Scholars and observers of the U.S. Senate have noted an appreciable rise in the use of the filibuster over the course of the 20th century. Although numerous explanations have been offered, alternative accounts have never been pitted against each other in a multivariate fashion. In this article, we survey and test these multiple accounts, using data on filibusters launched between 1917 and 1996. Our findings suggest that the incentive to filibuster is predictably shaped by both partisan preferences and institutional opportunity, findings that hold even before the marked rise in partisanship evident at late century.

Students of legislative politics are quick to acknowledge the remarkable changes that occurred in the Senate over the second half of the 20th century (Harris, 1993; Sinclair, 1989; Smith, 1989). A frequently noted change is the increased exploitation of the Senate’s lax limits on debate to obstruct a wide host of bills and nominations. Counting such filibusters is a precarious business, but most close observers of the Senate agree that “the filibuster is a growth industry” (Oleszek, 1996, p. 10). Obstructionism occurs with such frequency in today’s Senate that the Democratic minority leader once acknowledged that “controversial issues always require 60 votes” (Price, 2002), referring to the threshold for invoking cloture to cut off debate under the Senate’s Rule 22.

Students of the Senate have offered a diverse range of explanations to account for the apparent increase in obstructionism, including increasing time constraints (Oppenheimer, 1985), changes in the pol-
icy community outside the Senate (Sinclair, 1989), and rising partisanship (Binder & Smith, 1997). Still, despite scholars’ attention to the rise in filibustering, no one has yet advanced a multivariate model to test competing explanations. In this article, we review these alternative accounts, evaluate the arguments and evidence offered for them, and then pit the competing explanations against one another in a quantitative, multivariate fashion. Our findings provide the first systematic test of recent claims about senators’ incentives and opportunities to exploit the chamber’s lax limits on floor debate.

EXISTING ACCOUNTS OF THE SENATE FILIBUSTER

Figure 1 shows the distribution of filibusters by congressional session starting in 1917 (with adoption of the Senate’s cloture rule) and ending in 1996. The explosion in the frequency of filibusters is most striking after the 1960s, with senators waging on average more than

Figure 1: Number of Filibusters per Congressional Session, 1917 to 1996

NOTE: Because some years encompass more than a single session in the early part of the time series, some years are represented by two data points. See text for discussion of data sources.
9 filibusters each session between 1973 and 1996. In contrast, only 1.4 filibusters were waged on average each session between 1917 and 1972. As Figure 1 suggests, however, the rise in filibustering does not follow a monotonic trend, as there are some early spikes in the incidence of filibustering in the late 1920s and 1930s before senators settled into a more staid and quiet pattern at mid-century.\(^2\)

The frequency of filibustering in the 20th-century Senate merits investigation for several reasons. First, despite the claims of the filibuster’s defenders, there is mounting evidence that the filibuster alters legislative outcomes. Binder and Smith (1997, chap. 5), for example, show that the filibuster has killed majority-preferred legislation at an increasing rate over the 20th century. Sinclair (1999) shows that legislation is less likely to be enacted when it encounters a filibuster problem in the Senate, and Smith (1989) and Sinclair (2000) argue that Senate leaders have fought to alter institutional arrangements and procedural strategies in the wake of increased Senate obstructionism. Second, existing explanations for the rise in filibustering tell us much about the increase in obstructionism in recent decades but leave unanswered questions about early variation in use of the filibuster, raising questions about the generalizability of existing accounts. Third, despite the richness of recent accounts of Senate change, no one has yet pitted contending accounts against each other in a multivariate fashion. Such analysis is essential to unraveling the politics of the filibuster over the course of the 20th century. In short, despite the centrality of the filibuster to Senate strategy and legislative outcomes, we lack a concrete understanding of the conditions that have made the filibuster a more or less attractive strategy for dissenting senators over time.

How then do we account for the extreme variation in the number of filibusters launched over time? We approach this question at the aggregate level, asking why we see such temporal variation in the use of the filibuster: variation that occurs over the course of any given Congress and over the Congresses of the 20th century.\(^3\) We organize our review of alternative accounts by considering how policy preferences and institutional constraints are likely to shape senators’ strategies. The array of senators’ policy views will affect senators’ incentives to filibuster; institutional arrangements should affect the relative costs and benefits of doing so.\(^4\)
PREFERENCES AND THE INCENTIVE TO FILIBUSTER

One approach to explaining variation in the frequency of filibusters focuses on senators’ policy convictions. The incentive to filibuster, in this view, is a direct function of the array of senators’ policy preferences and the policy demands they face. Perhaps, the clearest application of a policy-based view of filibustering appears in Sinclair’s (1989) *Transformation of the U.S. Senate*, in which she argues that changes in the Washington policy community after the 1960s encouraged senators to more fully exploit their procedural rights. As the role of the federal government expanded following the enactment of Great Society legislation, the size and diversity of the interest group community in Washington also expanded (p. 5). As a result, new public policies stimulated new demands by organized interests, who in turn sought out Senate sponsors to champion their causes. In the new political environment, senators had many incentives and few disincentives to take advantage of their parliamentary rights in pursuing the legislative agendas of their supporters. External demands, in short, reinforced senators’ policy preferences, helping to fuel the rise in filibustering after the 1960s. Still, the question of this explanation’s generalizability remains, with the possibility that the demand-for-obstruction account is time bound and applies only to the period after the Great Society indelibly changed the internal dynamics of the Senate.

Policy convictions might also shape patterns in the use of the filibuster under the guise of changes in partisanship. Binder and Smith (1997), for example, suggest that increased internal cohesion of the two parties likely helped to fuel an increase in filibustering after the 1970s. Polarization of the parties gave the majority an incentive to aggressively pursue party-favored issues on the agenda and gave the minority an incentive to band together in obstructing the majority. Binder and Smith’s account, however, leaves open the question of whether increases in filibustering are driven by increases in the strength of the majority party, minority party, or both parties. Under one scenario, the strength of the majority party is pivotal. As majority party strength increases and with it the threat to the policy status quo, the incentive of the minority party to filibuster should increase as it seeks to preserve the status quo. Alternatively, increases in minority party strength might fuel an increased reliance on the filibuster, as it
would become easier and more likely for the minority to succeed in blocking action through a filibuster, independent of the strength of the majority party. Competition between the parties is thus likely to fuel the incidence of filibustering in a predictable way. Increasing party strength of either party should lead to increasing levels of filibustering. Still, the surge in filibustering was well underway during the 1970s, a period of relatively low partisanship in the Senate (Cooper & Young 1997, p. 264), raising again the question of generalizability for this policy-based approach.

INSTITUTIONS AND THE COSTS OR BENEFITS OF FILIBUSTERING

Alternative accounts of the rise in filibustering place greater theoretical weight on the impact of institutions, rather than policy convictions. In such accounts, institutions are important because they shape the strategic context in which legislation is pursued on the Senate floor. Overwhelmingly, such accounts emphasize the ways in which the structure of the Senate calendar affects legislative “time”: both time available for legislative action and the timing of action within a Congress. Oppenheimer (1985), for example, explicitly details how time constraints affect obstructionism in the Senate. When the Senate schedule provides ample time to consider legislation on the Senate floor, senators calculating whether to launch a filibuster have little leverage with their colleagues. There are simply too few incentives for other senators to concede to an obstructive senator. All else equal, we should see few filibusters when legislative time is ample. As time grows scarce, senators, in particular Senate leaders, would have an incentive to yield to filibustering senators, so as to proceed to the rest of the floor agenda. Under such conditions, filibustering should increase, as it becomes a more effective strategy for securing one’s policy or political demands.

Numerous structural features of the Senate help to shape legislative time. Oppenheimer (1985) draws attention to one key factor: the congressional calendar.

The later in a Congress it is, the more important time becomes . . . . Late in a Congress, choices are limited because time is not available. More-
over, those presenting the obstacle know their advantage and can extract a higher price for its removal. (p. 395)

Thinking broadly about the Senate calendar, we would expect to find more filibustering in the last session of a Congress compared to the first, as any legislation left pending at the close of the last session dies and must be reintroduced in the following Congress. The strategic stakes of the last session, in other words, will lower the costs of filibustering, fueling senators’ incentive to obstruct in that session.8

Before the 1930s, a historically rooted feature of the congressional calendar also affected legislative time. Prior to ratification of the 20th Amendment in the 73rd Congress (1933-1934), Congress faced an automatic adjournment on March 4 of each odd-numbered year. According to Burdette (1940, pp. 169-170), the March 4th fixed date of adjournment created incentives for senators to filibuster on March 3, knowing that they could either extract concessions or kill a measure.9 Eliminating the fixed end of session should have lowered the incidence of filibustering, all else equal.

Time constraints are also implicitly at the core of Sinclair’s (1989) arguments about the expansion of the Senate agenda after the 1960s. As both Sinclair and Smith (1989) argue, the growing Senate agenda put extraordinary pressure on party leaders seeking to manage the floor agenda in face of senators’ expanded activism and obstructionism after the 1960s. A key institutional response was informal, as Senate leaders introduced a “track system” to manage the floor in 1970 (Smith, 1989).10 Tracking allowed the majority leader (with unanimous consent or concurrence of the minority leader) to put aside a filibustered measure and move on to a second “track” of legislation. Binder and Smith (1997) argue that the unintended consequence of tracking was to fuel more filibusters. Tracking made filibusters “more tolerable and less costly to senators” because senators were no longer forced to hold the floor continuously to block legislation; the chamber simply put aside the filibustered measure and moved on to other unfinished business. All else equal, filibustering should increase after the introduction of tracking.

Senate leaders’ experience with tracking suggests an alternative account for the frequency of filibusters, an approach that suggests
both policy convictions and institutional structures matter in shaping the incidence of obstruction. Pivotal in this account is the likelihood of a filibuster succeeding. As it becomes easier and less costly to wage a successful filibuster, the incentive to filibuster should rise as well; the benefits of a filibuster would clearly begin to outweigh the costs as success becomes more likely. One strong indicator of the likelihood of a successful filibuster is how close filibustering senators are to securing a large enough coalition to block cloture. As the minority party crosses the threshold for blocking cloture, the incentive to filibuster should increase. Thus, we would expect to see an interactive effect between the strength of the minority party (the coalition most likely to appear in efforts to block majority action) and the proximity of the minority party to the cloture threshold. Stronger minority parties with sufficient votes to block cloture should more frequently engage in filibusters than minority parties unable to block cloture.

DATA AND METHOD

In this section, we detail our methodology for testing alternative explanations for the frequency of filibustering in the 20th-century Senate.

DEPENDENT VARIABLE

Our dependent variable is the number of filibusters per congressional session between the 65th and 104th Congresses (1917-1996). Issues and filibusters can, of course, stretch over multiple sessions. In designating the session of each filibuster, we code the first session in which we find evidence from primary and secondary sources of the filibuster. To the extent that filibusters straddle sessions, the coding rule biases against finding second-session (or last-session, in congresses with more than two sessions) effects. To check our dependent variable for measurement error introduced by filibusters straddling sessions, we create a second dependent variable counting the number of measures subject to cloture votes each session. The two measures correlate at .94.
INDEPENDENT VARIABLES

Policy demands. Given Sinclair’s (1989) argument that the scope of external demands on the Senate is related to the size of the Washington policy community, one would ideally use an annual count of the number of active interest groups in Washington to measure the level of external demands. Unfortunately, there appears to be no data from which to construct such a count that reach reliably back to 1917. However, the size of the Washington policy community is directly related to the activity and size of the federal government, as expansion in federal programs gives rise to lobbies seeking to protect and expand these governmental programs (see, among others, Berry, 1997; Rauch, 1999; Truman, 1951). Thus, as a proxy for the level of external demands on the Senate, we use the number of civilian federal government employees each year (Stanley & Niemi, 1994, p. 270; U.S. Bureau of the Census, 1997). This variable is highly correlated with measures of the Senate’s internal demands, suggesting that it is a robust proxy for both demands raised outside the Senate (by the policy community) and inside the Senate (by its workload).

Partisanship. To capture the strategic context for parties, we use a measure of party strength for each majority and minority party in each Congress. Party strength is a function of party size (Martis, 1989) and Rice cohesion (overall roll call votes each Congress). By calculating the interaction of size and internal cohesiveness, we judge a party to become stronger as either its size or its cohesiveness increases. To tap the effect of the cloture threshold on a minority party’s incentive to filibuster, we interact minority party strength with a dummy variable indicating whether the minority party holds a sufficient number of seats to block cloture.

Senate structure. To measure institutional effects, we use a dummy variable to indicate the last session of each Congress, a dummy variable to indicate those sessions for which a fixed end date of March 3 was in place (a condition holding for seven sessions in the data), and a dummy variable that indicates the presence of a tracking system for each year starting in 1970. To control for the strong upward trend in
the data starting in the 1960s, we use a lagged dependent variable of the number of filibusters.\textsuperscript{18}

\textbf{ESTIMATION}

Because the number of filibusters per session can only be a non-negative integer, with numerous sessions having zero filibusters, an event count model is the most appropriate statistical model. We estimated a Poisson regression model after rejecting the more general specification of negative binomial regression.\textsuperscript{19} We calculate robust standard errors, clustering on the Congress number to account for the lack of independence of the multiple sessions within a single Congress.

\textbf{FINDINGS}

Descriptive statistics for the variables appear in Table 1, with the number of filibusters per session ranging from 0 filibusters (in many of the early Congressional sessions) to 22 filibusters (in the second session of the 102nd Congress). Table 2 shows the results of the Poisson regression. The overall fit of the model is good, as we can safely reject the hypothesis that all coefficients are jointly zero.
We find mixed results for our conjectures about both policy convictions and institutional structures. First, our measure of external demands fails to reach statistical significance. There seems to be little connection between the level of policy demands and the incidence of filibustering, a finding we return to below. In contrast, we find quite strong support for conjectures regarding the impact of institutions. Filibusters are more likely in the last session of a Congress than the first, suggesting that senators are more likely to target their filibusters for the period in a Congress when obstructive tactics are more likely to be effective. Confirming Oppenheimer (1985), time constraints increase senators’ leverage over their colleagues, raising the strategic value of the filibuster. In contrast, the level of filibustering does not seem to be appreciably higher during sessions with a fixed date of adjournment.

The implementation of a tracking system also appears to have systematically increased the level of filibustering each session, even after controlling for the time trend in the data. When Senate leaders responded to a growing chamber agenda in the 1970s, their tactical adjustments actually fueled more filibusters. It is also possible that the impact of tracking masks the effect of increasing external demands on the level of filibustering. We know that leaders invented a track system

| Table 2: Poisson Regression of Filibusters per Session, 1917 to 1996 (N = 87) |
|------------------|------------------|------------------|------------------|
| Explanation      | Independent Variable | Coefficient | Robust SE |
| External demands | Government size   | 0.025          | 0.13        |
|                  | World War II interaction | –0.076     | 0.57        |
| Policy preferences| Majority party strength | 0.040          | 2.63***     |
|                  | Minority party strength | –0.057          | 1.67        |
| Institutional arrangements | Last session of a Congress | 0.366          | 2.25*       |
|                  | Fixed adjournment date | 0.471          | 1.12        |
|                  | Tracking system in place | 1.484          | 5.67***     |
|                  | Minority party strength * votes to defeat cloture | 0.022          | 2.02*       |
| Controls         | Lagged number of filibusters | 0.053          | 2.07*       |
|                  | Constant           | –0.568         | 0.63        |

NOTE: Log likelihood = –162.93; robust standard errors adjusted for clustering on each Congress; parameter estimates calculated using Stata 7.0’s Poisson routine.

*p < .05. **p < .01. ***p < .001. (All are one-tailed t tests.)
to manage more efficiently an increasingly cluttered (and filibustered) agenda, and thus the immediate impact of the rise in external demands is likely captured in part (and indirectly) by the introduction of a tracking system.22

Most striking is the impact of relative party strength on the level of filibustering. Even after controlling for nonpartisan factors of external demands, time constraints, and the introduction of tracking, dynamics within the majority party affect the frequency of filibusters. As the strength of the majority party increases, the number of filibusters climbs. This suggests that as the threat to the policy status quo from concerted majority party action rises, minorities fight harder and more often to preserve that status quo through the filibuster (or to secure time on the agenda for their own policy or political goals at odds with the majority’s priorities). Interestingly, increases in minority party strength alone do not spur higher levels of filibustering. But when strong minority parties reach sufficient size to defeat cloture, filibusters become more common as the strength of the minority increases. Prospects for success clearly appear to fuel obstructionism by the minority party.

**DISCUSSION AND CONCLUSIONS**

We conclude by considering some unanswered questions about variation in filibustering over time. First, as we observed above, counting filibusters is a difficult task, not least because of the difficulty of locating them in the historical record. Given that some filibusters can be mounted for protest or political gain rather than as part of an overt strategy to block bills or to gain legislative concessions, our count of filibusters captures a fairly wide range of filibusters. Because our conjectures about filibusters assume that senators mount them with the intent of winning on policy grounds, we might prefer a more fine-grained indicator of the frequency of overt legislative obstruction. One such indicator is the number of measures subject to cloture motions in each session of Congress because the filing of cloture readily indicates the presence or expectation of legislative obstruction. When we re-run the analysis in Table 2 with this alternative dependent variable, the results are essentially the same with two small exceptions.23 Increases
majority party strength are still statistically significant, albeit at a slightly weaker level \( p = .067 \). Also, the fixed end of session variable is now statistically significant, suggesting that all else equal senators were more prone to filibuster when the Senate faced an automatic adjournment on March 4.

Second, one might wonder about the robustness of the majority party strength finding over the course of the 20th century, given the recent and steady increases in party cohesiveness over the past few decades. However, when we test for the generalizability of party effects by limiting the analysis to the period before 1975, the effect of increasing majority party strength is robust. Even when we exclude the more recent decades, the frequency of filibustering is higher as the majority party grows stronger.24 Third, we consider whether the results are robust when we exclude certain types of filibusters from the analysis. The visible role of Senator Huey Long (Democrat-Louisiana) in exploiting the filibuster in the 1930s (as recounted by Burdette, 1940) raises the possibility that the early variation in the use of the filibuster simply reflects Long’s idiosyncratic behavior. When we exclude Long’s filibusters from the dependent variable, however, the results are nearly identical, suggesting that the model accurately taps the dynamics of filibustering over time. Nor does the exclusion of civil rights filibusters alter the statistical results, suggesting again that the model is robust across the wide range of filibusters launched in the 20th-century Senate.

In sum, we find systematic support for many of the prevailing conjectures about the impact of policy views and Senate structure. The incentive to filibuster is first of all a function of relative party strength, as an increasingly cohesive and/or large majority party fuels the minority’s incentive to exploit the rules of debate to derail the majority’s agenda. But more than the policy views of contending parties matters in shaping the level of Senate obstructionism. More accurately, the policy incentive to filibuster is strongly influenced by the prevailing and sometimes changing array of institutional arrangements that shape the strategic context of Senate action. First, the structure of the congressional calendar matters, as senators exploit time pressures to hold legislation hostage at the end of a congress. Second, the high threshold for limiting debate under Senate rule markedly affects the level of filibustering, as more filibusters occur as the minor-
ity party passes the cloture threshold. Third, when Senate leaders improvised informally in the 1970s by tracking bills on the Senate agenda, their institutional innovation fueled the incentive to filibuster. These results suggest that policy views and institutional constraints together shape senators’ floor strategies and their willingness to obstruct the majority’s agenda. Politics in the contemporary Senate, in other words, have been indelibly shaped by senators’ preferences, as well as by the array of institutional structures inherited from the past.

NOTES

1. Establishing a reliable count of filibusters over the past century is difficult. Here, we use data compiled by Binder and Smith (1997). The primary source for their data is the Library of Congress’s Congressional Research Service (see Beth, 1994), which relies on “Senate Cloture Rule” (1985) and other internal reports issued by the Congressional Research Service. Beth (1994) lists filibusters eventually subject to cloture votes and, where evidence can be found, filibusters not subject to cloture votes. Binder and Smith (p. 220, Note 15) use Burdette’s (1940) history of the filibuster to search for additional filibusters, using the Congressional Record to evaluate discrepancies between Beth and Burdette. Finally, annual volumes of Congressional Quarterly Almanac (1993-1996) are used to identify filibusters in the 103rd (1993-1994) and 104th (1995-1996) Congresses.

2. The spike in the mid-1930s includes 11 filibusters in the 74th Congress (1935-1936). But the early bulge is not simply a “Huey Long effect,” so named for the populist filibustering senator from Louisiana. Of the 11 filibusters in that Congress, Burdette (1940) attributes just 4 to Long. Indeed, several of the filibusters in that Congress occurred after Long was assassinated in September 1935. Below, we model the incidence of filibusters with and without the Long filibusters.

3. Such analysis might also be conducted at different levels of analysis, probing what leads different senators to engage in filibusters or asking why some issues attract filibusters whereas others do not. Such approaches would tell us much about how individual senators weigh the costs and benefits of obstruction over different issues but would leave unanswered questions about the extreme variation in the level of filibustering over time. We leave for the future such individual-level analysis of the filibuster calculus.

4. A focus on preferences and institutions excludes an alternative account offered by Harris (1993, p. 118), who links the rise in filibustering to the weakening of the Senate norm of reciprocity (see Matthews, 1960). At some level, this explanation makes intuitive sense. As chamber norms encouraging specialization and reciprocity between senators weakened after the 1960s, more aggressive exploitation of chamber rules became possible and permissible. Thus, rising levels of filibustering are consistent with a portrait of a chamber increasingly unshackled from restrictive behavioral norms. Unfortunately, however, this argument tends toward circularity: The frequency of filibusters is usually presented as both an indicator and consequence of weakened norms. Lacking an alternative behavioral indicator of norms for the period between 1917 and the present, the thesis is impossible to test.
5. Note that either majority or minority party strength is not always increasing, and thus the number of filibusters does not always increase. Given that party strength is measured as a function of voting cohesion and party size, in about a quarter of the cases, the party strength of both parties decreased. In another quarter of the cases, both parties’ strength increased, and in about half the cases, one of the two parties’ strength increased. Thus, given historical trends in party strength, we would not expect filibusters to always be increasing. These features of the party strength data make it reasonable to test conjectures about the independent effects of both majority and minority party strength.

6. On the significance of legislative time more generally, see Fenno (1986) and Loomis (1994).

7. Oppenheimer (1985) seeks to explain the increased frequency of cloture attempts after 1960, although he notes that cloture attempts and the number of filibusters are intricately bound: Increasing time constraints made filibustering a more effective weapon after the 1960s for senators wishing to delay or defeat legislation.

8. To be sure, time constraints may be endogenous to senators’ legislative strategies, rather than the reverse, because time pressures can be generated in the absence of structural constraints such as the approaching end of a Congress. As Oppenheimer (1985) argues, Southern senators at mid-century were able to form “a large enough nucleus [on civil rights] to transform the Senate environment from one with few or no time constraints to one with severe time pressures” (p. 403). Because of their number and intensity, opponents of civil rights could plausibly threaten to bring stalemate to the Senate. Time pressures, however created, seem intricately linked to the strategic choice to filibuster.

9. The incentive to filibuster when the last day is known is consistent with the differing game theoretic results for finite-horizon and infinite-horizon versions of repeated games (Fudenberg & Tirole, 1992, p. 166). Although it is possible to sustain cooperation in repeated games with infinite horizons, once the horizon is fixed, the incentives for defecting on the last play of the game increase.

10. We place the introduction of tracking in 1970 based on the appearance that year of at least two occasions on which Senate Majority Leader Mike Mansfield negotiated a “two-shift basis” for the conduct of unfinished business on the Senate floor (see Congressional Record, September 8, 1970, p. 30794; September 9, 1970, p. 30930). A private communication with the assistant Senate parliamentarian at that time, Robert Dove (personal communication, September, 29, 2000), confirms the 1970 origin of tracking.

11. The costs of moving the unit of the analysis to each Congress are severe: We would be unable to test arguments about the impact of Senate structure on filibustering and would lose variation in other independent variables.

12. One idiosyncratic feature of these data is that the number of federal employees exponentially increases during World War II and plummets in half at the end of the war. To account for this feature of the data, we multiply a dummy variable for the war years with the government size variable. The war interaction also helps control for the special circumstances of the war period, in which legislative conflict was generally dampened.

13. For example, the Pearson’s r correlation between government size and the length (in number of days) of each Senate session is .73 (significant at p < .001). As an alternative indicator, we use the size of the federal budget, assuming that the level of federal spending directly shapes governmental activity and thus indirectly shapes the level of external demands. Results are discussed in Note 20. Annual size of the federal budget is available in Budget of the U.S. Government (1999).
14. We measure party strength as an interaction between size and cohesion based on Hurley, Brady, and Cooper (1977) and Binder (1997). Conceptually, one might instead run the component parts of party strength as separate variables. However, because majority and minority party size are perfectly negatively correlated, such an approach is methodologically unfeasible.

15. From the 65th through the 85th Congresses, the critical number is 33 (given the 96-member Senate and the versions of Rule 22 in place across this time). Between the 86th and 93rd Congresses, the critical number is 34 (with a 100-member Senate). From the 94th Congress to the present, the critical number is 41 votes, given the change in Rule 22 to a three fifths threshold in 1975.

16. Although a second- (rather than last-) session dummy would work for most years, our data contain 7 third sessions and 1 fourth session. One of the purposes of the 20th Amendment was to eliminate the unproductive short sessions that often occurred in the early 20th century. Although in principle no rules forbid more than two sessions of Congress, since the passage of the 20th Amendment, only the 76th Congress (1939-1940) has had more than two sessions. Given that our other independent variables are observed at the level of each Congress or session, a more fine-grained temporal dummy is unfortunately not possible.

17. The dummy variables tapping the last session and the fixed end of session are correlated at only .35, posing no collinearity problem.

18. We chose to include a lagged dependent variable rather than a simple time trend variable \((t = 1, 2, 3 \ldots T)\) because we do not have a theory that implies that the number of filibusters should always be increasing. The variable will pick up some of the contagion effects (senators filibustering in response to past filibusters), to the extent that they occur. We do not draw strong conclusions on the basis of the estimated coefficient because we include it to control for the growing mean, not because we have a strong causal argument that past filibusters should lead to permanent increases in future filibusters. To assess the lagged dependent variable specification, we examine the residuals for any remaining time trend. Regressing the residuals from the estimated models on a time trend yields null results, suggesting that our lagged dependent variable is adequate, if not ideal, for accounting for the time trend in the data.

19. More specifically, we estimated a negative binomial regression model that nests the Poisson regression model as a restricted case and could not reject the restriction at the .05 level of significance.

20. When we substitute the size of the federal budget as an alternative indicator of external demands, the coefficient is statistically significant. The budget variable however runs tightly in tandem with the lagged filibuster and tracking variables, raising problems of multicollinearity in interpreting the results.

21. Because we find a last-session effect but not a fixed end of session effect, it may be that the last-session variable is actually tapping some other strategic element endemic to last sessions. One possibility is that more contentious or more significant issues are likely to arise in the last session rather than the first, thus prompting senators to filibuster more often later in a Congress. Unfortunately, the two explanations, time constraints and contentious/significant issues, are observationally equivalent when measured with a last-session dummy and are thus impossible to distinguish.

22. The correlation between the level of external demands and the introduction of tracking is .60.

23. Results are available from the authors.

24. Results are available from the authors.
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Sarah A. Binder is an associate professor of political science at George Washington University and a fellow in governmental studies at the Brookings Institution. She is the author or coauthor of two books and several articles on legislative politics in the U.S. Congress.

Eric D. Lawrence is a visiting instructor in the Department of Political Science at George Washington University, specializing in legislative politics and political methodology. His work on the U.S. Congress has appeared in American Journal of Political Science, Journal of Politics, and Political Science Quarterly.

Steven S. Smith is the Kate M. Gregg Professor of Social Sciences, a professor of political science, and the director of the Weidenbaum Center on the Economy, Government, and Public Policy at Washington University in St. Louis.