Changing Rules, Changing Conversation: Floor Debate in the U.S. House, 1875-1997*

David A. Gelman†

May 12, 2017‡

Abstract

I examine the effect of institutional rule changes on member participation in floor debate in the U.S. House. I contend that changing institutional conditions alters the decision calculus of members and thus alters patterns of participation in floor debates. I find strong evidence that changes to procedural rules do in fact significantly change the amount of member floor speech. However, the effect does not appear to be linked to the kind of rules enacted. Additionally, I find that members of the minority party, more senior members, and ideological extremists are more likely to have their speech patterns impacted by rule changes than committee leaders and electorally vulnerable members.

KEY WORDS: US Congress, House of Representatives, *Congressional Record*, Member behavior, Floor debate, Congressional rules

*Thank you to ... for written comments, feedback, and assistance.
†University of Rochester (David.Gelman@Rochester.edu).
‡The current file is: Diss˙Chapter2˙Draft6.tex.

1 Introduction

Members of Congress (MCs) are rational actors: goal-oriented agents who expend effort only if doing so helps them achieve their goals (Fenno, 1973, 1978; Mayhew, 1974). MCs must choose among an array of activities available to them on which to expend effort while facing several constraints. One constraint is parliamentary rules. The purpose of this paper is to assess how the evolution of one such constraint, parliamentary rule changes rule changes, alters MC activity behavior in chamber floor debate.

A new dataset of all House speeches from 1873 to 2011 shows that not all members use floor speech equally (Gelman and Goplerud, 2017). Gelman and Goplerud (2017) also show that certain member characteristics make individuals more or less likely to engage in floor speech. Another recent article uses this new data on House speeches shows that the introduction of radio and television coverage to the U.S. House significantly altered patterns of floor debate (Goplerud and Gelman, 2017). This finding echoes other work in legislative research linking changes in chamber rules to adjustments in member behavior (e.g. Smith, 1989; Roberts and Smith, 2003; Eggers and Spirling, 2014; Giannetti and Pedrazzani, 2016).

The House of Representatives is given leave to alter its rules as it sees fit by Article I, section 5 of the U.S. Constitution, which states that "Each House may determine the Rules of its Proceedings."[1] The result of this institutional design is that the House has the opportunity to change its rules to suit its needs and wants. When the House changes its rules, it changes the constraints faced by its members. With new constraints, members must recalculate the costs and benefits of various activities, leading them to reevaluate how floor speech helps them achieve their goals.

Utilizing a selection of procedural rule changes previously identified by congressional

[1]The only exceptions to this are the rules regarding the number of members that constitute a quorum and the number of members needed to approve for the calling of yeas and nays (also set forth in Article I, section 5).

scholars (Taylor, 2012), I employ the newly available data on House floor speeches to determine the effect of changes to chamber rules on member floor speech. I find strong evidence that changes to procedural rules do in fact significantly change the volume of member floor speech. Additionally, I find that members of the minority party, more senior members, and ideological extremists are more likely to have their volume of speech impacted by rule changes than committee leaders and electorally vulnerable members. However, the observed effects do not appear to be linked to enacted rules that are explicitly expansive or restrictive in nature.

I proceed by discussing the relevant literature on congressional rules and member floor speech. I then present my theory as to how changes to rules impact the volume of member floor speech, as well as my expectations of my analysis. I briefly discuss the data used to test my hypotheses before presenting the results of my analysis of the effect of rule changes on volume of member speech and rule changes on determinants of volume of member speech. Finally, I conclude with a discussion of my results and implications for future studies of congressional behavior.

2 Literature Review

Research on the behavior of members of Congress is predicated on the notion that MCs are purposeful actors. To explain why MCs act as they do is to ask why members choose to engage in one type of activity over another. The decision calculus to direct time and energy into one type of activity over another has also been called "political investment opportunity" (Hall, 1996, p. 184). Previous work has explored how various of factors of congressional life affect member behavior. This includes investigation into the influence of parties (e.g. Brady, Cooper and Hurley, 1979; Rohde, 1991; Krehbiel, 1993; Aldrich, Berger and Rohde, 1999; Aldrich and Rohde, 2000*a*,*b*; Cox and McCubbins, 2005, 2007), floor leaders (e.g. Cooper and Brady, 1981; Rohde and Shepsle, 1987; Cooper and Young,

1989; Strahan, 2007), and the committee system (e.g. Rohde and Shepsle, 1973; Shepsle and Weingast, 1987; Maltzman, 1998).

One kind of member behavior that has been widely studied is participation in Congress (e.g. Kingdon, 1973; Smith, 1989; Arnold, 1990; Hall, 1996). Early scholars of the textbook Congress posit that MCs change their behavior as a result of the various circumstances they face. Matthews (1959, 1960) details the way in which electoral concerns as well as institutional norms altered the behavior of Senators. For example, Matthews (1959, p. 1081) notes that Senators with more competitive seats tend to speak at a higher rate on the floor. He also draws a connection between seniority and participation (Matthews, 1959, 1960), a result echoed in Smith (1989). Fenno (1978) theorizes that MCs change how they present themselves and allocate resources in response to the make-up of their constituencies.

These early investigations of participation and institutional norms have inspired a wealth of research on how MCs adopt different strategies as a result of electoral and institutional constraints. Payne (1980), Langbein and Sigelman (1989), Sinclair (1989), and Anderson, Box-Steffensmeier and Sinclair-Chapman (2003) all build off of Matthews's (1959; 1960) observations about Senatorial archetypes. Using various observational data, the authors find that different institutional and electoral concerns impact legislative success and member behavior. Using press releases, Grimmer (2013*a*,*b*) shows that electoral context drives how Senators present themselves to their constituents, providing further empirical evidence of Fenno's (1978) description of Senatorial homestyles.

In this paper, I focus on a particular kind of member participation in Congress, floor speech. Most scholarship on congressional floor speech falls into one of two categories. The first category are those that seek to address the deliberative nature of congressional debate. It has long been accepted that the quality of debate is higher in the Senate than in the House (Taylor, 2012, p. 5), sentiments recently reaffirmed by Mucciaroni and Quirk

(2006) (though they employ only a few select cases in making this assessment). However, Wirls (2007) provides reason to suspect that this characterization is an oversimplification, at least prior to the Civil War. Taylor (2012) gives the fullest account of the differences in debate and deliberation between the two chambers, as well as their origins, though his findings run contrary to those of Binder (1995), Dion (1997), and Roberts (2010). Taylor (2012) also provides a qualitative assessment of congressional debate over time. He finds moderate support for the claim that Senate debate is more democratic and has certain normative qualities that make it superior to debate in the House. However, he does not find evidence that the quality of debate has decreased markedly in either chamber. Taylor does acknowledge that there is considerable anecdotal evidence in favor of the deterioration hypothesis

The second category are those works that seek to understand the determinants of member participation in floor speech. Hill and Hurley (2002) show that Senators alter both the frequency and substance of their floor speech in systematic ways that are linked to factors such as electoral proximity, electoral vulnerability, seniority, and constituency size. However, the data upon which these results are derived is limited to a single session of Congress in 1990. Research on floor speech in the House has likewise typically been limited in its scope of inquiry. The analysis conducted by Maltzman and Sigelman (1996), Morris (2001), and Harris (2005) are all limited to just a single Congress (the 103rd, 104th, and 101st). Rocca (2007) expands his period of study to cover six full Congresses (the 101st to 106th House). In each of these studies, only specific types of floor speech are considered: one-minute speeches, five-minute speeches, and special-order addresses. This type of speech is considered "unconstrained" speech because it occurs outside the regular order of the House. Pearson and Dancey (2011) investigate one-minute speeches and general floor debate on landmark legislation in the 103rd and 109th Congresses. Each of these works share the same core question of what individual characteristics drive

members to participate more or less in floor speech. Member characteristics such as ideology (Maltzman and Sigelman, 1996; Morris, 2001; Harris, 2005), being a party leader (Maltzman and Sigelman, 1996; Harris, 2005), party status (Maltzman and Sigelman, 1996; Morris, 2001), and seniority (Maltzman and Sigelman, 1996; Morris, 2001; Harris, 2005) all impact the propensity to participate, as do institutional factors such as party cohesion (Harris, 2005) and the size and workload of the chamber (Taylor, 2012). Electoral circumstances might also impact the decision to participate in floor speech (Maltzman and Sigelman, 1996; Morris, 2001; Harris, 2005).

Recently, Gelman and Goplerud (2017) offer a far more comprehensive account of which individual and institutional factors affect member participation in floor speech. Using all House floor speeches from the 45th to the 104th Congress, they find find that being an ideologically extreme member, being the chair or ranking member on a committee, or party leader, and increased seniority, all increase the number of speeches a House member makes in a given Congress. Gelman and Goplerud (2017) also show that electorally vulnerable members as well as members of more homogeneous parties make fewer speeches on the House floor. This work is notable in that it offers the first systematic account of House members' floor speech habits over a long time period. This settles the inconsistent findings in earlier work and shows how various member characteristics and factors have varied in importance over time. For example, Maltzman and Sigelman (1996), Morris (2001), and Pearson and Dancey (2011) find that more extreme members talk more than moderate members. Harris (2005) finds that more extreme members talk less and Rocca (2007) finds no effect. Gelman and Goplerud (2017) show that ideological extreme members do talk more on average but that size and significance of the effect varies Congress to Congress.

I also build on work on congressional rule changes. Bach and Smith (1988) illustrate how changes to the House organizations, particularly the House Rules Committee, sig-

nificantly alters legislative procedures as well as the way in which members engage with policy creation. Smith (1989) offers an account of floor life with a focus on how new institutional arrangements adopted in the early 1970s influence MC floor participation, principally the level of amending activity. Binder (1997) shows that majority parties alter procedural rules to achieve desired policy outcomes, evolving House rules over time. Dion (1997) identifies the partisan desire to overcome minority obstruction as a driving force for institutional rule changes (at least in the U.S. Senate). Roberts (2010) shows that institutional changes in the House are endogenous to majority party goals. Schickler (2001) argues that many different forces act upon Congress at any given time, resulting in various collective interests being the agent of institutional evolution. Taylor (2012), in a longitudinal study of congressional debate over time, finds that changing rules affect the nature and quality of floor debate over time and also help to explain the differences between debate in the House and Senate.

Previous work has shown links between institutional constraints and MC participation. For example, both Smith (1989) and Roberts and Smith (2003) show how institutional rule changes, specifically the move to electronic roll-call voting in the House in 1973, resulted in a dramatic increase in the number of amendments offered on the floor of the House. Roberts and Smith's (2003) finding has important implications for Schickler and Pearson's (2009) investigation into the role of the House Rules Committee in preventing majority preferred legislation from reaching the floor. Schickler and Pearson (2009) note that roll-call votes were not employed often, even on controversial legislation before the introduction of electronic voting. Partisan tactics have since changed and roll-call votes are now commonplaces with the express purpose of getting MCs on the record. This serves as another example of how changing institutional rules alter member behavior.

Having detailed how previous literature has addressed member participation in Congress, congressional floor speech, and congressional rules, the next section explores the linkage

between congressional rules and participation in floor speech. I then offer a theoretical justification for expectations as to why changing rules should also change members' decisions about participating in floor debate.

3 Theory and Expectations

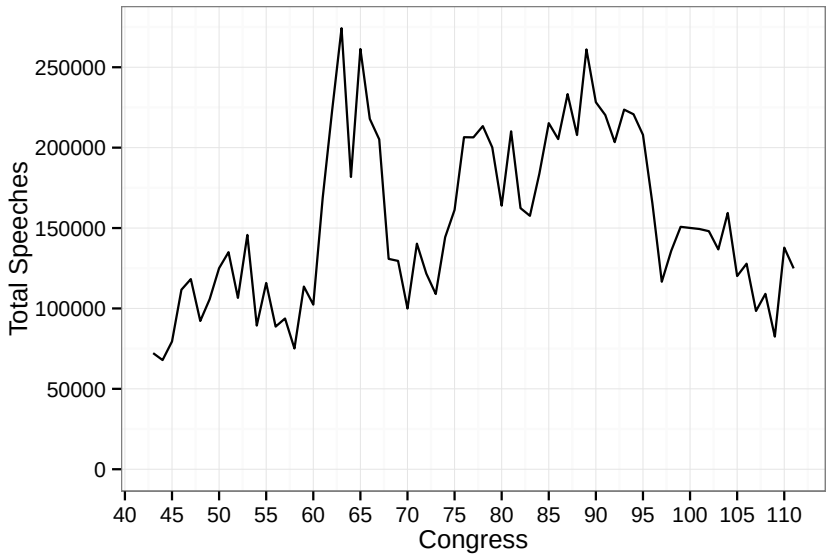
Floor speech is one way in which MCs participate in Congress, and floor speech can be used by members for a variety of purposes. Members might take to the floor as a way to disseminate information to constituents, interest groups, or their fellow members (Kingdon, 1973; Kovenock, 1973; Mucciaroni and Quirk, 2006). These efforts are consistent with the kinds of activities described by Mayhew (1974): advertising, credit claiming, and position taking. On the House floor, a member can easily do any or all of these things. They can advertise the work they have done, be it in helping craft a bill or offering an amendment, to take a position on a wide range of issues, or even to claim credit for various accomplishments like helping bring a bill through a committee or introducing a bill. In the Senate, Hill and Hurley (2002) find that MCs change the way in which they utilize floor speech based on constituent pressures in a manner consistent with the observations of Fenno (1978). Recently, Grimmer (2013*b*) finds further evidence that MCs adapt their communication strategies (through the medium of press releases) in response to constituent constraints.

Congressional rules impact member behavior generally and member participation on the floor specifically. Kingdon (1973) notes that parliamentary rules have a tremendous impact on floor proceedings. Smith (1989) in particular draws strong links between the organization of Congress via chamber rules and the resulting character of floor debate and opportunities for member participation. These connections have been affirmed by Taylor (2012). Fink (2000) shows how early House majorities altered the rules of floor debate to safeguard their interests. Giannetti and Pedrazzani (2016), though writing

about the Italian Chamber of Deputies (one half of the Italian Parliament), find that altering parliamentary rules affects participation in debate, specifically floor speech, by members of both governing and opposition parties. These works demonstrate that rules can and do directly influence how members choose to participate.

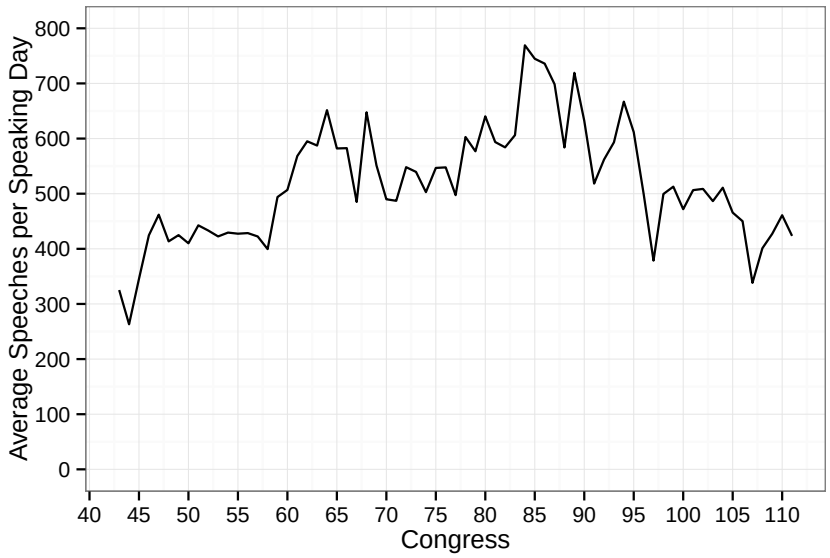
Historically, members' floor speeches were reproduced in widely circulated daily newspapers (Ritchie, 2009). More recently, news coverage has shifted from primarily covering the content to the context of congressional speech (Ritchie, 2009). Despite this, MCs still receive news coverage and are broadcast continuosly via C-SPAN. As a result members of Congress take the time to prepare and deliver remarks on the floor − even if members are not engaging in a high level of discourse (Taylor, 2012). Goplerud and Gelman (2017) show that the introduction of radio and TV coverage to the House chamber resulted in a decrease variance between the number of member speeches.

Figure 1: Total Speeches in the House per Congress



Reproduction of Figure 3 of Gelman and Goplerud (2017).

Figure 2: Average Speeches in the House per Day per Congress



Reproduction of Figure 4 of Gelman and Goplerud (2017).

Figure 1 shows the number of speeches recorded in the *Congressional Record*.[2] Gelman and Goplerud (2017) note that the sudden increase in the number of speeches in the 63rd through 65th Congresses could be a result of the outbreak of World War I.[3] Figure 2 shows the average number of speeches per day per Congress. Since each Congress meets for a different length of time (particularly when comparing Congresses from the late Nineteenth Century versus those in the late Twentieth Century), this figure demonstrates that the average number of member speeches has varied over time but has remained a significant activity. Clearly participation in the chamber was and remains key part of congressional life and an important facet of member behavior.

Whatever the impact various individual, institutional, and electoral factors might have on a member's decision to participate in floor speech, the opportunity for a member

[2]The data for Figures 1 to 3 come from Gelman and Goplerud (2017). Gelman and Goplerud (2017) define a speech as at least a partial line of recorded text in the *Congressional Record* explicitly associated with the name of member of Congress serving in the identified chamber in the given Congress. They also provide a detailed explanation for how individual member speeches were obtained using digital versions of the *Congressional Record* and what material is included and excluded in their data collection.

[3]The 63rd Congress met in 1913-15, the 64th in 1915-1917, and the 65th in 1917-1919.

to gain the floor and actually give that speech is restricted by the parliamentary rules that govern the chamber at any given time. Research on congressional rules shows that party and member preferences drive institutional development (e.g. Binder, 1995, 1997; Fink, 2000; Dion, 1997; Schickler, 2000, 2001). Regardless of the exact mechanism that drives changes to chamber rules, such changes ought to alter patterns of participation in floor debate because they change the constraints faced by members. MCs are utility maximizers that seek to optimize their allocation of resources and therefore face a constrained optimization problem (Simon and Blume, 1994). New rules are equivalent to new constraints which necessitate a reformulation of resource allocation by members. Thus, even if rule changes do not directly seek to influence which members participate in floor debates, any rule change has the potential to do so.

Changes to chamber rules can not only make access to the floor more or less restrictive, but might also change the reason a member seeks to participate in floor debate. For example, the Legislative Reorganization Act of 1970 (91st Congress) weakened committee chairs, provided for recorded teller votes on amendments on the floor of the House, and created the Congressional Research Service. By making it easier to cast a recorded vote, it became easier for rank and file members to be heard.[4] With evidence that rule changes influence member participation, and some existing evidence that this includes speaking on the floor, a formal assessment of how changes to House rule changes the rates at which members engage in floor speech is needed.

The complete list of House rules considered in my analysis is in Table 1. For every rule change there is the Congress and year in which the rule change Table 1 provides an assigned rule ID or rule regimes, a description of the rule change, whether the rule change

[4]Schickler (2001) shows that rank and file members supported the passage of the Act at a significantly higher rate than more senior members who held a disproportionate amount of power in the chamber at the time.

affected floor rights or floor power.[5], and an indication of whether the rule change acted to expand or restrict member privilege. The rules changes detailed in Table 1 comprise the full set used in this analysis.[6]

I expect that rules that expand floor rights or floor power result in members giving more floor speeches than in the previous rule regime. Conversely, I expect that rules that restrict floor rights or floor power result in members giving fewer floor speeches than in the previous rule regime. Rules that make it easier to gain recognition on the floor (i.e. rules related to floor rights) and rules that allow for greater chamber participation in the legislative process (i.e. rules related to floor power) by their nature allow more chances for members to make speeches and vice versa

I also expect that rules classified as floor rights will have a greater impact than those classified as floor power. Rules about floor rights are rules about the equality of MCs; expanding floor rights means members are treated more equally while restricting rights exacerbates inequalities among members (Taylor, 2012, p. 14). Expanding floor power means that more agenda setting the agenda and content shaping happens on the chamber floor (Taylor, 2012, p. 14). Between the two, floor rights more expressly affect a MC's ability to make a speech on the floor at any time, not just in regards to the legislative process. Therefore, the expectation is that rules concerning floor rights rules are more impactful.

The impact of rules is not just limited to the number of speeches given, but also whether or not these rules act on all MCs evenly. Gelman and Goplerud (2017) show that various characteristics affect the propensity of MCs to speak on the House floor. I expect that rules changes in general affect minority party members, committee leaders, and senior

[5]Floor rights are essentially procedural rights, while floor power is more directly related to the legislative process (Taylor, 2012, pp. 14-15, 37).

[6]The rules changes used in this paper are taken from Table 2.1 in Taylor (2012, pp. 36-37). Taylor's (2012) list of rules is itself compiled from a number of sources. For more on how Taylor created his list, see Taylor (2012, pp. 35-38, 204-05).

Table 1: House Rule Changes Under Consideration

Congress	Year	Rule ID #/ Rule Regime	Rule Description	Rule Type	Restrict or Expand
46	1880	1	Required debate on suspensions and previous question, allowed motion to recommit.	Floor rights	Expand
51	1890	2	Reed's rules; end disappearing quorum and dilatory motions.	Floor rights	Restrict
52	1892	3	Disappearing quorum rule reversed.	Floor rights	Expand
53	1894	4	Disappearing quorum rule reinstated.	Floor rights	Restrict
60	1909	5	Calendar Wednesday established	Floor power	Expand
61	1910	6	Speaker can no longer appoint committee members, Speaker cannot be on Rules Committee, discharge petition created.	Floor power	Expand
62	1911	7	Committees and Committee Chairs selected by the House.	Floor power	Expand
68	1924	8	Discharge petition reduced to 150.	Floor power	Expand
69	1925	9	Discharge petition increased to 218.	Floor power	Restrict
72	1931	10	Discharge petition reduced to 145.	Floor power	Expand
74	1935	11	Discharge petition increased to 218.	Floor power	Restrict
79	1946	12	Legislative Reorganization Act; decreases the number of committees but increases committee resources.	Floor power	Both
81	1949	13	21 day rule established.	Floor power	Expand
82	1951	14	21 day rule repealed.	Floor power	Restrict
87	1961	15	Rules Committee enlarged.	Floor power	Expand
89	1965	16	21 day rule reestablished.	Floor power	Expand
90	1967	17	21 day rule repealed.	Floor power	Restrict
91	1970	18	Legislative Reorganization Act; weaken committees and Chairs.	Floor power	Expand
93	1973	19	Committees weakened and made more transparent	Floor power	Expand
94	1975	20	Conference committee made more transparent.	Floor power	Expand
103	1993	21	Discharge petitions made public.	Floor power	Expand
104	1995	22	Republican rules; weaken committees.	Floor power	Expand

Note: Rules are from Table 2.1 in Taylor (2012, pp. 36-37).

MCs more than characteristics such as education, previous occupation, and ideological extremism. These characteristics are integral to the organization of the House: party, committees, and the seniority system are all central to how Congress functions. Looking at the descriptions of the rule changes in Table 1, rules were often changed with the purpose of restraining the minority or making committees more responsive to either the chamber as a whole or, more precisely, the majority party. Since senior members are more likely to be committee leaders, I expect that they will also be affected disproportionately by rule changes.

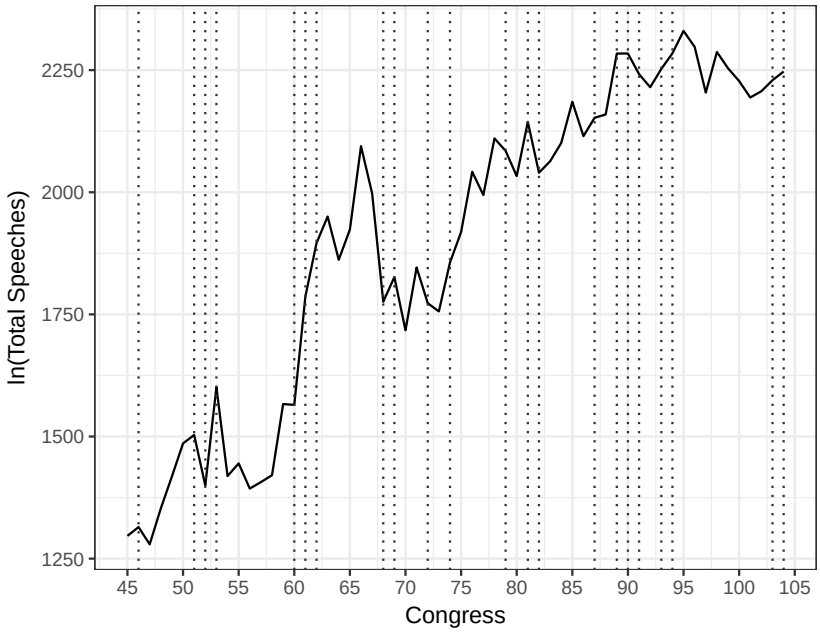
Having outlined my expectations for how rules impact member speech, as well as the theoretical groundings of these expectations, the next section presents the data by which I test these hypotheses.

4 Data and Methods

To appropriately assess the hypotheses, I conduct two separate analyses. The first is to determine whether rules that expand floor rights or floor power increase the amount of member floor speech and whether rules related to floor rights have a greater impact than rules related to floor power. The second analysis looks at the effect of rule changes on various member attributes. This paper builds explicitly on the work of Gelman and Goplerud (2017) and makes use of their new dataset of all House member speeches from 1877 to 1997 (45th-104th Congress).

Following Morris (2001), Rocca (2007), Pearson and Dancey (2011), Gelman and Goplerud (2017), and Goplerud and Gelman (2017), the unit of analysis is a member of the House in a given Congress and the dependent variable is the logged total number of speeches delivered by a House member within a Congress. Figure 3 shows the number of logged speeches in the House per Congress over time, with dotted vertical lines indicating years in which House procedural rules were changed.

Figure 3: Logged Speeches in the House per Congress



Dotted vertical lines denote rule changes described in Table 1.

For each of the analyses conducted in the following section, the construction of the models are nearly identical to those used in the pooled analysis of Gelman and Goplerud (2017). The exception to this is that the variable for party cohesion is omitted from all models presented in this paper. This is done because several rule regimes are a single Congress in length and therefore lack any variation in the party cohesion variable. A key difference in the analysis conducted by Gelman and Goplerud (2017) and that conducted here is the introduction of indicator variables for the rule regimes.

5 Analysis

5.1 The Impact of Rules on Floor Speech

To assess the first two hypotheses, I regress the control variables and indicator variables for the twenty-two rule regimes on the number of logged speeches per member per

Congress. By doing this, I can test whether rules that expand member privileges increase floor speeches and rules that restrict member privileges decrease floor speeches. I can also judge whether rules related to floor rights have a greater impact on the number of member speeches than those having to do with floor power. The results of this linear regression are in Table 2. Unsurprisingly, the sign and significance of the control variables mirror the estimates reported by Gelman and Goplerud (2017). Of more interest here are the coefficient estimates of the rule regimes. The interpretation of these coefficients however, requires some further explanation. Becasue each rule regime coefficient estimate is in reference to the omitted rule regime 0 (i.e. the period in the data prior to the first rule change). In order to determine what effect the rules have on member speech, the rule regime coefficient must be calculated relative to the rule regime previously in effect (e.g. in order to know the effect of rule 2 on member floor speech, it must be measured in relation to the effect of rule 1 on member floor speech). This is shown in Table 3.

Table 3 shows the actual effect of rule changes on the volume of member floor speech. The relative effect reported in Table 3 is computed by taking the difference between the coefficient in rule regime n and rule regime $n-1$ in Table 2.[7] Table 4 presents a summary of the findings from Table 3.

Overall 15 of the 22 rule changes show a significant effect on the volume of member floor speeches. Thus, there is strong support that rules in general significantly impact member participation in floor debates. Three of the six rules that restrict have a significant effect, however, only two are in the hypothesized negative direction. Eleven of the 15 rule changes that expand member privilege are significant, but only seven are in the hypothesized positive direction. Thus there is only moderate evidence in support of my hypothesis regarding the effect on volume of floor speech by rules that expand or restrict

[7]The standard errors are then calculated appropriately and statistical significance determined. See Appendix A for more information on calculating differences and the relationship between Table 2 and Table 3.

Table 2: Base Model

	Dependent variable: ln(Speeches)		
Controls	Coefficient Estimate	Rule Regime	Coefficient Estimate
Dist. Chamber Median	0.47***	Rule 1	0.21***
	(0.05)		(0.08)
Dist. Party Median	0.21***	Rule 2	0.21**
	(0.08)		(0.10)
Minority	0.09***	Rule 3	0.12
	(0.02)		(0.10)
Committee Leader	5.04***	Rule 4	−0.12*
	(0.09)		(0.07)
Party Leader	5.68***	Rule 5	−0.25***
	(0.12)		(0.09)
Seniority	0.08***	Rule 6	0.08
	(0.003)		(0.09)
Electoral Vulnerability	−0.09***	Rule 7	0.43***
	(0.02)		(0.07)
Age	−0.02***	Rule 8	−0.15
	(0.001)		(0.09)
College	0.15***	Rule 9	−0.15*
	(0.02)		(0.08)
Lawyer	0.27***	Rule 10	−0.16*
	(0.02)		(0.08)
		Rule 11	0.34***
			(0.08)
		Rule 12	0.25***
			(0.08)
		Rule 13	0.49***
			(0.09)
		Rule 14	0.28***
			(0.08)
		Rule 15	0.36***
			(0.08)
		Rule 16	0.67***
			(0.09)
		Rule 17	0.69***
			(0.09)
		Rule 18	0.54***
			(0.08)
		Rule 19	0.63***
			(0.09)
		Rule 20	0.73***
			(0.07)
		Rule 21	0.62***
			(0.09)
		Rule 22	0.75***
			(0.09)
Observations	23,080		
R^2	0.95		
Adjusted R^2	0.95		
Residual Std. Error	1.19 (df = 23047)		
F Statistic	12,357.30*** (df = 33; 23047)		
Note:	Rule Regime 0 Omitted.	*p<0.1; **p<0.05; ***p<0.01	

Table 3: Difference Between Rule Regime Coefficients from Table 2

Rule Regime	Relative Effect of Moving from Rule Regime N-1 to N
1	0.22***
	(0.08)
2	-0.01
	(0.07)
3	-0.09
	(0.10)
4	-0.24***
	(0.07)
5	-0.11*
	(0.07)
6	0.33***
	(0.09)
7	0.36***
	(0.07)
8	-0.58***
	(0.06)
9	0.00
	(0.06)
10	-0.00
	(0.05)
11	0.50***
	(0.04)
12	-0.09*
	(0.04)
13	0.24***
	(0.07)
14	-0.24***
	(0.06)
15	0.09*
	(0.05)
16	0.31***
	(0.07)
17	0.03
	0.08)
18	-0.15**
	(0.07)
19	0.09
	(0.07)
20	0.10*
	(0.06)
21	-0.10*
	(0.06)
22	0.13
	(0.08)
Note:	*p<0.1; **p<0.05; ***p<0.01

member privilege.

Finally, I find no evidence in support of the hypothesis that rules related to floor rights have a greater impact than rules related to floor power; the average effect of rules on floor rights on volume of floor speech is almost identical to that of rules on floor power on volume of floor speech.[8]

Table 4: Summary of Table 3 Results

	Restrict	Expand	Total
Significant	3/6	11/15	14/21
Correctly Signed	2/3	7/11	9/14

	Floor Rights	Floor Power	Total
Significant	2/4	13/18	15/22
Avg. Effect (all)	0.115	0.164	
Avg. Effect (sig.)	0.230	0.269	

The top portion of the table only sums to 21 because Rule 12 both restricts and expands. Rule 12 is significant in its effect and is counted in the bottom half as it is classified as a floor power rule.

In Table 3, Rule 11 restricts member privilege (specifically floor power) yet has a positive and significant effect on the amount of member floor speech. The substance of Rule 11 was to again increase the number of signatures needed on a discharge petition to a majority of the House members (218). Adopted in 1935, this rule change was designed to weaken the chamber majority from easily circumventing committee chairs (Smith, Roberts and Vander Wielen, 2009). With this contextual understanding, the significant increase in speech makes more sense: as members were thwarted in their policy objectives, they potentially increasingly turned toward to floor speech as a mechanism by which to achieve their goals.

[8]When considering only significant coefficients, the average coefficient size for floor rights rules is 0.230 and 0.269 for floor power rules. When considering all coefficients, the average coefficient size for floor rights is 0.115 and 0.164 for floor power rules.

5.2 The Impact of Rules on Determinants of Floor Speech

In this section I analyze whether or not rules impact all members equally or if rule changes only effect certain members. Gelman and Goplerud (2017) show that certain member characteristics drive members to make more or fewer floor speeches. They show that increased ideological distance between members and the chamber median, being a committee leader, or party leader, and increased seniority all increase the number of member floor speeches. They show that members who are electorally vulnerable and are older when starting congressional service all reduce the number of floor speeches delivered by members in the House. They also show find that the these effects are not uniform across time, as the sign and significance vary across Congresses. Rule regimes, like Congress fixed effects or the Congress subsets used in Gelman and Goplerud (2017), offer a time trend by which to see how the impact of individual characteristics act on member floor speech. A key difference is that while Congress to Congress variation is of interest in Gelman and Goplerud's (2017), here the cut points of interest are the differences between rules. Table 5 shows the effect of member characteristics used in Table 2, as well as in Gelman and Goplerud's (2017) analyses, on logged member speeches. The pooled model is across all data and each subsequent column is a subset of the data restricted to the individual rule regimes.

The models in Table 5 echo the findings of Gelman and Goplerud's (2017) Congress by Congress analysis: the effect of member characteristics on member speech varies greatly across the different rule regimes. A possible explanation for this variation is that different rule regimes incentivize (or disincentivize as the case may be) members of certain types unequally. However, Table 5 does not provide any insight into the effect of rule changes on the known determinants of member speech.

To assess how rule changes impact the different characteristics that Gelman and Goplerud (2017) show effect member floor speech, the findings reproduced in Tables 2 and 5,

Table 5: Rule Regime Models

	Dependent variable: ln(Speeches)												
		Rule Regime											
	(Pooled)	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Dis. Chamber Median	0.27***	0.34	−0.04	−1.80***	1.18	−0.37*	−1.08	−0.56	0.18	0.59	−0.01	−0.49	−0.16
	(0.04)	(0.66)	(0.28)	(0.59)	(0.74)	(0.20)	(0.79)	(0.56)	(0.18)	(0.48)	(0.26)	(0.40)	(0.25)
Dist. Party Median	0.40***	−0.62	−0.61	2.20**	−0.40	0.62**	1.34	1.68**	0.96***	1.82**	0.80**	1.46***	0.72**
	(0.08)	(0.93)	(0.43)	(1.00)	(1.06)	(0.30)	(1.07)	(0.84)	(0.34)	(0.72)	(0.38)	(0.55)	(0.35)
Committee Leader	0.36***	0.23	0.39***	0.55***	0.27	0.64***	0.63***	0.47**	0.41***	0.35*	0.48***	0.11	0.15
	(0.02)	(0.18)	(0.08)	(0.18)	(0.19)	(0.07)	(0.19)	(0.22)	(0.08)	(0.21)	(0.10)	(0.14)	(0.09)
Party Leader	1.01***					1.31***	0.93	1.29*	1.36***	0.93*	0.99***	1.53***	0.88***
	(0.09)					(0.21)	(0.63)	(0.75)	(0.42)	(0.49)	(0.32)	(0.42)	(0.23)
Minority	0.15***	−0.13	0.24*	0.90***	−0.08	0.54***	1.22**	0.57*	0.28***	−0.27	−0.22*	0.09	0.52***
	(0.02)	(0.29)	(0.13)	(0.24)	(0.46)	(0.13)	(0.55)	(0.32)	(0.09)	(0.19)	(0.12)	(0.14)	(0.07)
Seniority	0.11***	0.51***	0.34***	0.35***	0.25***	0.23***	0.20***	0.16***	0.17***	0.15***	0.17***	0.15***	0.16***
	(0.003)	(0.11)	(0.03)	(0.05)	(0.05)	(0.02)	(0.03)	(0.04)	(0.01)	(0.04)	(0.02)	(0.02)	(0.01)
Electoral Vulnerability	−0.14***	−0.16	−0.09	−0.69***	−0.26	0.08	0.18	0.13	−0.05	−0.17	0.08	0.18	0.05
	(0.02)	(0.20)	(0.07)	(0.16)	(0.17)	(0.07)	(0.17)	(0.21)	(0.07)	(0.32)	(0.19)	(0.15)	(0.10)
Age	−0.02***	−0.02*	−0.03***	−0.02*	−0.02**	−0.02***	−0.03***	−0.03***	−0.01***	−0.03***	−0.03***	−0.03***	−0.02***
	(0.001)	(0.01)	(0.004)	(0.01)	(0.01)	(0.004)	(0.01)	(0.01)	(0.004)	(0.01)	(0.01)	(0.01)	(0.003)
Education	0.12***	0.15	0.01	0.13	0.01	−0.14**	−0.15	−0.23	0.04	0.02	0.23**	−0.01	0.07
	(0.02)	(0.15)	(0.07)	(0.14)	(0.17)	(0.06)	(0.15)	(0.16)	(0.07)	(0.17)	(0.10)	(0.12)	(0.07)
Occupation	0.17***	0.59***	0.46***	0.50***	0.65***	0.75***	0.71***	0.84***	0.47***	0.33**	0.31***	0.44***	0.19***
	(0.02)	(0.19)	(0.08)	(0.16)	(0.18)	(0.06)	(0.17)	(0.18)	(0.07)	(0.17)	(0.09)	(0.11)	(0.07)
Constant	5.05***	3.89***	4.80***	4.44***	4.28***	3.96***	4.33***	4.61***	4.31***	4.73***	4.73***	4.92***	4.75***
	(0.05)	(0.53)	(0.23)	(0.52)	(0.56)	(0.20)	(0.48)	(0.52)	(0.21)	(0.52)	(0.29)	(0.33)	(0.19)
Observations	23,080	290	1,452	316	307	2,302	353	373	2,320	397	1,198	798	2,033
Adjusted R^2	0.17	0.20	0.25	0.41	0.30	0.26	0.27	0.21	0.21	0.15	0.20	0.19	0.18
Residual Std. Error	1.22	1.18	1.23	1.24	1.31	1.34	1.31	1.44	1.38	1.47	1.40	1.43	1.34
F Statistic	482.53***	8.94***	54.19***	25.10***	15.24***	80.22***	14.06***	11.13***	61.64***	8.05***	30.16***	19.21***	44.81***

Note: *p<0.1; **p<0.05; ***p<0.01

Table 5: Continued

	Dependent variable: ln(Speeches)										
	Rule Regime										
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
Dist. Chamber Median	−0.08	0.15	0.54***	0.76***	1.50***	1.08***	1.46***	1.36***	0.81***	0.99***	0.56**
	(0.29)	(0.43)	(0.14)	(0.22)	(0.42)	(0.37)	(0.21)	(0.26)	(0.08)	(0.24)	(0.22)
Dist. Party Median	0.35	1.75***	−0.01	0.35	−0.35	−0.09	−0.19	0.01	−0.16	−0.57	−1.06***
	(0.40)	(0.58)	(0.20)	(0.28)	(0.40)	(0.45)	(0.23)	(0.35)	(0.12)	(0.36)	(0.33)
Committee Leader	0.39***	0.40*	0.31***	0.26*	0.30	0.57***	0.43***	0.50***	0.41***	0.31**	0.44***
	(0.14)	(0.21)	(0.09)	(0.13)	(0.21)	(0.17)	(0.12)	(0.14)	(0.05)	(0.15)	(0.14)
Party Leader	1.27***	1.48***	1.34***	1.11***	1.16***	1.25***	1.01***	0.66*	0.78***	0.81***	0.82***
	(0.30)	(0.46)	(0.14)	(0.28)	(0.32)	(0.43)	(0.25)	(0.37)	(0.11)	(0.26)	(0.24)
Minority	−0.01	0.23*	−0.003	0.40***	−0.03	0.13	0.11	0.05	−0.01	−0.08	−0.32***
	(0.09)	(0.13)	(0.05)	(0.07)	(0.12)	(0.12)	(0.07)	(0.09)	(0.03)	(0.10)	(0.10)
Seniority	0.10***	0.10***	0.08***	0.05***	0.03*	0.03**	0.05***	0.06***	0.05***	0.05***	0.06***
	(0.02)	(0.02)	(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)	(0.004)	(0.01)	(0.01)
Electoral Vulnerability	0.13	−0.05	−0.19**	−0.08	0.10	0.16	0.23**	0.03	−0.10*	0.04	0.03
	(0.17)	(0.19)	(0.09)	(0.12)	(0.21)	(0.21)	(0.11)	(0.22)	(0.06)	(0.08)	(0.13)
Age	−0.02***	−0.01*	−0.01***	−0.02***	−0.01**	−0.01	−0.02***	−0.01	−0.01***	−0.01**	−0.01
	(0.01)	(0.01)	(0.003)	(0.005)	(0.01)	(0.01)	(0.01)	(0.01)	(0.002)	(0.004)	(0.004)
Education	−0.06	0.02	0.05	0.01	−0.08	−0.03	0.001	−0.12	−0.07**	0.02	−0.15
	(0.10)	(0.13)	(0.05)	(0.08)	(0.11)	(0.11)	(0.07)	(0.11)	(0.04)	(0.08)	(0.10)
Occupation	0.12	0.27**	0.17***	0.13*	0.24**	0.17**	0.19***	0.16*	0.11***	−0.06	−0.01
	(0.09)	(0.12)	(0.05)	(0.07)	(0.09)	(0.09)	(0.06)	(0.08)	(0.03)	(0.06)	(0.07)
Constant	5.00***	4.65***	4.80***	5.09***	5.39***	5.23***	5.05***	4.83***	5.42***	5.10***	5.57***
	(0.27)	(0.35)	(0.15)	(0.25)	(0.36)	(0.38)	(0.29)	(0.35)	(0.08)	(0.20)	(0.25)
Observations	850	425	2,133	850	427	422	841	419	3,739	421	414
Adjusted R^2	0.14	0.19	0.16	0.14	0.11	0.13	0.18	0.19	0.18	0.26	0.20
Residual Std. Error	1.25	1.15	1.03	0.93	0.91	0.85	0.86	0.84	0.74	0.61	0.69
F Statistic	14.42***	11.06***	42.70***	15.03***	6.42***	7.22***	20.04***	10.63***	85.24***	15.63***	11.38***
Note:											*p<0.1; **p<0.05; ***p<0.01

I run the same regression as in Table 2, except that I include an interaction effect between the rule regimes and one variable of interest. I then repeat this process for each variable of interest.[9] As in the analysis of the effect of rule changes on member floor speech, the interaction coefficients of these models are not in and of themselves substantively informative. As before, for each variable of interest, it is necessary to take the difference between the estimated interaction effect for rule regime n and $n-1$.

Table 6 presents the calculated relative interaction effects with significant estimates highlighted. Each column contains the conditional effect of moving from rule regime $n-1$ to rule regime n for each variable of interest. The interpretation of the coefficient estimate is therefore the relative effect of the variable of interest from one rule change to another. For example, in the the first column of interacted variables in Table 6 (chamber-extreme), the conditional effect of the chamber-extreme variable (distance from the chamber median in Tables 2 and 5) from rule regime 0 to rule regime 1 is 0.79 and shows that the magnitude of the effect of chamber extremism is significantly different from the effect of chamber extremism in rule regime 0. Furthermore, the conditional effect of the chamber extremism going from rule regime 1 to rule regime 2 is 0.12 but the effect is not significantly different than in rule regime 1.

Overall, 15 rule regimes show at least one significant interactive effect (however these are not the same 15 rule regimes that have a significant effect in Table 3).[10] Interestingly, the rule regime with the most significant interactive effects in Table 6, rule regime 2, is not significant in Table 3. The variables with the most significant interactive effects are the minority variable (nine rule changes), chamber extremism (five rule changes), party extremism (five rule changes), and seniority (five rule changes).

These results largely confirm the hypotheses regarding the effect of rule changes on

[9]The full regression output for these models can be found in Table 8 in Appendix B.

[10]The rule regimes with at least one significant interactive effect in Table 6 are 1-4, 7-15, 20, and 22 while rule regimes 1, 4-8, 11-16, 18, and 20-21 are significant in Table 3.

Table 6: Rule Regime Interactions

	Interacted Variable									
Rule Regime	Chamber-Extreme	Party-Extreme	Minority	Backbencher Leader	Committee-Seniority		Electoral-Vulnerability	Age	Education	Occupation
1	0.79**	-0.17	0.42***	-0.23	0.23	-0.20**	0.04	-0.00	-0.18	-0.22
	(0.37)	(1.06)	(0.15)	(0.17)	(0.17)	(0.09)	(0.20)	(0.01)	(0.15)	(0.17)
2	0.12	2.37**	0.27*	-0.48***	0.48***	0.06	-0.64***	0.00	0.15	0.16
	(0.34)	(0.98)	(0.15)	(0.17)	(0.17)	(0.04)	(0.16)	(0.01)	(0.15)	(0.16)
3	0.63	-1.23	0.01	0.46**	-0.46**	-0.12**	0.40*	-0.00	-0.08	0.02
	(0.39)	(1.16)	(0.20)	(0.22)	(0.22)	(0.05)	(0.21)	(0.01)	(0.19)	(0.20)
4	-0.69***	-0.34	-0.27*	-0.19	0.15	-0.04	0.41**	0.01	-0.23	-0.05
	(0.25)	(0.77)	(0.16)	(0.17)	(0.17)	(0.04)	(0.16)	(0.01)	(0.14)	(0.15)
5	0.20	0.84	0.11	0.05	-0.06	-0.04	0.11	-0.01	-0.02	0.00
	(0.20)	(0.93)	(0.13)	(0.16)	(0.16)	(0.04)	(0.17)	(0.01)	(0.14)	(0.15)
6	-0.24	0.02	-0.10	0.20	-0.19	-0.04	-0.01	0.00	-0.02	0.13
	(0.29)	(1.34)	(0.18)	(0.20)	(0.21)	(0.04)	(0.22)	(0.01)	(0.18)	(0.19)
7	0.33	-0.40	0.08	0.02	-0.03	0.00	-0.21	0.01**	0.16	-0.36**
	(0.24)	(0.74)	(0.13)	(0.15)	(0.15)	(0.02)	(0.17)	(0.0)	(0.14)	(0.14)
8	-0.51	1.07*	-0.40***	0.09	-0.09	-0.00	-0.07	-0.01	-0.07	-0.16
	(0.32)	(0.61)	(0.13)	(0.16)	(0.16)	(0.02)	(0.20)	(0.01)	(0.14)	(0.13)
9	-0.47	-1.30**	-0.06	-0.12	0.12	0.00	0.23	0.00	0.17	0.00
	(0.34)	(0.64)	(0.14)	(0.17)	(0.17)	(0.02)	(0.23)	(0.01)	(0.15)	(0.14)
10	0.01	0.28	0.21	0.34**	-0.39***	-0.04**	0.07	-0.01	-0.07	0.20*
	(0.28)	(0.53)	(0.11)	(0.13)	(0.14)	(0.02)	(0.14)	(0.01)	(0.12)	(0.11)
11	0.80***	-0.66	0.49***	-0.12	0.16	0.01	-0.04	0.02***	-0.12	-0.32***
	(0.29)	(0.50)	(0.10)	(0.12)	(0.13)	(0.02)	(0.14)	(0.01)	(0.11)	(0.10)
12	-0.53*	-0.23	-0.43***	-0.02	-0.01	-0.04***	0.06	0.00	-0.13	-0.10
	(0.28)	(0.41)	(0.01)	(0.13)	(0.14)	(0.01)	(0.19)	(0.01)	(0.11)	(0.10)
13	0.62	1.60***	0.24*	-0.09	0.06	0.01	-0.17	0.00	0.14	0.16
	(0.44)	(0.61)	(0.14)	(0.22)	(0.23)	(0.02)	(0.27)	(0.01)	(0.17)	(0.14)
14	-0.10	-1.49***	-0.17	0.25	-0.27	-0.03	-0.10	0.00	0.01	-0.13
	(0.41)	(0.55)	(0.13)	(0.20)	(0.21)	(0.02)	(0.24)	(0.01)	(0.14)	(0.13)
15	0.31	-0.08	0.43***	0.22	-0.20	-0.04***	0.13	-0.00	-0.05	-0.08
	(0.28)	(0.38)	(0.10)	(0.16)	(0.17)	(0.01)	(0.22)	(0.01)	(0.11)	(0.10)
16	0.25	-0.34	-0.24	0.16	-0.16	-0.02	0.33	0.01	-0.04	0.12
	(0.45)	(0.56)	(0.15)	(0.23)	(0.24)	(0.02)	(0.31)	(0.01)	(0.17)	(0.14)
17	-0.00	0.01	0.00	-0.24	0.27	0.01	0.09	0.00	0.00	-0.07
	(0.51)	(0.63)	(0.17)	(0.27)	(0.28)	(0.02)	(0.39)	(0.01)	(0.19)	(0.16)
18	0.42	0.47	-0.05	0.04	-0.04	0.01	0.03	-0.00	0.03	0.02
	(0.41)	(0.51)	(0.14)	(0.23)	(0.24)	(0.02)	(0.35)	(0.01)	(0.17)	(0.14)
19	-0.07	0.16	-0.02	-0.15	0.20	0.01	-0.33	0.00	-0.11	-0.05
	(0.42)	(0.51)	(0.14)	(0.22)	(0.23)	(0.02)	(0.40)	(0.01)	(0.17)	(0.14)
20	-0.80**	-0.24	-0.03	0.18	-0.21	-0.01	-0.23	-0.00	0.08	-0.07
	(0.37)	(0.47)	(0.12)	(0.20)	(0.20)	(0.01)	(0.35)	(0.01)	(0.15)	(0.12)
21	0.13	-0.45	0.08	0.09	-0.10	-0.01	0.10	0.01	0.11	-0.18
	(0.28)	(0.63)	(0.12)	(0.19)	(0.20)	(0.01)	(0.20)	(0.01)	(0.18)	(0.12)
22	-1.07	-0.22	-0.53***	-0.16	0.15	0.00	-0.06	-0.00	-0.11	0.07
	(0.37)	(0.82)	(0.17)	(0.26)	(0.27)	(0.02)	(0.28)	(0.01)	(0.25)	(0.17)

Note: See Table 8 in Appendix B for full model outputs. *p<0.1; **p<0.05; ***p<0.01

determinant characteristics. Seniority and members of the minority party are disproportionately affected by rules changes. So it is logical that the effect would be most pronounced for those members. Surprisingly, committee chairs and ranking members are not especially affected by rules changes even though eight of the twenty-two rule changes explicitly impact committees.[11] The other variables with five or more significant interactive effects are the two ideology variables. Each ideology variable measures a different type of extremism and different rule changes are associated with the significant conditional coefficient estimates of chamber and party extremism. Recalling the earlier discussion about resource allocation in the face of changing constraints, it is perhaps unsurprising that member characteristics strongly associated with the organization of Congress – ideology, partisanship, and seniority – are more affected by rules changes. Restructured parliamentary rules create new pathways for members to optimally allocate their limited resources.

While the stronger effect of rule changes on the minority variable seems to provide further support for the assertions of Binder (1995, 1997) and Dion (1997) that majority parties restructure chamber rules to benefit their policy goals, only four of the nine significant rule regime interactions are in the negative direction. Furthermore, the direction of the significant effect does not uniformly correspond to rules expanding or restricting privilege (i.e. negatively signed [significant] coefficient estimates do not always occur on rules that restrict and vice versa). This could mean that either higher levels of floor speech by the majority party don't have a significant impact on policy outcomes. It could also mean that the when the majority party restricts floor rights or floor power, they do so without a direct view to altering patterns of floor speech. Instead, it could be that changes to chamber rules have unintended consequences. The surprising finding regarding the lack of effect of rule changes on committee leaders provides additional support

[11] Rule regimes 6, 7, 12, 15, 18-20, and 22 all directly speak to committee structure and function.

for this conjecture.

6 Discussion

Describing members of Congress as goal driven actors (Mayhew, 1974; Fenno, 1973, 1978; Arnold, 1990; Hall, 1996) implies that MCs seek to maximize some kind of utility.[12] MCs also face constraints. A significant constraint is time (Fenno, 1978; Cavanagh, 1979; Langbein and Sigelman, 1989; Connor and Oppenheimer, 1993; Davidson et al., 2013). Another is the parliamentary rules that govern the chamber (Kingdon, 1973; Davidson et al., 2013). Therefore, members must make decisions on how to allocate their resources in an attempt to achieve their goals subject to the constraints faced.

Floor speech is just one way by which members of Congress might behave in pursuit of their goals. Like all other aspects of congressional behavior, floor speech is subject to the formal institutional rules that govern what can be said, when it can be said, and who can say it. The purpose of this paper is to examine what effect changes to the formal procedural rules of the U.S. House of Representatives have on members' propensity to participate in floor debate. This is done in two ways. The first is an investigation into whether rules have any demonstrable effect on the volume of member speech. I find fairly strong support for the claim that changes to institutional rules significantly increase and decrease the number of member floor speeches. Based on a classification of the procedural rules, I then ask if rules that expand or restrict member privilege have a consistent effect and if rules related to floor rights (rules of recognition) have a larger effect than rules related to floor power (rights related to involvement in the legislative process). I find only moderate evidence that the direction of rule change has a consistent effect on member floor speech and no evidence that rules on floor rights have a larger impact than rules on

[12]Whether utility is maximized solely through reelection to public office (Mayhew, 1974) or "reelection plus" (e.g. Fenno, 1973; Arnold, 1990; Hall, 1996) is immaterial.

floor power.

Previous work (Maltzman and Sigelman, 1996; Morris, 2001; Harris, 2005; Rocca, 2007; Pearson and Dancey, 2011, e.g.) has sought to understand what characteristics drive members to use floor speech more or less than other members. Recently, Gelman and Goplerud (2017) have improved our understanding of these influences by greatly expanding the data available to test inconsistencies in the previous literature. Using their findings as a baseline, I employ their data to test how changes to procedural rules alters the impact of member characteristics on the volume of member floor speech. I find that not all rules changes effect characteristic determinants of floor speech equally. Members of the minority party, more senior members, and more ideologically extreme members (both in relation to the chamber and their own party) are more likely to be impacted by rule changes. Surprisingly, I do not find that committee leaders are often affected by rules changes despite a number of the rule changes used in the analysis directly addressing committee structure and power.

Importantly, the results of my investigation into how rule changes influence the determinants of member floor speech do not reveal a connection between rule classification and rule impact. This could mean that rules have unintended consequences for members. For example, Goplerud and Gelman (2017) show that the introduction of radio and television coverage to the House floor significantly increased the demand for floor time, resulting in a more equal distribution of floor speech among all members. They theorize that members recognized the opportunity that using the floor to achieve their goals presented and reallocated their resources accordingly. Taylor (2012) argues that this same rule change has resulted in a deterioration in the quality of debate in the U.S. House.

Floor speech has long been maligned as irrelevant in congressional research. However, a spate of recent work (e.g. Gentzkow and Shapiro, 2010; Gentzkow, Shapiro and Taddy, 2015; Pearson and Dancey, 2011; Jensen et al., 2012; Gelman and Goplerud, 2017) offers

evidence that scholars see the value in better understanding an undeniable aspect of congressional life: the time taken making remarks on the House floor. This is also true in the comparative politics literature (e.g. Slapin and Proksch, 2008; Proksch and Slapin, 2012; Eggers and Spirling, 2014; Bäck and Debus, 2016; Giannetti and Pedrazzani, 2016).

This paper serves as an investigation into how rules impact one kind of congressional behavior, member floor speech. Along with Goplerud and Gelman (2017), I continue the research tradition of investigating how changes to chamber rules impacts member participation. Despite finding that rules can and do significantly alter the volume of member speech, further investigation is needed to better understand the mechanism by which this happens. Further investigation is also needed to determine if rule changes that target specific aspects of the chamber have a systematic effect on member floor speech. The lack of a finding of a relationship between certain types of rules and a corresponding impact on member speech is not definitive evidence that no such link exists, particularly because this paper uses only a subset of all rules changes in the House over the period of study. Future studies into how rules changes impact member floor speech should incorporate a greater spectrum of rule changes.

References

Aldrich, John H and David W Rohde. 2000*a*. *The logic of conditional party government: Revisiting the electoral connection*. PIPC.

Aldrich, John H and David W Rohde. 2000*b*. "The Republican Revolution and the House Appropriations Committee." *The Journal of Politics* 62(01):1–33.

Aldrich, John H, Mark M Berger and David W Rohde. 1999. *The historical variability in conditional party government, 1877-1986*. Michigan State University.

Anderson, William D, Janet M Box-Steffensmeier and Valeria Sinclair-Chapman. 2003. "The keys to legislative success in the US House of Representatives." *Legislative Studies Quarterly* 28(3):357–386.

Arnold, R Douglas. 1990. *The logic of congressional action*. Yale University Press.

Bach, Stanley J and Steven S Smith. 1988. *Managing uncertainty in the House of Representatives: adaption and innovation in special rules*. Brookings Institution Press.

Bäck, Hanna and Marc Debus. 2016. *Political parties, parliaments and legislative speechmaking*. Springer.

Binder, Sarah A. 1995. "Partisanship and procedural choice: Institutional change in the early Congress, 1789-1823." *Journal of Politics* 57(4):1093–1118.

Binder, Sarah A. 1997. *Minority rights, majority rule: Partisanship and the development of Congress*. Cambridge University Press.

Brady, David W, Joseph Cooper and Patricia A Hurley. 1979. "The decline of party in the US House of Representatives, 1887-1968." *Legislative Studies Quarterly* pp. 381–407.

Cavanagh, Thomas E. 1979. "Rational allocation of Congressional resources: member time and staff use in the House." *Public Policy and Public Choice* pp. 209–247.

Connor, George E. and Bruce I. Oppenheimer. 1993. Deliberation: an untimed value in a timed game. In *Congress Reconsidered, 5th Edition*, ed. Lawrence C. Dodd and Bruce I. Oppenheimer. SAGE pp. 315–330.

Cooper, Joseph and Cheryl D. Young. 1989. "Bill introduction in the nineteenth century: a study of institutional change." *Legislative Studies Quarterly* 14(1):67–105.

Cooper, Joseph and David W Brady. 1981. "Institutional context and leadership style: the House from Cannon to Rayburn." *American Political Science Review* 75(02):411–425.

Cox, Gary W and Mathew D McCubbins. 2005. *Setting the agenda: Responsible party government in the US House of Representatives*. Cambridge University Press.

Cox, Gary W and Mathew D McCubbins. 2007. *Legislative leviathan: Party government in the House*. Cambridge University Press.

Davidson, Roger H., Walter J. Oleszek, Frances E. Lee and Eric Schickler. 2013. *Congress and its Members*. Congressional Quarterly Press.

Dion, Douglas. 1997. *Turning the legislative thumbscrew: Minority rights and procedural change in legislative politics*. University of Michigan Press.

Eggers, Andrew C and Arthur Spirling. 2014. "Ministerial responsiveness in Westminster Systems: institutional choices and House of Commons debate, 1832–1915." *American Journal of Political Science* 58(4):873–887.

Fenno, Richard F. 1973. *Congressmen in committees*. Little Brown.

Fenno, Richard F. 1978. *Home style: representatives in their districts*. Little Brown.

Fink, Evelyn C. 2000. "Representation by Deliberation: Changes in the Rules of Deliberation in the US House of Representatives, 1789–1844." *The Journal of Politics* 62(04):1109–1125.

Gelman, David A and Max Goplerud. 2017. "Floor debate in the U.S. House of Representatives, 1873-2011." Working paper.

Gentzkow, Matthew and Jesse M Shapiro. 2010. "What drives media slant? Evidence from US daily newspapers." *Econometrica* 78(1):35–71.

Gentzkow, Matthew, Jesse M. Shapiro and Matt Taddy. 2015. "Measuring polarization in high-dimensional data: method and application to Congressional speech.".

Giannetti, Daniela and Andrea Pedrazzani. 2016. "Rules and Speeches: How Parliamentary Rules Affect Legislators' Speech-Making Behavior." *Legislative Studies Quarterly* 41(3):771–800.

Goplerud, Max and David A. Gelman. 2017. "Speaking to the public: the impact of radio and television coverage on congressional debate." Working paper.

Grimmer, Justin. 2013*a*. "Appropriators not position takers: the distorting effects of electoral incentives on congressional representation." *American Journal of Political Science* 57(3):624–642.

Grimmer, Justin. 2013*b*. *Representational style in Congress: what legislators say and why it matters*. Cambridge University Press.

Hall, Richard L. 1996. *Participation in Congress*. Yale University Press.

Harris, Douglas B. 2005. "Orchestrating Party Talk: A Party-Based View of One-Minute Speeches in the House of Representatives." *Legislative Studies Quarterly* 30(1):127–141.

Hill, Kim Quaile and Patricia A Hurley. 2002. "Symbolic speeches in the US Senate and their representational implications." *The Journal of Politics* 64(01):219–231.

Jensen, Jacob, Suresh Naidu, Ethan Kaplan, Laurence Wilse-Samson, David Gergen, Michael Zuckerman and Arthur Spirling. 2012. "Political polarization and the dynamics of political language: evidence from 130 years of partisan speech [with comments and discussion]." *Brookings Papers on Economic Activity* pp. 1–81.

Kingdon, John W. 1973. *Congressional voting decisions*. Harper and Row.

Kovenock, David. 1973. "Influence in the US House of Representatives: a statistical analysis of communications." *American Politics Research* 1(4):407–464.

Krehbiel, Keith. 1993. "Where's the Party?" *British Journal of Political Science* 23(02):235–266.

Langbein, Laura I. and Lee Sigelman. 1989. "Show horses, work horses, and dead horses." *American Politics Research* 17(1):80–95.

Maltzman, Forrest. 1998. *Competing principals: Committees, parties, and the organization of Congress*. University of Michigan Press.

Maltzman, Forrest and Lee Sigelman. 1996. "The politics of talk: unconstrained floor time in the US House of Representatives." *The Journal of Politics* 58(03):819–830.

Matthews, Donald R. 1959. "The folkways of the United States Senate: conformity to group norms and legislative effectiveness." *American Political Science Review* 53(04):1064–1089.

Matthews, Donald R. 1960. *United States Senators and their world*. University of North Carolina Press.

Mayhew, David R. 1974. *Congress: the electoral connection*. Yale University Press.

Morris, Jonathan S. 2001. "Reexamining the politics of talk: Partisan rhetoric in the 104th House." *Legislative Studies Quarterly* 26(1):101–121.

Mucciaroni, Gary and Paul J. Quirk. 2006. *Deliberative choices: debating public policy in Congress*. University of Chicago Press.

Payne, James L. 1980. "Show horses & work horses in the United States House of Representatives." *Polity* 12:428–456.

Pearson, Kathryn and Logan Dancey. 2011. "Speaking for the underrepresented in the House of Representatives: voicing women's interests in a partisan era." *Politics & Gender* 7(04):493–519.

Proksch, Sven-Oliver and Jonathan B Slapin. 2012. "Institutional foundations of legislative speech." *American Journal of Political Science* 56(3):520–537.

Ritchie, Donald A. 2009. *Press gallery: Congress and the Washington correspondents*. Harvard University Press.

Roberts, Jason M. 2010. "The development of special orders and special rules in the US house, 1881–1937." *Legislative Studies Quarterly* 35(3):307–336.

Roberts, Jason M and Steven S Smith. 2003. "Procedural contexts, party strategy, and conditional party voting in the US House of Representatives, 1971–2000." *American Journal of Political Science* 47(2):305–317.

Rocca, Michael S. 2007. "Nonlegislative debate in the US House of Representatives." *American Politics Research* 35(4):489–505.

Rohde, David W. 1991. *Parties and leaders in the post-reform House*. University of Chicago Press.

Rohde, David W and Kenneth A Shepsle. 1973. "Democratic committee assignments in the House of Representatives: Strategic aspects of a social choice process." *American Political Science Review* 67(03):889–905.

Rohde, David W and Kenneth A Shepsle. 1987. "Leaders and followers in the House of Representatives: Reflections on Woodrow Wilson's congressional government." *Congress & the Presidency: A Journal of Capital Studies* 14(2):111–133.

Schickler, Eric. 2000. "Institutional change in the House of Representatives, 1867–1998: a test of partisan and ideological power balance models." *American Political Science Review* 94(02):269–288.

Schickler, Eric. 2001. *Disjointed pluralism: Institutional innovation and the development of the US Congress*. Princeton University Press.

Schickler, Eric and Kathryn Pearson. 2009. "Agenda control, majority party power, and the House Committee on Rules, 1937–52." *Legislative Studies Quarterly* 34(4):455–491.

Shepsle, Kenneth A and Barry R Weingast. 1987. "The institutional foundations of committee power." *American Political Science Review* 81(01):85–104.

Simon, Carl P and Lawrence Blume. 1994. *Mathematics for Economists*. Vol. 7 Norton New York.

Sinclair, Barbara. 1989. *The transformation of the US Senate*. Johns Hopkins Univ Pr.

Slapin, Jonathan B and Sven-Oliver Proksch. 2008. "A scaling model for estimating time-series party positions from texts." *American Journal of Political Science* 52(3):705–722.

Smith, Steven S. 1989. *Call to order: floor politics in the House and Senate*. Brookings Institution.

Smith, Steven S, Jason M Roberts and Ryan J Vander Wielen. 2009. *The American Congress*. 6th ed. Cambridge University Press.

Strahan, Randall. 2007. *Leading representatives: the agency of leaders in the politics of the US House*. JHU Press.

Taylor, Andrew. 2012. *The floor in Congressional life*. University of Michigan Press.

Wirls, Daniel. 2007. "The "Golden Age Senate and floor debate in the antebellum Congress." *Legislative Studies Quarterly* 32(2):193–222.

A Looking More Closely at the Difference Between Rule Regimes

Table 2 functions as the baseline regression in this paper, taking the basic model in Gelman and Goplerud's (2017) pooled analysis and adding indicator variables for rules changes. By using regression through the origin (RTO), the coefficient estimate of the relative impact of moving from rule regime n-1 to rule regime n on the number of speeches given by a member i, in a Congress t is equivalent to subtracting the coefficient estimates of each rule regime dummy variable from the previous rule regime coefficient in Table 2. This is also equivalent to the highlighted estimates that follow the diagonal from left to right in Table 7. These regression results are generated by iteratively running the same model (with a constant) and changing the omitted rule dummy variable to be n-1 in each model. For example, column "0" in Table 7 estimates the model for when rule regime 0 is omitted. For rule regime 1, an estimate is generated on effect on logged speeches relative to rule regime 0. No other rule regime estimate speaks to the relative difference between rules regimes, only between rule regime n and rule regime 0. By changing the omitted rule regime in a step wise fashion, estimates of the relative effect of moving between all of the rule regimes are generated.

Table 7: Iterated Base Models

	Dependent variable: ln(Speeches											
	Omitted Rule Regime											
	(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Dist. Chamber Median	0.47***	0.47***	0.47***	0.47***	0.47***	0.47***	0.47***	0.47***	0.47***	0.47***	0.47***	0.47***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Dist. Party Median	0.21***	0.21***	0.21***	0.21***	0.21***	0.21***	0.21***	0.21***	0.21***	0.21***	0.21***	0.21***
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
Minority	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Committee Leader	0.53***	0.53***	0.53***	0.53***	0.53***	0.53***	0.53***	0.53***	0.53***	0.53***	0.53***	0.53***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Party Leader	1.16***	1.16***	1.16***	1.16***	1.16***	1.16***	1.16***	1.16***	1.16***	1.16***	1.16***	1.16***
	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
Seniority	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Electoral Vulnerability	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Age	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Education	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Occupation	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Rule 0		−0.21***	−0.21**	−0.12	0.12*	0.25***	−0.08	−0.43***	0.15	0.15*	0.16*	−0.34***
		(0.08)	(0.10)	(0.10)	(0.07)	(0.09)	(0.09)	(0.07)	(0.09)	(0.08)	(0.08)	(0.08)
Rule 1	0.21***		0.003	0.10	0.34***	0.46***	0.13*	−0.22***	0.36***	0.36***	0.37***	−0.13***
	(0.08)		(0.07)	(0.07)	(0.04)	(0.07)	(0.07)	(0.04)	(0.07)	(0.05)	(0.05)	(0.04)
Rule 2	0.21**	−0.003		0.10	0.34***	0.46***	0.13	−0.22***	0.36***	0.36***	0.37***	−0.13*
	(0.10)	(0.07)		(0.10)	(0.07)	(0.09)	(0.09)	(0.07)	(0.09)	(0.08)	(0.08)	(0.07)
Rule 3	0.12	−0.10	−0.10		0.24***	0.36***	0.03	−0.32***	0.27***	0.27***	0.27***	−0.22***
	(0.10)	(0.07)	(0.10)		(0.07)	(0.09)	(0.09)	(0.07)	(0.09)	(0.08)	(0.08)	(0.07)
Rule 4	−0.12*	−0.34***	−0.34***	−0.24***		0.12*	−0.21***	−0.56***	0.02	0.02	0.03	−0.47***
	(0.07)	(0.04)	(0.07)	(0.07)		(0.07)	(0.07)	(0.04)	(0.06)	(0.04)	(0.05)	(0.04)
Rule 5	−0.25***	−0.46***	−0.46***	−0.36***	−0.12*		−0.33***	−0.68***	−0.10	−0.10	−0.09	−0.59***
	(0.09)	(0.07)	(0.09)	(0.09)	(0.07)		(0.09)	(0.07)	(0.09)	(0.07)	(0.08)	(0.07)
Rule 6	0.08	−0.13*	−0.13	−0.03	0.21***	0.33***		−0.35***	0.23***	0.23***	0.24***	−0.26***
	(0.09)	(0.07)	(0.09)	(0.09)	(0.07)	(0.09)		(0.07)	(0.09)	(0.07)	(0.07)	(0.07)
Rule 7	0.43***	0.22***	0.22***	0.32***	0.56***	0.68***	0.35***		0.58***	0.58***	0.59***	0.09**
	(0.07)	(0.04)	(0.07)	(0.07)	(0.04)	(0.07)	(0.07)		(0.06)	(0.04)	(0.05)	(0.04)
Rule 8	−0.15	−0.36***	−0.36***	−0.27***	−0.02	0.10	−0.23***	−0.58***		0.0001	0.01	−0.49***
	(0.09)	(0.07)	(0.09)	(0.09)	(0.06)	(0.09)	(0.09)	(0.06)		(0.07)	(0.07)	(0.07)
Rule 9	−0.15*	−0.36***	−0.36***	−0.27***	−0.02	0.10	−0.23***	−0.58***	−0.0001		0.01	−0.49***
	(0.08)	(0.05)	(0.08)	(0.08)	(0.04)	(0.07)	(0.07)	(0.04)	(0.07)		(0.05)	(0.04)
Rule 10	−0.16*	−0.37***	−0.37***	−0.27***	−0.03	0.09	−0.24***	−0.59***	−0.01	−0.01		−0.50***
	(0.08)	(0.05)	(0.08)	(0.08)	(0.05)	(0.08)	(0.07)	(0.05)	(0.07)	(0.05)		(0.05)
Rule 11	0.34***	0.13***	0.13*	0.22***	0.47***	0.59***	0.26***	−0.09**	0.49***	0.49***	0.50***	
	(0.08)	(0.04)	(0.07)	(0.07)	(0.04)	(0.07)	(0.07)	(0.04)	(0.07)	(0.04)	(0.05)	
Rule 12	0.25***	0.03	0.04	0.13*	0.37***	0.49***	0.16**	−0.19***	0.40***	0.40***	0.40***	−0.09*
	(0.08)	(0.05)	(0.08)	(0.08)	(0.05)	(0.08)	(0.07)	(0.05)	(0.07)	(0.05)	(0.06)	(0.05)
Rule 13	0.49***	0.27***	0.28***	0.37***	0.61***	0.73***	0.40***	0.05	0.64***	0.64***	0.64***	0.15**
	(0.09)	(0.07)	(0.09)	(0.09)	(0.06)	(0.09)	(0.08)	(0.06)	(0.08)	(0.07)	(0.07)	(0.06)
Rule 14	0.28***	0.07	0.07	0.16**	0.41***	0.53***	0.20***	−0.15***	0.43***	0.43***	0.44***	−0.06
	(0.08)	(0.04)	(0.07)	(0.07)	(0.04)	(0.07)	(0.07)	(0.04)	(0.07)	(0.04)	(0.05)	(0.04)
Rule 15	0.36***	0.15***	0.15*	0.25***	0.49***	0.61***	0.28***	−0.07	0.51***	0.51***	0.52***	0.02
	(0.08)	(0.05)	(0.08)	(0.08)	(0.05)	(0.08)	(0.07)	(0.05)	(0.07)	(0.05)	(0.06)	(0.05)
Rule 16	0.67***	0.45***	0.46***	0.55***	0.79***	0.91***	0.58***	0.23***	0.82***	0.82***	0.82***	0.33***
	(0.09)	(0.07)	(0.09)	(0.09)	(0.06)	(0.09)	(0.08)	(0.06)	(0.08)	(0.07)	(0.07)	(0.06)
Rule 17	0.69***	0.48***	0.48***	0.58***	0.82***	0.94***	0.61***	0.26***	0.84***	0.84***	0.85***	0.35***
	(0.09)	(0.07)	(0.09)	(0.09)	(0.06)	(0.09)	(0.09)	(0.06)	(0.08)	(0.07)	(0.07)	(0.06)
Rule 18	0.54***	0.32***	0.33***	0.42***	0.66***	0.78***	0.45***	0.10**	0.69***	0.69***	0.69***	0.20***
	(0.08)	(0.05)	(0.08)	(0.08)	(0.05)	(0.08)	(0.07)	(0.05)	(0.07)	(0.05)	(0.06)	(0.05)
Rule 19	0.63***	0.42***	0.42***	0.51***	0.76***	0.88***	0.55***	0.20***	0.78***	0.78***	0.79***	0.29***
	(0.09)	(0.07)	(0.09)	(0.09)	(0.06)	(0.09)	(0.09)	(0.06)	(0.08)	(0.07)	(0.07)	(0.06)
Rule 20	0.73***	0.52***	0.52***	0.61***	0.86***	0.98***	0.65***	0.30***	0.88***	0.88***	0.89***	0.39***
	(0.07)	(0.04)	(0.07)	(0.07)	(0.03)	(0.07)	(0.07)	(0.03)	(0.06)	(0.04)	(0.05)	(0.03)
Rule 21	0.62***	0.41***	0.41***	0.51***	0.75***	0.87***	0.54***	0.19***	0.77***	0.77***	0.78***	0.28***
	(0.09)	(0.07)	(0.09)	(0.09)	(0.06)	(0.09)	(0.09)	(0.06)	(0.08)	(0.07)	(0.07)	(0.06)
Rule 22	0.75***	0.54***	0.54***	0.63***	0.88***	1.00***	0.67***	0.32***	0.90***	0.90***	0.91***	0.41***
	(0.09)	(0.07)	(0.09)	(0.09)	(0.06)	(0.09)	(0.09)	(0.06)	(0.08)	(0.07)	(0.07)	(0.06)
Constant	4.51***	4.73***	4.73***	4.63***	4.39***	4.27***	4.60***	4.95***	4.37***	4.37***	4.36***	4.86***
	(0.09)	(0.06)	(0.08)	(0.09)	(0.06)	(0.08)	(0.08)	(0.06)	(0.08)	(0.06)	(0.07)	(0.06)
Observations	23,080	23,080	23,080	23,080	23,080	23,080	23,080	23,080	23,080	23,080	23,080	23,080
R^2	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Adjusted R^2	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Residual Std. Error	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19
F Statistic	204.97***	204.97***	204.97***	204.97***	204.97***	204.97***	204.97***	204.97***	204.97***	204.97***	204.97***	204.97***

Note: *p<0.1; **p<0.05; ***p<0.01

Table 7: Continued

	Dependent variable: ln(Speeches)										
	Omitted Rule Regime										
	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
Dist. Chamber Median	0.47***	0.47***	0.47***	0.47***	0.47***	0.47***	0.47***	0.47***	0.47***	0.47***	0.47***
	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)	(0.05)
Dist. Party Median	0.21***	0.21***	0.21***	0.21***	0.21***	0.21***	0.21***	0.21***	0.21***	0.21***	0.21***
	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
Minority	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***	0.09***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Committee Leader	0.53***	0.53***	0.53***	0.53***	0.53***	0.53***	0.53***	0.53***	0.53***	0.53***	0.53***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Party Leader	1.16***	1.16***	1.16***	1.16***	1.16***	1.16***	1.16***	1.16***	1.16***	1.16***	1.16***
	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
Seniority	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***	0.08***
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Electoral Vulnerability	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***	−0.09***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Age	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Education	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***	0.15***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Occupation	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***	0.27***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Rule 0	−0.25***	−0.49***	−0.28***	−0.36***	−0.67***	−0.69***	−0.54***	−0.63***	−0.73***	−0.62***	−0.75***
	(0.08)	(0.09)	(0.08)	(0.08)	(0.09)	(0.09)	(0.08)	(0.09)	(0.07)	(0.09)	(0.09)
Rule 1	−0.03	−0.27***	−0.07	−0.15***	−0.45***	−0.48***	−0.32***	−0.42***	−0.52***	−0.41***	−0.54***
	(0.05)	(0.07)	(0.04)	(0.05)	(0.07)	(0.07)	(0.05)	(0.07)	(0.04)	(0.07)	(0.07)
Rule 2	−0.04	−0.28***	−0.07	−0.15*	−0.46***	−0.48***	−0.33***	−0.42***	−0.52***	−0.41***	−0.54***
	(0.08)	(0.09)	(0.07)	(0.08)	(0.09)	(0.09)	(0.08)	(0.09)	(0.07)	(0.09)	(0.09)
Rule 3	−0.13*	−0.37***	−0.16**	−0.25***	−0.55***	−0.58***	−0.42***	−0.51***	−0.61***	−0.51***	−0.63***
	(0.08)	(0.09)	(0.07)	(0.08)	(0.09)	(0.09)	(0.08)	(0.09)	(0.07)	(0.09)	(0.09)
Rule 4	−0.37***	−0.61***	−0.41***	−0.49***	−0.79***	−0.82***	−0.66***	−0.76***	−0.86***	−0.75***	−0.88***
	(0.05)	(0.06)	(0.04)	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.03)	(0.06)	(0.06)
Rule 5	−0.49***	−0.73***	−0.53***	−0.61***	−0.91***	−0.94***	−0.78***	−0.88***	−0.98***	−0.87***	−1.00***
	(0.08)	(0.09)	(0.07)	(0.08)	(0.09)	(0.09)	(0.08)	(0.09)	(0.07)	(0.09)	(0.09)
Rule 6	−0.16**	−0.40***	−0.20***	−0.28***	−0.58***	−0.61***	−0.45***	−0.55***	−0.65***	−0.54***	−0.67***
	(0.07)	(0.08)	(0.07)	(0.07)	(0.08)	(0.09)	(0.07)	(0.09)	(0.07)	(0.09)	(0.09)
Rule 7	0.19***	−0.05	0.15***	0.07	−0.23***	−0.26***	−0.10**	−0.20***	−0.30***	−0.19***	−0.32***
	(0.05)	(0.06)	(0.04)	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.03)	(0.06)	(0.06)
Rule 8	−0.40***	−0.64***	−0.43***	−0.51***	−0.82***	−0.84***	−0.69***	−0.78***	−0.88***	−0.77***	−0.90***
	(0.07)	(0.08)	(0.07)	(0.07)	(0.08)	(0.08)	(0.07)	(0.08)	(0.06)	(0.08)	(0.08)
Rule 9	−0.40***	−0.64***	−0.43***	−0.51***	−0.82***	−0.84***	−0.69***	−0.78***	−0.88***	−0.77***	−0.90***
	(0.05)	(0.07)	(0.04)	(0.05)	(0.07)	(0.07)	(0.05)	(0.07)	(0.04)	(0.07)	(0.07)
Rule 10	−0.40***	−0.64***	−0.44***	−0.52***	−0.82***	−0.85***	−0.69***	−0.79***	−0.89***	−0.78***	−0.91***
	(0.06)	(0.07)	(0.05)	(0.06)	(0.07)	(0.07)	(0.06)	(0.07)	(0.05)	(0.07)	(0.07)
Rule 11	0.09*	−0.15**	0.06	−0.02	−0.33***	−0.35***	−0.20***	−0.29***	−0.39***	−0.28***	−0.41***
	(0.05)	(0.06)	(0.04)	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.03)	(0.06)	(0.06)
Rule 12		−0.24***	−0.03	−0.11**	−0.42***	−0.44***	−0.29***	−0.38***	−0.48***	−0.37***	−0.50***
		(0.07)	(0.05)	(0.06)	(0.07)	(0.07)	(0.06)	(0.07)	(0.05)	(0.07)	(0.07)
Rule 13	0.24***		0.21***	0.12*	−0.18**	−0.21**	−0.05	−0.14*	−0.24***	−0.13*	−0.26***
	(0.07)		(0.06)	(0.07)	(0.08)	(0.08)	(0.07)	(0.08)	(0.06)	(0.08)	(0.08)
Rule 14	0.03	−0.21***		−0.08*	−0.39***	−0.41***	−0.26***	−0.35***	−0.45***	−0.34***	−0.47***
	(0.05)	(0.06)		(0.05)	(0.06)	(0.06)	(0.05)	(0.06)	(0.03)	(0.06)	(0.06)
Rule 15	0.11**	−0.12*	0.08*		−0.30***	−0.33***	−0.18***	−0.27***	−0.37***	−0.26***	−0.39***
	(0.06)	(0.07)	(0.05)		(0.07)	(0.07)	(0.06)	(0.07)	(0.05)	(0.07)	(0.07)
Rule 16	0.42***	0.18**	0.39***	0.30***		−0.03	0.13*	0.04	−0.06	0.05	−0.08
	(0.07)	(0.08)	(0.06)	(0.07)		(0.08)	(0.07)	(0.08)	(0.06)	(0.08)	(0.08)
Rule 17	0.44***	0.21**	0.41***	0.33***	0.03		0.15**	0.06	−0.04	0.07	−0.06
	(0.07)	(0.08)	(0.06)	(0.07)	(0.08)		(0.07)	(0.08)	(0.06)	(0.08)	(0.08)
Rule 18	0.29***	0.05	0.26***	0.18***	−0.13*	−0.15**		−0.09	−0.19***	−0.08	−0.21***
	(0.06)	(0.07)	(0.05)	(0.06)	(0.07)	(0.07)		(0.07)	(0.05)	(0.07)	(0.07)
Rule 19	0.38***	0.14*	0.35***	0.27***	−0.04	−0.06	0.09		−0.10	0.01	−0.12
	(0.07)	(0.08)	(0.06)	(0.07)	(0.08)	(0.08)	(0.07)		(0.06)	(0.08)	(0.08)
Rule 20	0.48***	0.24***	0.45***	0.37***	0.06	0.04	0.19***	0.10		0.11*	−0.02
	(0.05)	(0.06)	(0.03)	(0.05)	(0.06)	(0.06)	(0.05)	(0.06)		(0.06)	(0.06)
Rule 21	0.37***	0.13*	0.34***	0.26***	−0.05	−0.07	0.08	−0.01	−0.11*		−0.13
	(0.07)	(0.08)	(0.06)	(0.07)	(0.08)	(0.08)	(0.07)	(0.08)	(0.06)		(0.08)
Rule 22	0.50***	0.26***	0.47***	0.39***	0.08	0.06	0.21***	0.12	0.02	0.13	
	(0.07)	(0.08)	(0.06)	(0.07)	(0.08)	(0.08)	(0.07)	(0.08)	(0.06)	(0.08)	
Constant	4.76***	5.00***	4.80***	4.88***	5.18***	5.21***	5.05***	5.15***	5.25***	5.14***	5.27***
	(0.07)	(0.08)	(0.06)	(0.07)	(0.08)	(0.08)	(0.07)	(0.08)	(0.06)	(0.08)	(0.08)
Observations	23,080	23,080	23,080	23,080	23,080	23,080	23,080	23,080	23,080	23,080	23,080
R^2	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Adjusted R^2	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
Residual Std. Error	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19	1.19
F Statistic	204.97***	204.97***	204.97***	204.97***	204.97***	204.97***	204.97***	204.97***	204.97***	204.97***	204.97***

Note: *p<0.1; **p<0.05; ***p<0.01

B Additional Analysis on the Impact of Rules on Determinants of Floor Speech

Table 8 presents the complete regression output of the models discussed in subsection 5.2. I use regression through the origin (RTO) to generate coefficient estimates for the full set of interaction effects for each variable of interest. Each column reports the output for model containing the interaction of rule regime and the variable name at the top of the column. The actual portion of the table that addresses the hypothesis are the interaction effects. The coefficient estimate of the relative impact of moving from the interaction of a single variable with rule regime n-1 to the interaction of the same variable with rule regime n on the number of speeches given by a member i, in a Congress t is equivalent to subtracting the coefficient estimates of each interacted rule regime dummy variable from the previous rule regime coefficient in Table 8. By doing this and then correcting the standard errors, I generate the relative conditional coefficient estimates reported in Table 6.

Table 8: Full Output for Interaction Models with no Constant

	Interacted Variable in Model									
	Chamber-Extreme	Party-Extreme	Minority	Back-bencher	Committee-Leader	Seniority	Electoral Vulnerability	Age	College	Lawyer
Chamber-extreme	−0.49	0.48***	0.52***	0.44***	0.44***	0.41***	0.46***	0.46***	0.47***	0.42***
	(0.34)	(0.05)	(0.05)	(0.05)	(0.05)	(0.04)	(0.05)	(0.05)	(0.05)	(0.05)
Party-extreme	0.23***	−0.38	0.21***	0.21**	0.22***	0.22***	0.21***	0.19**	0.21***	0.23***
	(0.08)	(0.99)	(0.08)	(0.08)	(0.08)	(0.07)	(0.08)	(0.08)	(0.08)	(0.08)
Minority	0.13***	0.09***	−0.36***	0.11***	0.10***	0.09***	0.09***	0.08***	0.09***	0.09***
	(0.02)	(0.02)	(0.14)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Backbencher	−1.16***	−1.16***	−1.14***	−1.24***	−1.10***	−1.11***	−1.16***	−1.18***	−1.16***	−1.14***
	(0.09)	(0.09)	(0.09)	(0.18)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
Com. Leader	−0.63***	−0.63***	−0.63***	−0.76***	−0.62***	−0.69***	−0.64***	−0.65***	−0.63***	−0.62***
	(0.09)	(0.09)	(0.09)	(0.09)	(0.18)	(0.09)	(0.09)	(0.09)	(0.09)	(0.09)
Seniority	0.08***	0.08***	0.09***	0.09***	0.09***	0.54***	0.08***	0.09***	0.08***	0.09***
	(0.00)	(0.003)	(0.003)	(0.003)	(0.003)	(0.09)	(0.003)	(0.003)	(0.003)	(0.003)
Electoral-vulnerability	−0.09***	−0.08***	−0.09***	−0.06***	−0.07***	−0.002	−0.26	−0.09***	−0.09***	−0.08***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.18)	(0.02)	(0.02)	(0.02)
Age	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.02***	−0.03***	−0.02***	−0.02***
	(0.00)	(0.00)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.01)	(0.001)	(0.001)
College	0.15***	0.15***	0.15***	0.16***	0.16***	0.14***	0.15***	0.14***	0.40***	0.12***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.14)	(0.02)
Lawyer	0.27***	0.27***	0.28***	0.26***	0.26***	0.27***	0.27***	0.26***	0.27***	0.75***
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.16)
Rule 0	5.99***	5.71***	5.87***	5.74***	5.60***	4.85***	5.71***	6.27***	5.51***	5.32***
	(0.17)	(0.15)	(0.14)	(0.17)	(0.13)	(0.19)	(0.13)	(0.39)	(0.15)	(0.16)
Rule 1	5.96***	5.94***	5.89***	6.12***	5.75***	5.28***	5.93***	6.62***	5.87***	5.70***
	(0.11)	(0.11)	(0.11)	(0.12)	(0.11)	(0.11)	(0.11)	(0.20)	(0.11)	(0.11)
Rule 2	5.91***	5.68***	5.76***	6.46***	5.61***	5.07***	6.11***	6.42***	5.80***	5.60***
	(0.17)	(0.15)	(0.14)	(0.16)	(0.13)	(0.15)	(0.13)	(0.39)	(0.15)	(0.15)
Rule 3	5.64***	5.72***	5.71***	6.04***	5.64***	5.28***	5.90***	6.47***	5.70***	5.49***
	(0.14)	(0.15)	(0.13)	(0.17)	(0.13)	(0.14)	(0.13)	(0.37)	(0.15)	(0.15)
Rule	5.60***	5.52***	5.54***	5.92***	5.37***	5.09***	5.55***	5.88***	5.62***	5.27***
	(0.11)	(0.11)	(0.10)	(0.11)	(0.10)	(0.11)	(0.10)	(0.16)	(0.11)	(0.11)
Rule 5	5.40***	5.33***	5.37***	5.74***	5.26***	4.99***	5.41***	6.03***	5.51***	5.14***
	(0.14)	(0.14)	(0.13)	(0.16)	(0.12)	(0.15)	(0.12)	(0.34)	(0.16)	(0.15)

Continued on Next Page...

Table 8 – Continued

	Chamber-Extreme	Party-Extreme	Minority	Back-bencher	Committee-Leader	Seniority	Electoral Vulnerability	Age	College	Lawyer
Rule 6	5.83***	5.64***	5.75***	5.93***	5.63***	5.41***	5.74***	6.37***	5.82***	5.40***
	(0.15)	(0.14)	(0.13)	(0.16)	(0.12)	(0.15)	(0.12)	(0.32)	(0.16)	(0.14)
Rule 7	6.05***	6.02***	6.07***	6.27***	5.99***	5.76***	6.13***	6.14***	6.11***	5.99***
	(0.11)	(0.11)	(0.11)	(0.11)	(0.10)	(0.11)	(0.10)	(0.16)	(0.11)	(0.11)
Rule 8	5.67***	5.29***	5.67***	5.61***	5.43***	5.22***	5.55***	6.14***	5.68***	5.51***
	(0.17)	(0.14)	(0.13)	(0.16)	(0.12)	(0.14)	(0.12)	(0.34)	(0.17)	(0.14)
Rule 9	5.80***	5.47***	5.68***	5.70***	5.39***	5.12***	5.52***	6.11***	5.34***	5.50***
	(0.12)	(0.11)	(0.11)	(0.12)	(0.11)	(0.12)	(0.11)	(0.20)	(0.13)	(0.12)
Rule 10	5.70***	5.43***	5.58***	5.41***	5.46***	5.28***	5.49***	6.39***	5.43***	5.37***
	(0.12)	(0.12)	(0.11)	(0.14)	(0.11)	(0.12)	(0.11)	(0.23)	(0.14)	(0.12)
Rule 11	6.00***	6.01***	5.91***	6.00***	5.93***	5.76***	6.01***	6.07***	6.08***	6.05***
	(0.11)	(0.11)	(0.11)	(0.12)	(0.10)	(0.11)	(0.10)	(0.16)	(0.12)	(0.11)
Rule 12	6.02***	5.95***	5.97***	5.91***	5.82***	5.82***	5.91***	5.79***	5.99***	6.01***
	(0.12)	(0.12)	(0.11)	(0.14)	(0.11)	(0.12)	(0.11)	(0.23)	(0.15)	(0.12)
Rule 13	6.12***	5.97***	6.11***	6.20***	6.05***	6.02***	6.16***	5.93***	6.12***	6.16***
	(0.15)	(0.14)	(0.12)	(0.20)	(0.12)	(0.13)	(0.12)	(0.32)	(0.19)	(0.13)
Rule 14	5.93***	5.97***	5.97***	5.75***	5.87***	5.93***	5.96***	5.71***	6.00***	6.02***
	(0.11)	(0.11)	(0.11)	(0.13)	(0.11)	(0.11)	(0.11)	(0.16)	(0.12)	(0.11)
Rule 15	5.93***	6.06***	5.88***	5.63***	5.96***	6.21***	6.04***	5.86***	5.88***	6.15***
	(0.13)	(0.12)	(0.12)	(0.16)	(0.11)	(0.12)	(0.11)	(0.24)	(0.17)	(0.12)
Rule 16	6.18***	6.41***	6.29***	5.81***	6.29***	6.62***	6.32***	5.91***	6.23***	6.39***
	(0.15)	(0.13)	(0.12)	(0.20)	(0.12)	(0.13)	(0.12)	(0.34)	(0.23)	(0.13)
Rule 17	6.19***	6.44***	6.30***	6.04***	6.29***	6.59***	6.35***	5.84***	6.20***	6.45***
	(0.15)	(0.13)	(0.13)	(0.20)	(0.12)	(0.14)	(0.12)	(0.35)	(0.26)	(0.13)
Rule 18	5.91***	6.22***	6.17***	5.85***	6.13***	6.41***	6.20***	5.80***	6.18***	6.28***
	(0.13)	(0.12)	(0.12)	(0.16)	(0.11)	(0.12)	(0.11)	(0.27)	(0.20)	(0.12)
Rule 19	6.02***	6.28***	6.27***	6.08***	6.21***	6.43***	6.30***	5.59***	6.31***	6.39***
	(0.15)	(0.13)	(0.13)	(0.20)	(0.12)	(0.14)	(0.12)	(0.36)	(0.27)	(0.13)
Rule 20	6.35***	6.42***	6.38***	6.02***	6.33***	6.58***	6.40***	5.96***	6.43***	6.50***
	(0.11)	(0.11)	(0.10)	(0.11)	(0.10)	(0.10)	(0.10)	(0.14)	(0.14)	(0.10)
Rule 21	6.19***	6.37***	6.24***	5.84***	6.24***	6.50***	6.27***	5.38***	6.46***	6.45***
	(0.15)	(0.14)	(0.13)	(0.19)	(0.12)	(0.13)	(0.12)	(0.33)	(0.36)	(0.12)
Rule 22	6.73***	6.53***	6.61***	6.09***	6.35***	6.60***	6.42***	5.56***	6.68***	6.55***
	(0.16)	(0.14)	(0.13)	(0.21)	(0.12)	(0.13)	(0.12)	(0.34)	(0.37)	(0.12)

Continued on Next Page. . .

Table 8 – Continued

	Chamber-Extreme	Party-Extreme	Minority	Back-bencher	Committee-Leader	Seniority	Electoral Vulnerability	Age	College	Lawyer
Interaction	0.75**	−0.07	0.41***	−0.2	0.24	−0.20**	0.04	−0.003	−0.23	−0.22
w/Rule 1	(0.37)	(1.06)	(0.15)	(0.17)	(0.17)	(0.09)	(0.19)	(0.01)	(0.16)	(0.17)
Interaction	0.87*	2.42*	0.67***	−0.71***	0.71***	−0.14	−0.60***	0.001	−0.12	−0.06
w/Rule 2	(0.46)	(1.34)	(0.19)	(0.22)	(0.22)	(0.10)	(0.23)	(0.01)	(0.20)	(0.21)
Interaction	1.50***	1.03	0.69***	−0.27	0.27	−0.26***	−0.19	−0.002	−0.11	−0.03
w/Rule 3	(0.42)	(1.23)	(0.21)	(0.22)	(0.22)	(0.10)	(0.23)	(0.01)	(0.20)	(0.21)
Interaction	0.81**	0.68	0.42***	−0.42**	0.42**	−0.30***	0.22	0.01	−0.35**	−0.08
w/Rule 4	(0.35)	(1.02)	(0.15)	(0.17)	(0.17)	(0.09)	(0.19)	(0.01)	(0.15)	(0.16)
Interaction	1.01***	1.59	0.53***	−0.35*	0.36*	−0.34***	0.31	−0.001	−0.36*	−0.07
w/Rule 5	(0.39)	(1.34)	(0.19)	(0.21)	(0.22)	(0.09)	(0.24)	(0.01)	(0.20)	(0.21)
Interaction	0.78*	1.51	0.43**	−0.18	0.17	−0.38***	0.32	−0.001	−0.34*	0.05
w/Rule 6	(0.41)	(1.21)	(0.19)	(0.21)	(0.21)	(0.09)	(0.24)	(0.01)	(0.20)	(0.20)
Interaction	1.10***	1.16	0.50***	−0.15	0.13	−0.37***	0.11	0.01	−0.26	−0.30*
w/Rule 7	(0.35)	(1.02)	(0.15)	(0.17)	(0.17)	(0.09)	(0.19)	(0.01)	(0.16)	(0.16)
Interaction	0.59	2.25**	0.10	−0.05	0.05	−0.38***	0.03	−0.000	−0.45**	−0.45**
w/Rule 8	(0.46)	(1.14)	(0.18)	(0.21)	(0.22)	(0.09)	(0.26)	(0.01)	(0.21)	(0.20)
Interaction	0.12	0.91	0.04	−0.17	0.18	−0.37***	0.27	0.0003	−0.03	−0.45***
w/Rule 9	(0.37)	(1.04)	(0.16)	(0.18)	(0.18)	(0.09)	(0.23)	(0.01)	(0.17)	(0.17)
Interaction	0.20	1.20	0.25	0.17	−0.21	−0.41***	0.34	−0.01	−0.15	−0.26
w/Rule 10	(0.41)	(1.08)	(0.16)	(0.19)	(0.19)	(0.09)	(0.21)	(0.01)	(0.18)	(0.18)
Interaction	1.02***	0.54	0.73***	0.06	−0.06	−0.41***	0.29	0.01	−0.33**	−0.57***
w/Rule 11	(0.38)	(1.02)	(0.15)	(0.17)	(0.17)	(0.09)	(0.20)	(0.01)	(0.16)	(0.16)
Interaction	0.50	0.33	0.31*	0.05	−0.05	−0.45***	0.35	0.02*	−0.33*	−0.66***
w/Rule 12	(0.41)	(1.04)	(0.16)	(0.19)	(0.20)	(0.09)	(0.24)	(0.01)	(0.19)	(0.18)
Interaction	1.11**	1.89*	0.54***	−0.01	0.0002	−0.44***	0.17	0.02*	−0.20	−0.50***
w/Rule 13	(0.51)	(1.12)	(0.18)	(0.24)	(0.25)	(0.09)	(0.28)	(0.01)	(0.22)	(0.19)
Interaction	1.02***	0.41	0.38**	0.24	−0.27	−0.46***	0.09	0.02**	−0.30*	−0.62***
w/Rule 14	(0.37)	(1.01)	(0.15)	(0.18)	(0.18)	(0.09)	(0.21)	(0.01)	(0.16)	(0.16)
Interaction	1.32***	0.33	0.80***	0.47**	−0.47**	−0.50***	0.20	0.02*	−0.08	−0.70***
w/Rule 15	(0.42)	(1.04)	(0.16)	(0.21)	(0.21)	(0.09)	(0.26)	(0.01)	(0.20)	(0.18)
Interaction	1.57***	−0.0004	0.56***	0.62**	−0.62**	−0.52***	0.54*	0.02**	−0.14	−0.58***
w/Rule 16	(0.51)	(1.09)	(0.19)	(0.25)	(0.25)	(0.09)	(0.31)	(0.01)	(0.26)	(0.19)
Interaction	1.58***	0.004	0.57***	0.38	−0.36	−0.51***	0.64*	0.03**	−0.08	−0.64***
w/Rule 17	(0.49)	(1.08)	(0.18)	(0.24)	(0.25)	(0.09)	(0.34)	(0.01)	(0.28)	(0.19)

Continued on Next Page...

Table 8 – Continued

	Chamber-Extreme	Party-Extreme	Minority	Back-bencher	Committee-Leader	Seniority	Electoral Vulnerability	Age	College	Lawyer
Interaction	1.99***	0.47	0.52***	0.42**	−0.39*	−0.50***	0.65**	0.02**	−0.21	−0.62***
w/Rule 18	(0.41)	(1.03)	(0.16)	(0.21)	(0.21)	(0.09)	(0.28)	(0.01)	(0.23)	(0.18)
Interaction	1.92***	0.65	0.50***	0.28	−0.19	−0.49***	0.32	0.03**	−0.25	−0.67***
w/Rule 19	(0.49)	(1.08)	(0.18)	(0.24)	(0.25)	(0.09)	(0.38)	(0.01)	(0.30)	(0.19)
Interaction	1.13***	0.40	0.47***	0.45***	−0.41**	−0.50***	0.30	0.02***	−0.28	−0.73***
w/Rule 20	(0.36)	(1.01)	(0.14)	(0.17)	(0.17)	(0.09)	(0.20)	(0.01)	(0.18)	(0.16)
Interaction	1.26***	−0.07	0.55***	0.54**	−0.51**	−0.51***	0.39	0.03***	−0.43	−0.91***
w/Rule 21	(0.43)	(1.16)	(0.18)	(0.24)	(0.24)	(0.09)	(0.26)	(0.01)	(0.38)	(0.20)
Interaction	0.20	−0.29	0.02	0.40	−0.36	−0.50***	0.33	0.03***	−0.52	−0.84***
w/Rule 22	(0.43)	(1.13)	(0.18)	(0.25)	(0.25)	(0.09)	(0.28)	(0.01)	(0.39)	(0.20)
Observations	23,080									
R^2	0.95									
Adjusted R^2	0.95									
RSE	1.18	1.19	1.18	1.18	1.18	1.17	1.18	1.18	1.19	1.18
F Statistic	7,445.81***	7,422.79***	7,451.74***	7,480.65***	7,473.71***	7,671.66***	7,428.28***	7,449.13***	7,415.65***	7,487.27***

Note: *p<0.1; **p<0.05; ***p<0.01