

# Winning Coalition Formation in the U.S. Senate: The Effects of Legislative Decision Rules and Agenda Change

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*Recent empirical work has brought a renewed attention to the effect congressional rules of procedure have on the size of winning coalitions. Specifically, scholars have posited that legislative success hinges on the support of legislators identified by institutionally defined decision rules. Under these theories, supermajority decision rules in the U.S. Senate lead to larger, more inclusive coalitions on final passage. In this article, I reevaluate these claims by controlling for changes in the legislative agenda and the roll-call voting record. I find that the aggregate size of winning coalitions is highly responsive to the underlying legislative agenda, the size of the Senate's majority party, and the manner in which researchers treat unrecorded votes. Further, my findings suggest that any connection between changes in the Senate's voting rules and the size of winning coalitions is spurious.*

The theoretical treatment of winning coalition formation in the U.S. Congress is a longstanding tradition within political science. This is due to the clear distinctions that can be drawn from coalition data. When a piece of legislation is approved by Congress, legislators who voted yes on the measure's final passage vote are seen as the winners, and those who voted no are seen as the losers. The size of the winning (or enacting) coalition is then frequently utilized to characterize the nature of the legislative process and to represent the ideological location of the underlying measure. There is perhaps no more meaningful a finding for legislative scholars than one that explains why some members win and others lose on a given set of policy proposals.

For example, conservatives aggressively attacked the size of the Democratic coalitions that passed and amended H.R. 3590, the Patient Protection and Affordable Care Act. After the measure passed the Senate 60 to 39, Senator Olympia Snowe (R-ME) characterized the process as overly partisan, noting that since the Democrats held 60 Senate seats, they did not seek to expand the size of the enacting coalition. She argued that there was "zero opportunity to amend the bill or modify it, and Democrats

had no incentive to reach across the aisle" (Pear 2009). Minority Leader Mitch McConnell (R-KY) accused President Obama and congressional Democrats of "turn[ing] aside any pretense of bipartisanship and plow[ing] ahead on a partisan bill—a partisan bill, by the way, that Americans don't want" (*Congressional Record*, 111th Congress, March 4, 2010, S1125). The electoral implications from this strategy were fairly straightforward. Republicans sought to persuade voters that the narrow majority in favor of the bill represented a narrow subset of the electorate.

In addition to serving as a tool to characterize the lawmaking process, the size of winning coalitions often reveals important information regarding the ideological content of legislation. In order to attract the votes necessary to form a winning coalition on health care legislation in the House, Speaker Nancy Pelosi (D-CA) allowed a successful vote on an amendment barring individuals who receive federal health care funds from using them to purchase an insurance plan that covered abortions (Dennis 2009). The amendment—opposed by three-fourths of the majority party—made the legislation more palatable to conservative Democrats and facilitated the bill's

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passage.<sup>1</sup> The Patient Protection and Affordable Care Act is just one of many examples that highlight the electoral and policy significance of winning coalition formation. As such, it is of little surprise that scholars of legislative politics have devoted so much attention to the subject.

Recent empirical work has brought a renewed attention to the effect congressional rules of procedure have on the size of winning coalitions (Krehbiel 1998; Wawro and Schickler 2004, 2006). These scholars posit that legislative success hinges on the support of legislators identified by institutionally defined decision rules. As these rules changed over time, so did the size of legislative coalitions. Accordingly, this significantly impacted the total number of winners and losers in the chamber. The argument is particularly significant for observers of the U.S. Senate, as it has important normative implications for the chamber's supermajority cloture rule. Specifically, scholars have suggested that the primary effect of the cloture rule has been to force members to compromise on legislative substance, leading to larger coalitions that may be more representative of the public's views (Wawro and Schickler 2006).

In this article, I propose and evaluate an alternative explanation for winning coalition formation U.S. Senate. I argue the size of winning coalitions has increased in the Senate because of a combination of factors: the increasing likelihood a bill receives a recorded final passage vote, a change in the type of issues that comprise the legislative agenda, and fluctuations in the partisan composition of the chamber. Specifically, I argue that as time passed, Congress considered fewer issues with zero-sum policy benefits, allowing legislation to be tailored to broader coalitions. Additionally, these data suggest that the aggregate size of winning coalitions is greatly influenced by how researchers treat voice votes, which were proportionally more prominent in the precloture Senate. While these factors had a minimal effect on the raw number of bills passed by smaller majorities, it resulted in a larger number of bills passed by oversized majorities.

I employ a dataset of final passage votes on landmark legislative enactments in the U.S. Senate to evaluate these claims. My findings confirm earlier research that coalition sizes in the Senate are on the rise (Lawrence 2004; Wawro and Schickler 2004, 2006). Moreover, the evidence suggests the size of winning coalitions is primarily related to the underlying issue area, as well as the size of the Senate's majority party. However, these findings are likely to

be conditional on the treatment of voice votes. This reinforces recent literature suggesting that the composition of the roll-call record can lead to bias and uncertainty when testing models of legislative behavior (Carrubba et al. 2006; Carrubba, Gabel, and Hug 2008; Roberts 2007; Smith 2007). I find no support for the thesis that the adoption of Rule XXII had a direct effect on aggregate coalition formation.

## Legislative Decision Rules and Coalition Formation

In his 1998 book, Keith Krehbiel develops a theory of coalition building—pivotal politics—derived from institutional constraints. The key observation is that legislation must bypass numerous veto players in the legislative process before it becomes law.<sup>2</sup> The *pivotal* player is then determined by ordering legislators by ideology in a unidimensional, spatial model and applying the relevant decision rule. Thus, in the contemporary Senate, if the veto is not a threat, the pivotal player should be the 60th most conservative or liberal member depending on the location of the status quo. This is because the modern cloture rule requires the support of “three-fifths of the senators duly chosen and sworn” to end a filibuster.<sup>3</sup>

Krehbiel then tests this theory with data on winning coalition sizes. The most straightforward interpretation of his theory would predict that coalitions should be as large as the rule dictates. For example, if the veto pivot is the key player, winning coalitions should equal two-thirds of the chamber. Refining this slightly leads Krehbiel to three hypotheses regarding the size of winning coalitions. First, coalitions should be smaller after a presidential regime change.<sup>4</sup> The intuition is that the veto should be less of a threat under this arrangement as there is now a wider selection of status quo points that can be moved by legislators. Hence, fewer bills will necessitate the two-thirds required to override a veto and the number of winners will reflect an alternative decision rule that specifies a smaller majority. Second, he suggests that winning coalitions should be smaller in the House than the Senate after these regime shifts. This is because the applicable

<sup>2</sup>Examples include the president, House median, committees, veto, and filibuster pivots.

<sup>3</sup>If the measure or motion involves amending the Senate's rules, then two-thirds of the senators present and voting is necessary to end debate.

<sup>4</sup>He defines a new presidential regime as a change in the party occupying the White House.

<sup>1</sup>The amendment, sponsored by Representative Bart Stupak (D-MI), passed the House by a vote of 240 to 194. A unanimous coalition of House Republicans joined 64 Democrats to support the measure. The bill then passed 220 to 215.

decision rule in the Senate—Rule XXII—specifies that a supermajority is necessary to formally end debate.

Finally, Krehbiel hypothesizes that winning coalitions should be smaller in the Senate after the cloture threshold was reduced in the 94th Senate. Prior to the 94th Senate, two-thirds of senators present and voting was necessary to end debate. The requirement was lowered to three-fifths of the senators duly chosen and sworn during that Congress. Krehbiel tests these claims using data from winning coalition sizes on landmark enactments taken from Mayhew (1991). While he reports substantial support for his first hypothesis, the results are somewhat mixed for the interchamber and cloture threshold hypotheses. He concludes by suggesting his theory be applied to coalition data beyond what Mayhew had collected.

Wawro and Schickler (2004, 2006) build from Krehbiel's approach and apply the model to the Senate's adoption of a formal cloture rule in 1917. Prior to the adoption of Rule XXII, the chamber had no formal way to end debate. However, most accounts of lawmaking in the 19th-century Senate argue that only a simple majority was necessary to pass legislation (Binder and Smith 1997; Burdette 1940; Chiou and Rothenberg 2006). Wawro and Schickler suggest this was primarily due to strong norms against filibustering. The authors suggest that the adoption of cloture formally codified a breakdown of these norms, leading to an increase in obstruction throughout the 19th century. Thus, while designed to curb filibustering, the cloture rule may have had a paradoxical effect. By formally acknowledging the filibuster, Rule XXII encouraged senators to utilize it. In order to overcome obstruction, coalition leaders would seek to form larger coalitions—as specified by this new decision rule.

Using a dataset of coalition sizes on landmark legislative enactments, the authors find that average winning coalition sizes were smaller in the precloture Senate, as well as during new presidential regimes in both eras.<sup>5</sup> While this may seem like the adoption of Rule XXII was a miscalculation on the part of majorities, Wawro and Schickler argue that it was a calculated decision made to better ensure the passage of legislation late in a congressional session. Using a dataset of coalition sizes on obstructed measures, they demonstrate that larger coalitions were necessary to overcome filibusters in these lame-duck sessions.<sup>6</sup> Moreover, they theorize that this effect

<sup>5</sup>The authors use a “sweep one” list developed by Peterson (2001), which extends from 1881 to 1946.

<sup>6</sup>Until the Twentieth Amendment took effect in 1933, the terms of Congress and the president began and ended on March 4. This meant that lame-duck congresses could continue legislating for four months, during which a significant amount of legislation was

should also translate into larger and less variable coalitions on landmark enactments in the lame-duck session and report mixed support for this hypothesis.<sup>7</sup> The authors conclude that the adoption of Rule XXII represented a trade-off of sorts, institutionalizing the filibuster in exchange for more legislative certainty late in the session. Thus, in the aggregate, the rule made the passage of legislation more difficult (Wawro and Schickler 2004, 773).

Recent work has questioned the applicability of the pivotal politics framework to coalition formation. First, Smith (2007, 159–60) suggests that applying the pivotal politics theory to aggregate data on winning coalitions may be problematic due to the presence of extreme status quo points. Exogenous shocks will often set such extreme points, forcing issues onto the legislative agenda and influencing coalition formation irrespective of congressional rules of procedure. For example, the outbreak of World War I and World War II led to Congress passing a number of bills with oversized majorities. Thus, the presence of these exogenous shocks could bias any study that utilized temporal coalition data to test for institutional effects.

Second, if a norm against obstruction first started to break down during lame-duck senates—when the adjournment date loomed—then systematic variation amongst the size of winning coalitions should be particularly evident during lame-duck senates immediately before and after the rule change. Looking at data from the 64th to 67th senates, Koger (2007) finds no such support. Finally, Lawrence (2004) demonstrates that the growth in the size of Senate enacting coalitions is mirrored by growing coalition sizes in the House of Representatives. The House did not enact a similar Rule XXII reform in 1917. Rather, the chamber adopted a formal method of ending debate by a simple majority roughly 20 years earlier. While these findings *suggest* that institutional changes are not the primary explanation for the increasing size of winning coalitions in the Senate, they do not provide an alternative theoretical explanation for the change.<sup>8</sup> In the next

often passed. Minorities, however, could delay until the mandatory adjournment on March 4, when all pending legislation was declared dead. The amendment moved the start of the term back to January 3, effectively killing lame-duck sessions.

<sup>7</sup>Wawro and Schickler (2004, 2006) include a dummy variable for landmark legislation passed in a lame-duck Senate in their model of coalition sizes. While the variable is not statistically significant, the authors suggest that this is due to the high proportion of landmark bills passed via unrecorded vote. The authors later fit a logit model using lopsided coalitions as the dependent variable and categorizing voice-voted enactments as legislation passing via a lopsided coalition. In this model, they report a statistically significant effect for the lame-duck session variable.

<sup>8</sup>As is detailed later, these arguments are not necessarily conclusive. Indeed, the growth in House coalitions may be due to that chamber

section, I build off these approaches by outlining how changes in the content of the legislative agenda—as well as the composition of the roll-call voting record—have influenced coalition formation in the Senate.

## **An Alternative Account of Coalition Formation**

Early theoretical work on the formation of legislative coalitions argued that legislation should be crafted to ensure coalitions of the smallest possible size (Riker 1962; Riker and Ordeshook 1968). Riker (1962) argues this is because rational legislators will attempt to maximize their individual gain by restricting the total number of members policy benefits are distributed amongst.<sup>9</sup> Subsequent empirical studies found scant support for the minimum winning coalition thesis (Fenno 1966, 1973; Ferejohn 1974; Hinckley 1972; Manley 1970). Later theoretical work largely attributed these null-findings to a combination of electoral uncertainty and changes in the distributive nature of policy benefits (Mayhew 1974; Weingast 1979). Electoral uncertainty led members to solidify their standing amongst voters by seeking particularized benefits for their districts. By crafting oversized legislative coalitions, members bolstered their standing among their colleagues, minimizing the likelihood they would be excluded from future coalitions.

This theory—universalism—is qualified upon the assumption that policy benefits are not zero-sum. More specifically, the amount a legislator or district receives is not directly dependent on the size of another member's share (Shepsle and Weingast 1981, 1994; Weingast, Shepsle, and Johnsen 1981). Further, the costs of these benefits are not particularized but borne equally by all legislators. This latter assumption becomes easier to satisfy once the federal income tax was instituted and the federal government embraced deficit spending. As some issue areas impose highly exogenous cost-benefit structures, the assumptions of both the minimum winning coalition and universalism theories suggest coalition sizes and issue content are closely linked.

I argue that changes in the content of the legislative agenda distort the degree to which coalition sizes have increased in the U.S. Senate. As Smith (2007) suggests, certain issues are thrust upon the legislative agenda by events and forces independent of internal legislative de-

anticipating the Senate's supermajority requirement and acting accordingly (Wawro and Schickler 2006).

<sup>9</sup>The claim is partially conditioned on low amounts of uncertainty, and as will be discussed later, zero-sum policy benefits.

cision making. In the 19th century, these issues necessitated legislation with clear winners and losers. The 20th century, however, witnessed an influx in legislation with nearly universal benefits and fairly dispersed policy costs. Moreover, the increasing frequency with which legislation received a recorded roll-call vote served to exacerbate the degree in which changes in the agenda have inflated the aggregate size of winning coalitions in the Senate. Finally, once key issues are controlled for, changes in coalitions can be determined by the partisan or ideological composition of government. In the next section, I evaluate the rise and fall of three important issues: the tariff, voting rights, and enactments related to wars.

## **Bill Content, Parties, and Distributive Politics**

The two most dominant issues during 19th-century American politics dealt with slavery (later voting rights legislation) and the tariff.<sup>10</sup> Both issues were highly salient and had important policy ramifications for citizens and legislators. This forced both major political parties to develop clear and distinct positions on each issue. Additionally, both issues featured policy benefits that inhibited the formation of large winning coalitions.<sup>11</sup>

Few issues were as salient and important to 19th-century legislators as the tariff. The federal government's primary method for raising capital for much of the 19th century, Hansen notes that prior to the Civil War "the U.S. treasury derived about 90 percent of its revenues from customs duties" (1990, 529). While this percentage would fluctuate, it remained high throughout the

<sup>10</sup>For more on the importance of slavery and voting rights legislation, see Poole and Rosenthal (1997), Potter (1976), or Weingast (2006). For a detailed discussion of the tariff, see Bense (2000) or Taussig (1931).

<sup>11</sup>See Wawro and Schickler (2006, 128–79) for an excellent discussion of obstruction on these two issues. While this treatment is impressive, the authors do not explicitly consider the impact that these issues had on aggregate coalition formation. Additionally, Wawro and Schickler (2006, 227–28) consider the potential impact of agenda change on coalition formation, reporting that there are no differences either in the proportion of legislation in various categories, or where there are differences in proportions of types of legislation, there are no statistically significant differences in coalition sizes. However, this treatment is relatively sparse, and employs Clausen (1973) and Peltzman (1984) issue codes. This is problematic in two respects. First, these codes are exceedingly broad in the sense that issues like tariff legislation and the fixing of a national election day are grouped together. Thus, systematic shifts away from or toward an issue with a specific set of policy benefits may be cancelled by random noise. Second, these codes are only assigned to enactments that received recorded roll-call votes, making it impossible to get an accurate assessment of how they impacted coalition formation in a broader sense.

rest of the century. Wawro and Schickler correctly note that there is an expansive literature in political science that links the tariff with distributive policymaking (Lowi 1964; Schattschneider 1935; Weingast 1979). Further, as detailed above, distributive policymaking is frequently linked to the theory of universalism. This suggests that coalitions should be oversized on tariff legislation.

More recent scholarship, however, has suggested there was a substantial partisan aspect to tariff politics (Epstein and O'Halloran 1996; Hansen 1990). By highlighting these partisan factors, this literature questions the applicability of the universalism thesis, especially given the assumption that policy benefits were not zero-sum. Specifically, tariff legislation featured political costs that were not collective; rather, they were borne by particularized groups that worked in export-dependent industries, like farmers or urban laborers. High tariffs were aggressively fought by these groups and their Democratic representatives. Conversely, lower tariffs meant more competition for manufacturing business owners and skilled laborers—who were generally championed by Republicans. On the basis of this dichotomy, Schickler characterizes the tariff as being arguably “the defining partisan issue in the late nineteenth century” (2001, 299).

Additionally, the federal government rarely ran deficits in this era and legislators lacked the flexibility to offset high tariff rates with increased deficit spending. Given this, battles over tariff legislation reflected the zero-sum nature of the issue. Debates over tariff legislation would frequently last months and feature a large number of recorded votes. For example, the Wilson-Gorman Tariff of 1894 featured 207 recorded votes on amendments—the equivalent of 40% of the roll-call voting record in the 53rd Senate. As much of the existing empirical literature has demonstrated (Hansen 1990; Wawro and Schickler 2004, 2006), tariff legislation fostered the exclusive and narrow policy coalitions predicted by Riker (1962). Further, only after the collapse of the economy in the wake of the Smoot-Hawley Tariff Act did the tariff move off of the legislative agenda.

Prior to the Civil War, slavery represented the dominant political issue in the United States. In the 1850s the issue led to a partisan realignment, with members of the newly formed Republican Party favoring restrictions on its expansion and Democrats—especially Southerners—favoring its protection. Throughout this era the issue also became intertwined with the politics of statehood and territory expansion. In an effort to ensure balance in the chamber, Southerners aggressively opposed the organization of territories or the admission of states that outlawed slavery. In the decades following the Civil War, the sec-

tional divides over slavery refocused on the issue of black voting rights. Southern Democrats aggressively sought to suppress the black vote and reverse Republican policies. Former Democratic senator and governor of South Carolina, “Pitchfork” Ben Tillman put it bluntly, “we took the Government away. We stuffed ballot boxes. We shot them. We are not ashamed of it” (quoted in Hoar 1903, 150). Once again, the debate became closely related to fights over state and territory admissions (McCarty, Poole, and Rosenthal 2000; Stewart and Weingast 1992).<sup>12</sup>

While voting rights issues were not necessarily zero-sum, they did feature both costs and benefits that were regionally focused. Simply put, for Northern voting rights advocates to win, Southerners had to lose, and vice versa. Thus, one would not expect the theory of universalism to apply to such issues. Because the Constitution provides for two senators from each state, one regional faction never greatly outnumbered another. This ensured that coalitions—at least in the Senate—would be smaller on voting rights legislation in the nineteenth century.

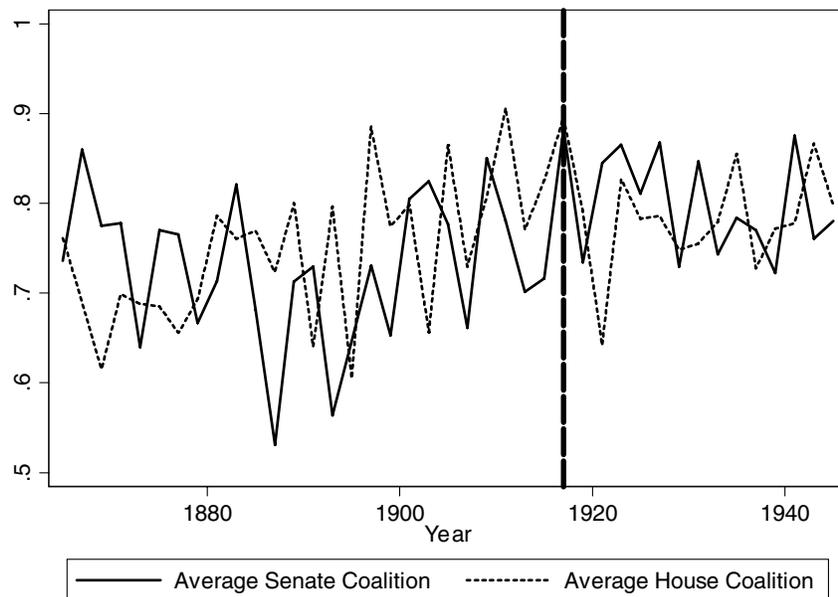
In contrast to the 19th century, the early 20th century was marked by a large number of exogenously set status quo points. The bulk of these were related to world wars. For instance, following the outbreak of World War II, the Senate approved landmark resolutions declaring war with Japan, Italy, Germany, Bulgaria, Hungary, and Romania, all of which garnered unanimous support and recorded roll-call votes. These votes featured nearly universal policy benefits and equally dispersed costs. Thus, winning coalitions were not likely to have been influenced by legislative rules nor partisan factors.

In sum, one would expect the size and content of the legislative agenda to be closely linked with aggregate winning coalition sizes. Moreover, the hypotheses generated by institutions-based theories should not be affected by controlling for issue areas. The expectation is that the decision rule should directly impact the size of winning coalitions regardless of the issue. The next section looks at testing these theories using coalition size data.

## Evaluating Winning Coalition Formation

To examine the link between congressional agendas, legislative decision rules, and aggregate winning coalition sizes, I employ a list of landmark enactments provided

<sup>12</sup>McCarty, Poole, and Rosenthal argue that statehood entry “was determined by the Republicans’ objective of maintaining the policies they enacted during the War and Reconstruction” (2000, 578).

**FIGURE 1 Average Size of Winning Coalitions, 1865–1946**

*Note:* List of landmark enactments provided by Stathis (2003). Following Wawro and Schickler (2004, 2006) and Mayhew (1991), I use the roll call on passage of legislation, unless there was one on the adoption of a conference report. Voice votes are treated as missing data. The average size of winning Senate coalitions over the entire precloture era (excluding voice votes) was 74.0%. The average size of winning Senate coalitions in the postcloture era (excluding voice votes) was 80.3%.

by Stathis (2003). I opt for this list because his extended time series allows for more data points from the precloture Senate than the list provided by Peterson (2001).<sup>13</sup> In doing so, the Stathis list picks up two eras of oversized majorities—the Reconstruction era (1865–77) and the Great Depression era (1929–41). Additionally, restricting the analysis to landmark enactments has two advantages. First, it ensures these data are not biased by the large amount of trivial legislation the U.S. Congress produces (Cameron 2000; Clinton and Lapinski 2006). Second, because these lists were created independently of the roll-call voting record, it allows researchers leverage in tracking the propensity of unrecorded votes.

Figure 1 plots the average size of legislative coalitions on landmark enactments from 1865 to 1946. The figure demonstrates that supermajorities were not always necessary to pass legislation in the precloture era. This is consistent with much of the work on the 19th-century Senate (Binder, Madonna, and Smith 2007; Binder and Smith 1997; Burdette 1940; Wawro and Schickler 2006).

<sup>13</sup>Treaties are omitted from this analysis for two reasons. First, they are governed by decision rules set by the Constitution, and not Congress. Additionally, treaties are placed on the legislative agenda by the executive branch.

Following Wawro and Schickler (2004, 2006) and Mayhew (1991), I use the roll call on the passage of legislation, unless there was one on the adoption of a conference report. The treatment of voice-voted legislation is varied throughout the section. The consequences of this will be discussed in detail later.

As previous studies have argued, Figure 1 suggests that Senate coalition sizes have increased over time (Koger 2010; Lawrence 2004; Wawro and Schickler 2004, 2006). However, the figure provides two reasons why we might be skeptical of the claim that changes in the cloture rule play an important role in explaining this phenomenon. First, it confirms Lawrence's finding that the growth in Senate coalitions mimics a pattern in the House of Representatives. This alone does not rule out the pivotal politics thesis, as it is possible a bicameral effect accounts for the House trend. Wawro and Schickler (2006, 232–33) suggest House legislators may anticipate the Senate's supermajority requirement and increase their coalition in response. This is likely to play some role here as the legislation considered in this analysis had to pass both chambers.

Second, the growth in the average size of winning coalitions in both chambers appears to be fairly constant before the adoption of Rule XXII in the Senate. This seems odd, as one would expect the adoption of the rule to

**TABLE 1 Average Number of Landmark Enactments per Senate by Winning Coalition Size, 1865–1946**

	Narrow Majorities Less Than .67%	Oversized Majorities Greater Than 90%
Precloture	1.42	0.58
Postcloture	1.20	1.93

*Note:* This is the average number of landmark enactments per Senate that passed with less than two-thirds voting in favor and greater than 90% voting in favor in the pre- and postcloture eras. The list of landmark enactments is provided by Stathis (2003). Following Wawro and Schickler (2004, 2006) and Mayhew (1991), I use the roll call on passage of legislation, unless there was one on the adoption of a conference report.

precede an increase in aggregate winning coalitions. Figure 1 suggests this is not the case. The adoption of cloture appears to come after several congresses where the average size of winning coalitions increased and before a slight decrease. This suggests that there are additional factors that have not been accounted for.

The theoretical link between Rule XXII and winning coalition sizes is also somewhat suspect. Wawro and Schickler (2006, 219) suggest the adoption of the rule increased the likelihood legislators would form larger, cloture-proof majorities on landmark enactments in an effort to overcome potential obstruction. Accordingly, one would expect the increase in aggregate coalition sizes in the postcloture era to be related to significant decreases in the number of landmark enactments passing with narrow coalitions. An alternative possibility for the increasing size of winning coalitions is that the postcloture era saw a significant increase in the number of enactments passing via oversized coalitions. Such a change is unlikely to be the product of coalition leaders seeking to form cloture-proof majorities. Instead, it suggests a shift in the likelihood that less contentious legislation would receive a recorded roll-call vote, and a change in the content of landmark enactments passed in the postcloture era. Given this, evidence for the theory should manifest itself not only in the percentage of landmark enactments passed by winning coalitions of certain sizes, but also in the raw production of controversial enactments per Senate.<sup>14</sup>

Table 1 displays the average number of landmark enactments passed per Senate with less than cloture-proof majorities. The table suggests that the average number of

bills passing per Senate by close margins has not drastically changed in the postcloture era. From 1865 to 1917, the Senate passed 37 landmark enactments with less than two-thirds support, averaging 1.42 per Congress. For the postcloture era, from 1917 to 1946, the Senate passed 18 bills with less than two-thirds support, averaging 1.20 per Congress. Thus, the adoption of Rule XXII does not appear to have been significantly related to the number of bills being passed per Senate with slimmer majorities. Where we see a substantial difference between the two eras is in the raw number of enactments passed by oversized coalitions. In the precloture era, the Senate passed an average of just 0.58 measures per Congress with greater than 90% in support. After the adoption of Rule XXII, this number more than tripled to 1.93 per Congress. This suggests that changes in both the proportion of enactments that have passed with an unrecorded final passage vote and the content of landmark enactments considered in the postcloture era may play important roles in explaining observed variation in the size of winning coalitions in the Senate.

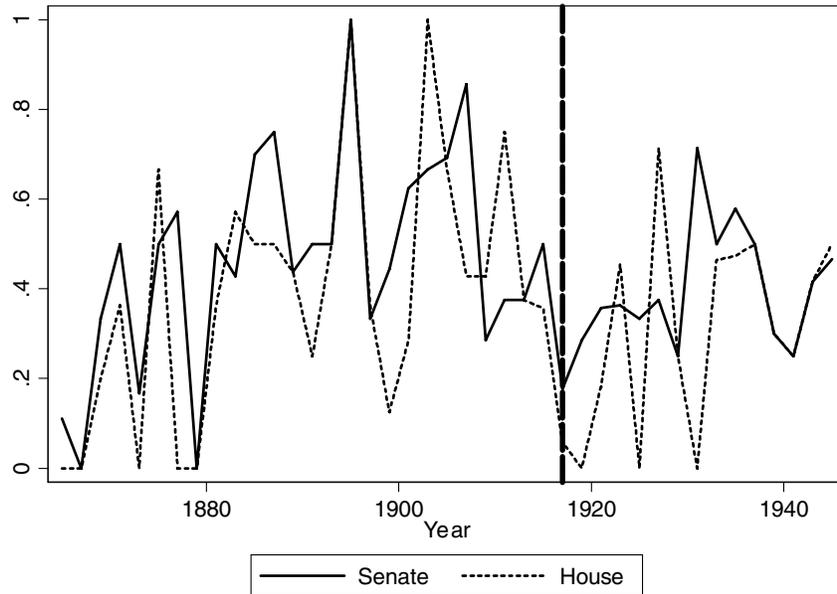
## Recorded Voting

Many bills that are enacted are done so without a recorded vote on final passage. The Constitution provides for recorded voting in both houses of Congress, but only if a member requests it. Additionally, the requesting member needs a sufficient second—one-fifth of those present. Consequently, the percentage of public laws subject to a final passage roll-call vote has not been constant throughout congressional history (Clinton and Lapinski 2008; Smith 2007). Recent research has suggested that these votes are not likely to be a random sample of all votes cast, and as such, inferences from recorded roll-call data may be biased (Carrubba et al. 2006; Smith 2007).

A change in the proportion of enactments that received recorded final passage votes is particularly problematic for studies that evaluate the aggregate size of winning coalitions. Bills enacted without a recorded final passage vote generally have a substantial amount of support. Thus, if legislators started to ask for more recorded final passage votes, we would expect to see two things: First, there would be an increase in the number of bills being passed by supersized winning coalitions (as reported in Table 1). Second, this would cause an increase in the average size of winning coalitions (as Figure 1 demonstrates). Figure 2 tracks the proportion of landmark enactments that received recorded final passage votes from the 39th to the 79th Congress.

<sup>14</sup>Wawro and Schickler report the percentage of bills enacted with less than two-thirds and with less than three-fifths in the periods 1881–1917 and 1917–46, noting significant differences between the two eras. Moreover, they note that their results are robust when voice-voted legislation is included in the analysis.

**FIGURE 2 Proportion of Unrecorded Votes on Landmark Legislation, 1865–1946**



*Note:* List of landmark enactments provided by Stathis (2003). Following Wawro and Schickler (2004, 2006) and Mayhew (1991), I use the roll call on passage of legislation, unless there was one on the adoption of a conference report.

The figure demonstrates that there is a great deal of variability throughout congressional history. This is consistent with alternative coding schemes for landmark enactments.<sup>15</sup> Thus, different treatments of unrecorded votes can lead to drastically different findings. For example, if one were to treat unrecorded votes as missing data—as Krehbiel (1998) does—the average size of winning coalitions in the Senate on landmark enactments from 1865 to 1917 (precloture) is 74.0%. This jumps to 80.3% in the postcloture era (from 1917 to 1946)—an increase of more than 6%. However, if one were to treat unrecorded votes as unanimous—as Mayhew (1991) does—the increase is far less impressive, moving from 86.6% in the precloture period to 88.6%. These findings are presented in Table 2.

While the actual level of support for enactments that pass without recorded final passage votes undoubtedly falls somewhat short of unanimity, it is likely that the increase in the size of winning coalitions is at least partially attributable to the shifting proportion of enactments that received a recorded final passage vote. This change in the likelihood a given enactment receives a recorded roll-call vote may serve to exacerbate effects caused by the chang-

**TABLE 2 Winning Coalition Sizes on Landmark Enactments, 1865–1946**

Era	Excluding Voice Votes	Including Voice Votes	Number of Enactments
Precloture	74.0%	86.6%	204
Postcloture	80.3%	88.6%	180

*Note:* List of landmark enactments coded according to Stathis (2003). Following Wawro and Schickler (2004, 2006) and Mayhew (1991), I use the roll call on passage of legislation, unless there was one on the adoption of a conference report.

ing legislative agenda. Issues with zero-sum policy benefits should lead to the crafting of legislation that appeals to small enacting coalitions. Those enactments should also be more controversial and more likely to garner a recorded final passage vote. The next section evaluates the effect of these factors on winning coalition formation in the Senate in greater detail.

### Fitting a Model of Coalition Formation

To model changes in coalition formation, I take a two-step approach. First, I use the landmark enactment data

<sup>15</sup>Approximately 43% of the bills in Peterson’s (2001) dataset—which stemmed from 1881 to 1946—were not subjected to a recorded final passage vote (Wawro and Schickler 2004, 756).

provided by Stathis (2003) to replicate earlier findings that there is a significant link between the adoption of Rule XXII and the increase in the size of winning coalitions. The dependent variable, winning coalition size, is calculated as the total yes votes divided by the total number of votes cast. As the dependent variable evaluates winning coalition formation, it is truncated on both the left and the right. Winning coalitions can be no smaller than 50% and no larger than 100%. As such, ordinary least-squares analysis may be somewhat inappropriate and I opt to fit a tobit regression model.<sup>16</sup> Again, the prediction is that larger coalitions will be formed in the postcloture Senate.

Second, I estimate the same tobit model, but this time I include controls for issue content. Additionally, I report results using the Peterson (2001) data and varying the treatment of voice-voted legislation. Decision rule-based theories would predict a positive and significant finding for the cloture dummy variable. This should be true regardless of the issue and partisan context.

These data range from 1865 to 1946. Following Wawro and Schickler's Model 2, I include a variable for the majority party seat share. Party theorists suggest that enacting coalitions should be responsive to fluctuations in the size of the majority party. This is likely due to two reasons. First, fellow partisans share many of the same policy values. Thus, it may be impossible to craft legislation to attract a minimal winning coalition if policy benefits are not strictly continuous. Second, when policy benefits are continuous, compromising to include a handful of fellow partisans may increase the likelihood they are reelected and that coalition builders retain their majority status. This is potentially important, as recent scholarship suggests the Senate majority party has a more pronounced role at the agenda-setting stage (Campbell, Cox, and McCubbins 2002; Den Hartog and Monroe 2010; Gailmard and Jenkins 2007). Majority party seat share is calculated by dividing the total number of majority-controlled seats by the total number of seats in the chamber.

Finally, the key independent variable is a simple dummy variable coded 1 if the enactment passed prior to the introduction of Rule XXII in the 65th Congress, and 0 otherwise. Following Krehbiel (1998) and Wawro and Schickler (2004, 2006), interactive dummy variables specifying the presence of a new presidential regime before and after the 65th Congress are also included. A negative and significant coefficient on the interactive variables suggests that coalitions were generally smaller when the veto pivot was less of a threat. Voice-voted legislation is treated as missing data. The results are presented in Table 3.

<sup>16</sup>The results produced by an OLS analysis are not substantively different from the results presented from the tobit model.

**TABLE 3 Tobit Estimates Winning Coalitions Sizes in the Senate**

	<b>Model 1</b>
Precloture Senate	−0.065* (0.024)
New Regime * Postcloture Senate	−0.044 (0.033)
New Regime * Precloture Senate	−0.030 (0.027)
Majority Seat Share	0.158 (0.085)
Constant	0.718* (0.054)
Observations	209
BIC	−152.610
Prob > $\chi^2$	0.003

*Note:* Coefficients with robust standard errors listed in parentheses. \*indicates significance at the  $p = .05$  level. The list of landmark enactments was coded according to Stathis (2003) from 1865 to 1946. Following Wawro and Schickler (2004, 2006) and Mayhew (1991), I use the roll call on passage of legislation, unless there was one on the adoption of a conference report. Unrecorded votes are treated as missing data.

The results reported in Table 3 suggest the existence of a significant relationship between the establishment of a formal cloture rule and the formation of winning coalitions. The coefficient on cloture dummy is statistically significant and negative. This suggests that—consistent with decision rule-based theories—coalitions were generally smaller in the precloture era. Based in part on this analysis, Wawro and Schickler suggest that, “if the 1917 rule, which required two-thirds to end debate regardless of when legislation was brought to the floor, had been in place in the nineteenth century, it could have made it more difficult to pass many bills considered during that period if senators thought it necessary to use the cloture procedure to overcome obstruction” (2004, 773). However, while the coefficients are both negative, the interactive variables denoting a new regime fail to achieve conventional levels of statistical significance. Thus, we cannot confirm that the pivotal politics model holds when employing an extended time series.

## Examining Issues and Winning Coalitions

There have been important changes in the content of the legislative agenda throughout this period of congressional history. In particular, the key economic issue in

the country shifted away from the tariff—an issue that featured particularized costs. Additionally, voting rights issues that fostered sectional coalitions became rare and the nation became involved in two world wars. Finally, legislation that enjoyed broad support was substantially more likely to receive a recorded vote in the modern era.

In this section, I refit the tobit model with several different datasets as a robustness check. In the first, I include dummy variables for tariff legislation, legislation related to voting rights, and enactments passed during a war.<sup>17</sup> The model also includes the same seat share variable included in Table 3. In Model 2, voice-voted legislation is treated as missing data. In Model 3, I fit the same tobit model, except this time I use winning coalition sizes on landmark enactments as coded by Peterson (2001). The Peterson list ranges from 1881 to 1946.

In Model 4, I treat voice-voted enactments as approximating oversized coalitions of .95.<sup>18</sup> Including voice-voted enactments in the tobit model provides an additional way to account for the effect the changing legislative agenda has on coalition formation. If certain issues led to the crafting of legislation that targeted smaller coalitions, we would expect that hypothesis to hold even when voice-voted legislation was considered. Results are presented in Table 4.

## Results

The results presented in Table 4 suggest that issue content plays an important role in shaping winning coalitions. As expected, the tariff dummy is significant and negative in all three models. This conforms to the theoretical discussion stressing the zero-sum nature of tariff legislation. Tariff legislation needed to be crafted to fit narrow coalitions due to the particularized policy costs. Further, the tariff's linkage to federal revenue in the 19th century ensured that the issue would frequently be on the agenda. The significant coefficient in Model 4 confirms previous analyses suggesting that not only did tariff bills facilitate the creation of legislation with small coalitions, but

<sup>17</sup>Tariff enactments are denoted by combining Wawro and Schickler's (2006) count with tariff bills discussed by Stathis (2003). The war variable is coded with a simple dummy variable noting an enactment that either declared war or was passed while the United States was formally at war. Voting rights legislation is considered with a dummy variable if Stathis (2003) characterizes the legislation as being related to either "slavery, civil rights or voting rights" or "continental development, union expansion."

<sup>18</sup>Treating voice-voted enactments as passing with unanimous coalitions does not alter the substantive results of the model.

**TABLE 4 Tobit Estimates Winning Coalitions Sizes in the Senate**

	Model 2	Model 3	Model 4
Tariff Legislation	−0.145* (0.040)	−0.142* (0.029)	−0.250* (0.040)
War	0.072* (0.031)	0.119* (0.036)	0.017 (0.024)
Voting Rights	−0.027 (0.030)	−0.130* (0.031)	−0.048* (0.023)
Precloture Senate	−0.021 (0.024)	−0.045 (0.029)	0.011 (0.016)
New Regime * Postcloture Senate	−0.006 (0.031)	−0.042 (0.034)	0.007 (0.022)
New Regime * Precloture Senate	−0.034 (0.027)	−0.061 (0.032)	−0.032 (0.021)
Majority Seat Share	0.202* (0.101)	−0.023 (0.156)	0.027 (0.071)
Constant	0.667* (0.065)	0.809* (0.097)	0.851* (0.046)
Observations	209	150	384
BIC	−158.092	−104.301	−386.305
Prob > $\chi^2$	0.000	0.000	0.000

*Note:* Coefficients with robust standard errors listed in parentheses. \*indicates significance at the  $p = .05$  level. Model 2 considers all recorded final passage votes on landmark enactments as coded by Stathis (2003) from 1865 to 1946. Model 3 considers all recorded final passage votes on landmark enactments as coded by Peterson (2001) from 1881 to 1946. Model 4 considers all final passage votes on landmark enactments as coded by Stathis (2003) and includes all enactments passed via unrecorded votes as passing with unanimous coalitions. Following Wawro and Schickler (2004, 2006) and Mayhew (1991), I use the roll call on passage of legislation, unless there was one on the adoption of a conference report.

they were also overwhelmingly more likely to receive a recorded vote (Wawro and Schickler 2006).

As expected, the coefficient on the war variable is positive and significant in Models 2 and 3. This provides additional support for the idea that wars are often declared in response to external events setting extreme status quo points—such as the sinking of the USS *Maine*, the Black Tom and Kingsland explosions, and the attack on Pearl Harbor. Once a war is declared, extreme status quo points are set—like providing no appropriations for the troops. This results in enactments enjoying a wide array of support. As the postcloture period witnessed a substantial number of enactments passed during wars, it is not surprising that aggregate winning coalitions were generally larger during the era.

Table 4 reports mixed results for voting rights enactments. While the coefficient is negative, it is not statistically significant in Model 2. Thus, while this

suggests that voting rights legislation generally led to smaller coalitions—and was more likely to garner a recorded roll-call vote—I cannot conclude that voting rights enactments led to the creation of legislation with smaller enacting coalitions during this era. However, the negative and significant coefficient in Model 3 suggests that the null finding may be due to the extended time series. Specifically, the Stathis data include a number of key voting rights pieces passed during the Reconstruction era, where Southern representation was particularly low. The significant finding when voice-voted legislation is included further supports the hypothesis that these enactments were generally controversial, fostered smaller coalitions, and were likely to garner recorded roll-call votes.

The majority seat share variable is significant in Model 2. This supports the intuition that large majorities are generally not going to try to exclude fellow members from distributive benefits. Oftentimes the cost of adding an additional party member to a coalition is marginal. Indeed, the enactments passed by the large Republican majorities during Reconstruction, and the large Democratic majorities during the Great Depression, enjoyed extraordinarily high levels of support. The variable is responsive to the time series and the treatment of voice votes, however. Once the Reconstruction era was excluded, majority party seat share does not appear to be significantly linked to changes in aggregate winning coalitions.

Finally, the coefficient on the postcloture era dummy, as well as the interactive new regime variables, are insignificant in all three model specifications. This is consistent with the observation from Figure 1 that the introduction of the cloture rule occurred after several congresses where the average size of winning coalitions increased, and before a slight decrease. This suggests that while aggregate coalition sizes have increased almost precipitously in the Senate throughout the chamber's history—the connection between this trend and the adoption of Rule XXII appears to be spurious. Events occurring exogenously to institutional reforms have shifted the nature and content of the legislative agenda. Partisan institutions, such as the size of the majority party, have also changed over time. The evidence here suggests these external factors have played a more pronounced role in the lawmaking process than recent scholarship has given them credit for.

## Discussion and Conclusion

The results presented here suggest that the increase in average size of winning coalitions in the United States is

primarily related to a shift in the content of the legislative agenda, as well as fluctuations in the size of the Senate majority party. The variables included in the model serve as a simple illustration for the importance of issue content. When issues have dispersed political costs and benefits, they generally result in more “winners.” When those costs and benefits are particularized, the size of the winning coalition drops. This underscores how beneficial running a deficit has been for legislative coalition builders. By distributing the costs of legislation over several generations, leaders can inflate the size of their coalitions and minimize criticism of their policies.

The evidence here further suggests that the relationship between Rule XXII and larger winning coalitions is spurious. First, consistent with Lawrence (2004), Figure 2 demonstrates that the increase in average Senate winning coalitions began in both chambers well before Rule XXII was adopted. If the rule was significantly related to larger enacting coalitions, one would expect it to precede the change in winning coalition sizes. Second, Table 1 demonstrates that the average number of bills enacted with less than two-thirds support has remained fairly constant throughout the history of the Senate. Thus, Rule XXII did not lead to narrow legislation being expanded to appeal to filibuster-proof coalitions. Rather, the increase in average winning coalition sizes is largely attributable to an increase in the number of enactments passed with supersized coalitions.

These results do not mean that Rule XXII had no effect on lawmaking in the Senate. However, they suggest the effect is likely more nuanced than leading to a significant increase in the size of enacting coalitions. For example, Wawro and Schickler (2006) demonstrate the adoption of cloture led to the Senate becoming more adept at meeting deadlines for appropriation bills. Future work on legislative decision rules should build off of this by evaluating the total number of bills on a legislative agenda not enacted during the session.

The article also demonstrates that changes in the data-generating process can have important effects on studies on legislative politics. Figure 2 displays the proportion of landmark enactments that received recorded votes on final passage. The figure suggests that there have been drastic changes in the roll-call voting record throughout congressional history.

The analysis here has been limited to the Senate before and during the World War II era. Future work is needed to investigate how recent trends in the legislative process have impacted coalition formation. For example, there has been a sharp increase in the usage of omnibus legislation since the mid-20th century (Baumgartner, Jones, and MacLeod 2000; Krutz 2001; Sinclair 2007; Smith

1989). By packaging controversial measures with popular provisions, omnibus bills can serve to deter filibusters and vetoes. A frequently hypothesized consequence of this is inflated enacting coalitions (Krutz 2001).

Additionally, for much of congressional history, conference reports were enacted via unrecorded votes. This has changed in recent decades.<sup>19</sup> As votes on conference reports represent up or down votes on legislation, they reflect all earlier compromises in the legislative process. Thus, one would anticipate coalitions to be larger on conference reports than initial final passage votes. This could prove problematic for scholars pooling the two types of votes.

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<sup>19</sup>Examining an expanded Stathis (2003) dataset—from 1810 to 2002—reveals that 42.7% of landmark enactments that passed via recorded votes featured a vote on the conference report. This contrasts with just 16.8% in the precloture era. Over the time series employed in the preceding analysis, the ratio is almost identical between the two eras.

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