017/psrm.2025.10043