# Same Principals, Same Agents, Different Institutions: Roll Call Voting in the Congresses of Confederation and the U.S. Senate, 1781-1797

Joshua D. Clinton Department of Politics Princeton University Princeton, NJ 08540 clinton@princeton.edu

May 10, 2005

#### Abstract

A research issue of considerable importance concerns the extent to which constituents can control the representatives they elect. This paper extends existing lines of inquiry by examining how changes in the institutions governing the relationship between constituents and the legislators they select affects the extent to which constituency preferences are reflected in representative voting behavior. I probe this question using the "natural experiment" that results from the transition from the Confederation Congress to the U.S. Senate. Although both institutions appear to successfully represent states preferences as intended, the weakened mechanisms of control and oversight provided to state legislatures in the Senate relative to the Confederation Congress appear to weaken the incentive for state delegations to vote cohesively. A research issue of considerable normative importance concerns the extent to which constituents can control their representatives. In discussing the need for biannual elections in the House, Madison writes that elections "support in the members an habitual recollection of their dependence on the people" because "they will be compelled to anticipate when their power is to cease" (Hamilton et. al. 2002, pg. 385). According to Madison, the continual need to secure voters' approval results in the representation of constituency preferences. The desirability and legitimacy of representative government therefore depends on the ability of electoral institutions to create incentives for representing citizen preferences.

Given the importance of this claim, a great deal of scholarship examines questions of representation in the United States. However, most existing work on congressional representation looks at the extent to which legislators vote constituency preferences given electoral institutions. Electoral institutions' ability to "constrain" legislators' voting behavior is largely assessed without examining the consequences of changing the the electoral institutions themselves.<sup>1</sup> Although assessing the relationship between constituency preferences and legislator behavior within an institutional arrangement is informative, it is also limiting. Although we know much about the role of constituencies (Erikson and Wright 2001), personal ideology (Levitt 1996), political parties (McCarty, Poole and Rosenthal 2001, Groseclose and Snyder 2000, Cox and Poole 2002), and sub-constituencies (Powell 1982, Shapiro, Brady, Brody and Ferejohn 1990), it is difficult to make causal attributions regarding the institutions' ability to induce legislator behavior without examining the consequences of actual change.

The transition from the Congresses of Confederation (1781-1789) to the United States Senate (1789 +) offers the opportunity to assess whether institutional reforms produce predictable changes in legislator behavior. Although it is known that history can provide a unique opportunity for analyzing the impact of institutional changes (e.g., Cooper and Brady 1981, Crook and Hibbing 1997, Jenkins 1999; 2000), the change I examine provides particularly strong analytical leverage. Both the Confederation Congress and the Senate were explicitly designed to represent states as states and the two institutions overlap considerably in terms of personnel and policies. We can observe votes on similar (if not identical) issues, by the same individuals representing the same states under different electoral institutions. Comparing legislators' behavior in these two institutions therefore provides a unique insight into the impact of institutional change.

The research question is not simply "do institutions matter," but rather whether behavioral changes in response to institutional changes are predicted by theoretical and historical accounts. Were the behavioral reactions of the "founding fathers" to the institutions they created consistent with their prior expectations? How successful was the Senate relative to the Confederation Congress in designing institutions to represent state (legislatures') preferences? These questions address the possibility of designing institutions that create incentives for representing constituency preferences.

The paper proceeds as follows. Section 1 describes the two institutions and why investigating the transition from the Confederation Congress to the Senate addresses questions central to understanding delegation and accountability. Section 2 presents four possible legislator responses to the changes sketched in section 1 and the testable predictions of each. Section 3 evaluates the support for each using available roll call data and section 4 summarizes (and qualifies) the results.

## 1 A Natural Experiment: Institutional Change in the Early American Republic

Leverage on assessing the impact of the changes resulting from the adoption of the Constitution is provided by a natural experiment. Although rare, natural experiments offer an opportunity to examine behavior of similarly situated actors under different conditions.<sup>2</sup> To identify the "treatment effect" of institutional change, the differences in pre- and post behavior must be attributable to the institutional change. If several aspects of the political environment change concurrently with the institutional change, disentangling the impact of the change becomes difficult, if not impossible. This condition is rarely strictly satisfied in the social sciences (Rosenzweig and Wolpin 2000) because a control group does not exist (i.e., we do not observe voting behavior in the world in which no institutional change occurs) and the "treatment" (i.e., exposure to the institutional change) is not randomly administered.<sup>3</sup> Nonetheless, because of the nature of the transition, there are several reasons to believe that examining the impact of institutional change on legislator behavior using the degree of freedom provided by the transition from the Confederation Congress to the Senate is possible.

First, membership in the Confederation Congress and the Senate overlaps considerably (Van Der Silk 1989). As Table 1 illustrates, 27 of the 61 casting a recorded vote in first four Senates also cast a recorded vote in the Congresses of Confederation. Since we observe the same individuals voting before and after the institutional changes, we can assess the impact of the change holding

Served in:	Number
Confederation Congresses	137
Senate	25
Confederation Congresses & Senate	22
Senate & House	9
Confederation Congresses & Senate & House	5
Total	383

constant idiosyncratic characteristics such as personal preferences.<sup>4</sup>

Table 1: Overlapping Membership in the Early American National Assemblies

Second, both the Senate and the Confederation Congresses were explicitly designed to represent state preferences. We therefore observe the behavior of the same individuals representing the same states under different electoral institutions. Although some ambiguity results from treating state legislatures as individuals, the median voter theory suggests that so long as the political conflicts in state legislatures relevant for decision-making in the national assembly are reducible to a single issue dimension, the preferences of state legislatures can be characterized by a representative state legislator (i.e., the median state legislator).<sup>5</sup> State legislature factions (e.g., the East and West divide in the North Carolina legislature (Nevins 1924)) or the possible division of delegations based upon economic or geographic concerns (Baker 1991) does not preclude the existence of a representative state legislator. Even though contemporary Republican and Democratic House delegations are almost disjoint it is still possible to identify the median Representative.<sup>6</sup> For purposes of exposition, I use state preferences and preferences of state legislatures interchangeably.

Third, the Congresses of Confederation and the early Senate addressed similar issues involving the establishment of domestic institutions, the resolutions of inter-state conflicts, foreign treatises and trade, and relations with native populations. Almost identical proposals regarding the proposed location of the capitol were considered in each. We therefore observe the behavior of the same agents representing the same principals on similar if not identical issues under differing institutions. Furthermore, since Congressional procedures were unspecified in the Constitution, senators reverted to many of the procedures used in the Confederation Congresses and only limited changes in policymaking institutions were made.<sup>7</sup>

Two differences that did occur concern the voting rule and the reliance on state legislatures. Whereas voting in the Confederation Congress was unit rule by state (a state could only vote if a majority (and more than 2) of its delegates agreed), in the Senate the votes of individual senators counted.<sup>8</sup> Although changing the unit-rule arguably affected policy outcomes (Aldrich, Jillson and Wilson 2002), the impact of this change on questions of representation is more ambiguous.

If states monitor legislators' *positions* as most studies of electoral incentives argue (e.g., Mayhew 1974, Arnold 1990), then the voting rule change is inconsequential in assessing the institutional reform's relative success in representing states as state..<sup>9</sup> Since individual votes were recorded (when requested) in both the Confederation Congresses and the Senate, the ability of states to monitor position-taking is unchanged.

If states evaluate legislators' actions according to their influence on *outcomes*, it is still possible to evaluate the impact of changes in the electoral institutions because the impact of changing the voting rule is predictable. The voting rule change decreases legislators' probability of being pivotal from the probability that the legislators' state is pivotal times the probability that the representative is pivotal in the state delegation to the probability that the legislator is pivotal in the chamber. The coincident change from unanimity rule for amendments and a 9/13 super-majority requirement for all other legislation in the Confederation Congress to simple majority rule in the Senate further decreases the probability of a senator being pivotal.<sup>10</sup> Consequently, if states care only about outcomes, the decreased probability of being pivotal in the Senate suggests increased indifference about legislators sent to the Senate. This possibility only potentially confounds support for accounts suggesting increased discretion in the Senate.

A second concurrent change in the political environment concerns the role of state governments. The inability of the Confederation Congresses to raise revenue and compel state compliance gave states an effective veto over the Confederation Congresses. Removing the states effective veto could plausibly result in increased oversight by state legislatures. If so, disentangling the relative impact of the institution reforms and changing oversight becomes difficult.

Although state legislatures could (and did) veto the decisions of the Confederation Congress (e.g., impost), historical accounts nonetheless do not provide much support for the claim that they were therefore indifferent to their delegates' behavior. Although it is certainly true that "as Hamilton notes, each State in order to promote its internal prospects tried to place its best men in its own offices" (Nevins 1924, pg. 656), the fact that state legislatures cared primarily about state issues does not mean that they ignored the actions of their delegates. In discussing who was appointed to the Congresses of Confederation, Nevins notes that "the choice of such men reflected

more than carelessness in the State Legislatures – it reflected the progress in them of a spirit of unwillingness to make Congress a body of great collective wisdom and energy" (Nevins 1924, pg. 658).<sup>11</sup> Precisely because some state legislatures desired an impotent national assembly, they were careful to send delegates that would vote state interests.<sup>12</sup> The *Federalist 46* further recounts, although perhaps not impartially, the extent to which delegates were partial to state preferences.

What is the spirit that has in general characterized the proceedings of Congress? A perusal of their journals, as well as the candid acknowledgement of such as have had a seat in that assembly, will inform us, that the members have but too frequently displayed the character, rather of partisans of their respective states, than of impartial guardians of a common interest; that where on one occasion improper sacrifices have been made of local considerations, to the aggrandizement of the federal government, the great interests of the nation have suffered on an hundred, from an undue attention to the local prejudices, interests and views of the particular States (Hamilton et. al. 2002, pg. 332).

Although accounts of the period's politics suggest no reason to conclude that the amount of oversight changed with ratification of the Constitution, even if state legislatures did increase oversight over the Senate, changed oversight has a limited impact. Only predictions of less deference in the Senate are potentially confounded by the possibility of increased oversight.

An aspect that did experience significant change, and the "treatment" I examine, is the means by which state legislatures could regulate the actions of their representatives. Given the similarities between the Congresses of Confederation and the Senate noted above and the fact that the limited possible differences have predictable effects, it is possible to assess whether the consequences of changing electoral institutions are consistent with theoretical and historical predictions.

#### 1.1 Congresses of the Confederation and The U.S. Senate

On March 1st, 1781, the Articles of Confederation were officially ratified by the requisite number of states. The institutional structure of the Congresses of Confederation is detailed in Article 5:

For the most convenient management of the general interests of the United States, delegates shall be annually appointed in such manner as the legislatures of each State shall direct, to meet in Congress on the first Monday in November, in every year, with a power reserved to each State to recall its delegates, or any of them, at any time within the year, and to send others in their stead for the remainder of the year.

No State shall be represented in Congress by less than two, nor more than seven members; and no person shall be capable of being a delegate for more than three years in any term of six years; ... Each State shall maintain its own delegates in a meeting of the States, and while they act as members of the committee of the States.

In determining questions in the United States in Congress assembled, each State shall have one vote.

Although the U.S. Constitution was a reaction to the inadequacies of the Congresses of Confederation, it also sought to represent state interests. Despite the lack of an explicit reference to "a meeting of the States" as in the Articles of Confederation, *The Federalist 62* is explicit about the Senate's intended design:

Among the various modes which might have been devised for constituting this branch of the government, that which has been proposed by the convention is probably the most congenial with the public opinion. It is recommended by the double advantage of favoring a select appointment and of giving to the State governments such an agency in the formation of the federal government as must secure the authority of the former, and may form a convenient link between the two systems (Hamilton et. al. 2002).

However, in providing for the representation of state preferences, the Constitution significantly changes the nature of the relationship. Article 1, Section 3 of the Constitution specifies the nature of the relationship between senators and state legislatures.

The Senate of the United States shall be composed of two Senators from each state, chosen by the legislature thereof, for six years; and each Senator shall have one vote.

...if vacancies happen by resignation, or otherwise, during the recess of the legislature of any state, the executive thereof may make temporary appointments until the next meeting of the legislature, which shall then fill such vacancies.

Table 2 summarizes four ways in which the relationship between senators and state legislatures differs from the relationship established by the Articles of Confederation.

	Congresses of	U.S. Senate
Institutional Detail	Confederation	
Term	1 year	6 years
Term Limits	3 every 6 years	none
Right of Recall	Yes	No
Paid by	State Legislature	Federal Government

Table 2: Comparing the U.S. Senate and the Congresses of Confederation

First, the Constitution omits the right of state legislatures to recall senators at any time and for any reason. This change was the source of great concern among some state legislatures and several states (e.g., Massachusetts, Rhode Island) unsuccessfully sought to amend the Constitution to provide for a right of recall (Swanstrom 1985). Second, senators needed to secure reappointment once every 6 years instead of annually. Furthermore, whereas delegates to the Congresses of Confederation could serve only three out of every six years, senators could serve indefinitely. Although uncontroversial in the constitutional convention (Farrand 1913), unsuccessful attempts were made to amend this provision in the First House.<sup>13</sup> Finally, Article 1 Section 6 specifies that senators are paid by the federal government. Any control state legislatures were able to exercise over their delegates to the Confederation Congress because of their fiduciary responsibility – under the Articles each state "shall maintain its own delegates" – was removed in the Constitution.

These institutional differences were intentional. Although the Constitution sought to represent the state interests, it also tried to mitigate problems resulting from too much state influence. The Senate was intended to not only protect the nation from myopic passions (Hamilton et. al. 2002), but also to protect the fledgling nation from the provincial interests of the states. As *The Federalist* 63 notes in chiding the behavior of Rhode Island during the Confederation Congresses:

The half-yearly representatives of Rhode Island would probably have been little affected in their deliberations on the inquisitous measures of that state, by arguments drawn from the light in which such measures would be viewed by foreign nations, or even by sister States; whilst it can be scarcely doubted that if the concurrence of a select and stable body had been necessary, a regard to national character alone would have prevented the calamities under which that misguided people is now laboring (Hamilton et. al. 2002).

## 2 Institutions and Incentives

Although describing how the electoral institutions in the Congresses of Confederation differ from the Senate is straightforward, assessing the behavioral consequences of institutional change is less so. I examine four plausible accounts of the relationship between legislators and the appointing state legislatures raised at the time the institutional changes occurred. These concerns address issues central to designing institutions in order to provide incentives for particular types of behavior and are still relevant.

The characterization offered by Edmund Burke (1839) is the traditional point of departure for studies of representation. Burke, speaking to his constituents in Bristol in 1777, identifies two extremes – a legislator who votes only according to constituency preferences (Delegate) or personal preferences (Trustee).<sup>14</sup> Despite the seeming implausibility of either given a contemporary perspective, one cannot rule out these possibilities without investigation – especially given the limited supply of potential legislators in the fledgling republic. Consequently, I first determine if "institutions matter" or if legislators unconditionally vote either personal or state preferences.

If legislators act as faithful delegates and always vote the preferences of their appointing state, the following prediction emerges:

**H1: Delegates** Legislators always vote the preferences of state legislatures. Since the institutional reforms are unrelated to state preferences, voting behavior should not change.

In contrast, it may be that legislators believed that exercising their personal discretion was their duty (as some writings in *The Federalist* suggest and Burke himself believed) and legislators unconditionally vote personal preferences.<sup>15</sup>

**H2:** Trustees Representatives vote personal preferences but with potentially adverse consequences. Representatives whose preferences differ from state preferences are dismissed as soon as institutionally possible. Since the institutional reforms are unrelated to personal preferences, voting behavior should not change.

Although Burke's accounts assume unconditional (non-strategic) legislator behavior, reality may be more complex. As Rakove (1991) notes "there never was a time when the political system operated solely as a filter of talent or when expedious calculations did not enter forthrightly into decisions to enter or leave Congress" (p. 15). Instead of assuming that representatives always vote either personal preferences or the preferences of the state legislatures, representatives may act to maximize the benefit they receive given the circumstances they face. Representatives are arguably motivated by both policy and non-policy (e.g., prestige, financial compensation) benefits.

To illustrate the potentially competing pressures, consider a reinterpretation of the Delegate and Trustee conceptions. If legislators vote the preferences of the appointing state legislature then the legislator will always succeed in getting re-appointed and securing non-policy office-holding benefits.<sup>16</sup> Since securing re-appointment means voting contrary to personal preferences unless a legislator's personal preferences are also those of the state legislature, for this behavior to be rational the extra-policy benefits accruing from serving in the national assembly must compensate for voting contrary to personal preferences. In contrast, if legislators always vote personal preferences, legislators will never get reappointed unless the legislator and state legislature share common preferences or a better candidate does not exist. For this to be rational, the short term benefits of voting according to personal preferences and failing to secure reappointment must sufficiently compensate for future lost career benefits.

Despite an intention to represent the views of state legislatures, a the Constitution also sought to de-emphasize legislators' persistent need to reflect state preferences. The *Federalist* 63 notes that "the proper remedy for this defect must be an additional body in the legislative department, which, having sufficient permanency to provide for such objects as require a continued attention and a train of measures, may be justly and effectually answerable for the attainment of those objects" (Hamilton et. al. 2002, pg. 414). Consequently, one interpretation of the observed institutional changes is that they reflect an intention to insulate senators from the sanctions of state legislatures.

The Constitution's unambiguous weakening of the ability of state legislatures to reprimand legislators suggests that senators whose preferences diverge from those of the appointing state legislature are more easily able to vote personal preferences in the Senate than in the Congresses of Confederation.

**H3:** Insulation: Delegates to the Congresses of Confederation "better" represent the preferences of state legislatures than senators in the Senate.

This prediction also emerges from Bendor and Meirowitz's (2004) work characterizing the predictions of spatial models of delegation. As they show, if the agent's cost of being caught voting contrary to the principal's preferences decreases (as it does in the Senate with guaranteed 6 year terms and the lack of a recall), then more contrarian agent behavior is possible in equilibrium.

A second expressed intention of the institutional reforms was to create a body of experienced legislators with incentives to assess proposals vis-a-vis past attempts and existing law. The *Federalist* 63 notes the consequences of failing to do so when it notes that:

it is not possible that an assembly of men called for the most part from pursuits of a private nature, continued in appointment for a short time, and led by no permanent motive to devote the intervals of public occupation to a study of laws, the affairs, and the comprehensive interests of their country, should, if left wholly to themselves, escape a variety of important errors in the exercise of legislative trust (Hamilton et. al. 2002, pg. 410)

To create an incentive for legislators to develop expertise was thought to require the possibility of a career in the Senate. Rakove quotes Benjamin Rush's 1786 lament about the institutional incentives precluding a career in the Confederation Congresses: 'Government is a science,' Rush declared, 'and can never be perfect in America, until we encourage men to devote not only three years, but their whole lives to it.' No wonder 'so many men of abilities object to serving in Congress,' Rush concluded; who would wish to 'spend three years in acquiring a profession which their country immediately afterwards forbid them to follow' (Rakove 1991, pg. 2).

The Senate was intentionally a more desirable place than the Confederation Congresses, if for no other reason that senators were given a 6 year term and the prospect of continual reappointment. Note that the claim being made is a relative one. Although service in latter Senates was certain more desirable (see Polsby's (1968) related discussion of the development in the House), the relevant comparative static is the desirability of service in the early Senate relative to the Confederation Congress.

Somewhat ironically given the concern noted above, the improved conditions of service and the possibility of a career may serve to strengthen obedience to state preferences despite weakened institutional constraints.<sup>17</sup> Whereas political ambition was originally pursued in state politics and precluded by the Articles of Confederation's term limits, the institutional changes may offer the possibility of a career in the Senate. Instead of using national assemblies as a means of temporarily removing contrarian legislators from state politics, the institutional changes may have prompted those with political ambitions to gravitate towards the Senate. A suggestive illustration of this possibility is the behavior of Virginia governor Patrick Henry, who "acquiesced in the Assembly's election of Madison to the Continental Congress, partly because he did not care to stem the sentiment in Madison's favor, but chiefly because he wished that leader put where he would give not trouble" (emphasis added) (Nevins 1924). Instead of seeking political careers at the state level, it is conceivable that improved conditions resulted in more candidates seeking appointment to the Senate and therefore more opportunities for states to select legislators who are known to share the state's preferences. In addition to increasing the supply of willing legislators, increased non-policy benefits of service means that, relative to the Confederation Congress, legislators are more willing to vote contrary to personal preferences to ensure reappointment.

**H4:** Careerists The relative desirability of the Senate and the prospect of a career creates incentives for senators to follow state preferences more closely than delegates to the Confederation Congresses.

The ambition that the founders so counted on to check abuses of government power may therefore serve to paradoxically undermine the independence that they sought to infuse in the Senate. Precisely because the Senate was more desirable, the supply of legislators willing to serve may increase and senators may be willing to better reflect state preferences to secure reappointment.<sup>18</sup>

#### 2.1 Testable Predictions

To determine the relative support for the four accounts of legislator behavior I examine whether observed behavioral changes are consistent with the above predictions. Individual roll call voting behavior, which was recorded when requested in both the Congresses of Confederation (Lord 1943) and the Senate, provides the basis for the investigation. Roll call behavior represents exactly the behavior of interest so long as states monitor the positions taken by their legislators. To maximize analytical leverage, I examine both individual and delegation-level behavior.

As Bullock and Brady (1983) note, analytical leverage on questions regarding Senate representation is provided by the fact that multiple agents (senators) are responsible to the same principle (the state as a geographic constituency). The fact that state legislatures appoint multiple representatives to both the Congresses of Confederation (up to 7) and the Senate (2) provides an analogous opportunity. Absent uncertainty about state preferences, the percentage of times a state delegation votes together plausibly measures the extent to which legislators adhere to state preferences.

In addition to analyzing the raw roll call data themselves, I also impose some structure and estimate legislator "ideal points." This provides two additional measures. Using the 27 legislators who serve in both institutions, I compare changes in individual voting behavior holding personal preferences constant. The relative dispersion of appointed state delegations in the two institutions is also informative. Since the dispersion of a state delegation's ideal points can be interpreted as a operationalizing the "delegation set" (Bendor and Meirowitz 2004) of the institution, comparing the states' delegation sets in the Confederation Congresses and the Senate assesses the state's relative tolerance for heterogeneous legislator behavior. This comparison differs from the unanimity test of Bullock and Brady (1982) by better accounting for potential differences in the agenda.

A complication is that state legislatures' actions during this time period are largely unknown. Although states sometimes supplied instructions to their legislators (Riker 1955, Eaton 1952) or voted to explicitly agree or disagree with Congressional acts (Risjord 1967), the historical record on these actions is extremely sparse. For example, in examining the Virginia legislature – one of the most professionalized state legislatures at the time – Risjord (1967) finds only "one or two [votes on Congressional action] per session." We consequently have no ability to reliably relate the observable behavior of appointed legislators to the respective state legislatures.<sup>19</sup>

Despite the inability to directly measure the relative proximity of legislator behavior and state preferences – a problem common to the representation literature – meaningful investigation is possible because of the ability to derive necessary conditions. Table 3 summarizes the testable predictions of the hypotheses outlined above in terms of three measurable quantities.

	Change in Pct. of	Change in Common	Change in Size of	
${f Hypothesis}$	Unanimous Votes	Member Behavior	Delegation Set	
H1: Delegates	None (100 %)	No	None $(0)$	
H2: Trustees	None $(?)$	No	None $(?)$	
H <sub>3</sub> : Insulation	Decreases	?	Increases	
H4: Careerists	Increases	?	Decreases	

Table 3: Summary of Hypothesized Predictions

Although we cannot directly test the Trustee and Delegate accounts by comparing legislators' induced preferences to personal and state preferences, under either account individual voting behavior should not change if personal and state preferences remain unchanged. Conditional on being appointed to the Senate, the Delegate characterization suggests that the legislator voted state preferences and was rewarded with appointment to the Senate. The account also predicts that state delegations should vote cohesively and the size of the delegation set should be small (0) in both the Confederation Congress and the Senate.

The Trustee account suggests that conditional on being appointed to both institutions, legislator's personal preferences are sufficiently satisfactory to the state and no change in voting behavior should be observed. The predictions of the Trustee account with respect to the percentage of unanimous votes and the relative size of the delegation set are more ambiguous and depend on the supply of possible legislators. If the distribution of personal preferences for legislators willing to serve in the national assembly is unchanged, then there should be no change in either quantity following the institutional change because the expected distribution of legislator personal preference is unaffected. If the supply of willing legislators increases after ratification (because of the increased desirability of the Senate), the increased ability to select a legislator with personal preferences identical to those of the state legislature would result in increased cohesiveness and a decreased delegation set.<sup>20</sup>

The predictions of the Insulation and Careerist hypotheses for individuals selected to serve in

both institution is ambiguous. Conditional on being willing and able to serve in a non-insulated and relatively undesirable institution, it is unclear how changes in either would affect individual behavior. There is no reason to suspect that behavior would necessarily either change or remain unchanged. The accounts differ in their predictions regarding the aggregate voting behavior of state delegations. The Insulation hypothesis predicts that the decreased ability of states to control legislators results in a decrease in voting cohesion and an increase in the size of the delegation set as appointed legislators are less likely to vote the preferences of the state legislatures in the Senate. The Careerist account predicts precisely the opposite; the desire to secure increased non-policy benefits results in more careful attention by legislators to state preferences to secure reappointment.

## 3 Roll Call Voting in the Confederation Congresses and Senate

Although difficult because of the spareness of available data, roll call voting behavior offers a scholars a valuable tool for analyzing period politics. Most existing work using roll call behavior in this period (e.g., Henderson 1969, Wilson and Jillson 1987; 1989) seeks to characterize the politics (e.g., whether there were two factions (Ryan 1971) or three (Henderson 1973) in the Continental Congress, and the point at which recognizable "parties" emerge (Hoadley 1980, Aldrich and Grant 1993)). But for an examination of the impact from moving from the unit rule in the Confederation Congress to per capita voting in the Senate (Aldrich, Jillson and Wilson 2002), work examining the impact of institutional differences is curiously absent. Furthermore, prior uses of roll call voting behavior assume that roll call estimates are comparable across institutions, chambers and time. In contrast, I use information in the legislative agenda to address issues in interpreting from roll call estimates across institutions and time.

Before assessing the hypotheses presented in the previous section, it is useful to briefly characterize the political situation using the observed voting behavior (see also Jillson and Wilson 1987, Wilson and Jillson 1989). Following the ratification of the Articles of Confederation, 200 delegates served in the Confederation Congresses and voted at least once on the 909 recorded roll call votes (of which 879 were non-unanimous) between March 19, 1781 and October 10, 1788. 61 senators served in the first four Senates and 268 non-unanimous roll call votes were recorded.

As state legislatures could appoint up to seven delegates to the Congresses of Confederation, it is of descriptive interest to explore the average state delegation size. The Congress of Confederation's unit voting rule means that the smaller the delegation the higher the probability that a delegate will be pivotal in the determining the state's vote (and therefore policy outcomes). The top figure of Figure 1 graphs the average number of state delegates voting during each Congressional term.<sup>21</sup>

#### [INSERT FIGURE 1 ABOUT HERE]

Figure 1 reveals that the average size of state delegations in the Confederation Congresses and the Senate were equivalent; the opportunity to appoint seven delegates to the Confederation Congresses did not result in larger voting delegations. Since the average state delegation in the Confederation Congress had two voting members, each legislator was (on average) pivotal in deciding the state's vote. As noted previously, this is only consequential if state legislatures have preferences over outcomes rather than positions. If so, the coincident change in the voting rule and increases state indifference about legislator behavior because of the decreased probability that a legislator is pivotal. The resulting possible decrease in the congruence between state preferences and legislator induced preferences even absent changes in the electoral institutions potentially confounds our ability to test the Insulation account.

Assessing whether appointed legislators attended and voted in the early national assemblies is a suggestive measure of relative prestige. The extent to which appointed legislators would rather not attend is indicative of the assembly's capacity to channel political ambition. The bottom of Figure 1 plots the average percentage of times that an entire state delegation was absent from a roll call vote during a calendar year. Suggestive of the claims regarding the increased desirability of serving in the Senate relative to the Confederation Congresses, the Confederation Congresses experienced a higher percentage of roll call votes for which an entire state delegation was absent.<sup>22</sup> For example, in 1783, at least one delegate from Rhode Island was present for only 46 % of the votes and the North Carolina delegation missed every vote. In 1787, the states of Connecticut, New Hampshire, Rhode Island and Maryland were represented by a single Delegate for a little less than 50 % of the recorded votes.<sup>23</sup> Despite being of descriptive interest and confirming the premise underlying the Careerist hypothesis, Figure 1 does not assist in the determination of which account of the legislator-state legislature relationship best accounts for observed legislator voting behavior.

#### 3.1 State Voting Cohesion

The first set of evidence used to asses the hypotheses outlined in section 3.1 is the relative voting cohesion of state delegations measured by the average percentage of times that a state delegation consisting of at least two voting members votes together. Although not sufficient evidence of representation because of the possibility that legislators vote together in opposition to state preferences, the quantity is nonetheless informative because of the divergent predictions resulting from the four accounts of legislative behavior.

The Delegate and Trustee accounts both predict a constant level of voting cohesion in both institutions. If legislators perfectly reflect state legislature preferences regardless of electoral institutions, as the Delegates account (H1) suggests we should observe perfect (100%) cohesion in both institutions. There should be no disagreement on how to vote aside from uncertainty regarding the preferences of the state legislature on the issue. Under the Trustee account (H2) of legislative behavior the percentage of unanimous votes should also remain unchanged. Since delegate cohesion under the Trustee hypotheses measures the similarity of legislators' personal preferences, so long as the selection mechanism for legislators does not change concurrently with the institutional changes there is no reason to expect that the personal preferences of selected representatives will be more or less heterogeneous after ratification.<sup>24</sup> However, there is also no reason that the percentage will be high because the level depends on the covariation of personal preferences in the state delegation.

Whereas the Delegate and Trustee accounts predict no systematic changes in delegation cohesion as a consequence of the institutional changes, the Insulation and Careerist hypotheses make divergent predictions. A necessary condition for the Insulation hypothesis is that state delegations in the Senate vote together less often than state delegations in the Confederation Congress. This is consistent with the interpretation that the fewer possible sanctions given to the state legislature by the Constitution results in a greater ability of legislators to vote contrary to state preferences. In contrast, the Careerist hypothesis predicts that the possibility of a continued career results in increased deference to the preferences of the state legislature and consequently a delegation that votes more cohesively in the Senate than in the Confederation Congress.

Figure 2 plots the average percentage of times that state delegations voted unanimously each year conditional on having at least two delegates vote. The number of votes used to calculate this percentage each year is given along the bottom of the figure.

#### [INSERT FIGURE 2 ABOUT HERE]

First, although the levels of cohesion are high in either institution, they are not the unanimity predicted by the Delegate account. It does not appear to be the case that legislators can be interpreted as always voting state preferences irrespective of their institutional environment. Second, whereas the average state delegation containing at least 2 delegates voted together 80 % of the time in the Confederation Congresses, only 73 % of the time did both senators vote together. A difference of means test reveals that the decrease is statistically significant (with a two-tailed p-value of .01). The evidence therefore suggests that the institutional changes relaxing state legislatures' control over delegates produced less cohesive voting behavior as the Insulation hypothesis predicts.

Since the considerations governing votes on important and unimportant legislation may differ, to ensure that the observed change is not due to differences in the stakes involved I replicate the analysis only using votes on public statutes identified as "important" by Stephen Stathis in *Landmark Legislation* (2003). The list, which begins in 1777, identifies 8 acts in the Congress of Confederation, and 31 public statutes (excluding treatises) in the first four Congresses. The 8 significant acts in the Congresses of Confederation generated 64 recorded roll call votes and the 31 significant public statutes in the first 4 Congresses resulted in 97 recorded roll call votes.

#### [INSERT FIGURE 3 ABOUT HERE]

Examining voting cohesion on the Congresses of Confederation's 64 votes and the Senate's 97 votes reveals that the support for the Insulation account evident in Figure 2 does not depend on the stakes of the analyzed votes. The average cohesion for state delegations in the Confederation Congress on roll calls pertaining to significant legislation is .82, while the average cohesion in the Senate is .74 – almost identical to the levels depicted in Figure 2. A difference of means test reveals this difference to be statistically significant with a two-sided p-value of .095. As Figure 3 illustrates, 10 of the 13 state delegations were more cohesive in the Confederation Congress.<sup>25</sup>

#### 3.2 Roll Call Voting Analysis

Analyzing the percentage of unanimous votes does not take advantage of all available information because it fails to account for the characteristics of legislators or proposals. The above finding may be due to to differences in the types of proposals being considered rather than institutional changes.<sup>26</sup> In contrast to a counting method that treats every vote equally, Imposing a spatial theoretical structure on the problem by utilizing the technology of roll call voting analysis roll call analysis incorporates information about the political context of the vote (Poole and Rosenthal 1997). Induced information about whether the proposal is extreme or moderate provides evidence of the extent to which the cohesion evident reflects constraint; cohesive voting on moderate policies is more informative than cohesive voting on extreme policies, a fact that the analysis of the previous section is unable to account for.

Using the spatial voting model, it is possible to express a legislator's utility as a function of the quadratic distance between her induced preferences and the location in the policy space associated with the passage and rejection of the proposal. The induced preference represents either personal preferences (Trustee), state preferences (Delegate), or a combination of the two (Institution and Careerist). If we assume that the policy space is one-dimensional the utility functions for legislator j on vote t are defined as  $U_j(\theta_t) = -(x_j - \theta_t)^2 + \nu_{jt}$  and  $U_j(\psi_t) = -(x_j - \psi_t)^2 + \rho_{jt}$  where  $\theta_t$  ( $\psi_t$ ) is the policy associated with passage (rejection) of proposal t and  $\nu_{jt}$  and  $\rho_{jt}$  represent idiosyncratic utility shocks to individual j on roll call t. Letting  $y_{jt}$  denote the vote of legislator j on vote t ( $y_{jt} \in \{0,1\}$  because abstentions are omitted), it is well known that these utility functions can be rearranged to yield that the probability of observing a yea vote is:  $P(y_{jt} = 1) = P(x_j(2\theta - 2\psi) + (\psi^2 - \theta^2) > \rho_{jt} - \nu_{jt})$ . Assuming that  $\epsilon_{it}$  is i.i.d. logistic, the likelihood can be expressed as:  $L(\beta, \alpha, \mathbf{x} | \mathbf{y}) = \prod_{j=1}^N \prod_{t=1}^T \Lambda(x_j\beta_t - \alpha_t)^{y_{jt}}(1 - \Lambda(x_j\beta_t - \alpha_t)^{1-y_{jt}})$  where  $\Lambda(\bullet)$  denotes the logistic CDF. There are 259 legislators voting in the Confederation Congress (198) and Senate (61) and 1191 non-unanimous votes (312 in the Senate).

To account for differences in voting behavior resulting from institutional change, I assume that individual ideal points are fixed within an institution, but that they may vary across institutions. If voting behavior depends on electoral incentives then changing the electoral institutions (and presumably the extent to which state preferences are binding) should plausibly impact legislators's voting behavior. Consequently,  $x_j$  represents the induced preference of legislator j in either the Confederation Congresses or the Senate.

This is an important departure from existing measures of voting behavior across institutions. Existing work either assumes that ideal point estimates are comparable across institutions and time (e.g., Levitt 1996), or else it assumes that a subset of ideal points are constant across institutions and time. In estimating Common Space scores for the 75th to 107th Congresses, Poole (1998) uses the latter approach and assumes that legislators serving in both the House and Senate have identical ideal points. Since I am interested in measuring the potential change in voting behavior across institutions, such an assumption is clearly problematic.

To recover ideal point measures on a common scale I use information in the legislative record to impose constraints (e.g., Clinton and Meirowitz 2004). Specifically, I use votes on proposals considered in both the Confederation Congress and the Senate to orient legislator ideal point estimates. Since proposals dealing with the location of the capitol were considered in both, I assume that the item discrimination ( $\beta$ ) and item difficulty ( $\alpha$ ) parameters for identical proposals are equivalent. Table 4 lists the constrained roll call votes.

Conf. Cong.	Senate	Description
10/21/1783	6/8/1790	Approve of building on Potomac for location of capitol.
12/23/1784	6/28/1790	Select location on Potomac instead of the Delaware.
12/23/1784	6/29/1790	Philadelphia should be temporary capitol until
		buildings are completed.
8/4/1788	6/29/1790	Temporary capitol should be in Baltimore.
8/6/1788	6/29/1790	Amend proposal placing temporary capitol in NYC
		to Philadelphia.
8/26/1788	6/28/1790	Temporary capitol should be in NYC.

Table 4: Votes Common to the U.S. Senate and the Congresses of Confederation

Although such identifying assumptions ensures comparability across the institutions, it is still necessary to fix the scale and orientation of the estimated policy space. To do so I follow the practice of Clinton, Jackman and Rivers (2004) and assume that the mean and variance of the recovered ideal points are 0 and 1 respectively.<sup>27</sup>

The question of whether the policy space is unidimensional is an empirical rather than theoretical question. Consistent with prior findings (Poole and Rosenthal 1997, Ch. 3), evidence from the roll call record suggests that the politics of the Senate and the Confederation Congresses is reducible to a single dimension. A one-dimensional model correctly predicts 79 % of the votes.<sup>28</sup> Almost doubling the number of estimated parameters and estimating a two-dimensional model results in a classification rate of 82 %. Although the fit of the one dimensional model is less than those of contemporary congresses, the slight 3 % increase in correct classification is of comparable magnitude to the gain resulting from adding a second dimension to a one-dimensional fit such as the 97th House (Poole and Rosenthal 1997). Consequently, little contradicts the assumption that the induced preferences underlying legislator voting behavior in the Congress of Confederation and the U.S Senate can be explained by a unidimensional policy space.

The Delegate and the Trustee account both predict no change in individual voting behavior as a consequence of institutional change. Using the estimated ideal points of the 27 individuals who served in both the Congresses of Confederation and the U.S Senate, it is possible to examine if this is the case.

#### [INSERT FIGURE 4 ABOUT HERE]

Figure 4 plots the ideal point estimates of legislators serving in both the Confederation Congress and the Senate as well as the posterior standard deviation associated with each estimate. For 14 of the legislators we cannot reject the null hypothesis of identical induced preferences. However, the 95 % quantile on the posterior difference excludes 0 for 13 legislators, indicating a significant change. Finding that over half of the 27 legislators serving in both the Confederation Congress and the Senate significantly changed their voting behavior is inconsistent with the predictions of both the Delegate and Trustee accounts.<sup>29</sup> The evidence that legislators did not change their voting behavior is therefore weak – particularly given the large standard errors associated with the estimated ideal points. However, the conclusion is certainly not definitive.

For additional evidence as to which account best explains the response of legislators to the institutional change I turn to delegation-level behavior and I calculate a measure of the delegation set associated with each state legislature in each institution. The size of the delegation set measures the extent to which delegates from the same state vote differently; if agents perfectly represent the preferences of the state legislature then the delegation set should be 0 – everyone votes state preferences and every member of the state delegation has the same ideal point. To estimate the size of the delegation set I measure the dispersion of ideal point estimates for each state delegation in each institution.

Quantities of interest include the size and change in size of the state delegation sets in the two institutions. The Delegate account predicts a delegation set of size 0, the Insulation hypothesis predicts that the decreased sanctions available to state legislatures under the Constitution relative to the Articles of Confederation results in more legislator discretion and consequently a larger delegation set, the Careerist account suggests that the increased desirability and indeed possibility of a career in the national legislature results in a smaller delegation set as legislators are more

	50+ Votes	50+ Votes				All Votes
State	CC	CC	CC	Change	Change	Change
	Median	MAD	$\mathbf{SD}$	MAD	$\mathbf{SD}$	MAD
CT	.68 (.11)	.43 (.13)	.47 (.07)	.01 (.23)	01 (.16)	01 (.22)
MA	.94 (.09)	.38 (.09)	.40 (.06)	08 (.24)	04 (.18)	03 (.23)
NH	1.03(.15)	.52 (.16)	.48(.07)	30 (.23)	06 (.10)	42 (.22)
RI	1.39(.18)	.80 (.18)	.71 (.08)	48 (.26)	36 (.14)	43 (.27)
DE	43 (.10)	.41 (.14)	.57(.10)	.01 (.21)	09 (.18)	02 (.20)
NJ	.29 (.07)	.40 (.09)	.40(.05)	10 (18)	.09 (.16)	02 (.18)
NY	.08 (.10)	.84 (.15)	1.19(.12)	54 (.28)	.07(.17)	48 (.25)
PA	09 (.07)	.64 (.10)	.59~(.05)	11 (.18)	.07(.16)	.16 (.29)
VA	87 (.08)	.56 (.11)	.51 (.06)	.001 (.28)	.07(.16)	09 (.25)
GA	92 (.11)	.49 (.17)	.63(.14)	17 (.25)	17 (.19)	.01 (.26)
NC	88 (.15)	.34 (.14)	.35~(.08)	.07(.19)	.06(.13)	.01 (.17)
SC	89 (.10)	.68 (.12)	.71 (.08)	04 (.33)	.17 (.14)	.39(.24)
MD	49 (.08)	.39 (.10)	.49 (.07)	19 (.16)	22 (.10)	34 (.16)

Table 5: Difference in State Delegations' Voting Behavior

concerned with gaining reappointment in the Senate.<sup>30</sup>

Table 5 reports for each state delegation (comprised of legislators casting at least 50 votes): the posterior mean of the median ideal point of delegates serving in the Confederation Congress (and the standard error), the median absolute deviation and the standard deviation of the ideal points of the state delegation serving in the Confederation Congress (and standard errors of each), and the change in the median absolute deviation and standard deviation between the Confederation Congress delegation and the Senate delegation (and the standard error of these differences). To account for the possibility that abstention conflates the analysis by increasing the imprecision of estimated ideal points, I concentrate on the results using legislators who vote more than 50 times. For robustness, and to control for possible selection bias if only some legislators are allowed to cast 50+ votes, the last column calculate the measures including every legislator. The substantive inferences do not depend on this choice.

The column labelled "CC Median" in Table 5 assesses the estimates' face validity by calculating the median ideal point of state delegations to the Confederation Congress. Consistent with historical understandings, the split between Northern (mercantile) and Southern (agricultural) colonies/states is clearly evident in the state delegations' median ideal point estimates, with the ideological middle occupied by the middle Atlantic states.

In terms of the predicted size of the delegation sets, it is clear that they are larger than zero

regardless of whether the size in the Confederation Congress is calculated using the median absolute deviation (column 3) or the standard deviation (column 4). In combination with the small changes resulting from the transition to the Senate (reported in columns 5 and 6), it follows that legislators from the same state do not possess identical induced preferences in either institution. Since the estimated variation in the induced preferences of delegates and senators is inconsistent with the claim that legislators' induced preferences perfectly represent a common principle, the Delegate account can be rejected as an explanation of legislator behavior.

In terms of how well the institutions represent state preferences, the results also suggest that the coherence suggested by Figures 2 and 3 is somewhat misleading. Although state delegations vote together more that 70 % of the time, suggesting that states are frequently represented as states, this does not necessarily imply that legislators possess similar induced preferences as the level of unanimity may be a consequence of considering proposals on which agreement is likely (as would be expected given the Confederation Congress' supermajority requirement).<sup>31</sup> The estimated sizes of the delegation sets reported in Table 5 suggests that the level of unanimity noted earlier masks heterogeneity in state delegations. When more moderate (or controversial) proposals were considered, state delegations were likely to be split. Despite this heterogeneity, the level of voting cohesion on the considered agenda suggests that state preferences were largely reflected.<sup>32</sup>

Given the level of estimation uncertainty, the evidence reported in Table 5 is unfortunately not definitive with respect to the predictions of the Careerist and Insulation hypothesis. There is no statistically significant systematic change in the size of the delegation set across institutions regardless of whether only ideal points from legislators voting at least 50 times (columns 5 & 6) or all legislators (column 7) are used. The results also do not depend on whether the delegation set is calculated using the standard deviation (column 6) or the more robust median absolute deviation (columns 5 & 7). Only the New York and Rhode Island delegation sets change. However, given the acrimonious relationship between the national assemblies and the state legislatures of New York and Rhode Island, interpreting this change is difficult because of a possible change in oversight.

Although both institutions appear to represent states as states as intended, the conclusion regarding which account of legislator behavior best characterizes legislators' response to institutional change is certain. Despite using several tests, the empirical evidence does not provide conclusive and unambiguous support for a single account. However, on balance, the results are arguably most supportive of the Insulation hypothesis.

The decrease in the percentage of unanimous delegation votes resulting from the transition to the Senate for votes dealing with either "significant" or "insignificant" policies is inconsistent with the Delegate and Careerist accounts and consistent with the Insulation hypothesis. Estimating legislator ideal points further refines the conclusion. Unless 50 % of the legislators reappointed to the Senate changed in their personal preferences or else state preferences changed dramatically following ratification, the fact that 50 % of the legislators serving in both institutions significantly changed their voting behavior suggests that the Delegate and Trustee accounts are not well supported. These two findings suggest that the Delegate and Trustee accounts do not reasonably explain observed legislator behavior.

Combining the observed change in state delegation voting cohesion with a comparison of the relative sizes of the state delegation sets in the two institutions does not provide addition evidence for adjudicating between the Insulation and Careerist hypotheses. Although the sets are unambiguously non-zero (again contradicting the predictions of the Delegate account), definitive evidence regarding whether the size of the delegation set systematically increases (Insulation) or decreases (Careerist) is elusive; the "best guess" is that the size of the delegation sets – and therefore the amount of discretion provided to state delegations – did not change. Consequently, the change in state delegation voting cohesion is the only evidence that distinguishes between the support of the Careerist and Insulation hypotheses and it suggests that the Insulation hypothesis is better supported by observed behavior. However, the basis for this conclusion is admittedly testy given the null result regarding the change in delegation set sizes. I am willing to conclude that the results, are weakly supportive of the Insulation account despite the null finding because the null result is partially a function of the substantial estimation uncertainty in legislator ideal points (and consequently in the changes in delegation set size).

## 4 Conclusion and Qualifications

The use of "quasi-experiments" to assess the impact of institutional change offers important analytical leverage for scholars and the political development of the United States offers many such opportunities. Examining the natural experiment resulting from the transition from the Confederation Congress to the U. S. Senate offers the opportunity to investigate the behavioral impact of changes in the ability of state legislatures to exercise influence over the legislators they appoint to early national assemblies. So doing extends existing work on congressional representation by examining the impact of different institutions on the relationship rather than looking at the relationship within a given institution. In other words, rather than looking at the extent to which states are represented in the Senate alone, I compare the relative ability of the two institutions to represent states as states.

Determining whether the institutional reforms affect the representation of states as states is central to assessing representative government in light of the role that the founders attributed to elections in ensuring accountability. However, it is also a question of some difficulty. Two are particularly notable, the fact that observable behavior is unavailable for an important set of participants – namely the state legislatures – and the problems of ensuring comparability across the institutions. Despite these difficulties, progress is possible because it is possible to derive necessary conditions for the each of the four examined accounts to be true even though the preferences of state legislatures are unknown. Furthermore, information in the legislative agenda can be used to orient and compare estimates of legislator induced preferences.

The results suggest that although state preferences are represented in both institutions, there is reason to believe that the institutional differences between the Senate and the Confederation Congress enabled senators to diverge from state preferences more than the delegates to the Congresses of Confederation. It is neither the case that individual behavior is unresponsive to institutional change (as the Trustee and Delegate hypotheses suggested), nor is it the case that the prospect of a career at the federal level was sufficient in the first four Congresses to make senators more concerned with securing reappointment rather than (presumably) voting personal preferences.

However, given the sparseness of available data and the resulting imprecision in the measures of interest, the conclusions are more suggestive than definitive. Nonetheless, to the extent that examining the consequences of institutional change on the questions of representation and understanding the incentives behavior legislator behavior is important, the investigation is a necessary first step. It is hoped that the findings of this paper, which rely on newly available methodologies to analyze available data, combined with careful historical scholarship of primary and secondary sources offers scholars an increased ability to understand how and why electoral institutions constrain and influence the behavior of legislators.

## References

- Aldrich, John H. 1995. Why Parties? The Origin and Transformation of Political Parties in America. Chicago: University of Chicago Press.
- Aldrich, John H., Calvin C. Jillson and Rick W. Wilson. 2002. "Why Congress? What the Failure of the Confederation Congress and the Survival of the Federal Congress Tell Us About the New Institutionalism." in *Party, Process and Political Change in Congress*, ed. David Brady and Mathew D. McCubbins. Stanford University Press:Stanford.
- Aldrich, John H. and Ruth W. Grant. 1993. "The Antifederalists, the First Congress, and the First Parties." Journal of Politics 55(2):295–326.
- Ansolabehere, Stephen, James M. Snyder Jr. and III Charles Stewart. 2000. "Old Voters, New Voters, and the Personal Vote: Using Redistricting to Measure the Incumbency Advantage." *American Journal of Political Science* 44(1):17–34.
- Arnold, R. Douglas. 1990. The Logic of Congressional Action. New Haven: Yale University Press.
- Baker, Richard Allen. 1989. "The Senate of the United States: 'Supreme Executive Council of the Nation,' 1787-1800." Prologue 21:299–313.
- Bendor, Jonathan and Adam Meirowitz. 2004. "Spatial models of delegation." *The American Political Science Review* 98(2):293–310.
- Bullock, Charles S., III and David W. Brady. 1983. "Party, Constituency, and Roll-Call Voting in the U.S. Senate." *Legislative Studies Quarterly* 8(1):29–43.
- Burke, Edmund. 1839. The Works of Edmund Burke. Boston: Little, Brown.
- Clinton, Joshua D. and Adam Meirowitz. 2004. "Testing Accounts of Legislative Strategic Voting: The Compromise of 1790." *American Journal of Political Science* 48(4):675–89.
- Clinton, Joshua D., Simon Jackman and Douglas Rivers. 2004. "The Statistical Analysis of Legislative Behavior: A Unified Approach." *American Political Science Review* 98(2):355–70.
- Cooper, Joseph and David W. Brady. 1981. "Toward a Diachronic Analysis of Congress." *American Political Science Review* 75(4):988–1006.
- Cox, Gary and Keith Poole. 2002. "On Measuring Partisanship in Roll-Call Voting." American Journal of Political Science 46:477–89.
- Crook, Sara Brandes and John R. Hibbing. 1997. "A Not-so-distant Mirror: the 17th Amendment and Congressional Change." *American Political Science Review* 91(4):845–53.
- Eaton, Clement. 1952. "Southern Senators and the Right of Instruction, 1789-1860." The Journal of Southern History 18(3):303–19.
- Erikson, Robert S. and Gerald C. Wright. 2001. *Congress Reconsidered*. 7th ed. Washington DC: CQ Press chapter Voters, Candidates, and Issues in Congressional Elections, pp. 100–100.
- Farrand, Max. 1913. The Framing of the Constitution of the United States. New Haven, CT: Yale University Press.
- Groseclose, Tim and James M. Snyder Jr. 2000. "Estimating Party Influence in Congressional Roll-Call Voting." American Journal of Policial Science 44(2):193–211.

- Hamilton, Alexander, James Madison and John Jay. 2002. The Federalist: The Famous Papers on the Principles of American Government. NY:NY: MetroBooks.
- Henderson, H. James. 1969. "Constitutionalists and Republicans in the Continental Congress, 1779-1786." Pennsylvania History 36:119–144.
- Henderson, H. James. 1973. "Quantitative Aproaches to Party Formation in the United States Congress: A Comment." William and Mary Quarterly 30:307–324.
- Hoadley, John F. 1980. "The Emergence of Poltical Parties in Congress, 1789-1803." American Political Science Review 74(3):757–779.
- Jenkins, Jeffrey A. 1999. "Examining the Bonding Effects of Party: A Comparative Analysis of Roll-Call Voting in the U.S. and Confederate Houses." American Journal of Political Science 43(4):1144–1165.
- Jenkins, Jeffrey A. 2000. "Examining the Robustness of Ideological Voting: Evidence from the Confederate House of Representatives." *American Journal of Political Science* 44(4):811–22.
- Jensen, Merrill. 1940. The Articles of Confederation: An Interepretation of the Social-Constitutional History of the American Revolution 1774-1781. Madison, WI: University of Wisconsin Press.
- Kaminski, John P. 1993. *George Clinton: Yeoman Politician of the New Republic*. Madison, WI: Madison House.
- Levitt, Stephen. 1996. "How Do Senators Vote? Disentangling the Role of Voter Preferences, Party Affiliation, and Senator Ideology." *American Economic Review* 86:425–41.
- Lord, Clifford L. 1943. Atlas of Congressional Roll Calls, Vol. I: The Continental Congresses and the Congresses of Confederation, 1777-1789. NY: New York Historical Association.
- Mayhew, David R. 1974. Congress: The Electoral Connection. New Haven: Yale University Press.
- McCarty, Nolan, Keith Poole and Howard Rosenthal. 2001. "The Hunt for Party Discipline in Congress." *American Political Science Review* 95(3):673–687.
- Nevins, Allan. 1924. The American States During and After the Revolution 1775-1789. NY:NY: Macmillan Press.
- Polsby, Nelson W. 1968. "The Institutionalization of the U.S. House of Representatives." American Political Science Review 1:144–68.
- Poole, Keith T. 2004. "Spatial Models of Parliamentary Voting." UCSD manuscript.
- Poole, Keith T. and Howard Rosenthal. 1997. Congress: A Political-Economic History of Roll Call Voting. New York: Oxford University Press.
- Powell, Lynda W. 1982. "Issue Representation in Congress." The Journal of Politics 44(3):658-78.
- Rakove, Jack N. 1979. The Beginnings of National Politics: An Interpretative History of the Continental Congress. NY, NY: Alfred A. Knopf.
- Rakove, Jack N. 1991. The Congress of the United States, 1789-1989. Vol. 1 Brooklyn, NY: Carlson Publishing chapter The Structure of Politics at the Ascension of George Washington, pp. 1–34.

- Riker, William H. 1955. "The Senate and American Federalism." *American Political Science Review* 49(2):452–469.
- Risjord, Norman K. 1967. "The Virginia Federalists." Journal of Southern History 33(4):486-517.
- Rosenzweig, Mark R. and Kenneth I. Wolpin. 2000. "Natural 'Natural Experiments' in Economics." Journal of Economic Literature 38(4):827–74.
- Rothenberg, Lawrence S. and Mitchell S. Sanders. 2000. "Severing the Electoral Connection: Shirking in the Contemporary Congress." *American Journal of Poltical Science* 44(2):316–325.
- Ryan, Meg P. 1971. "Party Formation in the United States Congress, 1789 to 1796: A Quantitative Analysis." William and Mary Quarterly 28:523–542.
- Shapiro, Catherine R., David W. Brady Richard A. Brody and John A. Ferejohn. 1990. "Linking Constituency Opinion and Senate Voting Scores: A Hybrid Explanation." *Legislative Studies Quarterly* 15(4):599–621.
- Stathis, Stephen. 2003. Landmark Legislation, 1774-2002. Washington D.C.: CQ Press.
- Swanstrom, Roy. 1985. The United States Senate 1787-1801. Washington, DC: U.S. Government Printing Office.
- Van Der Silk, Jack R. 1989. "The Early Institutionalization of Congress." Congress & the Presidency 16(1):1–10.
- Wilson, Rick K. and Calvin Jillson. 1987. "A Social Choice Model of Politics: Insights into the Demise of the U.S. Continental Congress." *Legislative Studies Quarterly* 12(1):5–32.
- Wilson, Rick K. and Calvin Jillson. 1989. "Leadership Patterns in the Continental Congresses: 1774-1789." Legislative Studies Quarterly 14(1):5–37.
- Zaller, John. 1998. *Party Politics and Politicians*. "Politicians as Prize Fighters: Electoral Selection and Incumbency Advantage" Baltimore: John Hopkins University Press. ed. John Geer.

### Notes

<sup>1</sup>Important exceptions are work examining the impact of the 17th Amendment, the role of primary elections and term limits.

<sup>2</sup>For example, Rothenberg and Sanders (2001) use a natural experiment to examine the related question of whether retiring representatives vote differently than those running for re-election and Ansolabehere, Stewart and Snyder (2000) use the quasi-experiment produced by redistricting to examine the impact of incumbency by examining differences in candidate support in precincts from the old district and precincts that are added. Poole (2004, esp. chapter 6) provides a nice overview of the use of roll call data to investigate natural experiments.

<sup>3</sup>In fact, the institutional changes are not strictly exogenous. The First Senate contained 11 delegates to the Constitutional Convention in Philadelphia) – Ellsworth and Johnson (CT), Bassett and Read (DE), Few (GA), Strong (MA), Langdon (NH), Patterson (NJ), Morris (PA), Butler (SC), King (NY).

<sup>4</sup>Assuming that idiosyncratic characteristics do not change concurrently with the institutional change.

<sup>5</sup>For example, in the case of New York, senators needed to be confirmed by both the Assembly and the Senate. Despite the prominence of Anti-Federalist (then Republican) George Clinton, New York Senate appointments were dominated by the Federalist legislature (which gained control in the 1789 elections). Even when the Federalist Philip Schuyler was defeated, evidence suggests that this was the result of displeasure by the Federalists – not the influence of Clinton (Kaminski 1993).

<sup>6</sup>Sufficient data to evaluate the dimensionality of conflict in the state legislature relevant for issues considered in the national assembly. Furthermore, determining the dimensionality of preferences in state legislatures does not resolve the question. Although the policy space in the state legislature may be multidimensional, nothing precludes the possibility that a single dimension is relevant for the evaluating the actions of appointed legislators serving in national assemblies.

<sup>7</sup>An informal ad hoc committee system was used as needed and the lack of formal political

parties (Aldrich 1995) resulted in the absence of coordinated floor politics.

<sup>8</sup>Since the goal of the Senate was to facilitate proportional representation, once the Great Compromise passed, little objection was made to changing from unit voting to per capita voting – only Maryland opposed the change (Farrand 1913).

<sup>9</sup>But see work by Bendor and Meirowitz (2004) which assumes otherwise.

<sup>10</sup>Nevins (1924) recounts a description of the situation in the Confederation Congress thusly: "Of eleven States now on the floor of Congress, nine being represented by only two members from each, it is in the power of three out of the twenty-five, making one-eight of the whole, to negative such a measure" (pg. 657).

<sup>11</sup>Randolph (NY) describes the Confederation Congress thusly: "Congress…was 'a mere diplomatic body…always obsequious to the views of the states" (Nevins 1924, pg. 660).

<sup>12</sup>An analogous argument applies to voting in the United Nations. Just because the U.N. largely lacks an independent ability to enforce its mandates does not imply that countries are indifferent as to who they send as delegates.

<sup>13</sup>Rep. Thomas Tucker (SC) moved to amend the Constitution to provide for the annual election of senators and a limit of 5 years of service in every 6.

<sup>14</sup>Although there are strong selection reasons to suspect that personal and district preferences coincide (constituents are best served by legislators who share their preferences), it is of descriptive interest whether either characterization accurately describes the relationship in the early American republic.

<sup>15</sup>The Trustee conception is more plausibly interpreted in light of the arguments of Bendor and Meirowitz (2004). If state legislatures care about policy outcomes and representatives are able to gain private information to secure desirable outcomes, then there are conditions under which delegation is desirable.

<sup>16</sup>Assuming that the preferences of the appointing state legislature does not change.

<sup>17</sup>Strictly speaking, the comparison must be relative. If delegates were motivated by the desire for

a career in state government (and that future depended on actions taken while in the Confederation Congresses), than the prospect of a career in the Senate must outweigh the prospect of a career in the state legislature. Given the exceptionally high turnover in the state legislatures (*Federalist 63*), this does not seem implausible.

<sup>18</sup>An additional reason for increased congruence was that "by the standards either of the Continental Congress or the state legislature, the members of the First Federal Congress appear to have been remarkably sensitive to popular opinion. Madison...had not imagined that the interplay between congressional debate and opinion out-of-doors would be so effective or continual" (Rakove 1991, p. 32). It is unclear the extent to which this interplay was present in the Senate given that deliberations were secret until 1795 (Baker 1989).

<sup>19</sup>One could follow Levitt (1996) and assume that state legislature preferences are proxied by the average ideal point estimate of the House delegation. Assuming that the average preference of House members represents the average preference for the state median voter (which consequently represents the average preference of the median state legislator) implies that if senators vote state preferences, their voting behavior should mimic that of the average Representative from their state. This assumption seems too strong.

<sup>20</sup>If states' recall and fail to reappoint legislators who vote contrary to state preferences we should see either behavior equivalent to the Trustee account (if states can know the personal preferences of legislators) or else the use of the recall right as soon as a divergent personal preference is revealed in roll call voting behavior.

<sup>21</sup>With the exception of the first year which transitioned directly into the Congresses of Confederation from the Continental Congress, the annual term for the Confederation Congresses is set by Article 5 of the Articles of Confederation to begin on November 1st.

 $^{22}$ The third Senate had a higher absentee rate because the resignations of James Monroe (VA) and John Taylor (VA) resulted in the Virginia delegation missing 36 % of the votes).

<sup>23</sup>This is consequential given that the Articles of Confederation required at least two delegate votes from a states to determine the vote of a state.

<sup>24</sup>Note that Zaller (1998) argues that selection pressures and random candidate emergence results in convergence to statue legislature preferences. If true, we should observe state legislatures replacing "bad" representatives over time. However, this process does not necessarily correspond to institutional changes, only the speed of convergence changes – replacements in the Senate can only be made once every 6 years instead of after every vote as in the Confederation Congress.

<sup>25</sup>Only the delegations of Massachusetts, Rhode Island and Virginia were more cohesive in the Senate.

<sup>26</sup>For example, it is plausible that revenue constraints and enforcement concerns may have resulted in delegates to the Confederation Congress focusing on issues of widespread agreement whereas senators were forced to confront difficult choices regarding the shape and direction of the new government and country.

 $^{27}$ I also inspect the results to ensure that the local identification is sufficient (i.e., the ideal point estimates do not "flip."

 $^{28}$ A naive classification of recorded votes in the Confederation Congress and Senate assuming all legislators vote "yea" explains 54.6 % of observed votes.

<sup>29</sup>Although the Trustee account would predict change if the preferences of the appointing state legislature change, it seems difficult to imagine that a new majority in the state legislature would respond to its newly acquired power by reappointing the delegate who faithfully executed the desires of the outgoing regime rather than choosing a new delegate.

 $^{30}\mathrm{Recall}$  that the predictions of the Trustee account are ambiguous.

<sup>31</sup>The levels of cohesion Far exceed a benchmark standard of legislators voting "yea" and "nay" with equal probability. This random voting standard would predict a .5 cohesion for a delegation size of 2.

<sup>32</sup>The emphasis results from the fact that the level of delegation heterogeneity suggests that an alternative agenda of more moderate proposals would likely split state delegations in either institution.



Year



Figure 1: Average Size of Voting Delegations and Average Percentage of Absent Delegations



Figure 2: Average Percentage of Unanimous Votes By Delegation By State









Figure 4: Induced Preferences for Legislators Serving in Confederation Congress and U.S. Senate