

The Effects of the Great Compromise on the Constitutional Convention of 1787

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Abstract

The success of any constitutional convention can depend on its provisions for power sharing. We test three claims about the effects of the Great Compromise, a power sharing agreement, on the Constitutional Convention of 1787. First, we find that the convention was not more likely to pass proposals to strengthen the national government after the compromise than before, contrary to claims made by historians. Two small states increased their support, but other states did not. Second, Southern states (and large states) were more likely to support weakening the national government after the compromise. Third, large states were more likely to support proposals to strengthen the power of the House relative to the Senate after the compromise, and small states were more likely to resist. However, the opposite was not true for strengthening the Senate. Our results suggest a new narrative about the effects of Great Compromise on the Constitutional Convention.

Keywords

constitutional convention, great compromise, power sharing

Introduction

Critical to the success of any constitutional assembly is its ability to execute its agenda, which can be forestalled by conflicts over power sharing. Such was the case at the Constitutional Convention of 1787. Delegates wanted to know how much control their states would have over the new, national government before they gave it power.

While preparing for the Philadelphia Convention, James Madison (VA) outlined a government that represented people rather than states and provided substantially greater powers to the central government than the Articles of Confederation. In order for his plan to work, it had to be accepted by the states. Madison wrote to Washington, “I would propose as the ground-work that a change be made in the principle of representation” (Smith et al., 1976-2000, v. 24, pp. 228–232). In particular, Madison wanted the national legislature to be apportioned according to the size of each state. The advantage, he thought, was that a “majority of the States, and those of greatest influence, will regard it as favorable to them” and “it will obviate the principal objections of the larger States to the necessary concessions of power” to the central government. The smaller states would then fall in line yielding “to the predominant will” of the larger ones.¹

Two months later, the Constitutional Convention was underway, and Madison’s plan was in a slog. Elbridge Gerry (MA) suggested that they determine the powers of the central government before they decide the rule of representation.

Madison snapped back, “it would be impossible to say what powers could be safely & properly vested in the Govt. before it was known, in what manner the States were to be represented in it... every effectual prerogative would be withdrawn, or withheld,” if a “just representation” was not the basis of the government (Farrand, 1966, v. 1, p. 551).

After a long and bitter debate, the convention passed what would be later called the Great Compromise, or Connecticut Compromise, which apportioned the House according to each state’s population, in the interest of the large states, and the Senate equally among the states, in the interest of the small states. After the compromise, tempers cooled, and the convention began drafting a plan for the central government that was considerably more powerful than the one enumerated by the Articles of Confederation.

In this paper we examine the effects of the Great Compromise on the Constitutional Convention of 1787. In particular, we evaluate three claims from the literature using data analysis: (1) the compromise increased support for a stronger national government; (2) the compromise caused Southern

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states to support weakening the national government; and (3) the compromise encouraged delegates from the large states to strengthen the powers of the House and delegates from the small states to strengthen the powers of the Senate. To test these claims, we use both existing data and data which had been previously recorded only in narrative form.

Historical claims about the Great Compromise are often based on assertions made by a few delegates and a few salient votes. Analyzing salient votes has the advantage of focusing our attention on the most important decisions at the convention, and it can help us formulate hypotheses about general tendencies. For example, before the compromise most of the small state coalition (New Jersey, Delaware, and Maryland) voted in favor of paying federal legislators out of the national treasury rather than by their state's treasury, while another member of the small state coalition (Connecticut) voted against the measure (vote 50). After the compromise, all four states voted in favor of a very similar proposal (vote 292).² One might conclude from the pair of votes that small states were more likely to favor a stronger national government after the compromise had been made. But examining a few, visible votes can be misleading because any relationship found from a pair of votes, or several pairs of votes, may be exceptions to the rule rather than examples of the rule. To make claims about changing tendencies, scholars need to compare the bulk of voting before the compromise to the bulk of voting after the compromise. If the Great Compromise truly affected voting behavior in the ways that historians have claimed, it should have affected all votes of a particular class, not just the salient ones. Data analysis is an effective way to study such changes.

Most methods of data analysis, including the ones used here, weigh votes equally and treat votes as comparable before and after an event. The former is appropriate when a change affects both important and unimportant votes fairly equally, as is the case in our study. The latter is more appropriate when votes of the same group of people are compared before and after an event. Since we are comparing months of voting, not years of voting as often done in other studies (Aldrich, 2011; Poole & Rosenthal, 1997; Roberts, 2022), and the voters are roughly the same before and after the compromise, the data analytics we use seem appropriate.

Our analysis shows that proposals to strengthen the national government were not more likely to pass after the compromise than before. Historians and political scientists may have thought this was the case simply because the number of motions to strengthen the national government increased. Additionally, Southern states (and large states) were more likely to support weakening the national government after the compromise had prevented them from controlling both chambers. Furthermore, our findings suggest that the large states were more likely to support proposals to strengthen the power of the House relative to the Senate after the compromise, and the small states were more likely to resist. However, the opposite could not be said for

strengthening the Senate. Combined, our results provide a more nuanced understanding of the effects of the Great Compromise on the Constitution, including how the compromise affected the nationalist agenda, provisions for federalism, and the powers assigned to each chamber of the legislature.³

We proceed as follows. First, we introduce the procedures of the convention and the literature related to the Great Compromise. We then introduce three hypotheses about its effects and the logic behind each. Next, we present results for the hypotheses using a largely new dataset. We end with a few reflections on the implications of our findings for the study of the Constitutional Convention of 1787 and for the distribution of power in the United States more generally.

Background

Voting at the convention was conducted in state blocs, with each state casting one vote regardless of the size of its delegation. Motions carried if more state delegations voted yea than nay. To determine the vote of each state (yea, nay, or divided), the delegates representing a state voted among themselves using majority rule.

Any delegate could make a motion, propose to table a motion, or propose to revisit a motion raised previously (Dougherty, 2018). There were no assembly leaders, no rights of first recognition, and no political parties. Nor were there other mechanisms that might give a single delegate, or a group of delegates, innate control over the agenda.

The most divisive issue at the convention was the apportionment of the legislature (Beeman, 2009; Klarman, 2016; Robertson, 2013). The Convention quickly agreed to replace the unicameral legislature of the Articles of Confederation, which gave each state an equal vote, with a bicameral one. On June 11, James Wilson (PA) proposed proportional representation based on the "whole number of white & other free Citizens," and "three fifths of all other persons," meaning slaves, for one of the chambers which was later called the House (Farrand, 1966, v. 1, p. 201). His idea passed. Wilson may have included slaves to gain the support of South Carolina and Georgia, which would receive a greater proportion of legislative seats from equal apportionment than from free inhabitants alone (Ballingrud & Dougherty, 2018). However, even though the large-state delegates temporarily agreed on a three-fifths apportionment for the House, they did not want equal apportionment for the upper chamber, later called the Senate. Some proposed to apportion both chambers by population, either free population or some combination of free and slave. Others wanted the Senate apportioned according to each state's property (Ibid.).

Early in the convention, Roger Sherman proposed a third idea: popular apportionment for the House and equal apportionment for the Senate. The idea failed by a 6–5 vote. The two sides of that vote became known as the large state coalition (delegates from Massachusetts, Pennsylvania,

Virginia, North Carolina, South Carolina, and Georgia) and the small state coalition (delegates from Connecticut, New York, New Jersey, Delaware, and Maryland). We refer to these two coalitions as the large and small states throughout the paper. New Hampshire is missing from both lists because it did not send a delegation until after the Great Compromise.

Two states seem misplaced. Georgia was the smallest state in the union, both in population and in wealth, but as Madison noted “she is actuated by the prospect of soon being a great one” (Farrand, 1966, v. 1, p. 491). New York was the fourth largest in terms of population, but it voted with the small states because two of its three delegates were anti-federalists who did not want to change the system of representation enumerated by the Articles of Confederation. After two of the New York delegates left on July 10, Alexander Hamilton’s vote was rendered useless because members of the New York assembly required at least two delegates to represent their state.

When Sherman’s compromise had failed, the large state delegates pushed for proportional representation in both chambers, and the small state delegates dug in. Eventually, John Dickinson (DE) pulled Madison aside and said “you see the consequences of pushing things too far. Some of the members from the small States ... are friends to a good National government; but we would sooner submit to a foreign power, than submit to ... the domination of the large States” (Farrand, 1966, v. 1, p. 242 n.). After more than a month of persuasion, tactics, and bitterness, several of the large state delegates conceded to the demands of the smaller states, allowing equal representation in the upper chamber. This monumental agreement passed on July 16, a little less than halfway through the convention.

Literature

Most of the literature on the Constitutional Convention describes the Great Compromise as an act in a broader play. Such accounts range from delegates attempting to create a well-functioning government (Beeman, 2009; Bowen, 1986; Rossiter, 1966; Stewart, 2008) to delegates advancing the interests of their state or faction (Klarman, 2016; Robertson, 2013). When such authors describe the effects of the Great Compromise, they occasionally make strong claims. Without the compromise, one historian claimed, “there would have been no constitution of 1787 for the United States” (Rossiter, 1966, p. 186). Authors also describe delegates scrambling to assign power to the chamber that gave their state more voice. We introduce those types of claims in the next section.

Empirical studies of the convention typically focus on more narrow themes, such as testing different versions of the Beard thesis (Heckelman & Dougherty, 2007, 2010; McGuire, 2003; McGuire & Ohsfeldt, 1984, 1986), evaluating coalition formation (Jillson, 1981, 2008; Londregan, 1999; Pope & Treier, 2019), and creating spatial maps of

delegate preferences based on the statements they made in debate (Dougherty, 2020; Heckelman & Dougherty, 2013; Pope & Treier, 2015, 2019).

Only a few studies focus exclusively on the Great Compromise. For example, Rakove claims that prior to the compromise, the large state delegates maintained “a campaign designed to break the resistance of the small states by persuasion, rational argument, and appeals to principle” (1987, p. 427). Ending that campaign had positive effects on the proceedings. Coby (2018) labels the convention a failed attempt by the nationalists to get proportional representation adopted for both chambers. Pope and Treier (2011) argue that the Great Compromise came about because two delegates from Massachusetts moderated their preferences on a critical vote that divided their state on equal representation in the Senate. North Carolina then switched sides, not because of a compromise, but because the convention added direct taxation to the Three-Fifths Clause. Similarly, Phillips et al. (2022) argue that a committee largely made up of small states helped promote small state interests and was pivotal in producing the eventual compromise.

Rather than focusing on causes of the compromise, we focus on its effects.

Hypotheses

We evaluate three hypotheses about the effects of the Great Compromise on the Constitutional Convention which come from the literature.

H1. State delegations were more likely to support strengthening the national government after the Great Compromise than before.

The relationship between the Great Compromise and a successful nationalist agenda is repeatedly described in the literature (Berkin, 2003; Farrand, 1913; Jensen, 1950; Ketcham, 1990; Klarman, 2016; Rakove, 1987). Delegates from the large states supported a strong national government with proportional representation in both branches of the legislature. “As long as representation by population seemed likely,” Ralph Ketcham claimed, “the small states resisted every effort to increase the general powers, and the large states on the whole favored such an increase. However, the moment the states were made equal in one branch of the legislature, the small states became by and large supporters of increased national authority” (1990, p. 215). Max Farrand claimed that the Great Compromise made all states more likely to support a strong national government. “The great compromise gave the small states an equal vote in only one branch of the legislature,” he wrote, “but it was enough to reconcile them to the new plan, and they became warmer and warmer advocates of a strong national government” (Farrand, 1913, p. 113). The reaction of the large state delegates was more mixed. “Some regarded it as fatal to a strong

government ... Others seemed inclined to yield ... Apparently, the latter view prevailed” (Ibid., 114).

H2. After the Great Compromise, Southern states were more likely to support weakening the national government than they were before the compromise.

Michael Klarman claims (2016, p. 203) “[t]he Connecticut Compromise was generally perceived as a loss not only for large-state nationalist such as Madison and Wilson but also for the South.” Robertson (2013, p. 16) observes that key Southern delegates “supported Madison’s plan for broad national authority under the condition that seats in the new Congress were apportioned on the basis of population, a formula that seemed to protect Southern interests. Once the Connecticut Compromise created a Senate that diluted Southern votes in Congress, delegates from South Carolina fought for narrow national powers and protections for state power.”

Prior to the compromise, Southern delegates (Maryland southward)⁴ thought they would be advantaged in a population-based Congress because the South’s share of the nation’s population was increasing and would soon outnumber the North’s. Including three-fifths of slaves in the apportionment strengthened their prognosis. Allowing each state equal representation in the Senate, however, gave the North an advantage of eight states to five, which would keep Southern states under the control of the North at least until the South’s population was large enough for it to control the House.

Klarman (2016, pp. 203–204) claims that prior to the compromise “Virginia delegates Mason and Randolph had consistently taken nationalist positions. After the compromise, however, they expressed fear that Virginia — and the South more generally — would be forever dominated in the Senate by the more numerous small states of the North.”

Prior to the compromise, delegates from South Carolina supported the vague language of allowing Congress the power to legislate in all cases where “the separate States are incompetent, or in which the harmony of the United States may be interrupted” (Farrand, 1966, v. 1, pp. 53–54). After the compromise, they wanted the powers of Congress enumerated, so it was clear exactly what the North controlled.

Similarly, Madison thought federal judges could be appointed by the Senate prior to the compromise. But after it, he thought such appointments would be thrown “entirely into the hands of the northern states” and recommended weakening the power of the Senate by requiring the president to appoint judges with the consent of two-thirds of the Senate (quoted in Klarman, 2016, p. 205). He followed a similar pattern for treaties, favoring the Senate for the creation of treaties prior to the compromise but a role for the President after it, because “the Senate represented the States alone, and that for this as well as other obvious reasons it was proper that the President should be an agent in Treaties” (Farrand, 1966, v. 2, p. 392).

H3. After the Great Compromise, the large state coalition supported strengthening the House of Representatives and the small state coalition supported strengthening the Senate.

Edmund Randolph (VA) thought the compromise “had embarrassed the business extremely,” because earlier votes to grant extensive powers to the federal government had been “founded on the supposition that a proportional representation was to prevail in both branches of the legislature” (Farrand 1966, v. 2, p. 17). After the compromise, “Supporters of proportional representation fought to strengthen the powers of the House of Representatives, while their opponents fought to strengthen the Senate’s powers” (Robertson, 2013, p. 107). In some cases, members of the large state coalition attempted to move powers from the Senate to the House. “Of course, the small-state delegates, who had won an enormous victory in the Connecticut Compromise, shifted their preferences in precisely the opposite way: They now favored expanding the Senate’s power” (Klarman, 2016, p. 205).

This change of view could be seen in the “the prolonged and frustrating battle over House control of taxing and spending” (Robertson, 2013, p. 107). For example, ten days prior to the Great Compromise, all members of the small state coalition (with the exception of New York, which was divided) voted in favor of originating revenue bills solely in the House (vote 118). On August 13, almost a month after the compromise, those same states voted against a proposal with the same wording (vote 288). Virginia changed sides as well, voting against prohibiting the Senate from originating money bills when the Senate was proportional and for it when the Senate was apportioned equally.

Data

To test the generalizability of these hypotheses, we coded proposals that strengthened or weakened the national government using Farrand’s (1966) records. We also coded proposals to strengthen or weaken the House and proposals to strengthen or weaken the Senate, separately. Of the 621 substantive votes at the convention, 168 were proposals to strengthen or weaken the national government, 170 were proposals to strengthen or weaken the House, and 203 were proposals to strengthen or weaken the Senate.⁵

Consider votes to strengthen or weaken the national government. To assure intercoder reliability, two graduate students were asked to independently code whether a vote was related to federalism (i.e., national power vis-a-vis state power). They later coded whether a federalism vote strengthened the national government with respect to the states, weakened the national government with respect to the states, or remained neutral. All determinations were made with respect to the powers tentatively agreed upon by the convention prior to the vote. They were not considered abstractly. Specific directions appear in the [online supplement](#).

For example, vote 8 allowed the national legislature to make laws in any area in which the individual states were “incompetent.” It was coded as a motion to strengthen the national government because it was a federalism issue and no such power had been granted previously. In contrast vote 4a was not a federalism issue because it established two chambers for the national legislature instead of one. Hence, it was not coded as strengthening the national government.

For cases in which the coders assigned differing codes, the coders met to see if they could resolve their differences easily. If they could, the code was verified by the senior author. If the coders could not resolve their differences easily, the senior author examined the coder’s reasonings, then determined the appropriate code. The same process was used to code votes to strengthen the House and votes to strengthen the Senate. Among the three variables, the two coders initially agreed on at least 72% of the codes for all three categories of votes: national government, House, and Senate.

We used [Farrand’s \(1966\)](#) records to gather data on motions. We then combined that data with the votes recorded for each delegation ([Dougherty & Heckelman, 2016](#)). Additional variables are described as they are introduced.

Results

Hypothesis 1

To test our first hypothesis, that the convention was more likely to support strengthening the national government after the compromise than before, consider [Figure 1](#). The red, solid lines in the figure indicate the probability of passing a proposal to strengthen the national government before and after the compromise — the 39th day in the figure.⁶ As shown, the probability of passage increased slightly from .702 to .798, but the change was so small that it is not statistically significant at traditional levels. Put differently, the observed difference would be the type of statistical error we might obtain by breaking the sequence at any random location.

As a basis for comparison, the figure also depicts the probability of passing all motions using teal, dashed lines. Again, the probability of passing a motion increased slightly after the compromise, but the increase was so small that statisticians would not consider the difference meaningful.⁷

Perhaps historians thought the compromise increased support for a stronger national government because the convention proposed more motions, including motions to strengthen the national government, after than before. Combined with a fairly similar passage rate, the volume of clauses strengthening the national government would increase, making it appear like the convention was more likely to support strengthening the national government.

The compromise made the convention more efficient and increased the number of votes per day for any type of motion. Before the compromise, delegates were bogged down in the sticky issue of apportionment and conducted an average of

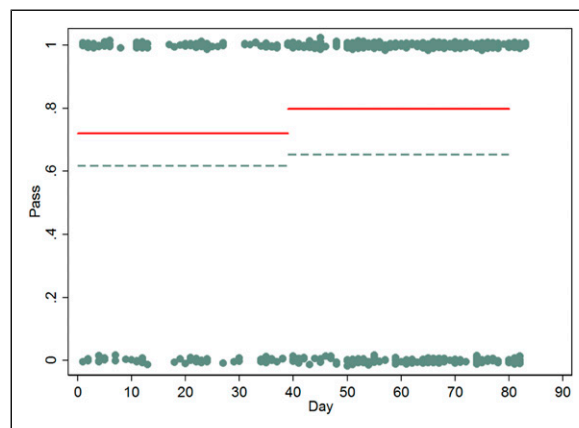


Figure 1. Passage rates before and after the compromise. *Note:* The teal scatter plot near the top and bottom depicts whether a vote passed or failed (all votes). The red, solid lines indicate the mean probability of passing a motion to strengthen the national government before and after the great compromise, respectively. The teal, dashed lines indicate the same relationship for all motions.

3.9 votes per day. After the compromise, they managed 10.8 votes per day — a three-fold increase in the number of motions handled, significant at the .001 level.

Although some scholars claim that states generally increased their support for a strong national government after the compromise ([Farrand, 1913](#)), others claim that the compromise affected the small states specifically ([Beeman, 2009](#); [Ketcham, 1990](#)). Hence, we should also consider the effect on the small states alone.

As a group, the number of small states that supported proposals to strengthen the national government increased after the compromise. Excluding New Hampshire and New York, because they did not vote on one of the two sides of the compromise, the average number of small states supporting a measure to strengthen the national government increased by an average of one full state per motion, from 1.8 states prior to the compromise to 2.8 after the compromise — statistically significant at the .001 level.⁸

Madison recognized the shift. He claimed that “as soon as the smaller States had secured more than a proportional share in the proposed Government, they became favourable to augmentations of its powers” ([Farrand, 1969](#), v. 3, p. 538).

Despite his wording, his observation may have been based on the behavior of only two small states. [Table 1](#) shows the proportion of motions for strengthening the national government supported by each state in the left two columns, and the proportion of support for any motion in the right two columns as a baseline.

The Great Compromise had significant effects on only three different states. As shown in the first two columns, delegates from Connecticut and delegates from New Jersey were more likely to support proposals to strengthen the national government after the compromise than before (differences significant at the .01 and .05 levels, respectively).

Table 1. State Support for Strengthening the National Government.

	Strengthen National Govt		All Motions	
	Before	After	Before	After
NH	—	.833 (84)	—	.681 (376)
MA	.773 (22)	.797 (79)	.598 (132)	.653 (398)
CT	.500 (20)	.779 (95)	.586 (140)	.660 (429)
NY	.476 (21)	—	.582 (110)	—
NJ	.632 (19)	.847 (72)	.556 (124)	.631 (355)
PA	.772 (22)	.815 (92)	.630 (135)	.677 (424)
DE	.737 (19)	.800 (90)	.604 (134)	.639 (418)
MD	.714 (14)	.720 (93)	.569 (116)	.662 (423)
VA	.818 (22)	.740 (96)	.650 (143)	.691 (434)
NC	.793 (22)	.793 (82)	.655 (142)	.686 (395)
SC	.599 (22)	.729 (96)	.667 (141)	.669 (432)
GA	.789 (19)	.730 (89)	.641 (131)	.697 (416)
Mean	.691 (20)	.780 (88)	.613 (132)	.668 (409)

Note. The table lists the proportion of proposals supported by each delegation, with the number of observations for each in parentheses. New Hampshire did not attend prior to the compromise and New York did not attend after the compromise.

They were also more likely to support a typical motion, though the differences are significant at the weaker .10 level. Although the relationship may not hold true for all states, Charles Pinckney correctly predicted the behavior of New Jersey when he proclaimed, “Give New Jersey an equal vote, and she will dismiss her scruples and concur in the national system” (Farrand, 1966, p. 1, p. 255).

In addition, Maryland was more likely to support a generic motion after the compromise (significant at the .05 level), but it was not more likely to increase its support for motions to strengthen the national government. Perhaps delegates from Maryland did not have the same latent desire for a stronger national government as those from Connecticut or New Jersey because two of Maryland’s five delegates, Luther Martin and John Mercer, were anti-federalist, while two more, James McHenry and Daniel Carroll, leaned in the localist direction.

Although our evidence does not support a general increase in the acceptance of proposals to strengthen the government after the compromise, two of the small states changed their support as the literature would suggest. We cannot reject the hypothesis that the two other small states who attended before and after the compromise, Delaware and Maryland, did not change their support for a strong national government. At traditional levels of statistical significance, there is also no evidence that the large states increased their support.

Hypothesis 2

Our second hypothesis claims that Southern states were more likely to support proposals to *weaken* the national government after the compromise than before (because Northern states would control an equally apportioned Senate).

As a whole, the number of Southern states (Maryland southward) supporting proposals to *weaken* the national government increased with the compromise from an average of 1.8 states before the compromise to an average 2.7 states after the compromise — a significant difference at the .10 level.⁹

Broken down by state, four of the five Southern states were more likely to support weakening proposals after the compromise than they were before: Maryland, Virginia, North Carolina, and Georgia. See Table 2.¹⁰ With the exception of Maryland, these states were not more likely to increase their support for a typical motion (Table 1, columns 3 and 4), suggesting that the difference was not part of a general trend.

Although we might quickly deduce that hypothesis 2 is correct, the conclusion is complicated by the fact that four of the six states in the large coalition were also from the South (Virginia, North Carolina, South Carolina, and Georgia), and all of the Southern states were in the large state coalition except for Maryland. Hence, there is considerable overlap between the Southern and the large states. Not surprisingly, members of the large state coalition were also more likely to support measures to *weaken* the national government after the compromise than before.

As a group, the number of large states that supported a measure to *weaken* the national government increased from an average of 2.1 before the compromise to an average of 3.2 after the compromise — a significant difference at the .10 level.¹¹

Broken down by state, four of the six states in the large state coalition were significantly more likely to support weakening the national government after the compromise than before. See Table 2. This includes Virginia, North

Table 2. State Support for Weakening the National Government.

	Weaken National Govt	
	Before	After
NH	—	.708 (24)
MA	.385 (13)	.538 (26)
CT	.615 (13)	.692 (26)
NY	.455 (11)	—
NJ	.636 (11)	.565 (23)
PA	.231 (13)	.680 (25)
DE	.500 (12)	.667 (24)
MD	.400 (10)	.667 (24)
VA	.231 (13)	.615 (26)
NC	.308 (13)	.640 (25)
SC	.615 (13)	.600 (25)
GA	.333 (12)	.692 (26)
Mean	.428 (12)	.642 (25)

Note. The table lists the proportion of proposals supported by each delegation, with the number of observations for each in parentheses. New Hampshire did not attend prior to the compromise and New York did not attend after the compromise.

Carolina, and Georgia, which were mentioned previously, but also Pennsylvania (significant at the .01 level). The two remaining states in the large state coalition, Massachusetts and South Carolina, were also more likely to support weakening the national government after the compromise, but the differences for those two states were not significant at traditional levels.

Viewed either way, large and Southern states would lose some control over the new government with the Senate apportioned equally rather than proportionally. Three states that were both Southern and large (or aspirationally large) were more likely to support proposals to weaken the national government after the small-Northern states gained control of the Senate. Pennsylvania, and to a lesser extent Maryland, behaved similarly.

Hypothesis 3

To test our third hypothesis, that members of the large state coalition increased support for strengthening the House of Representatives while members of the small states coalition increased support for strengthening the Senate after the compromise, we compare each coalition's support before and after the compromise in two different ways. Given that the literature suggests state coalitions voted to preserve the relative strength of their preferred chamber while minimizing the strength of the other chamber, we measure *strengthening the House* as either a vote to strengthen the House that does not also strengthen the Senate, or as a vote that weakens the Senate but does not also weaken the House. In both cases, the power of the House increases relative to the Senate. In the same manner, we measure *strengthening the Senate* as either a

vote that strengthens the Senate but does not strengthen the House, or as a vote that weakens the House but does not weaken the Senate. In both of those cases, the power of the Senate increases relative to the House. Votes that strengthen both chambers or weaken both chambers are not included in this part of the analysis because they do not change the relative power of the two chambers.

We created two variables from the appropriate values for strengthening or weakening the two chambers which appear in two tables in the online supplement. This created a panel of data varying by vote and state. The data contain up to ten state votes per motion — less if states are divided or do not vote.¹²

The results for strengthening the House are presented in Figure 2. As shown in the figure, large state support for strengthening the House increased 13 percentage points from .48 before the compromise to .61 after the compromise, an increase that just misses the .05 level of significance. Similarly, small state support for strengthening the House decreased 28 percentage points from .63 before to .35 after, a decrease that is statistically significant at the .01 level. Both shifts are consistent with claims made in the literature that the large-state coalition shifted its attention toward strengthening the House when it was clear the coalition would only control that chamber. The small-state coalition opposed such moves.

Results for strengthening the Senate tell a different story. As shown in Figure 3, large state support for strengthening the Senate decreased with the passage of the Great Compromise, consistent with claims in the literature, but small state support for strengthening the Senate decreased with passage of the compromise as well, contrary to claims in the literature. Neither observation is significant at traditional levels, suggesting that we cannot reject the hypothesis that the compromise had no effect on votes to strengthen the Senate.

There are both substantive and statistical explanations for the small state response. The substantive explanation is that delegates largely agreed that the upper chamber would be more learned before the apportionment issue was resolved. As a result, both the large and small state delegates gave the upper chamber some powers when it seemed like the large states would control both chambers. For example, all states agreed that the Senate should appoint judges rather than the full legislature (vote 60f), and all states except South Carolina agreed that senatorial stipends should not be “fixed” prior to the compromise (vote 97). With such powers in place there would be no need to radically shift power from the House to the Senate.

The statistical explanation is that there were only three votes to strengthen the Senate (none to weaken the House) prior to the compromise. Two of those votes were just named. This creates 12 observations for the four small states which is too few for a statistical relationship.

With unanimity among the small states in two out of the three votes, small state support for strengthening the Senate may have been artificially large prior to the compromise. Had the three votes been related to powers appropriate for either

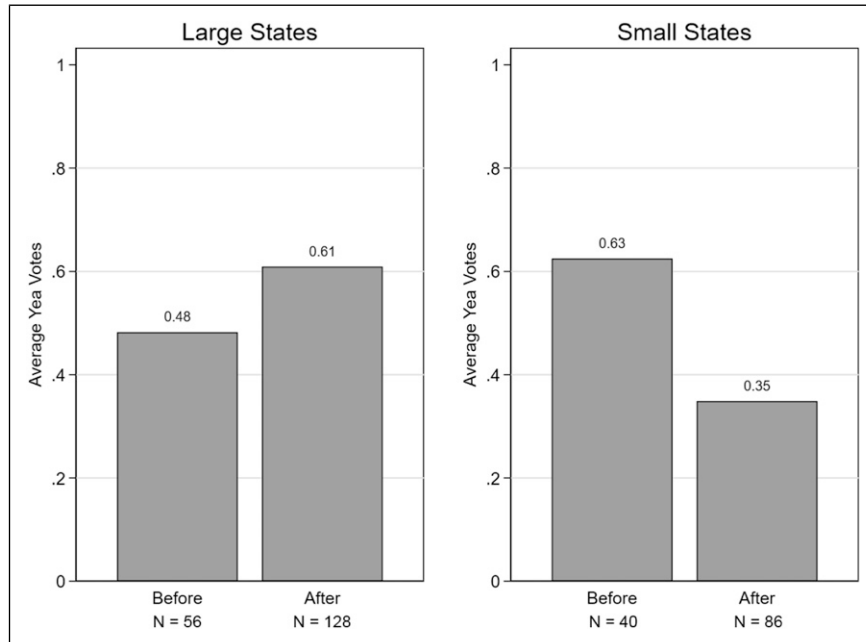


Figure 2. Strengthening the House before and after the compromise.

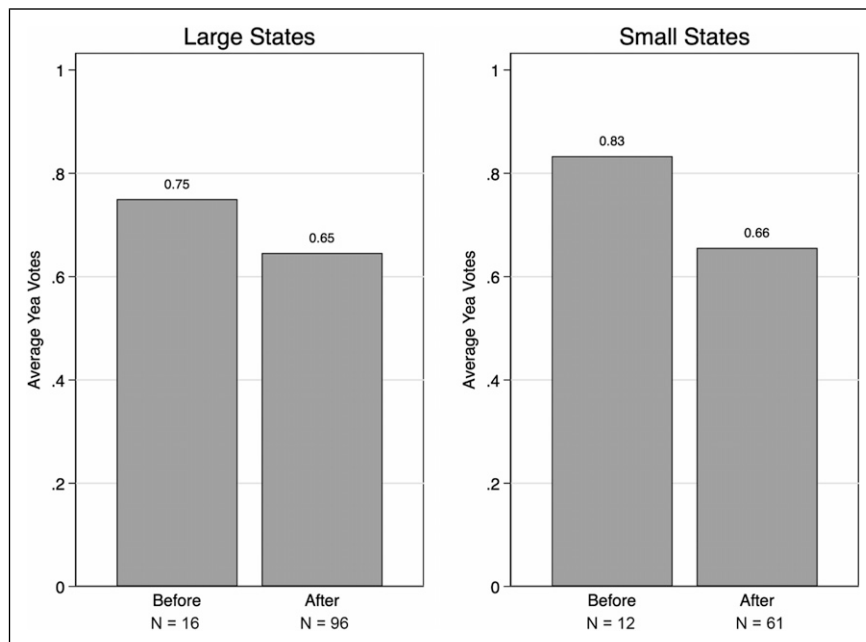


Figure 3. Strengthening the Senate before and after the compromise.

chamber, this seemingly backward relationship may have not been so backward.

To see which states are responsible for the overall relationship, we break the relationship down by state in [Table 3](#). The first pair of figures in the table report the proportion of yea votes for strengthening the House, with the first column reporting figures before the compromise and the second column reporting figures after. As shown,

Virginia increased its support for strengthening the House, significant at the .10 level. Delaware and Connecticut decreased their support for strengthening the House after the compromise, both significant at the .05 level. These significant changes are consistent with the hypothesis posited by historians, political scientists, and legal scholars. The direction of the changes for the other seven states are consistent with that story.

Table 3. Votes to Strengthen Each Chamber - By State.

	Strengthen House		Strengthen Senate	
	Before	After	Before	After
NH	—	.550 (20)	—	.571 (14)
MA	.571 (7)	.652 (23)	.667 (3)	.625 (16)
CT	.800 (10)	.435 (23)	1.000 (3)	.800 (15)
NY	.625 (8)	—	.667 (3)	—
NJ	.500 (10)	.381 (21)	1.000 (3)	.571 (14)
PA	.400 (10)	.636 (22)	1.000 (3)	.500 (16)
DE	.700 (10)	.304 (23)	.667 (3)	.625 (16)
MD	.500 (10)	.391 (23)	.667 (3)	.625 (16)
VA	.500 (10)	.773 (22)	.667 (3)	.625 (16)
NC	.500 (10)	.591 (22)	1.000 (2)	.688 (16)
SC	.600 (10)	.565 (23)	.333 (3)	.688 (16)
GA	.333 (9)	.545 (22)	1.000 (2)	.750 (16)
Mean	.503 (9)	.529 (22)	.788 (3)	.643 (16)

Note. The table lists the proportion of yea votes for motions to strengthen the House or Senate, with the number of observations for each state in parenthesis.

As noted previously, the same cannot be said for strengthening the Senate. The second pair of figures in Table 3 show the proportion of yea votes for strengthening the Senate. New Jersey and Pennsylvania decreased their support for the Senate after the compromise, significant at the .10 level. Although the direction of the change for Pennsylvania is consistent with the hypothesis, the direction of the change for New Jersey is not, nor is the direction of the change for any other state from the small state coalition.

Conclusion

Seeing the flaws of the Articles of Confederation, a relatively like-minded group of nationalists gathered in Philadelphia ready to change the nation's political arrangement. Rather than revise the Articles of Confederation, Madison pushed for a government that acted directly upon the people, had the power to tax, and regulated commerce. He believed the large states would support such a plan if they could control both chambers of the national legislature. The small states, he believed, would simply acquiesce.

Although Madison was later named “father of the Constitution,” future generations may have been lucky that he did not fully father it. If he had, the upper chamber would have been proportional, the small states may have walked out, and the “convention likely would have failed, or produced a constitution that could not be ratified” (Robertson, 2013, p. 229). Equal state representation fit awkwardly with a government grounded in popular sovereignty, but it was a power sharing agreement that allowed small state nationalists to support the creation of a new, stronger national government.

Historians and descriptive political scientists often make generalizations about the compromise based on the

statements of a few individuals and the votes of a few states. Evaluating the generalizability of these claims is aided by data analytics.

Most of our results provide evidence that historical claims about the Great Compromise were indeed generalizable. For example, compare vote 118 (before the compromise) to vote 288 (after the compromise), both of which were attempts to establish which chamber would originate revenue bills. By examining pairs of votes like this, historians found evidence that small states changed their support for proposals that shifted power to the House. By exploring all motions on strengthening the House, we can see that such examples were indeed part of a larger trend.

A similar conclusion might be drawn about Southerners favoring a weaker national government after the compromise. By examining statements made by the Virginia delegates historians have shown that some delegates wanted to weaken the national government after the compromise. Even though delegates from North Carolina and Georgia did not make the similar statements, our analysis provides evidence that they, and to a lesser extent delegates from Maryland, behaved like the Virginians. In other words, there was a change in tendency among the Southern states as a whole.

Other observations made by historians might appear to be the logical consequence of other claims, but the data do not support their extension. Even though the large state coalition was more likely to support strengthening the House after the compromise, as historians, political scientists, and legal scholars have claimed, the small state coalition was not more likely to support strengthening the Senate. The latter seems like a natural extension of the former, but the data do not support the latter claim.

A third set of observations might appear to be part of a larger change in tendency, but in fact were limited to a few

observations that do not generalize. Evidence suggests that Charles Pickney was right about New Jersey increasing its support for the national government after the compromise. Connecticut did so as well, but that does not mean that states generally increased their support. Furthermore, neither Delaware nor Maryland increased their support for a stronger national government, making any claim about a change in tendency among the small states attributable to the behavior of only two states. Support for strengthening the national government may have appeared to increase because the convention passed more motions per day, any type of motion per day, which made it look like support for a strong national government had swelled when really it was actually fairly constant.

Such results change what we should be teaching about the Great Compromise, and how we should evaluate state responses to the compromise. The compromise may have made Southern states (and large states) more likely to support weakening the national government, and it may have made large state support shift from a stronger Senate to a stronger House. But the compromise did not increase state support for a stronger national government in general, nor did it increase such support among all of the small states in particular. And it certainly did not lead the small states to press for a stronger Senate.

The Great Compromise helped the Constitution succeed. It also may have helped the Constitution endure. However, winning equal apportionment in the Senate came at a price.

The compromise had profound negative effects on human bondage. With free population and three-fifths of slaves used to determine “proportional” representation, slave-owning states controlled a greater share of the House than their voting populations warranted. By the early 1820s population growth favored the North and shifted the locus of Southern power from the House to the Senate. The Constitution’s provision for equal apportionment in the Senate and the Missouri Compromise’s promise of maintaining the same number of slave and free states gave the South a veto over national laws that it achieved only because the Senate was apportioned equally. If both chambers were apportioned by free population, the North would have controlled both chambers of Congress by large margins in the 1820s and the South would not have its veto. Slavery may have been prohibited in any new state joining the union, fugitive slave laws may have been tested, and the nation may have attempted to end slavery through federal statute.

An equally apportioned Senate also violated any principle of “one person, one vote” that ostensibly structures the American political system. Currently a majority of the American population lives in nine states, meaning that a majority of the population is represented by only 18% of the Senate. The remaining 41-state minority enjoys 82% of the Senate’s votes, giving land mass greater representation in the

Senate than people (Levinson, 2019). As a result, the weight of a person’s vote in the national government is profoundly affected by where they live. The Great Compromise helped create the Constitution, but it also prolonged human bondage and created inequities in popular representation that remain with us today.

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Supplemental Material

Supplemental material for this article is available online.

Notes

1. Madison to George Washington, April 16, 1787. For similar statements also see Madison to Thomas Jefferson, March 19, 1787, Hutchinson & Rachel, 1962–1989, v. 9, pp. 317–322; and Madison to Edmund Randolph, April 8, 1787, *Ibid.*, v. 9, pp. 368–371.
2. New York, which was the remaining member of the small state coalition, voted in favor of vote 50 but was absent for vote 292.
3. As we use it here, a nationalist is someone who supported a stronger, more effective national government at the time of the convention. Although Jensen (1950) thought the nationalists believed in executive and judicial control of state and national governments, we remain agnostic on such claims. We also do not associate nationalism with any Beardian interpretation.
4. During this period the South is typically considered Maryland southward because Maryland was the northern-most state south of the Mason-Dixon line, it prohibited manumission as late as 1860 and did not ban slavery until 1864, a year after the Emancipation Proclamation (Dougherty & Heckelman, 2008). In contrast, Delaware prohibited the importation of slaves in 1776 and had a greater rate of manumission than New York or New Jersey between 1775 and 1810. See Elazar (1972) for the same classification as well as for economic and cultural differences between the North and the South.
5. The Dougherty and Heckelman (2016) dataset contains 620 substantive votes. We added vote 285b, an August 13 vote, to the data. Motions to strengthen an independent presidency were not considered pro-national nor pro-local, because it is not

clear whether they strengthen the national government vis-a-vis the states. On one hand, an independent presidency may strengthen the national government by making it more stable. On the other hand, an independent presidency may weaken the national government by making it less capable of taking action.

6. The days listed are numbered consecutively, with days in which the convention did not meet removed from the sequence. This includes July 3–4 (a break for the Fourth of July), July 27–August 5 (when the Committee of Detail met), and Sundays (regular days of rest). Vote 63, which appears in the journal's table on June 15, was motioned by Williamson on July 21 and coded as occurring on the later date.
7. What the figure does show, however, is that the convention was more likely to pass a proposal to strengthen the national government than it was to pass a typical proposal. That difference is significant at the .001 level after the compromise, but it is insignificant prior to the compromise.
8. The ratio of yeas to nays on such motions did not increase significantly for the small states.
9. For the South, the ratio of yeas to nay on such votes also increased, from .98 before the compromise to 1.8 after, significant at the .10 level.
10. The difference for Maryland is significant at the .10 level. For Virginia, North Carolina, and Georgia, the differences are significant at the .05 level.
11. However, the ratio of yeas to nays on such motions did not increase significantly among the large states.
12. Rhode Island, New Hampshire, and New York are excluded from these comparisons.

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